From: Brenner, Eliot
To: Burnell, Scott; Hayden, Elizabeth; Harrington, Holly
Subject: Re: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents
Date: Friday, March 11, 2011 8:15:13 AM

And I am enroute.
Eliot Brenner
Director, Office of Public Affairs
US Nuclear Regulatory Commission
Protecting People and the Environment
301 415 8200
C (b)(6)
Sent from my Blackberry

From: Burnell, Scott
To: Hayden, Elizabeth; Brenner, Eliot; Harrington, Holly
Sent: Fri Mar 11 08:08:04 2011
Subject: Re: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Yes -- I'm in Ops Ctr for briefing.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

From: Hayden, Elizabeth
To: Brenner, Eliot; Harrington, Holly; Burnell, Scott
Sent: Fri Mar 11 08:07:05 2011
Subject: Fw: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Assume we have our TPs on west coast plant protection against tsunami/earthquakes ready.

From: Jean.GAUVAIN@oecd.org <Jean.GAUVAIN@oecd.org>
To: wgpcnews@oecd-nea.org <wgpcnews@oecd-nea.org>
Cc: add-cnra@oecd-nea.org <add-cnra@oecd-nea.org>; add-cnra-o@oecd-nea.org <add-cnra-o@oecd-nea.org>; add-wgip@oecd-nea.org <add-wgip@oecd-nea.org>; add-cnra-wgoe@oecd-nea.org <add-cnra-wgoe@oecd-nea.org>; add-csni@oecd-nea.org <add-csni@oecd-nea.org>; add-csni-o@oecd-nea.org <add-csni-o@oecd-nea.org>; add-iage@oecd-nea.org <add-iage@oecd-nea.org>; Javier.REIG@oecd.org <Javier.REIG@oecd.org>; Diane.JACKSON@oecd.org <Diane.JACKSON@oecd.org>; Greg.LAMARRE@oecd.org <Greg.LAMARRE@oecd.org>; Alejandro.HUERTA@oecd.org <Alejandro.HUERTA@oecd.org>; add-iageseism@oecd-nea.org <add-iageseism@oecd-nea.org>
Sent: Fri Mar 11 07:51:59 2011
Subject: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

WGPC Members
Cc CNRA, CSNI, WGOE, WGIP, IAGE, IAGESEISM
Please read below update and correction to previous message

XXX-1

From:	Burnell, Scott
To:	Harrington, Holly; Hayden, Elizabeth; Brenner, Eliot
Cc:	Uselding, Lara
Subject:	Re: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents
Date:	Friday, March 11, 2011 8:18:38 AM

I'll share what we have after the briefing -- I took a call from Reuters focused on US plant requirements. I did mention the Diablo NOUE and made certain to note it was precautionary.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

From: Harrington, Holly
To: Burnell, Scott; Hayden, Elizabeth; Brenner, Eliot
Cc: Uselding, Lara
Sent: Fri Mar 11 08:16:26 2011
Subject: RE: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Scott – Pls make talking points ASAP for use by the regions.

We have received no media calls as yet here in HQ.

We'll wait for Lara to give us talking points regarding West Coast plants

From: Burnell, Scott
Sent: Friday, March 11, 2011 8:08 AM
To: Hayden, Elizabeth; Brenner, Eliot; Harrington, Holly
Subject: Re: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Yes -- I'm in Ops Ctr for briefing.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

From: Hayden, Elizabeth
To: Brenner, Eliot; Harrington, Holly; Burnell, Scott
Sent: Fri Mar 11 08:07:05 2011
Subject: Fw: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Assume we have our TPs on west coast plant protection against tsunami/earthquakes ready.

From: Jean.GAUVAIN@oecd.org <Jean.GAUVAIN@oecd.org>
To: wgpcnews@oecd-nea.org <wgpcnews@oecd-nea.org>
Cc: add-cnra@oecd-nea.org <add-cnra@oecd-nea.org>; add-cnra-o@oecd-nea.org <add-cnra-

+++-2

Akihiro YAMAMOTO
Ageing Management Specialist,
Nuclear Safety Measurement Division
Fukui Prefectural Government

Telephone: +81 (0) 776 20 0314

E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp
++++++++++++++++++++++++++++++++++++

From: Akihiro YAMAMOTO [mailto:a-yamamoto@houshasen.tsuruga.fukui.jp]
Sent: Friday, March 11, 2011 7:30 PM
To: 'Jean.GAUVAIN@oecd.org'
Cc: 'Javier.REIG@oecd.org'; 'Luis.ECHAVARRI@oecd.org'; 'Uichiro.YOSHIMURA@oecd.org'; 'Lydie.GUYOT@oecd.org'; 'Marie-Laure.PEYRAT@oecd.org'; 'Serge.GAS@oecd.org'; 'Axel.BREEST@oecd.org'; 'Elisabeth.MAUNY@oecd.org'; 'Greg.LAMARRE@oecd.org'; 'Radomir.REHACEK@oecd.org'; 'Alejandro.HUERTA@oecd.org'; 'Diane.JACKSON@oecd.org'; 'Jean.GAUVAIN@oecd.org'; 'John.NAKOSKI@oecd.org'; 'Philippe.GRESS@oecd.org'; 'Lawrence.BURKHART@oecd.org'; 'Nicolina.IANNOLO@oecd.org'; 'Roopa.CHAUHAN@oecd.org'; 'christele.tephanympania@oecd.org'; 'Aileen.LITTLE@oecd.org'; 'Carlo Vitanza'; 'Abdallah.amri@oecd.org'
Subject: [Yama] Situation now - ECCS mode

Dear all,

TEPCO (Tokyo Electric Power Company) declared the state of emergency of following NPPs:
Fukushima 1-1
Fukushima 1-2
Fukushima 1-3
Fukushima 2-1 **(ECCS mode now)**

I am trying to get information why DG can't start up (problem of intake sea water for the cooling DG system?)

There is a fire from turbine building (B1 floor) at Onagawa NPP unit 1 but the fire fighting was completely succeded.

http://www.yomiuri.co.jp/dy/national/20110311dy01.htm

A while ago, Fukui (my office located) had also earthquake (M4.1). We have 15 NPPs but no damage to the NPPs.

Yama
++++++++++++++++++++++++++++++++++++
Akihiro YAMAMOTO
Ageing Management Specialist,
Nuclear Safety Measurement Division
Fukui Prefectural Government

Telephone: +81 (0) 776 20 0314

E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp
++++++++++++++++++++++++++++++++++++

From:	Uselding, Lara
To:	Harrington, Holly; Burnell, Scott; Hayden, Elizabeth; Brenner, Eliot
Cc:	Dricks, Victor
Subject:	Re: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents
Date:	Friday, March 11, 2011 8:38:07 AM

As of right now, DC remains at full power but that could change pending what's happening now with tsunami hitting coast

RIV RA has decided to remain as has HQ that we are in NORMAL mode

Avila beach road (leads into plant) has been closed so only essential personnel are on site
County is currently evacuating low rise areas
The licensee is currently assesing what the impact could be from an expected 1-2 meter rise
Lara Uselding
NRC Region 4 Public Affairs
817-917-0321

From: Harrington, Holly
To: Burnell, Scott; Hayden, Elizabeth; Brenner, Eliot
Cc: Uselding, Lara
Sent: Fri Mar 11 08:16:26 2011
Subject: RE: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Scott – Pls make talking points ASAP for use by the regions.

We have received no media calls as yet here in HQ.

We'll wait for Lara to give us talking points regarding West Coast plants

From: Burnell, Scott
Sent: Friday, March 11, 2011 8:08 AM
To: Hayden, Elizabeth; Brenner, Eliot; Harrington, Holly
Subject: Re: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Yes -- I'm in Ops Ctr for briefing.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

From: Hayden, Elizabeth
To: Brenner, Eliot; Harrington, Holly; Burnell, Scott
Sent: Fri Mar 11 08:07:05 2011
Subject: Fw: [wgpcnews] FW: OECD/NEA - WGPC Secretariat - Japan Friday 11 March 13:45 UTC - Evacuation order to residents

Assume we have our TPs on west coast plant protection against tsunami/earthquakes ready.

XXX-3

From: Burnell, Scott
To: Brenner, Eliot; Harrington, Holly; Hayden, Elizabeth; Mamish, Nader
Subject: Re: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan
Date: Friday, March 11, 2011 7:43:16 AM

Of course, this won't be shared outside the building for now.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

----- Original Message -----
From: Mamish, Nader
To: Burnell, Scott; Brenner, Eliot; Harrington, Holly; Hayden, Elizabeth
Cc: Weber, Michael; Sheron, Brian; Uhle, Jennifer
Sent: Fri Mar 11 07:35:21 2011
Subject: RE: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

Yes; I have reached out to the NRC OPS center to work it out ...

-----Original Message-----
From: Burnell, Scott
Sent: Friday, March 11, 2011 7:33 AM
To: Mamish, Nader; Brenner, Eliot; Harrington, Holly; Hayden, Elizabeth
Cc: Weber, Michael; Sheron, Brian; Uhle, Jennifer
Subject: Re: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

Are we offering video/teleconferencing to help them stay in contact?

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

----- Original Message -----
From: Mamish, Nader
To: Brenner, Eliot; Harrington, Holly; Burnell, Scott; Hayden, Elizabeth
Cc: Weber, Michael; Sheron, Brian; Uhle, Jennifer
Sent: Fri Mar 11 07:27:46 2011
Subject: FW: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

FYI

-----Original Message-----
From: Foggie, Kirk
Sent: Friday, March 11, 2011 5:15 AM
To: Doane, Margaret; Mamish, Nader
Cc: Abrams, Charlotte
Subject: Fw: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

FYI. I will send any additional information to you via email.

There are about 5 NISA/JNES seismic specialist in D.C. meeting with RES today. I hope RES allows them to postpone the meeting and offers to provide assistance where possible.

Kirk
Sent from Blackberry.

----- Original Message -----
From: bannai-toshihiro@meti.go.jp <bannai-toshihiro@meti.go.jp>
To: Foggie, Kirk
Cc: Hidehiko Yamachika <yamachika-hidehiko@jnes-usa.org>
Sent: Fri Mar 11 03:15:12 2011
Subject: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

Dear Kirk-san,

Sorry for my frequent e-mail.
10 NPPs in Japan were automatically shut down in consequence of an earthquake occuring at 14:46 on 11th of March JST.
Attached is a prompt report from NISA sent diplomatically.
FYI.

Toshihiro

From:	Jean.GAUVAIN@oecd.org
To:	wgpcnews@oecd-nea.org
Subject:	[wgpcnews] FW: WGPC Secretariat - [Yama] Japan Situation Friday 11 Match 11:30 UTC - Fukushima 2-1 ECCS mode
Date:	Friday, March 11, 2011 5:34:12 AM

Information from the WGPC Secretariat
Jean Gauvain - NEA/NSD - Phone +33 1 45 24 10 52 - Mobile (b)(6)

From: Akihiro YAMAMOTO [mailto:a-yamamoto@houshasen.tsuruga.fukui.jp]
Sent: Friday, March 11, 2011 11:30
To: GAUVAIN Jean, NEA/SURN
Subject: [Yama] Situation now - ECCS mode

Dear all,

TEPCO (Tokyo Electric Power Company) declared the state of emergency of following NPPs:
Fukushima 1-1
Fukushima 1-2
Fukushima 1-3
Fukushima 2-1 **(ECCS mode now)**

I am trying to get information why DG can't start up (problem of intake sea water for the cooling DG system?)

There is a fire from turbine building (B1 floor) at Onagawa NPP unit 1 but the fire fighting was completely succeded.

http://www.yomiuri.co.jp/dy/national/20110311dy01.htm

A while ago, Fukui (my office located) had also earthquake (M4.1). We have 15 NPPs but no damage to the NPPs.

Yama

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Akihiro YAMAMOTO
Ageing Management Specialist,
Nuclear Safety Measurement Division
Fukui Prefectural Government

Telephone: +81 (0) 776 20 0314

E-mail: a-yamamoto@houshasen.tsuruga.fukui.jp
++++++++++++++++++++++++++++++++++++

XXX-5

From: Burnell, Scott
To: Brenner, Eliot; Hayden, Elizabeth; Harrington, Holly; Couret, Ivonne
Subject: Fw: HOO HIGHLIGHT - DIABLO CANYON UNUSUAL EVENT
Date: Friday, March 11, 2011 5:44:34 AM

I heard about the quake shortly after getting up, and I've taken an earlier train to get in to the office as soon as I can. I've suggested to the HOOs they can refer any calls (none yet) to me for the time being. I'm expecting calls similar to last time -- will NRC be assissting, etc.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

From: HOO Hoc
To: HOO Hoc
Sent: Fri Mar 11 05:09:33 2011
Subject: HOO HIGHLIGHT - DIABLO CANYON UNUSUAL EVENT

Diablo Canyon declared a Notice of Unusual Event at 0123 PST due to a Tsunami Warning for the coastal areas of California as a result of a 8.9 magnitude earthquake off the coast of Japan. The Agency remains in the NORMAL response mode as of 0452 EST.

Joe O'Hara
Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

U.S.NRC
Protecting People and the Environment

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From: Harrington, Holly
To: Burnell, Scott; Brenner, Eliot; Hayden, Elizabeth
Subject: RE: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan
Date: Friday, March 11, 2011 8:23:21 AM

Diane called and asked for generic earthquake talking points. I've pulled this from our seismic backgrounder. Scott -- any problem with me getting this to the regions as an initial talking point to be expanded with whatever info you've gotten?

Nuclear power plants are built to withstand environmental hazards, including earthquakes. Even those plants that are located outside of areas with extensive seismic activity are designed for safety in the event of such a natural disaster.

The NRC requires that safety-significant structures, systems, and components be designed to take into account the most severe natural phenomena historically reported for the site and surrounding area. The NRC then adds a margin for error to account for the historical data's limited accuracy.

The licensing bases for existing nuclear power plants are based on historical data at each site. This data is used to determine design basis loads from the area's maximum credible earthquake, with an additional margin included.

-----Original Message-----
From: Burnell, Scott
Sent: Friday, March 11, 2011 8:21 AM
To: Brenner, Eliot; Harrington, Holly; Hayden, Elizabeth
Subject: Re: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

Nader says the japanese are taking us up on the offer to "host" the folks here in Ops Ctr. I'll discuss possible press release after briefing.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

----- Original Message -----
From: Mamish, Nader
To: Burnell, Scott; Brenner, Eliot; Harrington, Holly; Hayden, Elizabeth
Cc: Weber, Michael; Sheron, Brian; Uhle, Jennifer
Sent: Fri Mar 11 07:35:21 2011
Subject: RE: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

Yes; I have reached out to the NRC OPS center to work it out ...

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From: Burnell, Scott
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Cc: Weber, Michael; Sheron, Brian; Uhle, Jennifer
Subject: Re: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

Are we offering video/teleconferencing to help them stay in contact?

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

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From: Burnell, Scott
To: Brenner, Eliot; Harrington, Holly; Hayden, Elizabeth
Subject: Re: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan
Date: Friday, March 11, 2011 8:20:39 AM

Nader says the japanese are taking us up on the offer to "host" the folks here in Ops Ctr. I'll discuss possible press release after briefing.

Sent from an NRC Blackberry
Scott Burnell
(b)(6)

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Cc: Weber, Michael; Sheron, Brian; Uhle, Jennifer
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Subject: RE: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

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Kirk

Sent from Blackberry.

----- Original Message -----
From: bannai-toshihiro@meti.go.jp <bannai-toshihiro@meti.go.jp>
To: Foggie, Kirk
Cc: Hidehiko Yamachika <yamachika-hidehiko@jnes-usa.org>
Sent: Fri Mar 11 03:15:12 2011
Subject: Effect of the earthquake on the Nuclear Facilities in North-east area of Japan

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10 NPPs in Japan were automatically shut down in consequence of an earthquake occuring at 14:46 on 11th of March JST.
Attached is a prompt report from NISA sent diplomatically.
FYI.

Toshihiro

Bozin, Sunny

From: Nieh, Ho
Sent: Friday, March 11, 2011 9:40 AM
To: Ostendorff, William; Franovich, Mike; Warnick, Greg; Zorn, Jason; Kock, Andrea
Subject: FW: Tsunami

fyi

Ho Nieh
Chief of Staff
Office of Commissioner William C. Ostendorff
U.S. Nuclear Regulatory Commission
(301) 415-1811 (office)
(b)(6) (mobile)
(301) 415-1757 (fax)
ho.nieh@nrc.gov

From: Monninger, John
Sent: Friday, March 11, 2011 9:37 AM
To: Nieh, Ho
Subject: FW: Tsunami

Ho,

See below. I was a little too quick on my email addressed.

Sorry about that.

John M.

From: Monninger, John
Sent: Friday, March 11, 2011 9:34 AM
To: Sharkey, Jeffry; Sosa, Belkys; Bubar, Patrice; Dhir, Neha
Cc: Batkin, Joshua; Hipschman, Thomas; Marshall, Michael
Subject: Tsunami

NRC HQ and Region IV are monitoring the potential impact of tsunamis impacting NRC licensees and licensed materials.

Diablo Canyon issued a NOUE due to the Tsunami WARNING. Expected wave is predicted to be well within the Design Basis. Licensees evaluating the potential for loss of circulating water pumps and need for potential shutdown due to sea level draw down in advance of wave. No decision on shutdown at this time. Humboldt Bay ISFSI is also monitoring the event and wave heights are predicted to be within the design basis.

San Onofre is in the Tsunami ADVISORY area so they are monitoring the event. Wave heights are predicted to be well within the design basis.

Staff does not expect any impact to material licensees, including Hawaii, Alaska, Guam, and the Marianas Islands.

Staff from the Japanese regulator (NISA) were attending the RIC and are still in the US. NRC offered them access to the HQ Operations Center to facilitate communications with their government and other entities back home.

+++-6

OIP has checked and is not aware of any NRC staff in Japan.

Bozin, Sunny

From: Nieh, Ho
Sent: Friday, March 11, 2011 10:13 AM
To: Sharkey, Jeffry
Subject: RE: Tsunami

Thanks Jeff!

Ho Nieh
Chief of Staff
Office of Commissioner William C. Ostendorff
U.S. Nuclear Regulatory Commission
(301) 415-1811 (office)
(b)(6) (mobile)
(301) 415-1757 (fax)
ho.nieh@nrc.gov

From: Sharkey, Jeffry
Sent: Friday, March 11, 2011 9:35 AM
To: Nieh, Ho
Subject: FW: Tsunami

From: Monninger, John
Sent: Friday, March 11, 2011 9:34 AM
To: Sharkey, Jeffry; Sosa, Belkys; Bubar, Patrice; Dhir, Neha
Cc: Batkin, Joshua; Hipschman, Thomas; Marshall, Michael
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OIP has checked and is not aware of any NRC staff in Japan.

++-9

Bozin, Sunny

From:	Brenner, Eliot
Sent:	Friday, March 11, 2011 11:48 AM
To:	Brenner, Eliot; Sharkey, Jeffry
Cc:	Batkin, Joshua; Jaczko, Gregory; Loyd, Susan; Weber, Michael; Schmidt, Rebecca; Powell, Amy; Svinicki, Kristine; Apostolakis, George; Sosa, Belkys; Ostendorff, William; Nieh, Ho; Magwood, William; Bubar, Patrice; Akstulewicz, Brenda; Chandrathil, Prema; McIntyre, David; Screnci, Diane; Harrington, Holly; Couret, Ivonne; Janbergs, Holly; Ledford, Joey; Sheehan, Neil; Hannah, Roger; Burnell, Scott; Uselding, Lara; Shannon, Valerie; Dricks, Victor; Mitlyng, Viktoria
Subject:	current talking points
Attachments:	03_11_QUAKE_talk_pts3.docx

These talking points are the most current. They will be updated and retransmitted as warranted. A press release is going out shortly regarding the NRC status, and a blog from OPA will be posted.

Eliot

Eliot Brenner
Director, Office of Public Affairs
Nuclear Regulatory Commission
Rockville, Md.
O: 301-415-8200
C: (b)(6)

++-10

OPA

TALKING POINTS

MARCH 11, 2011 JAPAN EARTHQUAKE AND WEST COAST TSUNAMI

As of 9/27/2011 10:19 AM

- The Nuclear Regulatory Commission is following events on the U.S. West Coast and U.S. Pacific interests in the wake of the March 11 earthquake in Japan and associated tsunami.

- The NRC resident inspector at the Diablo Canyon nuclear power plant on the central California coast is on site and keeping track of the plant's response to the tsunami warning for that area. The plant is operating normally but has declared an Unusual Event; plant employees are taking preplanned actions to prepare for the predicted tsunami effects. The licensee continues to monitor the event to assess whether additional planned actions,

to include plant shutdown, are appropriate. NRC resident inspector staff is on site monitoring the licensee's activities.

- The San Onofre nuclear power plant on the southern California coast is operating normally and is in the tsunami advisory area.

- The Humboldt Bay spent fuel storage site on the northern California coast is in the tsunami warning area; site personnel have informed the NRC they are prepared for possible effects.

- The tsunami is expected to miss NRC-regulated nuclear materials sites in Hawaii and Alaska; the NRC remains in contact with these facilities.

- The NRC has regulations in place that require licensees to design their plants to withstand the effects of tsunamis.
  (10CFR 50, Appendix A, Criterion 2, "Design bases for protection against natural phenomenon" requires licensees to designs structures, systems, and components important to safety to withstand the effects of natural phenomenon, including tsunamis.)

- At Diablo Canyon, the plant is safe from a tsunami. The plants ability to withstand large waves and the maximum wave height at the intake structure were determined through extensive and detailed scaled model wave testing. To prevent water from entering the intake structure and affecting the pump motors, the structure is equipped with a snorkel valve that can close.

- Nuclear power plants are built to withstand environmental hazards, including earthquakes. Even those plants that are located outside of areas

with extensive seismic activity are designed for safety in the event of such a natural disaster.

- The NRC requires that safety-significant structures, systems, and components be designed to take into account the most severe natural phenomena historically reported for the site and surrounding area. The NRC then adds a margin for error to account for the historical data's limited accuracy. In other words, the licensing bases for existing nuclear power plants are based on historical data from the area's maximum credible earthquake, with an additional margin included.

From: Ulses, Anthony
Sent: Sunday, March 13, 2011 11:12 AM
To: LIA03 Hoc; 'CherryRC@state.gov'; 'tokyodao@state.gov'; 'cooperJD@state.gov'
Cc: LIA02 Hoc; LIA06 Hoc
Subject: Re: Need Embassy Assistance for Mr. Tony Ulses

Anthony Ulses
Branch Chief, Reactor Systems Branch
(b)(6)

Sent from NRC BlackBerry
Anthony Ulses
(b)(6)

From: LIA03 Hoc
To: CherryRC@state.gov <CherryRC@state.gov>; tokyodao@state.gov <tokyodao@state.gov>; cooperJD@state.gov <cooperJD@state.gov>
Cc: Ulses, Anthony; LIA02 Hoc; LIA06 Hoc
Sent: Sun Mar 13 11:08:34 2011
Subject: Need Embassy Assistance for Mr. Tony Ulses

The purpose of this email is to provide a status update on NRC Technical Experts Jim Trapp and Tony Ulses. We are also requesting Embassy assistance to get Mr. Ulses on a military transport to Yakota.

Mr. Ulses is trying to get military transport to Yakota. He needs an email from the embassy to: (b)(6) stating that he is on orders to travel to Yakota.

This email needs to include Mr. Ulses full name, job and SSN. (Tony please provide)

This is needed ASAP.

Mr. Jim Trapp has checked into (b)(6). He is in room (b). He is awaiting further instruction from the USEmb Tokyo. Note: I believe he plans to get a few hours rest.

+++-11

From: LIA04 Hoc
Sent: Sunday, March 13, 2011 10:02 AM
To: Tifft, Doug
Subject: RE: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

Let me follow-up.

Rich

-----Original Message-----
From: Tifft, Doug
Sent: Sunday, March 13, 2011 10:01 AM
To: LIA04 Hoc
Subject: RE: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

Rich,

Do you have a word version of this Q&A? I don't want to email out the pdf version because the state SLOs will not be able to remove the non-public state only info when they redistribute through their organization.

-Doug

-----Original Message-----
From: LIA04 Hoc
Sent: Sunday, March 13, 2011 3:38 AM
To: McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill; Browder, Rachel; Turtil, Richard
Cc: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; Thaggard, Mark; Blount, Tom; LIA06 Hoc; LIA04 Hoc; LIA02 Hoc; LIA03 Hoc; LIA12 Hoc; LIA11 Hoc; LIA01 Hoc; LIA10 Hoc
Subject: FW: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

RSLOs - The information attached has been vetted with OPA and the NRC Executive Team and has been approved for dissemination to the Governor-appointed State Liaison Officers.

Rich Turtil will be reporting to the Ops Center @ 7:00 am Sunday 3/13 and will be your POC.

Thank you for your assistance today.

Rosetta

-----Original Message-----
From: LIA09 Hoc
Sent: Sunday, March 13, 2011 3:28 AM
To: LIA04 Hoc
Subject: Emailing: State Q&A Rev 1.pdf

ttt-12

The message is ready to be sent with the following file or link attachments:

State Q&A Rev 1.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Date: 3/13/2011 Time: 1:55am

State Q&A's:

Q. What is the radiological consequence of the event in Japan for the U.S.?
A. At this time, there is no indication that materials from the incidents in Japan have the potential to have any significant radiological effect on the U.S.

Q. Are there any protective measures that residents in the U.S. should be considering?
A. No, not given current information.

Q. What is the Federal family, i.e., NRC-EPA-DOE, doing to monitor the radiological consequence of the event in Japan on the United States?

A. The NRC is coordinating its actions with other Federal agencies as part of the U.S. government response. The NRC is examining all available information as part of the effort to analyze the event and understand its implications both for Japan and the United States.

U.S. nuclear power plants have sensitive equipment to monitor the status of radiological conditions. Additionally, personnel at nuclear power plants have specific knowledge in radiological field monitoring techniques and could assist State and Federal personnel in environmental sampling activities, should that be necessary to evaluate public health and safety concerns.

EPA has permanent stationary radiological monitoring stations on the West coast. In the event of a confirmed radiological release with a potential to impact the U.S., EPA is the Federal agency responsible for radiological monitoring. DOE would be responsible for aerial monitoring, should there be a confirmed radiological release.

Non-Public Info For States Only: Questions about any radiological impact on the U.S. West coast is Adora Andy, the Deputy Associate Administrator for EPA's Office of External Affairs: cell is (b)(6) email andy.adora@epa.gov

Key Messages:

The NRC is coordinating its actions with other Federal agencies as part of the U.S. government response. The NRC is examining all available information as part of the effort to analyze the event and understand its implications both for Japan and the United States. The NRC's headquarters Operations Center in Rockville, MD has been stood up since the beginning of the emergency in Japan and is operating on a 24-hour basis.

NRC officials in Rockville, MD have spoken with the agency's counterpart in Japan and offered the assistance of U.S. technical experts. Two officials from NRC with expertise in boiling water nuclear reactors have deployed to Japan as part of a U.S. International Agency for International Development (USAID) team. USAID is the federal government agency primarily responsible for providing assistance to countries recovering from disaster administering.

U.S. nuclear power plants are built to withstand environmental hazards, including earthquakes and tsunamis. Even those plants that are located outside of areas with extensive seismic activity are designed for safety in the event of such a natural disaster. The NRC requires that safety-significant structures, systems, and components be designed to take into account the most severe natural phenomena historically estimated for the site and surrounding area.

The NRC will **not** provide information on the status of Japan's nuclear power plants. See NRC's web site at www.nrc.gov or blog at http://public-blog.nrc-gateway.gov for the latest information on NRC actions.

For background information on generic operations at a boiling-water reactor, including an animated graphic, visit the NRC's website at www.nrc.gov

Other sources of information:

USAID -- www.usaid.gov
U.S. Dept. of State -- www.state.gov
FEMA -- www.fema.gov
White House -- www.whitehouse.gov
Nuclear Energy Institute -- www.nei.org
International Atomic Energy Agency -- www.iaea.org/press

From: zTask Force 1 Mailbox [mailto:TaskForce1Mailbox@state.gov]
Sent: Sunday, March 13, 2011 2:10 PM
To: (b)(6)
(b)(6)
Cc: SES-O_CMS; zTask Force 1 Mailbox
Subject: AGENDA: Japan Earthquake TF Interagency 2000-EDT Conference Call 13 March

Japan Earthquake Task Force
Interagency Conference Call
2000 EST (0900 Tokyo) March 13, 2011

Participants should call (202) 647-0817 and use access code (b)(6) # to enter the conference. All conferees are asked to avoid speaker phones as they degrade the quality of the line. If not speaking, please also mute your line.

I. Situation Overview (Embassy Tokyo, DOE, NRC, OSD)

a. Status of nuclear plants and what we expect next (including Tokai)

b. Status of GOJ information sharing with USG

c. GOJ requests for US assistance on nuclear issue (NRC, DOE, DOD)

d. Focus of NRC TDYers efforts on ground (NRC/DART)

e. Possible impact on aviation plans, Post operations, health and safety

II. U.S. Disaster Assistance (Embassy, DART/USAID, OSD, PACOM)

a. OFDA teams status

b. Military assistance - update on:

i. Update on what is being provided

III. Consular

3/13

a. Update on assistance to Americans

i. Status of AMCITS; Embassy efforts to account.

ii. Public information for U.S. citizens/Updated Travel Alert

b. Update on Airline Operations

c. Update on other nations' assistance to their citizens

IV. **Embassy operations (Embassy)**

a. Tripwire Revision Status

b. Update on other nations' operating status

c. Additional TDY assistance requirements

d. Iodine Tablet Request

V. **Public Affairs/Strategic Messaging**

a. Response to inquiries about drawdown, evacuation, health, and safety

b. Status of Amb Roos press interviews (Embassy PA)

VI. **Next Call:** 0300 EDT/1600 Tokyo (accounting for Daylight Savings Time)

From: LIA08 Hoc
Sent: Monday, March 14, 2011 2:07 PM
To: LIA06 Hoc
Subject: FW: NRC Suggested Equipment List
Attachments: Equipment needs from NRC Reactor Safety Team Equipment List.docx

FYI...

From: LIA08 Hoc
Sent: Monday, March 14, 2011 2:06 PM
To: RST01 Hoc
Cc: 'RMTPACTSU_ELNRC'; LIA11 Hoc; LIA01 Hoc; LIA07 Hoc; LIA02 Hoc; Marshall, Jane
Subject: RE: NRC Suggested Equipment List

More details are being requested on the equipment list...
Rani

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Monday, March 14, 2011 1:53 PM
To: LIA11 Hoc; LIA01 Hoc; LIA07 Hoc; LIA08 Hoc; LIA02 Hoc; Marshall, Jane
Subject: FW: NRC Suggested Equipment List

FYI – They are trying to track down specific equipment to meet the NRC's list. Can we provide them any further details?

From: RMTPACTSU_LC
Sent: Monday, March 14, 2011 1:30 PM
To: RMTPACTSU_ELNRC
Cc: RMTPACTSU_LC; RMTLibyaCE_DMO; RMTPACTSU_DMP; OFDALogistics [USAID]
Subject: FW: NRC Suggested Equipment List

Michael and Jason,

As per conversation, we will need much more detailed information on the attached equipment needs. I jotted a few notes on the attached list which are highlighted in red. The more details you have, the better. We generally can source and transport items very quickly but we really need detailed specifics before we get started.

Thanks very much.

Todd

Logistics Coordinator
202-712-0039 x-5706
Rmtpactsu_lc@ofda.gov
ofdalogistics@usaid.gov

From: RMTPACTSU_ELNRC
Sent: Monday, March 14, 2011 11:22 AM
To: RMTPACTSU_DMP; 'Zareski, Karen B'; 'Young, Joseph M'; RMT_PACTSU
Cc: 'JapanEmbassy, TaskForce'; Bock, Yonahton(DCHA/OFDA) [USAID]; 'James.McGlone@hq.doe.gov'; DART_PACTSU;

3/11/14

'james.trapp@vzw.blackberry.net'
Subject: NRC Suggested Equipment List

In accordance with the 9:00 Deputies call this morning, I have attached the formalized proposed list of equipment that would aid in the Japanese nuclear response efforts.

Please let me know how I can facilitate any further information needs.

Thanks,
Michael I. Dudek
US Nuclear Regulatory Commission
(b)(6)

NRC Reactor Safety Team Equipment List

Fire trucks or Fire boats to supply makeup to suction pool and water to supply reactor (requires qualified personnel)

- portable generators (ensure appropriate voltage/frequency)
- Dewatering pumps (need qualified person to operate) Need specifications on pumps
- Portable hoses and fittings
- Fire fighting gear
- Fuel for all diesel and gas equipment

Onsite Water Supply: Is this needed equipment or how they propose to do it.

- Water in liquid Rad Waste tanks
- Condensate Storage Tanks
- Extend hoses into the ocean and either pump directly or pump to pond

Other Equipment:

- Positive Displacement Pumps from supply store – What supply store
- Any pump capable of supplying 250 gpm at 90 pounds of pressure per reactor unit
- Battery Cells Types of batteries?
- Battery chargers
- Air compressors size, capacity?
- Nitrogen bottles size, type
- Firefighting containers carried by helicopters Need more specifics?
- Portable switchgear for onsite pumps – specifics??

For the last two headings, just more specific information. We can normally purchase things fast and transport if fast.

Injection implementation:

- Feed through feedwater header using hoses thru removable spool piece, or
- Feed trough core spray or Standby Liquid control, or Control Rod Drive
- Injection tie-in through existing RHRSW-RHR injection lines
- Suction source from either pool or ocean

Long term cooling:

- Long term cooling for RHR – portable cooling unit and truck in and if power supply 15 tonnage and tie into cooling system, they are air cooled
- SFP requires cooling or water addition

Jackson, Karen

From: HOO Hoc
Sent: Monday, March 14, 2011 9:21 AM
To: PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: FW: Reminder: Japan Earthquake conference call at 1000 EDT/2300 Japan time

fyi

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo@nrc.sgov.gov

U.S.NRC
Protecting People and the Environment

From: Olson, Maria dG [mailto:OlsonMdG@state.gov]
Sent: Monday, March 14, 2011 9:10 AM
To: (b)(6)
(b)(6)

Subject: Reminder: Japan Earthquake conference call at 1000 EDT/2300 Japan time

Japan Earthquake Task Force
State-led Interagency Conference Call
1000 EDT March 14, 2011 (2300 Tokyo March 14, 2011)

Participants should call (202) 647-0817 and use access code (b)(6) *to enter the conference. All conferees are asked to avoid speaker phones as they degrade the quality of the line. If not speaking, please also mute your line. If you have trouble entering the call, please call the State Department Operations Center at 202-647-1512 and ask to be added to the call.*

++/15

I. **Situation Overview from Embassy Tokyo**--to include but not limited to updated numbers on death toll, number of injuries, missing.

II. **Nuclear update (Embassy DOE, NRC, OSD) to include but not limited to:**

a. Update on DOE/USS Reagan readings and what they mean about our understanding of the nuclear situation.

b. Update of nuclear plants (including Fukushima Dainii and Tokai)

c. Status of two new GOJ requests for assistance on nuclear issues (Embassy/OFDA/DOD)

d. Status of GOJ information sharing on the nuclear situation with the USG

i. Progress on embedding nuclear experts with Japanese

ii. Increase in GOJ-provided updates to US experts on the ground

e. Updates from NRC TDYers efforts on ground (NRC/DART)

f. Impact on Airline operations

III. **U.S. Disaster Assistance (Embassy, DART/USAID, OSD, PACOM)**

a. OFDA updates

b. Military assistance update

c. Updates on other countries' assistance to GOJ

IV. **Consular**

a. Assistance to Americans (any plans for a town hall/s with private U.S. citizens)

b. Other nations' assistance to their citizens

V. **Embassy operations (Embassy)**

a. Effect of rolling blackouts

b. New EAC recommendations

c. Tripwire updates

VI. **Public Affairs/Strategic Messaging**

a. Any reaction to DoD press release on helo contamination

VII. **Next Call:** 0200 EDT/1500 Japan time March 15 (with a 0600 EDT sitrep)

Maria Olson
Operations Center, Crisis Management Coordinator
Office: 202-647-7640

(b)(6)

Subject:	2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call
Location:	877-700-1237; PC: (b)(6)
Start:	Tue 3/15/2011 11:00 AM
End:	Tue 3/15/2011 12:00 PM
Recurrence:	(none)
Meeting Status:	Accepted
Organizer:	OS Secretarys Operations Center

AGENDA:

2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call

Phone: 877-700-1237
Passcode: (b)(6)

Objective: Discussion of current response operations and future actions.

HHS – Opening Comment
- Quick summary on any HHS issues/concerns
Regional Updates:
IRTC

- Region IX
- Region X

EMG Updates:
EMG OPS/FIELD OPS/OFRD OPS
EMG Logs
EMG Plans
EMG A/F

Other OPDIVs/STAFF DIVs:
FDA update

Supporting Agencies:
DOS update
NRC update
USDA update
EPA update

Other supporting Agencies update

Questions:
Adjournment & Closing Comments:
Time for the next conference call: TBD

From: HOO Hoc
Sent: Monday, March 14, 2011 11:27 AM
To: PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: FW: GOJ urgent request for water pumping capacity - follow up 1
Attachments: image001.png; image002.jpg

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

U.S.NRC
Protecting People and the Environment

From: Basalla, Suzanne I [mailto:BasallaSI@state.gov]
Sent: Monday, March 14, 2011 11:24 AM
To: (b)(6)
(b)(6)

Cc: (b)(6)
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Thank you. We look forward to the list of equipment and additional advice.

SBU
This email is UNCLASSIFIED.

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: Tuesday, March 15, 2011 12:16 AM
(b)(6)

Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Hi Suzanne,
I just spoke with the Director of the Reactor Safety Team here at the NRC Incident Response Center. She is aware of the request for equipment and has generated a list of equipment that, as I understand it, will be requested of U.S. military forces for use in Japan. She also notes that the equipment may need to be accompanied by instructions in Japanese and/or personnel knowledgeable of how to operate it. This list has been generated based on our understanding of the

++1116

status of systems and the core at Units 1, 2 and 3. We believe that TEPCO personnel, who will have the most current knowledge of the condition of the core and emergency systems , will be in the best position to determine where and how the equipment can be used once it arrives. We are looking for technical staff to be available to advise, if needed, on countermeasures that can be considered using this equipment.
Hope this helps,
Rani Franovich
Liaison Team Coordinator
U.S. Nuclear Regulatory Commission

From: Basalla, Suzanne I [mailto:BasallaSI@state.gov]
Sent: Monday, March 14, 2011 10:39 AM
To: (b)(6)
(b)(6)
Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G
Subject: GOJ urgent request for water pumping capacity - follow up 1

All,

(Ron/Aleshia, please pass to Jim Trapp. USFJ – please pass to appropriate person at PACOM.)

As an update based on tonight's White House led interagency VTC and other discussions:

-- The WH stated that the President considers it the highest priority to respond quickly and comprehensively to any request from Japan. The Prime Minister's request for truck/s with capacity to pump water at high pressure was specifically discussed.

-- OSD also stated that **USFJ has appropriate authority** to transfer diesel-driven pumps (in this case, a fire truck) to Japan for use in this nuclear emergency.

-- **USFJ/J4 has notified us that the have a fire truck available and they are starting to move it to the affected area.** MOFA has not yet responded to their request for a police escort to expedite the transit, but the "pumper" is en route and USFJ will continue to coordinate for a lash up with an escort.

-- In post-VTC discussions, Jim Trapp (NRC liaison on the DART) advised that **three diesel-driven pumps should be the target number** in responding to this request. **USFJ should look for at least two additional diesel-driven pumps to provide** to Fukushima site ASAP.

-- NRC also advised that to help Japan provide coolant to the reactor, **they need more than diesel-driven pumps**. The VTC participants agreed that the **U.S. military forces should immediately look for ways to provide the following** to the Fukushima site:

- -- diesel-driven pump
- -- AC power
- -- DC power
- -- nitrogen/air

--For further coordination on what kinds of solutions the U.S. military can offer to the Japanese to address this urgent issue, it will be useful for USFJ/J4 (who is in touch with the TEPCO personnel) to coordinate with the U.S. Army Corps of Engineers and NRC experts.

We appreciate OSD's outreach to find an Army Corps of Engineers POC to share with the group.

The NRC Chairman, Greg Jaczko, can also offer advice. I've copied his team and him on this email. Their watch can be reached via (301) 816-5100.

The USFJ POC is the J4, Colonel Everett McDaniel. Everett can be reached at DSN 315-225-4712/4705/4713. His commercial number is: 011-81-3-1175-54712/54705/54713. His cell number is: (b)(6) If you can't reach him, the USFJ watch is: DSN: 225-4223 and they can track him down.

The Mission Japan Emergency Command Center is copied above and can be reached at 03-3224-5530, commercial 81-3-3224-5530 if any additional coordination is necessary.

Thank you all for your assistance. It's great to hear one pumper is on the way – appreciate everyone's help in trying to find additional support during this urgent window.

Suzanne

Suzanne I. Basalla
Senior Advisor to Ambassador John V. Roos
American Embassy - Tokyo

Please follow Ambassador Roos on Twitter.com/AmbassadorRoos

Tel: 081-3-3224-5023
Fax: 081-3-3224-5312
BasallaSI@state.gov

SBU
This email is UNCLASSIFIED.

From: OST01 HOC
Sent: Friday, April 15, 2011 1:37 PM
To: RST01 Hoc
Subject: RE: NRC and IAEA document request

I don't see it in SharePoint. G: drive, or WebEoc.

-----Original Message-----
From: RST01 Hoc
Sent: Friday, April 15, 2011 1:32 PM
To: OST01 HOC
Subject: FW: NRC and IAEA document request
Importance: High

The following document is requested by Pentagon.

(2) IAEA report referenced during the 1630 April 12, 2011, Interagency SVTCs, wrt to the change in INES rating of Fukushima Dai-ichi from a 5 to a 7.

Do you know where it is located?

Thanks.

-----Original Message-----
From: Hoc, PMT12
Sent: Friday, April 15, 2011 10:44 AM
To: RST01 Hoc; RST07 Hoc
Subject: FW: NRC and IAEA document request
Importance: High

This came to the PMT yesterday and I am not sure it got forwarded for response to the RST. Ms Idar just called again, specifically asking to obtain a copy of the "Stability Defined" document.

Please respond as soon as possible.

Sandi
PMT/PAAD

-----Original Message-----
From: Idar, Deanne J CIV OSD POLICY (b)(6)
Sent: Thursday, April 14, 2011 3:47 PM
To: Couret, Ivonne; Hoc, PMT12
Cc: Love, Richard A CIV OSD POLICY; Gross, Laura, CIV, OSD-POLICY

XXX/17

Subject: NRC and IAEA document request

Ms. Couret and PMT:
Thank you in advance for your assistance. We are requesting copies of two documents ASAP that have been identified as follows:

(1) NRC Reactor Safety team "Stability Defined" document
(2) IAEA report referenced during the 1630 April 12, 2011, Interagency SVTCs, wrt to the change in INES rating of Fukushima Dai-ichi from a 5 to a 7.

Best,
Deanne

Deanne J. Idar, Ph.D.
Senior Science Advisor
OSD(P)-GSA/CWMD/ CBRN Defense Policy
Office: Rm 5C746 Pentagon
Phone: 703-571-2327
Blackberry: (b)(6)

From: Maier, Bill
Sent: Monday, March 14, 2011 12:20 PM
To: LIA04 Hoc; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Browder, Rachel; Turtil, Richard; Virgilio, Rosetta
Cc: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; Thaggard, Mark
Subject: RE: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

For Region IV, the talking points were distributed to the individual state SLOs and State Radiation Control Program Directors.

-----Original Message-----
From: LIA04 Hoc
Sent: Monday, March 14, 2011 11:18 AM
To: McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill; Browder, Rachel; Turtil, Richard; Virgilio, Rosetta
Cc: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; Thaggard, Mark
Subject: RE: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

Question from the Liaison Team. Was the attachment distributed to the Individual SLO's or did it only go as far and the RSLO's and are the questions about the individual reactors coming in after they have seen this?

Amanda Noonan
State Liaison – Liaison Team
Incident Response Center

-----Original Message-----
From: LIA04 Hoc
Sent: Sunday, March 13, 2011 3:38 AM
To: McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill; Browder, Rachel; Turtil, Richard
Cc: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; Thaggard, Mark; Blount, Tom; LIA06 Hoc; LIA04 Hoc; LIA02 Hoc; LIA03 Hoc; LIA12 Hoc; LIA11 Hoc; LIA01 Hoc; LIA10 Hoc
Subject: FW: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

RSLOs - The information attached has been vetted with OPA and the NRC Executive Team and has been approved for dissemination to the Governor-appointed State Liaison Officers.

Rich Turtil will be reporting to the Ops Center @ 7:00 am Sunday 3/13 and will be your POC.

Thank you for your assistance today.

Rosetta

-----Original Message-----
From: LIA09 Hoc

++1/16

Sent: Sunday, March 13, 2011 3:28 AM
To: LIA04 Hoc
Subject: Emailing: State Q&A Rev 1.pdf

The message is ready to be sent with the following file or link attachments:

State Q&A Rev 1.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Date: 3/13/2011 Time: 1:55am

State Q&A's:

Q. What is the radiological consequence of the event in Japan for the U.S.?
A. At this time, there is no indication that materials from the incidents in Japan have the potential to have any significant radiological effect on the U.S.

Q. Are there any protective measures that residents in the U.S. should be considering?
A. No, not given current information.

Q. What is the Federal family, i.e., NRC-EPA-DOE, doing to monitor the radiological consequence of the event in Japan on the United States?

A. The NRC is coordinating its actions with other Federal agencies as part of the U.S. government response. The NRC is examining all available information as part of the effort to analyze the event and understand its implications both for Japan and the United States.

U.S. nuclear power plants have sensitive equipment to monitor the status of radiological conditions. Additionally, personnel at nuclear power plants have specific knowledge in radiological field monitoring techniques and could assist State and Federal personnel in environmental sampling activities, should that be necessary to evaluate public health and safety concerns.

EPA has permanent stationary radiological monitoring stations on the West coast. In the event of a confirmed radiological release with a potential to impact the U.S., EPA is the Federal agency responsible for radiological monitoring. DOE would be responsible for aerial monitoring, should there be a confirmed radiological release.

Non-Public Info For States Only: Questions about any radiological impact on the U.S. West coast is Adora Andy, the Deputy Associate Administrator for EPA's Office of External Affairs: cell is (b)(6) ; email andy.adora@epa.gov

Key Messages:

The NRC is coordinating its actions with other Federal agencies as part of the U.S. government response. The NRC is examining all available information as part of the effort to analyze the event and understand its implications both for Japan and the United States. The NRC's headquarters Operations Center in Rockville, MD has been stood up since the beginning of the emergency in Japan and is operating on a 24-hour basis.

NRC officials in Rockville, MD have spoken with the agency's counterpart in Japan and offered the assistance of U.S. technical experts. Two officials from NRC with expertise in boiling water nuclear reactors have deployed to Japan as part of a U.S. International Agency for International Development (USAID) team. USAID is the federal government agency primarily responsible for providing assistance to countries recovering from disaster administering.

U.S. nuclear power plants are built to withstand environmental hazards, including earthquakes and tsunamis. Even those plants that are located outside of areas with extensive seismic activity are designed for safety in the event of such a natural disaster. The NRC requires that safety-significant structures, systems, and components be designed to take into account the most severe natural phenomena historically estimated for the site and surrounding area.

The NRC will **not** provide information on the status of Japan's nuclear power plants. See NRC's web site at www.nrc.gov or blog at http://public-blog.nrc-gateway.gov for the latest information on NRC actions.

For background information on generic operations at a boiling-water reactor, including an animated graphic, visit the NRC's website at www.nrc.gov

Other sources of Information:

USAID -- www.usaid.gov
U.S. Dept. of State -- www.state.gov
FEMA -- www.fema.gov
White House -- www.whitehouse.gov
Nuclear Energy Institute -- www.nei.org
International Atomic Energy Agency -- www.iaea.org/press

From: Turtil, Richard
Sent: Monday, March 14, 2011 12:23 PM
To: LIA04 Hoc; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill; Browder, Rachel; Virgilio, Rosetta
Cc: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; Thaggard, Mark
Subject: RE: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

The attachment was sent from HQ to the individual 7 Regional State Liaison Officers (RSLOs). They were informed that they could provide the information in the piece to State SLOs. We developed a Word version so that the RSLOs could delete the line that indicated:

"Non-Public Info For States Only: Questions about any radiological impact on the U.S. West coast is Adora Andy, the Deputy Associate Administrator for EPA's Office of External Affairs:
cell is (b)(6) email andy.adora@epa.gov"

We'll hear from some of the RSLOs as to how they used this piece shortly.

Rich

-----Original Message-----
From: LIA04 Hoc
Sent: Monday, March 14, 2011 12:18 PM
To: McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill; Browder, Rachel; Turtil, Richard; Virgilio, Rosetta
Cc: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; Thaggard, Mark
Subject: RE: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

Question from the Liaison Team. Was the attachment distributed to the Individual SLO's or did it only go as far and the RSLO's and are the questions about the individual reactors coming in after they have seen this?

Amanda Noonan
State Liaison – Liaison Team
Incident Response Center

-----Original Message-----
From: LIA04 Hoc
Sent: Sunday, March 13, 2011 3:38 AM
To: McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Barker, Allan; Logaras, Harral; Maier, Bill; Browder, Rachel; Turtil, Richard
Cc: Hayden, Elizabeth; Harrington, Holly; Burnell, Scott; Thaggard, Mark; Blount, Tom; LIA06 Hoc; LIA04 Hoc; LIA02 Hoc; LIA03 Hoc; LIA12 Hoc; LIA11 Hoc; LIA01 Hoc; LIA10 Hoc
Subject: FW: Emailing: State Q&A Rev 1.pdf for Distribution to SLOs

RSLOs - The information attached has been vetted with OPA and the NRC Executive Team and has been approved for dissemination to the Governor-appointed State Liaison Officers.

+++ | 19

Rich Turtil will be reporting to the Ops Center @ 7:00 am Sunday 3/13 and will be your POC.

Thank you for your assistance today.

Rosetta

-----Original Message-----
From: LIA09 Hoc
Sent: Sunday, March 13, 2011 3:28 AM
To: LIA04 Hoc
Subject: Emailing: State Q&A Rev 1.pdf

The message is ready to be sent with the following file or link attachments:

State Q&A Rev 1.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

From: HOO Hoc
Sent: Tuesday, March 15, 2011 7:15 AM
To: PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: FW: GOJ urgent request for water pumping capacity - follow up 1
Attachments: image001.png; image002.jpg

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

U.S.NRC
Protecting People and the Environment

From: Basalla, Suzanne I [mailto:BasallaSI@state.gov]
Sent: Tuesday, March 15, 2011 7:00 AM
To: (b)(6)
(b)(6)

Cc: (b)(6)
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

COL McDaniel/Team USFJ – Tony Ulses, our NRC Liaison, has a lead on a very promising equipment to help solve this problem. He'll shortly forward you the information. Hope this can be of use. Thanks for the continued support.

Suzanne

SBU
This email is UNCLASSIFIED.

From: Basalla, Suzanne I
Sent: Tuesday, March 15, 2011 12:24 AM
To: (b)(6)
(b)(6)

Cc: (b)(6)
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Thank you. We look forward to the list of equipment and additional advice.

xtt|20

SBU
This email is UNCLASSIFIED.

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: Tuesday, March 15, 2011 12:16 AM
To: (b)(6)
b)(6)

Cc: Roos, John; Zumwalt, James P; Fuller, Matthew G
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Hi Suzanne,
I just spoke with the Director of the Reactor Safety Team here at the NRC Incident Response Center. She is aware of the request for equipment and has generated a list of equipment that, as I understand it, will be requested of U.S. military forces for use in Japan. She also notes that the equipment may need to be accompanied by instructions in Japanese and/or personnel knowledgeable of how to operate it. This list has been generated based on our understanding of the status of systems and the core at Units 1, 2 and 3. We believe that TEPCO personnel, who will have the most current knowledge of the condition of the core and emergency systems , will be in the best position to determine where and how the equipment can be used once it arrives. We are looking for technical staff to be available to advise, if needed, on countermeasures that can be considered using this equipment.
Hope this helps,
Rani Franovich
Liaison Team Coordinator
U.S. Nuclear Regulatory Commission

From: Basalla, Suzanne I [mailto:BasallaSI@state.gov]
Sent: Monday, March 14, 2011 10:39 AM
To: (b)(6)
b)(6)

Cc: (b)(6)
Subject: GOJ urgent request for water pumping capacity - follow up 1

All,

(Ron/Aleshia, please pass to Jim Trapp. USFJ -- please pass to appropriate person at PACOM.)

As an update based on tonight's White House led interagency VTC and other discussions:

-- The WH stated that the President considers it the highest priority to respond quickly and comprehensively to any request from Japan. The Prime Minister's request for truck/s with capacity to pump water at high pressure was specifically discussed.

-- OSD also stated that **USFJ has appropriate authority** to transfer diesel-driven pumps (in this case, a fire truck) to Japan for use in this nuclear emergency.

-- **USFJ/J4 has notified us that the have a fire truck available and they are starting to move it to the affected area.** MOFA has not yet responded to their request for a police escort to expedite the transit, but the "pumper" is en route and USFJ will continue to coordinate for a lash up with an escort.

-- In post-VTC discussions, Jim Trapp (NRC liaison on the DART) advised that **three diesel-driven pumps should be the target number** in responding to this request. **USFJ should look for at least two additional diesel-driven pumps to provide** to Fukushima site ASAP.

-- NRC also advised that to help Japan provide coolant to the reactor, **they need more than diesel-driven pumps**. The VTC participants agreed that the **U.S. military forces should immediately look for ways to provide the following** to the Fukushima site:

-- diesel-driven pump
-- AC power
-- DC power
-- nitrogen/air

--For further coordination on what kinds of solutions the U.S. military can offer to the Japanese to address this urgent issue, it will be useful for USFJ/J4 (who is in touch with the TEPCO personnel) to coordinate with the U.S. Army Corps of Engineers and NRC experts.

We appreciate OSD's outreach to find an Army Corps of Engineers POC to share with the group.

The NRC Chairman, Greg Jaczko, can also offer advice. I've copied his team and him on this email. Their watch can be reached via (301) 816-5100.

The USFJ POC is the J4, Colonel Everett McDaniel. Everett can be reached at DSN 315-225-4712/4705/4713. His commercial number is: 011-81-3-1175-54712/54705/54713. His cell number is: (b)(6) If you can't reach him, the USFJ watch is: DSN: 225-4223 and they can track him down.

The Mission Japan Emergency Command Center is copied above and can be reached at 03-3224-5530, commercial 81-3-3224-5530 if any additional coordination is necessary.

Thank you all for your assistance. It's great to hear one pumper is on the way – appreciate everyone's help in trying to find additional support during this urgent window.

Suzanne

Suzanne I. Basalla
Senior Advisor to Ambassador John V. Roos
American Embassy - Tokyo

Please follow Ambassador Roos on Twitter.com/AmbassadorRoos

Tel: 081-3-3224-5023
Fax: 081-3-3224-5312
BasallaSI@state.gov

SBU
This email is UNCLASSIFIED.

From: HOO Hoc
Sent: Tuesday, March 15, 2011 10:37 AM
To: PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: FW: GOJ urgent request for water pumping capacity - follow up 1
Attachments: image001.jpg

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo@nrc.sgov.gov

U.S.NRC
Protecting People and the Environment

From: Marshall, Jane
Sent: Tuesday, March 15, 2011 10:23 AM
To: HOO Hoc
Subject: Re: GOJ urgent request for water pumping capacity - follow up 1

Yep- we did that...
Sent from my NRC Blackberry

From: HOO Hoc
To: PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Sent: Tue Mar 15 09:56:25 2011
Subject: FW: GOJ urgent request for water pumping capacity - follow up 1

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

U.S.NRC
Protecting People and the Environment

From: Batkin, Joshua
Sent: Tuesday, March 15, 2011 9:54 AM

++ | 21

To: Weber, Michael; HOO Hoc
Subject: Fw: GOJ urgent request for water pumping capacity - follow up 1

In case you don't have this

Joshua C. Batkin
Chief of Staff
Chairman Gregory B. Jaczko
(301) 415-1820

From: Jaczko, Gregory
To: Coggins, Angela; Batkin, Joshua; Pace, Patti
Sent: Tue Mar 15 07:53:16 2011
Subject: FW: GOJ urgent request for water pumping capacity - follow up 1

From: Ulses, Anthony
Sent: Tuesday, March 15, 2011 7:50:32 AM
To: (b)(6)
(b)(6)

Cc: (b)(6)
(b)(6)
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1
Auto forwarded by a Rule

COL McDaniel/Team USFJ,

Please see the enclosed information. Please advise how best to proceed.

Thank you,

Tony Ulses

Jim and Tony,

Alex Robinson of the DTRA Military Command Center (in Japan) called and said that he has a representative with him from the Japanese military civil defense unit (Ichikawa). They have "4 pumps coming" and want to know if this would "solve the problem." Alex Robinson has a contact with Tepco at the reactor site and could try to make this happen, if you believe it would help.

Please call him—he is having trouble reaching you. Alex's number is dsn (b)(6)

Thank you.

From: Basalla, Suzanne I [BasallaSI@state.gov]
Sent: Tuesday, March 15, 2011 6:59 AM
To: (b)(6)
(b)(6)

Cc: (b)(6)
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

COL McDaniel/Team USFJ – Tony Ulses, our NRC Liaison, has a lead on a very promising equipment to help solve this problem. He'll shortly forward you the information. Hope this can be of use. Thanks for the continued support.

Suzanne

SBU
This email is UNCLASSIFIED.

From: Basalla, Suzanne I
Sent: Tuesday, March 15, 2011 12:24 AM
To: (b)(6)
(b)(6)

Cc: (b)(6)
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Thank you. We look forward to the list of equipment and additional advice.

SBU
This email is UNCLASSIFIED.

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: Tuesday, March 15, 2011 12:16 AM
To: (b)(6)
(b)(6)

Cc: (b)(6)
Subject: RE: GOJ urgent request for water pumping capacity - follow up 1

Hi Suzanne,
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Hope this helps,
Rani Franovich
Liaison Team Coordinator
U.S. Nuclear Regulatory Commission

From: Basalla, Suzanne I [mailto:BasallaSI@state.gov]
Sent: Monday, March 14, 2011 10:39 AM

To: (b)(6)
(b)(6)

Cc: (b)(6)
Subject: GOJ urgent request for water pumping capacity - follow up 1

All,

(Ron/Aleshia, please pass to Jim Trapp. USFJ – please pass to appropriate person at PACOM.)

As an update based on tonight's White House led interagency VTC and other discussions:

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-- diesel-driven pump
-- AC power
-- DC power
-- nitrogen/air

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We appreciate OSD's outreach to find an Army Corps of Engineers POC to share with the group.

The NRC Chairman, Greg Jaczko, can also offer advice. I've copied his team and him on this email. Their watch can be reached via (301) 816-5100.

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The Mission Japan Emergency Command Center is copied above and can be reached at 03-3224-5530, commercial 81-3-3224-5530 if any additional coordination is necessary.

Thank you all for your assistance. It's great to hear one pumper is on the way – appreciate everyone's help in trying to find additional support during this urgent window.

Suzanne

Suzanne I. Basalla

Senior Advisor to Ambassador John V. Roos
American Embassy - Tokyo

Please follow Ambassador Roos on Twitter.com/AmbassadorRoos

Tel: 081-3-3224-5023
Fax: 081-3-3224-5312
BasallaSI@state.gov

SBU
This email is UNCLASSIFIED.

Jackson, Karen

From:	Trapp, James
Sent:	Tuesday, March 15, 2011 7:33 PM
To:	LIA01 Hoc; LIA07 Hoc; LIA02 Hoc; LIA08 Hoc; Harrington, Holly; McIntyre, David; Burnell, Scott; Taylor, Robert; Marshall, Jane; Gott, William; Grant, Jeffery
Subject:	FW: Updates: 4 reactor

From: Ulses, Anthony
Sent: Tuesday, March 15, 2011 7:29 PM
To: Trapp, James
Subject: Fw: Updates: 4 reactor

Sent from NRC BlackBerry
Anthony Ulses
(b)(6)

PII

----- Original Message -----
From: Cherry, Ronald C <CherryRC@state.gov>
To: Sano, Mikako <SanoMX@state.gov>; Russ Morales (b)(6) **; Ulses, Anthony; Duncan, Aleshia D <DuncanAD@state.gov>**
Sent: Tue Mar 15 19:14:47 2011
Subject: RE: Updates: 4 reactor

Thanks, Sano-san.

This email is UNCLASSIFIED

-----Original Message-----
From: Sano, Mikako
Sent: Wednesday, March 16, 2011 8:14 AM
To: 'Russ Morales'; anthony.ulses@nrc.gov; Duncan, Aleshia D; Cherry, Ronald C
Subject: Updates: 4 reactor

Wednesday, March 16, 2011

Fire Breaks Out Again At Fukushima's No. 4 Reactor: TEPCOTOKYO (Kyodo)--A fire broke out again early Wednesday at the troubled No. 4 reactor of the quake-hit Fukushima No. 1 nuclear power plant, Tokyo Electric Power Co. said.

Around 5:45 a.m., a worker at the plant saw flames on the fourth floor of the reactor's building, believed to be the same spot where an apparent hydrogen explosion caused a fire Tuesday morning in the wake of last Friday's magnitude 9.0 earthquake.

The plant operator said it has reported the incident to firefighters and local governments.

ttt/38

On Tuesday, the utility said water in a pool storing spent nuclear fuel rods at the reactor may be boiling and its level has dropped, exposing the rods, prompting the government to order Tokyo Electric to inject water into the pool "as soon as possible to avert a major nuclear disaster."

Unless the spent fuel rods are cooled down, they could be damaged and emit radioactive substances.

Mikako Sano, Scientific Affairs Analyst
Environment, Science,Technology & Health Unit Economic Affairs Sec. The US Embassy Tokyo
(T) +81-3-3224-5494 (F) +81-3-3224-5229
E-mail: sanomx@state.gov

-----Original Message-----
From: Russ Morales (b)(6)
Sent: Tuesday, March 15, 2011 11:45 PM
To: anthony.ulses@nrc.gov; Duncan, Aleshia D; Cherry, Ronald C
Cc: Sano, Mikako
Subject: 4 reactor

Folks,,

Just watching the Japanese news at home now and they are reporting this:

They are looking at using fire-fighting helos to lift water and drop it into the pool at reactor 4. There is a hole in the roof and they can drop the water through this hole.

If this does not work, they will try to spray water with a firefighting truck through an 8 meter hole in wall of the #4 reactor to get water into the pool.

Both seem like a bit out of the box solutions and the seem reasonable to a lay-person like me--if they can maintain a high enough rate to overcome boil-off. The news report pointed out, however, how dangerous it would be for the helicopter crew.

Russ

From: HOO Hoc
Sent: Wednesday, March 16, 2011 1:42 PM
To: ET07 Hoc; OST02 HOC; OST05 Hoc; PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: FW: 0200 SPEEDI Data, unzipped
Attachments: FUKUSHIMA1 wind(02hüj.gif; FUKUSHIMA1 air concentrationüi02-03hüj.gif; FUKUSHIMA1 air concentrationüi03-04hüj.gif; FUKUSHIMA1 air concentrationüi04-05hüj.gif; FUKUSHIMA1 air doseüi02-03hüj.gif; FUKUSHIMA1 air doseüi03-04hüj.gif; FUKUSHIMA1 air doseüi04-05hüj.gif

-----Original Message-----
From: JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]
Sent: Wednesday, March 16, 2011 1:36 PM
To: (b)(6)
(b)(6)
Subject: 0200 SPEEDI Data, unzipped

Attached as requested, unzipped.

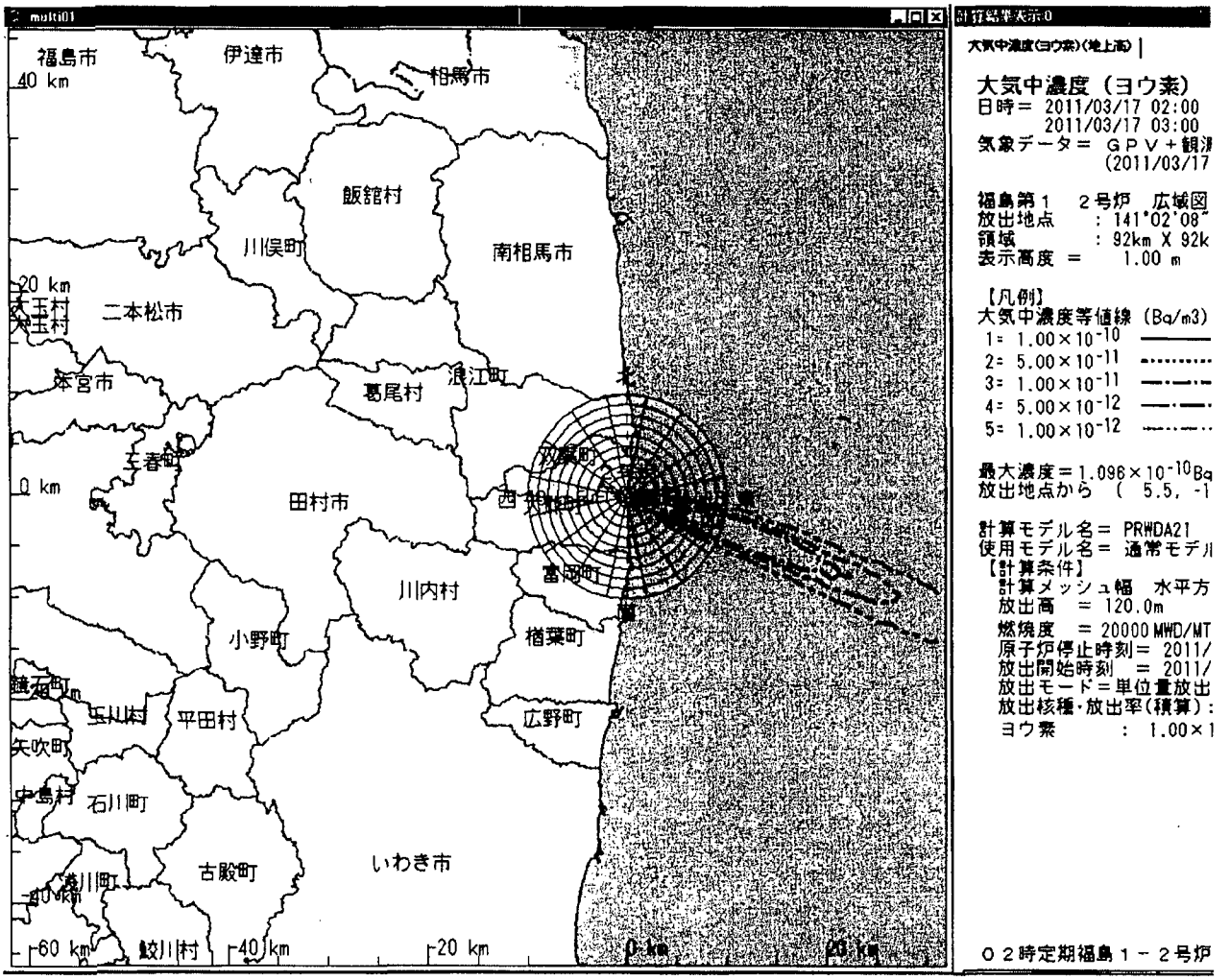
Tes Eustaquio
Operations Assistant
Japan Embassy Command Center
Telephone: 03-3224-5530
Email/Blackberry: EustaquioMV1@state.gov

SBU
This email is UNCLASSIFIED-----Original Message-----
From: nustec [mailto:spd01@nustec.or.jp]
Sent: Thursday, March 17, 2011 2:29 AM
To: (b)(6)
(b)(6)
NITOPS@nnsa.doe.gov; JapanEmbassy, TaskForce
Subject: 02時SPEEDI単位量放出図形イメージの送付

関係者各位

++/23

お世話になっております。
原子力安全技術センター　鬼島です。
３／１７　０２時のSPEEDI単位量放出図形のイメージデータを送付致します。
ご確認のほど、よろしくお願い致します。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伊達市
相馬市
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飯舘村
川俣町
南相馬市
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二本松市
大玉村
本宮市
葛尾村
浪江町
三春町
0 km
田村市
双葉町
大熊町
富岡町
川内村
小野町
楢葉町
鏡石町
玉川村
平田村
広野町
矢吹町
中島村
石川町
古殿町
いわき市
棚倉町
鮫川村
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20 km
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大気中濃度（ヨウ素）
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2011/03/17 03:00
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(2011/03/17
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放出地点 ： 141°02'08"
領域 ： 92km X 92k
表示高度 ＝ 1.00 m
【凡例】
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2= 5.00×10-11
3= 1.00×10-11
4= 5.00×10-12
5= 1.00×10-12
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放出地点から (5.5, -1
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使用モデル名＝ 通常モデル
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燃焼度 ＝ 20000 MWD/MT
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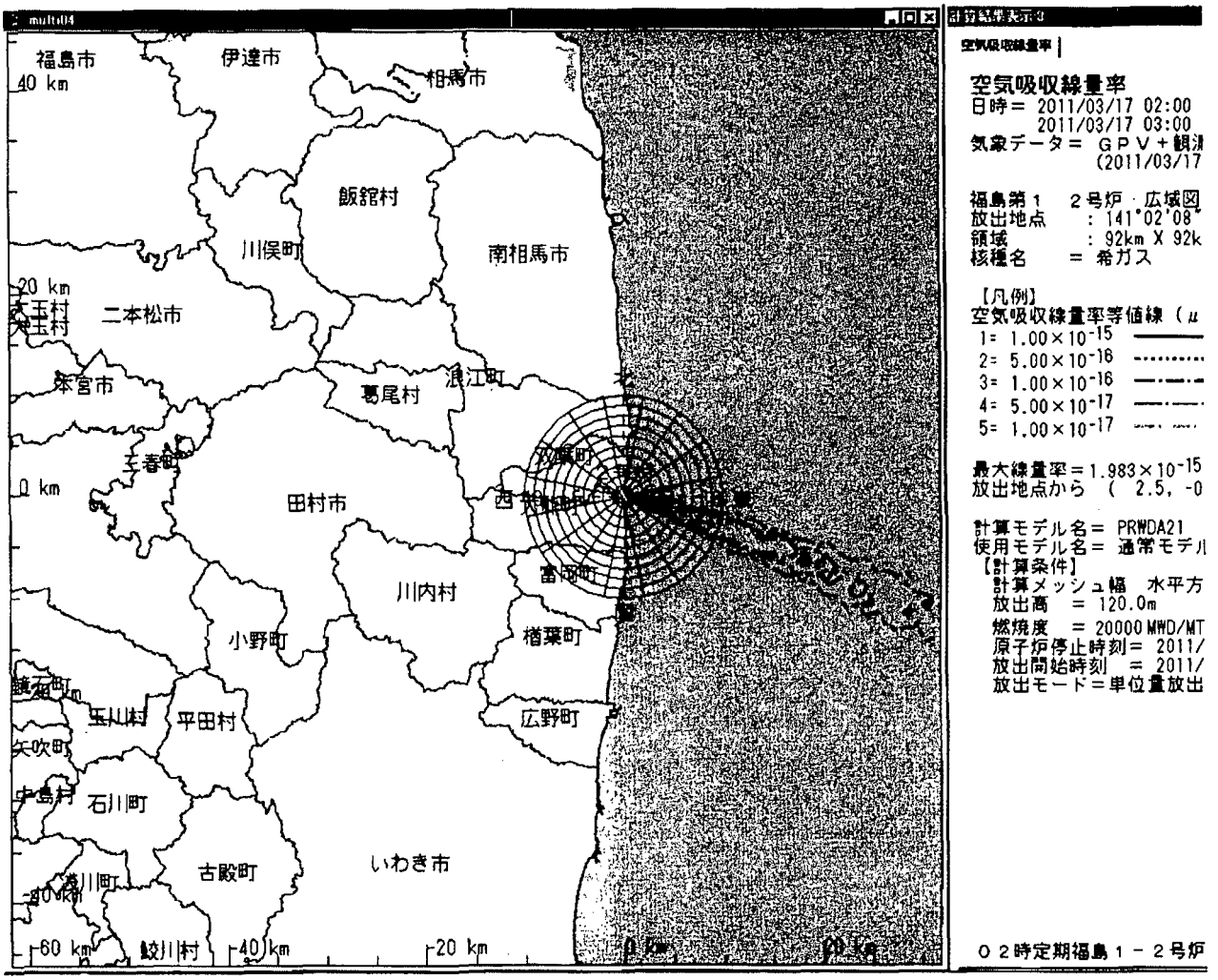
放出開始時刻 ＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素 ： 1.00×1
０２時定期福島１－２号炉


multi04
福島市
40 km
伊達市
相馬市
飯舘村
川俣町
南相馬市
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二本松市
本宮市
葛尾村
浪江町
0 km
田村市
川内村
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
計算結果表示3
空気吸収線量率
空気吸収線量率等値線（μ
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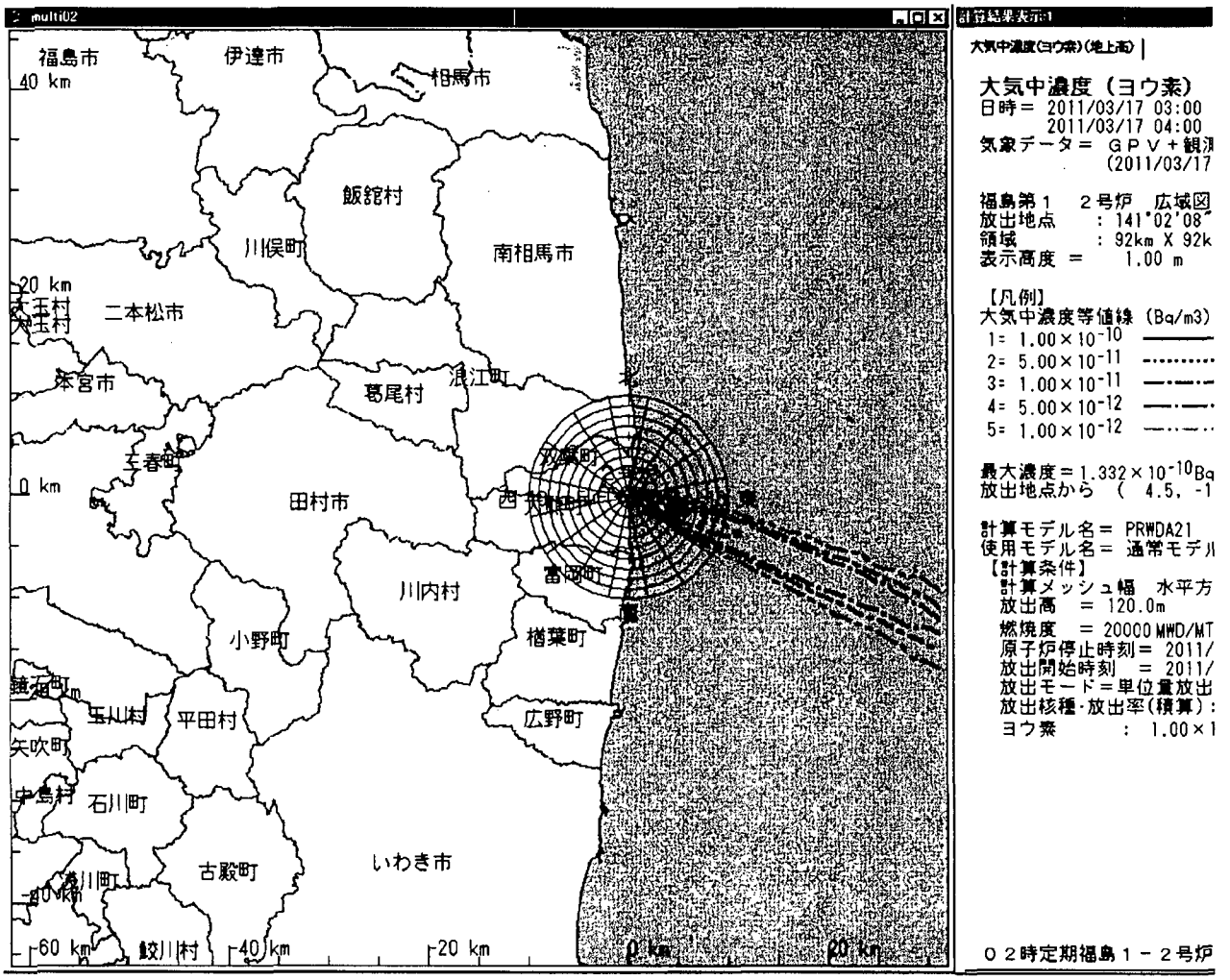
2= 5.00×10-16
3= 1.00×10-16
4= 5.00×10-17
5= 1.00×10-17
【計算条件】
02時定期福島１－２号炉


multi02
福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
田村市
川内村
富岡町
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
石川町
古殿町
いわき市
鮫川村
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60 km
40 km
20 km
0 km
20 km
計算結果表示:1
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大気中濃度（ヨウ素）
日時＝ 2011/03/17 03:00
2011/03/17 04:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１　２号炉　広域図
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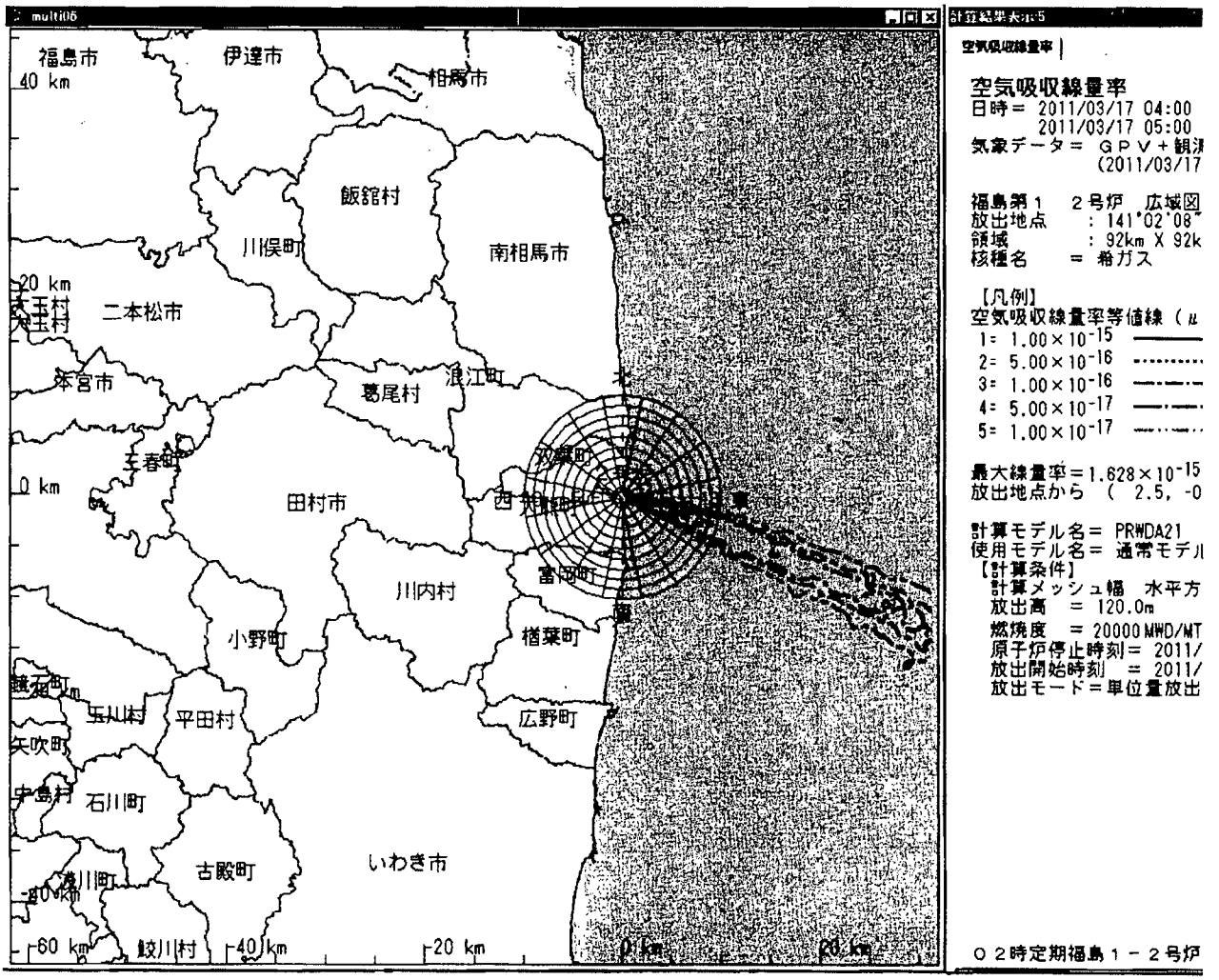
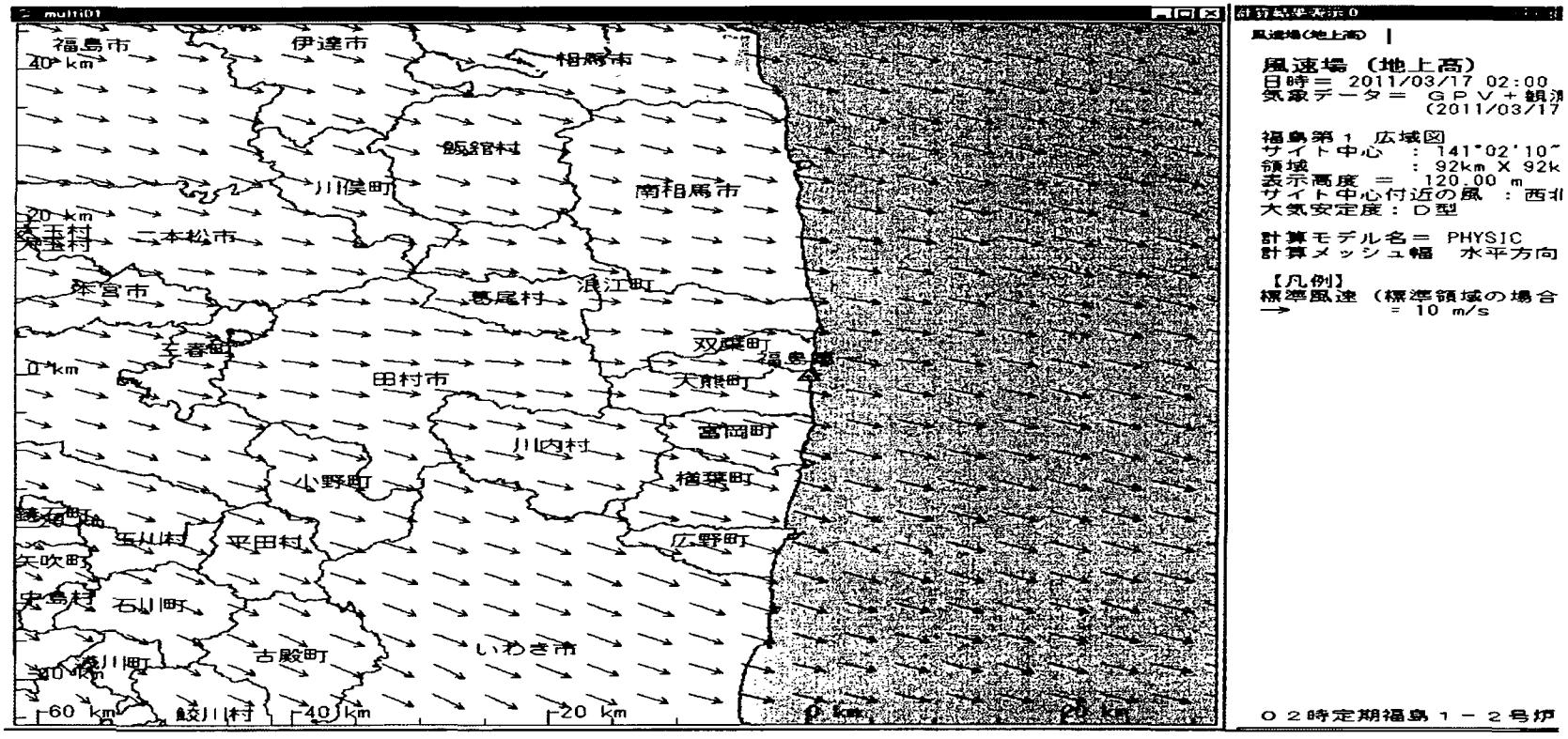
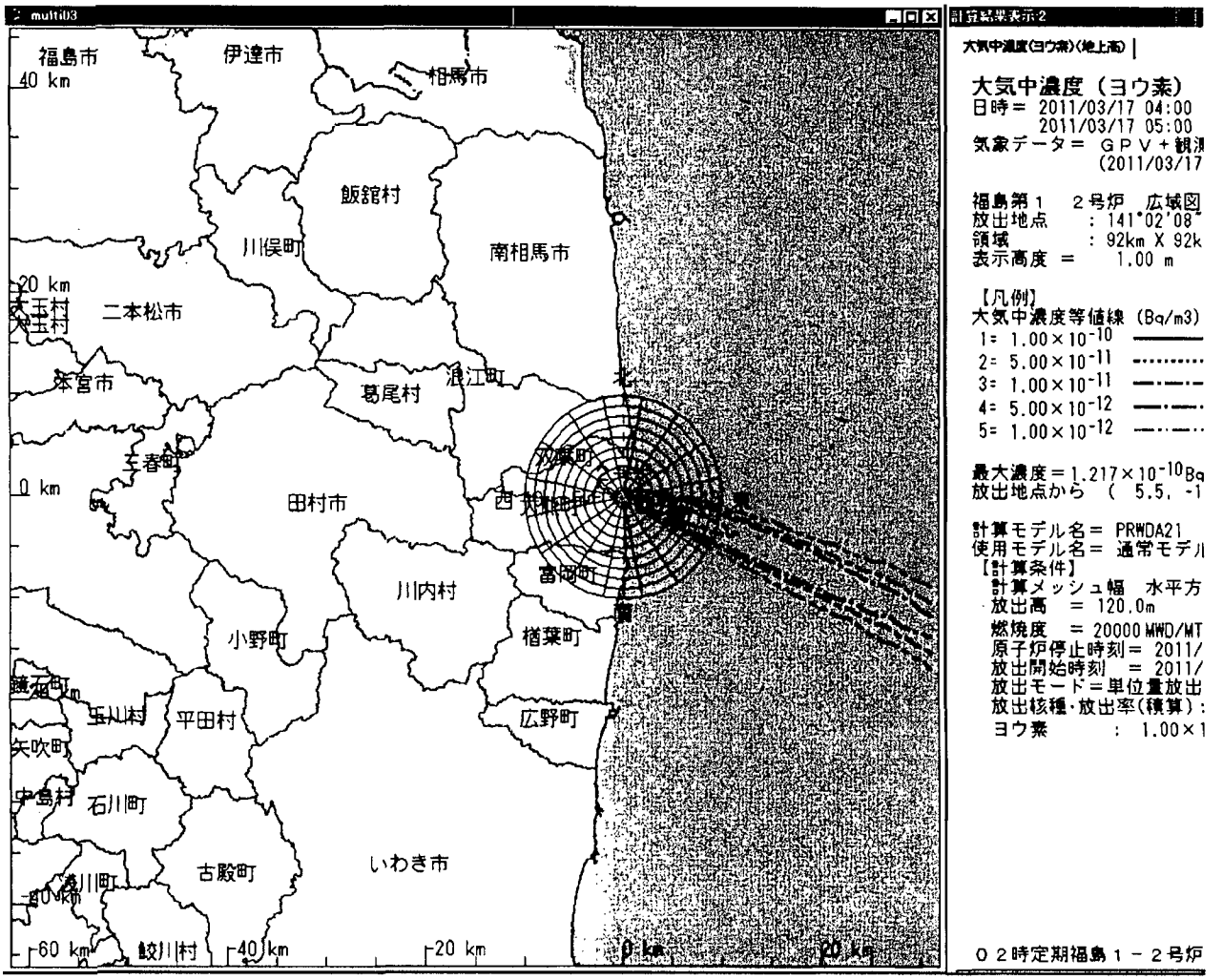
2= 5.00×10-11
3= 1.00×10-11
4= 5.00×10-12
5= 1.00×10-12
最大濃度＝1.332×10-10Bq
放出地点から （ 4.5, -1
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 120.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算):
ヨウ素　: 1.00×1
０２時定期福島１－２号炉


multi06
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
大玉村
本宮市
葛尾村
浪江町
双葉町
0 km
田村市
川内村
富岡町
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
計算結果表示:5
空気吸収線量率
空気吸収線量率
日時＝ 2011/03/17 04:00
2011/03/17 05:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-15
2= 5.00×10-16
3= 1.00×10-16
4= 5.00×10-17
5= 1.00×10-17
最大線量率＝1.628×10-15
放出地点から（ 2.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 120.0m
燃焼度　＝ 20000MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
０２時定期福島１－２号炉


multi01
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
双葉町
福島第一
大熊町
田村市
富岡町
川内村
小野町
楢葉町
平田村
広野町
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
0 km
風速場(地上高)
風速場（地上高）
日時＝ 2011/03/17 02:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１ 広域図
サイト中心 ： 141°02'10"
領域 ： 92km X 92k
表示高度 ＝ 120.00 m
サイト中心付近の風 ：西北
大気安定度：Ｄ型
計算モデル名＝ PHYSIC
計算メッシュ幅 水平方向
【凡例】
標準風速（標準領域の場合
→ ＝ 10 m/s
０２時定期福島１－２号炉


multi03
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
双葉町
0 km
田村市
川内村
富岡町
楢葉町
小野町
広野町
平田村
玉川村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
計算結果表示:2
大気中濃度(ヨウ素)(地上面)
大気中濃度（ヨウ素）
日時＝ 2011/03/17 04:00
2011/03/17 05:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１　２号炉　広域図
放出地点　: 141°02'08"
領域　: 92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-10
2= 5.00×10-11
3= 1.00×10-11
4= 5.00×10-12
5= 1.00×10-12
最大濃度＝1.217×10-10Bq
放出地点から　(5.5, -1
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 120.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算):
ヨウ素　: 1.00×1
０２時定期福島１－２号炉

From: HOO Hoc
Sent: Wednesday, March 16, 2011 3:02 PM
To: ET07 Hoc; OST02 HOC; OST05 Hoc; PMT01 Hoc; RST01 Hoc; LIA01 Hoc; LIA02 Hoc; LIA04 Hoc; LIA07 Hoc; LIA11 Hoc; LIA12 Hoc; Gott, William; Marshall, Jane; McDermott, Brian; Morris, Scott; Thorp, John
Subject: FW: 0300 SPEEDI Data
Attachments: FUKUSHIMA1 air doseüi04-05hüj.gif; FUKUSHIMA1 air doseüi05-06hüj.gif; FUKUSHIMA1 wind(03hüj.gif; FUKUSHIMA1 air concentrationüi05-06hüj.gif; FUKUSHIMA1 air concentrationüi04-05hüj.gif; FUKUSHIMA1 air concentrationüi03-04hüj.gif; FUKUSHIMA1 air doseüi03-04hüj.gif

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

-----Original Message-----
From: JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]
Sent: Wednesday, March 16, 2011 2:58 PM
To: (b)(6)
(b)(6)
(b)(6)
Subject: 0300 SPEEDI Data

0300 SPEEDI Data, unzipped.

SBU
This email is UNCLASSIFIED

Jerome Ryan
Political Officer
U.S. Embassy Tokyo
1-10-5, Akasaka 1-Chome, Minato-Ku, Tokyo 107
tel:(81)(03)3224-5343
fax:(81)(03)3224-5322
http://japan.usembassy.gov/

-----Original Message-----

+++124

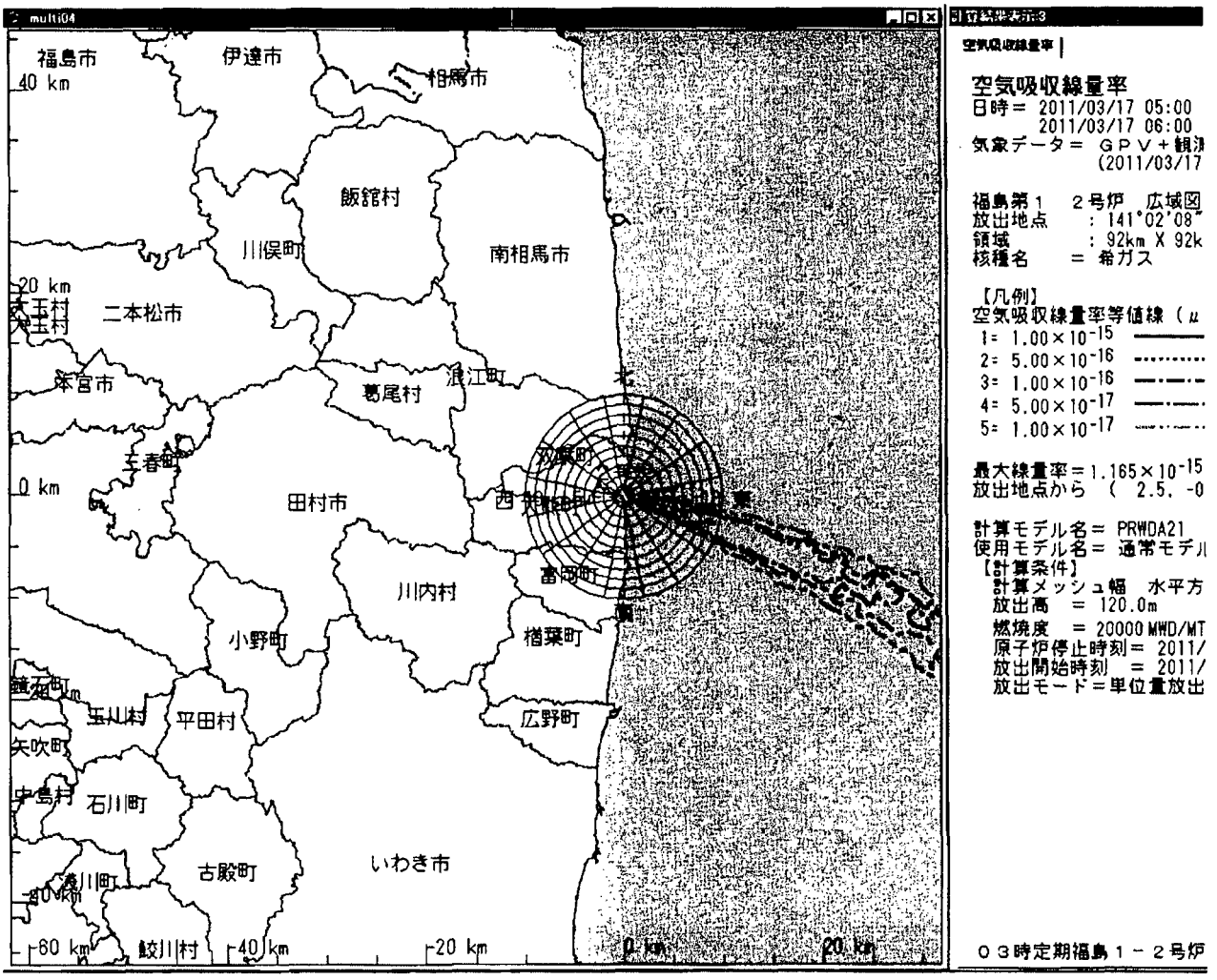
From: nustec [mailto:spd01@nustec.or.jp]
Sent: Thursday, March 17, 2011 3:41 AM
To: (b)(6)
(b)(6)

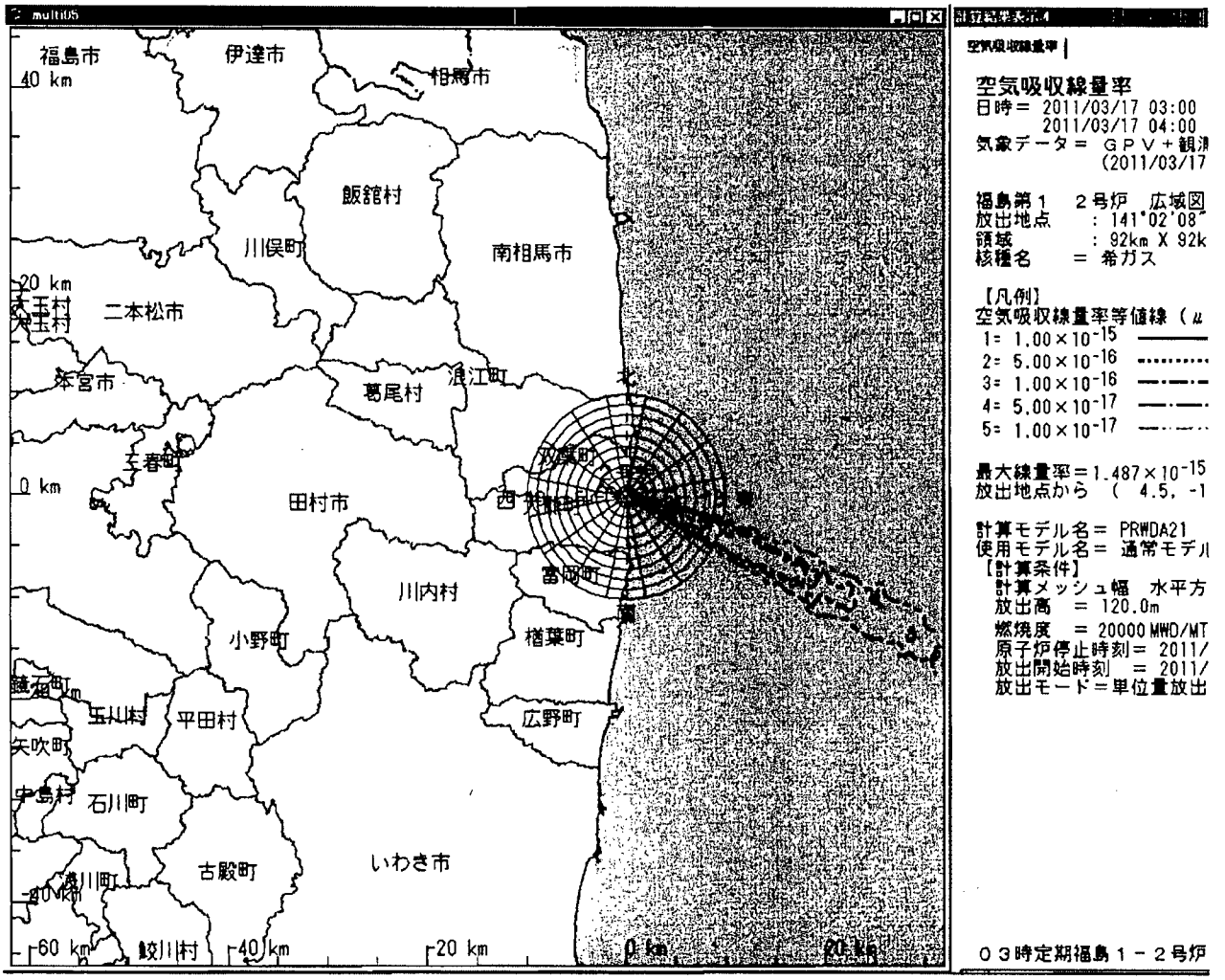
Subject: 03時SPEEDI単位量放出図形イメージの送付

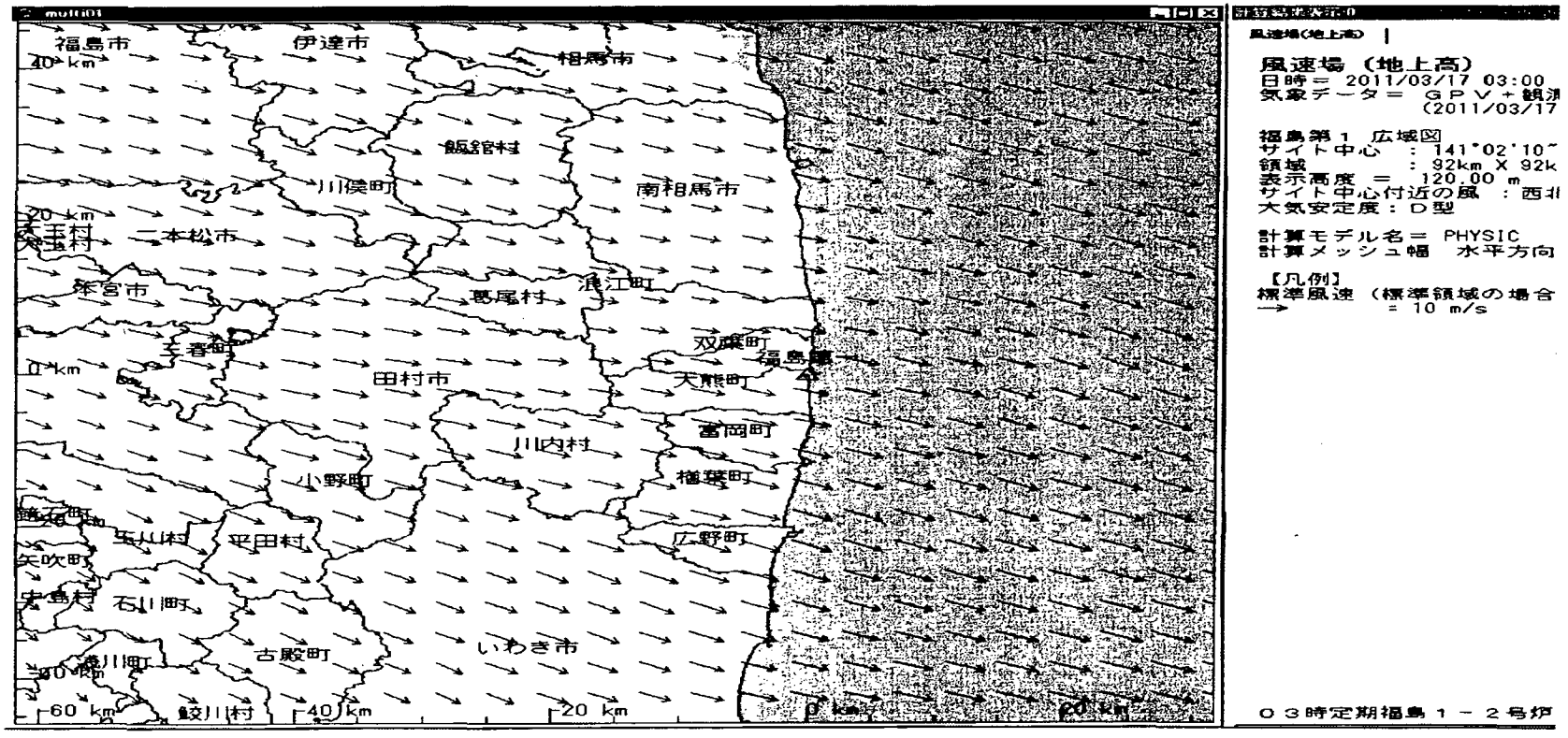
関係者各位

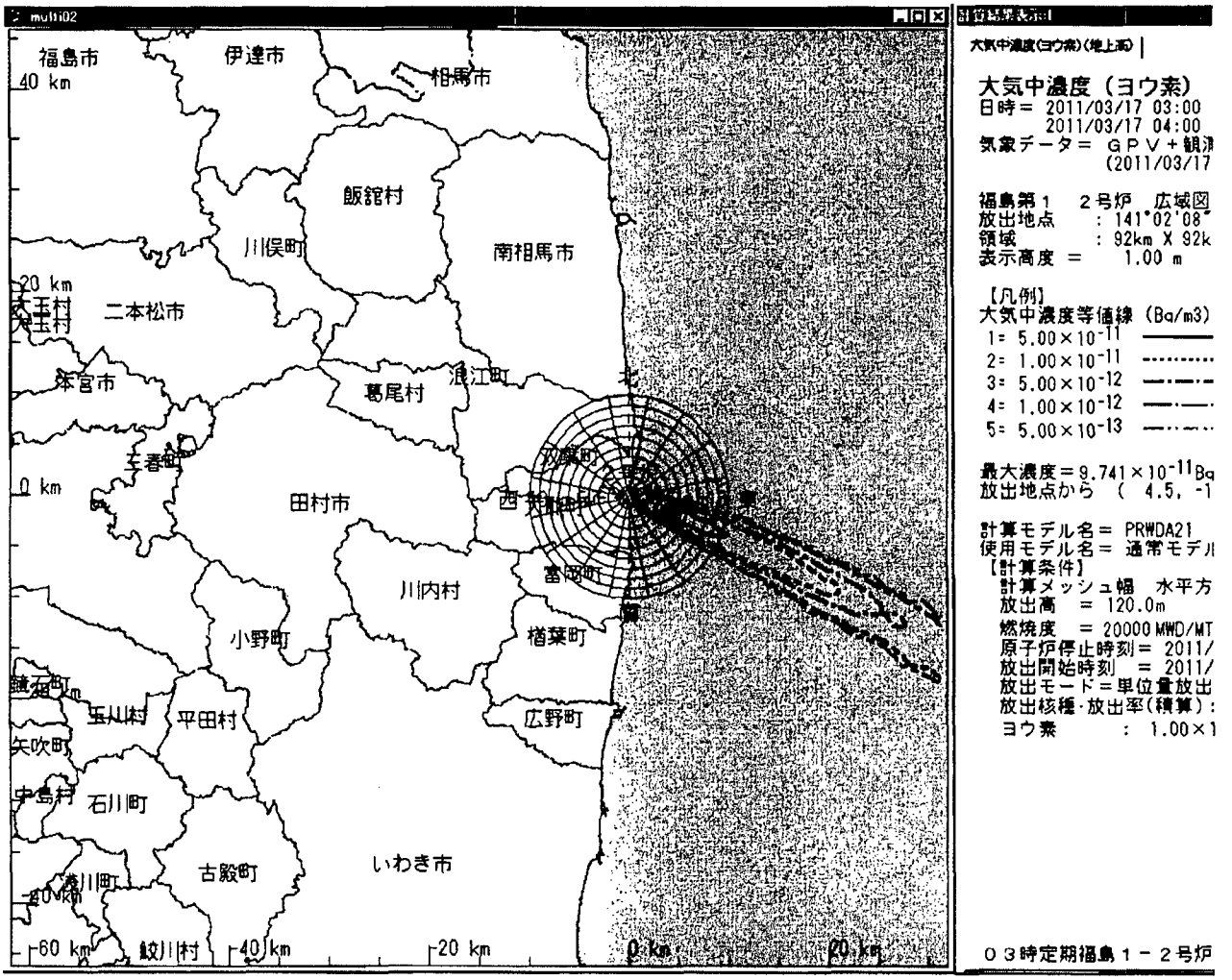
10/5066

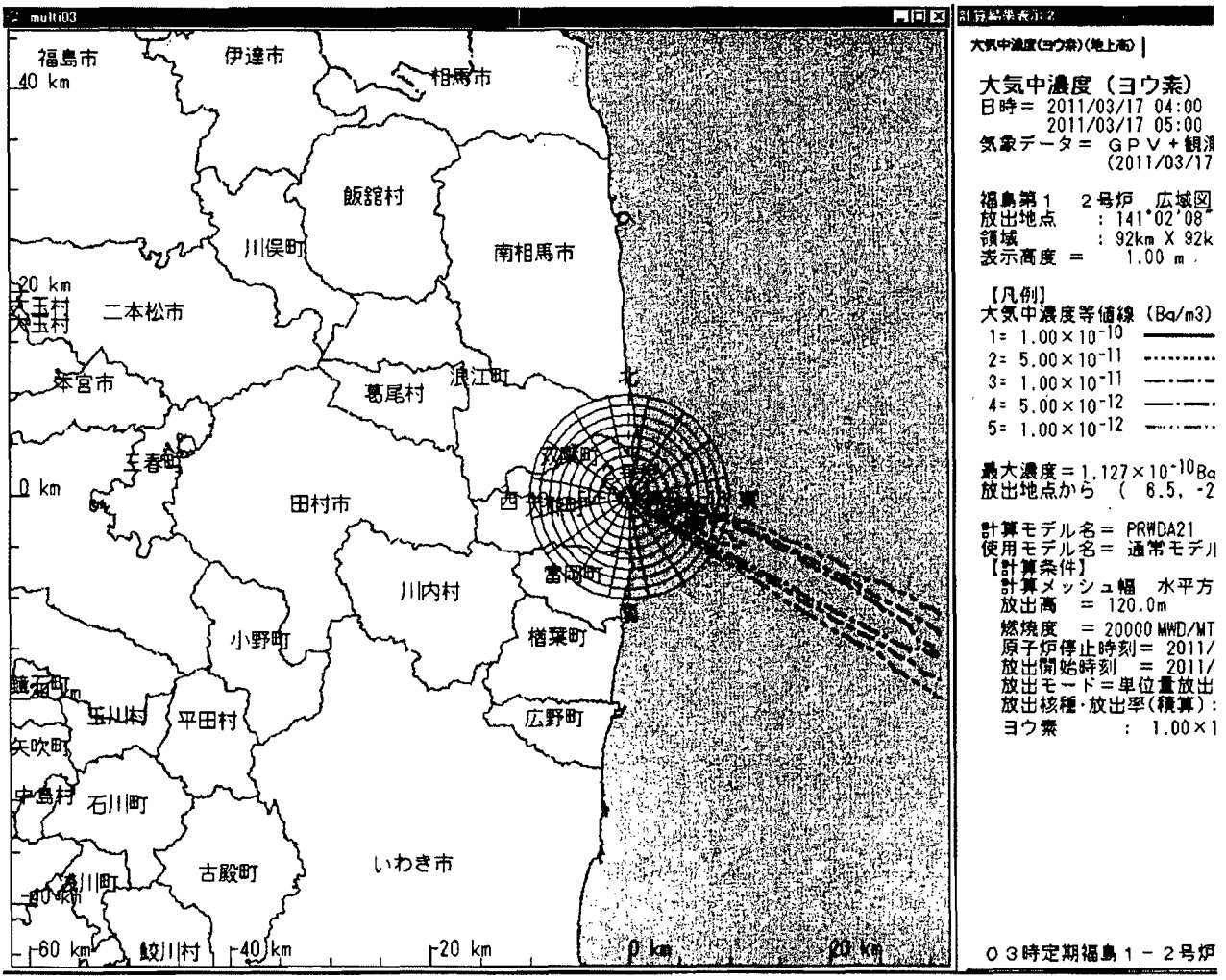
お世話になっております。
原子力安全技術センター　鬼島です。
３／１７　０３時のSPEEDI単位量放出図形のイメージデータを送付致します。
ご確認のほど、よろしくお願い致します。

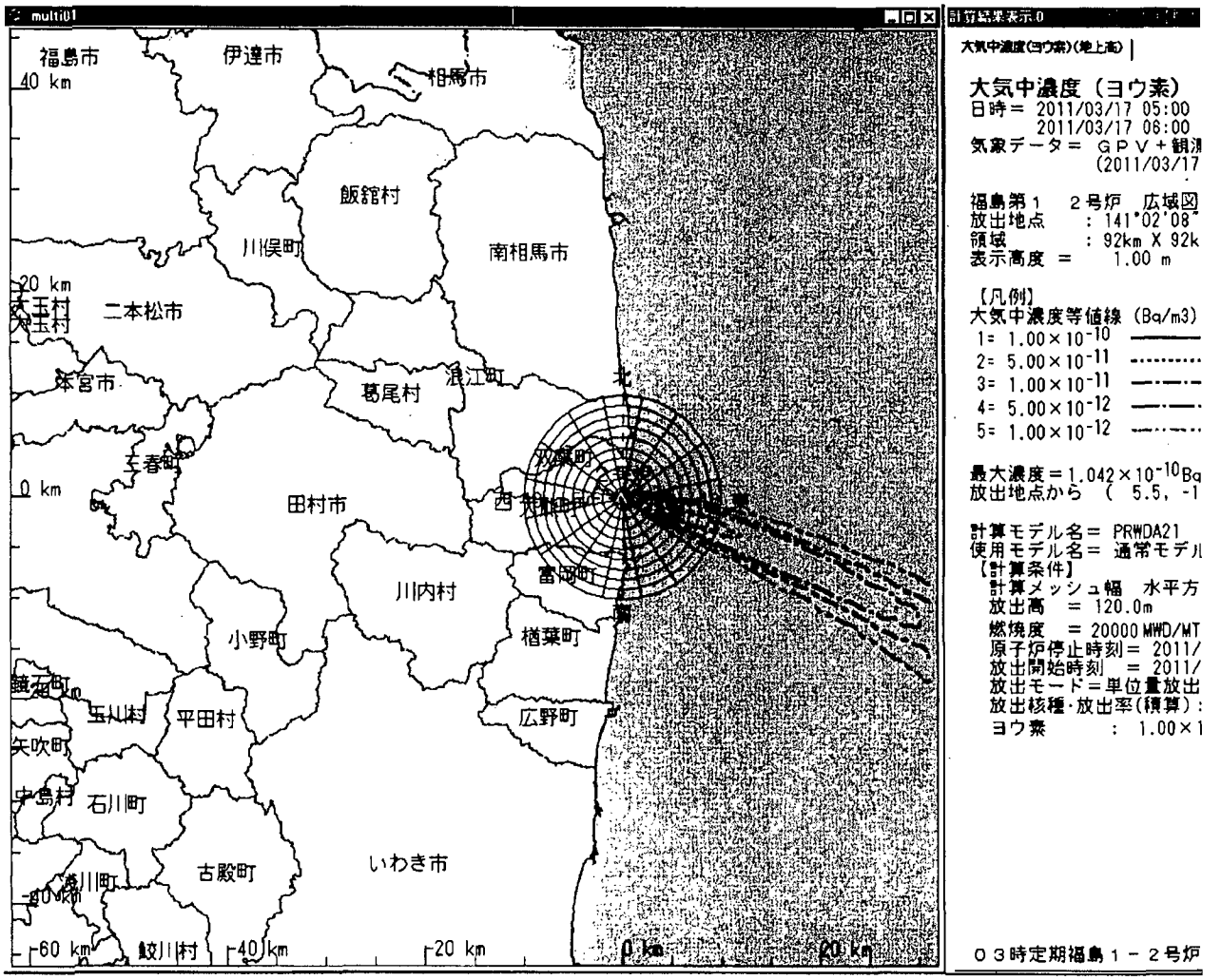

multi04
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
0 km
田村市
川内村
小野町
楢葉町
広野町
玉川村
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
空気吸収線量率
日時＝ 2011/03/17 05:00
2011/03/17 06:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-15
2= 5.00×10-16
3= 1.00×10-16
4= 5.00×10-17
5= 1.00×10-17
最大線量率＝1.165×10-15
放出地点から（ 2.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 120.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
０３時定期福島１－２号炉

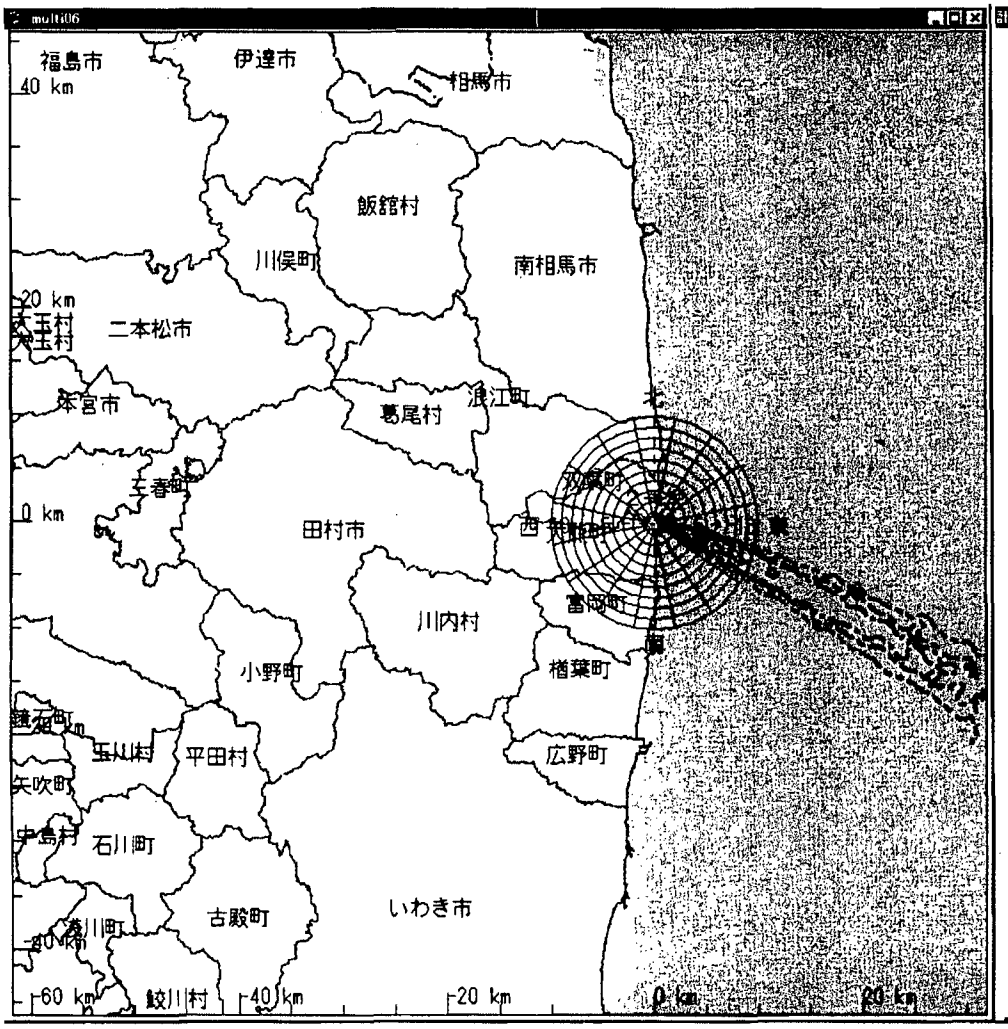

multi05
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
0 km
田村市
川内村
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
日時＝ 2011/03/17 03:00
2011/03/17 04:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１ ２号炉 広域図
放出地点 ： 141°02'08"
領域 ： 92km X 92k
核種名 ＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-15
2= 5.00×10-16
3= 1.00×10-16
4= 5.00×10-17
5= 1.00×10-17
最大線量率＝1.487×10-15
放出地点から （ 4.5, -1
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅 水平方
放出高 ＝ 120.0m
燃焼度 ＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻 ＝ 2011/
放出モード＝単位量放出
０３時定期福島１－２号炉


福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
葛尾村
浪江町
双葉町
福島第
田村市
大熊町
富岡町
川内村
小野町
楢葉町
平田村
広野町
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
風速場(地上高)
風速場（地上高）
日時＝ 2011/03/17 03:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１ 広域図
サイト中心 ： 141°02'10"
領域 ： 92km X 92k
表示高度 ＝ 120.00 m
サイト中心付近の風 ：西北
大気安定度：Ｄ型
計算モデル名＝ PHYSIC
計算メッシュ幅 水平方向
【凡例】
標準風速 （標準領域の場合
→ ＝ 10 m/s
０３時定期福島１－２号炉


multi02
福島市
40 km
伊達市
相馬市
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
0 km
田村市
川内村
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
大気中濃度(ヨウ素)(地上面)
大気中濃度（ヨウ素）
日時＝ 2011/03/17 03:00
2011/03/17 04:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１　２号炉　広域図
放出地点　: 141°02'08"
領域　: 92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等価線 (Bq/m3)
1= 5.00×10-11
2= 1.00×10-11
3= 5.00×10-12
4= 1.00×10-12
5= 5.00×10-13
最大濃度＝9.741×10-11Bq
放出地点から　(4.5, -1
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 120.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算):
ヨウ素　: 1.00×1
０３時定期福島１－２号炉


multi03
福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
田村市
川内村
富岡町
楢葉町
小野町
広野町
平田村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度(ヨウ素)(地上高)
大気中濃度（ヨウ素）
日時＝ 2011/03/17 04:00
2011/03/17 05:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１ ２号炉 広域図
放出地点 ：141°02'08"
領域 ：92km X 92k
表示高度 ＝ 1.00 m
【凡例】
大気中濃度等値線（Bq/m3）
1= 1.00×10-10
2= 5.00×10-11
3= 1.00×10-11
4= 5.00×10-12
5= 1.00×10-12
最大濃度＝1.127×10-10Bq
放出地点から （ 6.5, -2
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅 水平方
放出高 ＝ 120.0m
燃焼度 ＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻 ＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素 ： 1.00×1
０３時定期福島１－２号炉


multi01
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
北
双葉町
0 km
田村市
川内村
富岡町
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
計算結果表示:0
大気中濃度(ヨウ素)(地上高)
大気中濃度（ヨウ素）
日時＝ 2011/03/17 05:00
2011/03/17 06:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線（Bq/m3）
1= 1.00×10-10
2= 5.00×10-11
3= 1.00×10-11
4= 5.00×10-12
5= 1.00×10-12
最大濃度＝1.042×10-10Bq
放出地点から（ 5.5, -1
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 120.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算):
ヨウ素　：1.00×1
０３時定期福島１－２号炉



計算結果表示5

空気吸収線量率

空気吸収線量率

日時＝ 2011/03/17 04:00
2011/03/17 05:00
気象データ＝ ＧＰＶ＋観測
(2011/03/17

福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝ 希ガス

【凡例】
空気吸収線量率等値線（μ
1＝ 1.00×10^{-15}
2＝ 5.00×10^{-16}
3＝ 1.00×10^{-16}
4＝ 5.00×10^{-17}
5＝ 1.00×10^{-17}

最大線量率＝1.855×10^{-15}
放出地点から（ 4.5, -1

計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 120.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出

０３時定期福島１－２号炉

From: Herr, Linda
To: Ostendorff, William; Brenner, Eliot
Cc: Nieh, Ho
Sent: Wed Mar 16 10:09:53 2011
Subject: FW: Radio Interview

Sir:
I just rec'd this email thru SECY – I have cc:d Eliot Brenner. I'll wait for instructions, if any, from you.
Linda

From: CMROSTENDORFF Resource
Sent: Wednesday, March 16, 2011 10:08 AM
To: Herr, Linda
Subject: FW: Radio Interview

From: Angela Hoffman (b)(6)
Sent: Tuesday, March 15, 2011 7:01 PM
To: CMROSTENDORFF Resource
Subject: Radio Interview

Dear Public Affairs,

Please consider this a formal request for Labor of Commissioner William C. Ostendorff to appear as a guest on "Hutchinson Report" on either his KTYM 1460 AM Radio Show, Friday 9:30 to 10:00 AM PST and/or KPFK 90.7 FM, Saturday, from Noon to 1:00 PM PST. If your schedule does not permit an in studio or telephone guest appearance, we can pre-record an interview at any time or day for any length of time you choose to accommodate your schedule.

We appreciate your consideration.

The Hutchinson Report is one of Southern California's most popular, listened to news and public affairs talk shows on public radio in Southern California. The show is streamed worldwide on ktym.com and kpfk.org and internet TV simulcast on Hutchinsonreport.tv.

We will follow-up by phone within 24 hours to determine your availability.

Thank you
Angela

Angela Hoffman- Program Producer
"The Hutchinson Report"
KPFK 90.7 FM Los Angeles
323.630.2649 Direct

(b)(6)

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http://thehutchinsonreportnews.com

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http://twitter.com/earlhutchinson
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on ustream.tv

"Never mistake activity for achievement"

-Coach John Wooden

From: Monninger, John
Sent: Wednesday, March 16, 2011 10:12 PM
To: RST01 Hoc; Ruland, William; Bloom, Steven
Subject: Re: New question

Follow Up Flag: Follow up
Flag Status: Flagged

We were not able to arrange having hdqtrs on the meeting. They did say next meeting that will happen.
John Monninger
(b)(6)

----- Original Message -----
From: RST01 Hoc
To: Monninger, John
Sent: Wed Mar 16 20:29:54 2011
Subject: RE: New question

John,

Yes Bill Ruland is very interested in the call. Please call into RST for call if you can get TEPCO to talk to us.

Thank you
Steve

-----Original Message-----
From: Monninger, John
Sent: Wednesday, March 16, 2011 6:55 PM
To: Ruland, William; RST01 Hoc
Subject: Fw: New question

See below on equipment. They also mentloned needing installers and operators.
John Monninger
(b)(6)

----- Original Message -----
From: Doane, Margaret
To: Casto, Chuck; Monninger, John
Cc: Foggie, Kirk; Mamish, Nader
Sent: Wed Mar 16 13:45:17 2011
Subject: Re: New question

FYI-NRC went ahead and passed on to US industry a request for installers and operators, assuming that they can't use equip. without this additional assistance. Not sure if there will be any help.
Margie

Sent from an NRC Blackberry

XXX; 26

Margaret Doane

----- Original Message -----
From: Doane, Margaret
To: Casto, Chuck; Monninger, John
Cc: Foggie, Kirk
Sent: Wed Mar 16 12:07:47 2011
Subject: New question

Can you help us understand another request. We've been asked for installers and operators from the US in addition to the equipment. If we do not agree to give the installers and operators for obvious health concerns, is the equipment of any use to them? Maybe looking at it another way, is this equip. installation and operation universal, or so different from Jap. equip, that they can't know what to do with it.
Margie

Sent from an NRC Blackberry
Margaret Doane

Bozin, Sunny

From: Nieh, Ho
Sent: Wednesday, March 16, 2011 3:16 PM
To: Herr, Linda
Subject: Fw: Press Release: NRC Provides Protective Action Recommendations Based on U.S. Guidelines
Attachments: 11-050.pdf

Here's one.

Sent via BlackBerry

Ho Nieh
Chief of Staff
Office of Commissioner William C. Ostendorff
U.S. Nuclear Regulatory Commission
(301) 415-1811 (office)
(b)(6) (mobile)
(301) 415-1757 (fax)
ho.nieh@nrc.gov

From: Nieh, Ho
To: Bozin, Sunny
Sent: Wed Mar 16 14:57:42 2011
Subject: Fw: Press Release: NRC Provides Protective Action Recommendations Based on U.S. Guidelines

Can u print this two and the two calcs referenced - click on link in file.

Thx

Ho

Sent via BlackBerry

Ho Nieh
Chief of Staff
Office of Commissioner William C. Ostendorff
U.S. Nuclear Regulatory Commission
(301) 415-1811 (office)
(b)(6) (mobile)
(301) 415-1757 (fax)
ho.nieh@nrc.gov

From: OPA Resource
To: Ash, Darren; Barkley, Richard; Batkin, Joshua; Bell, Hubert; Belmore, Nancy; Bergman, Thomas; Bollwerk, Paul; Bonaccorso, Amy; Borchardt, Bill; Bozin, Sunny; Brenner, Eliot; Brock, Terry; Brown, Boris; Bubar, Patrice; Burnell, Scott; Burns, Stephen; Carpenter, Cynthia; Chandrathil, Prema; Clark, Theresa; Collins, Elmo; Couret, Ivonne; Crawford, Carrie; Cutler, Iris; Dacus, Eugene; Dapas, Marc; Davis, Roger; Dean, Bill; Decker, David; Dricks, Victor; Droggitis, Spiros; Flory, Shirley; Franovich, Mike; Gibbs, Catina; Haney, Catherine; Hannah, Roger; Harbuck, Craig; Harrington, Holly; Hasan, Nasreen; Hayden, Elizabeth; Holahan, Gary; Holahan, Patricia; Holian, Brian; Jacobssen, Patricia; Jaczko, Gregory; Jasinski, Robert; Jenkins, Verlyn; Johnson, Michael; Jones, Andrea; Kock, Andrea; Kotzalas, Margie; Ledford, Joey; Lee, Samson; Leeds, Eric; Lepre, Janet; Lew, David; Lewis, Antoinette; Loyd, Susan; Magwood, William; McCrary, Cheryl; McGrady-Finneran, Patricia; McIntyre, David; Mensah, Tanya; Mitlyng, Viktoria; Monninger, John; Montes, David; Nieh, Ho; Ordaz, Vonna; Ostendorff, William; Owen, Lucy; Powell, Amy; Quesenberry, Jeannette; Reddick, Darani; Regan, Christopher; Reyes, Luis; Riddick, Nicole; RidsSecyMailCenter Resource; Riley (OCA), Timothy; Rohrer, Shirley; Samuel,

++/21

Olive; Satorius, Mark; Schaaf, Robert; Schmidt, Rebecca; Scott, Catherine; Screnci, Diane; Shaffer, Vered; Shane, Raeann; Sharkey, Jeffry; Sheehan, Neil; Sheron, Brian; Siurano-Perez, Osiris; Steger (Tucci), Christine; Svinicki, Kristine; Tabatabai, Omid; Tannenbaum, Anita; Taylor, Renee; Temp, WDM; Thomas, Ann; Uhle, Jennifer; Uselding, Lara; Vietti-Cook, Annette; Virgillo, Martin; Virgillo, Rosetta; Walker-Smith, Antoinette; Weaver, Doug; Weber, Michael; Weil, Jenny; Werner, Greg; Wiggins, Jim; Williams, Evelyn; Zimmerman, Roy; Zorn, Jason
Sent: Wed Mar 16 13:55:20 2011
Subject: Press Release: NRC Provides Protective Action Recommendations Based on U.S. Guidelines

For immediate release.

Office of Public Affairs
US Nuclear Regulatory Commission
301-415-8200
opa.resource@nrc.gov

NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Telephone: 301/415-8200
Washington, D.C. 20555-0001
E-mail: opa.resource@nrc.gov Site: www.nrc.gov
Blog: http://public-blog.nrc-gateway.gov

No. 11-050 March 16, 2011

NRC PROVIDES PROTECTIVE ACTION RECOMMENDATIONS BASED ON U.S. GUIDELINES

Under the guidelines for public safety that would be used in the United States under similar circumstances, the NRC believes it is appropriate for U.S. residents within 50 miles of the Fukushima reactors to evacuate.

Among other things, in the United States protective actions recommendations are implemented when projected doses could exceed 1 rem to the body or 5 rem to the thyroid. A rem is a measure of radiation dose. The average American is exposed to approximately 620 millirems, or 0.62 rem, of radiation each year from natural and manmade sources.

In making protective action recommendations, the NRC takes into account a variety of factors that include weather, wind direction and speed, and the status of the problem at the reactors.

Attached are the results of two sets of computer calculations used to support the NRC recommendations.

In response to nuclear emergencies, the NRC works with other U.S. agencies to monitor radioactive releases and predict their path. All the available information continues to indicate Hawaii, Alaska, the U.S. Territories and the U.S. West Coast are not expected to experience any harmful levels of radioactivity.

###

From: OST02 HOC
Sent: Thursday, March 17, 2011 9:13 PM
To: ET03 Hoc
Subject: FW: Revised to add Utilities - ADM Costs Incurred for Support Activities in Japan

From: Ross-Lee, MaryJane
Sent: Thursday, March 17, 2011 8:54 PM
To: OST02 HOC
Subject: Fw: Revised to add Utilities - ADM Costs Incurred for Support Activities in Japan

Sent from my blackberry
MJ (b)(6)

From: Bellosi, Susan
To: Golder, Jennifer
Cc: Stewart, Sharon; Gusack, Barbara; Dambly, Jan; Meyer, David; Schoenmann, Sandra; Pretzello, Andrew; Ross-Lee, MaryJane; Rowhani, Bahman; Brown, Milton; Murray, Heather; Allwein, Russell
Sent: Wed Mar 16 11:53:53 2011
Subject: RE: Revised to add Utilities - ADM Costs Incurred for Support Activities in Japan

Jennifer,

The Business Line is Corporate Support and the Product Line is Administrative Services.

Answers to your other questions are below in red.

Susan

From: Golder, Jennifer
Sent: Wednesday, March 16, 2011 10:06 AM
To: Bellosi, Susan
Cc: Stewart, Sharon; Gusack, Barbara; Dambly, Jan; Meyer, David; Schoenmann, Sandra; Pretzello, Andrew; Ross-Lee, MaryJane; Rowhani, Bahman; Brown, Milton; Murray, Heather; Allwein, Russell
Subject: RE: Revised to add Utilities - ADM Costs Incurred for Support Activities in Japan

Hi Susan,

I have a few questions for you. Please see below

Jennifer Golder

Budget Director
Office of the Chief Financial Officer
United States Nuclear Regulatory Commission

XH/28

From: Bellosi, Susan
Sent: Wednesday, March 16, 2011 8:56 AM
To: Golder, Jennifer
Cc: Stewart, Sharon; Gusack, Barbara; Dambly, Jan; Meyer, David; Schoenmann, Sandra; Pretzello, Andrew; Ross-Lee, MaryJane; Rowhani, Bahman
Subject: Revised to add Utilities - ADM Costs Incurred for Support Activities in Japan

Below are the costs that ADM has incurred to support activities in Japan.

1. Transferring clearances for 11 people, - $5,500 ($500 per person)
2. Increased cleaning of the Op Center, rest rooms, etc., - $1,040 per week (how many weeks has this been scheduled) We are doing 2 extra cleanings per day and will continue for as long as necessary.
3. Utilities - $300 per day, $1,500 total so far
4. Driver for Chairman - $3,000 (what time period does this cover?) This covered Saturday, Sunday and Monday until 7:00 am, (3/12/11, 3/13/11, 3/14/11 am)
5. Parking for Ops Center staff – no costs to date. We plan to suspend daily parking beginning Monday, March 21 – If we do this, it will be $665 per week. (please let me know when this starts) Monday, March 21
6. Video activities in Ops Center on Saturday, 3/12/11 – photographer (3 hours) and videographer (5 hours), 8 hrs each @ $111.35/hr (OT) = $890.80 (are they staff or contractors?) Contractors

Let me know if you need any additional information.

Susan Bellosi
Technical Assistant
U.S. Nuclear Regulatory Commission
Office of Administration
Phone: 301-492-3514
Fax: 301-492-3456
e-mail: susan.bellosi@nrc.gov
Room: TWB-05-E35

From: LIA06 Hoc
Sent: Thursday, March 17, 2011 7:19 AM
To: 'INPO EmergencyResponseCtr (INPO)'
Cc: Virgilio, Martin; Miller, Chris; Casto, Chuck
Subject: RE: INPO Resources

Two things for INPO:

- Hold off on finding equipment for now as we are still finalizing the detailed equipment list.
- We do need a SAMG expert if you can provide one. Please give me any details regarding availability.

Thanks,

Mark Lombard, LT Director

From: Miller, Chris
Sent: Thursday, March 17, 2011 4:13 AM
To: 'INPO EmergencyResponseCtr (INPO)'; LIA06 Hoc; Casto, Chuck
Cc: Virgilio, Martin
Subject: RE: INPO Resources

Yes in the near term, someone with severe accident management background is what is being sought.
Thanks
chris

Christopher G. Miller
Deputy Director for Emergency Preparedness
US Nuclear Regulatory Commission
Office of Nuclear Security and Incident Response
Division of Preparedness and Response
work 301-415-1086
cell (b)(6)

From: INPO EmergencyResponseCtr (INPO) [mailto:INPOERC@INPO.org]
Sent: Thursday, March 17, 2011 3:32 AM
To: LIA06 Hoc; Casto, Chuck
Cc: Miller, Chris
Subject: RE: INPO Resources

Gents: Just to confirm, you would like that support in Japan as soon as possible. Is that correct?

Fred Rehrig
INPO Team Leader
Emergency Response Center

From: LIA06 Hoc [mailto:LIA06.Hoc@nrc.gov]
Sent: Thursday, March 17, 2011 3:24 AM

++ 129

To: Casto, Chuck
Cc: Miller, Chris; INPO EmergencyResponseCtr (INPO)
Subject: INPO Resources

Chuck –
We have engaged INPO to support your efforts with someone on your team. The request that came back was to identify the skill sets that would be needed. I have cc'd the INPO e-mail address so that you can respond directly back, and please include us in that communication.

Please advise at your earliest opportunity.

Tom Blount

From: OST01 HOC
Sent: Wednesday, April 27, 2011 12:22 AM
To: Johnson, Michael
Subject: Japan Sharepoint Site

As Requested...

(b)(6)

XXX / 30

From: Roberts, Thomas E CIV SEA 08 NR (b)(6)
Sent: Friday, March 18, 2011 11:04 AM
To: RST01 Hoc
Subject: Fw: NRC RASCAL estimations
Attachments: Unit 4 Case Summary one batch 17 MAR 2330.doc; Unit 3 SFP Case Summary 17MAR 2330.doc; unit 2 33 percent 17MAR 2330.csv; Unit 2 Case Summary 17MAR 2330.doc; Unit 4 SFP Case Summary 17 MAR 2330 four old batches.doc; Unit 4 SFP 17 MAR 2330 4 old batches.csv; Unit 4 SFP 17 MAR 2330 one batch.csv; Unit 3 SFP 100 percent 17MAR 2330.csv

----- Original Message -----
From: Nickel, Lee A CIV SEA 08 NR
To: Roberts, Thomas E CIV SEA 08 NR
Sent: Fri Mar 18 10:56:32 2011
Subject: FW: NRC RASCAL estimations

Tom,

Attached is the email we discussed. Our particular concern is discussed in the file "Unit 4 Case Summary on batch 17 MAR 2330.doc" where the NRC is assuming a shutdown time for the Unit 4 full core change out of 11 February 2011. With a shutdown time of 30 days, the radioiodine concentration is increased significantly. Please verify when you get the chance.

Thank you,

Lee

-----Original Message-----
From: Noser, Christopher A CIV SEA 08 NR
Sent: Friday, March 18, 2011 7:27 AM
To: Nickel, Lee A CIV SEA 08 NR
Subject: FW: NRC RASCAL estimations

-----Original Message-----
From: NA30ECC [mailto:na30ecc@nr.doe.gov]
Sent: Friday, March 18, 2011 5:19 AM
To: Noser, Christopher A CIV SEA 08 NR
Subject: FW: NRC RASCAL estimations

From: NITOPS [NITOPS@nnsa.doe.gov]

Sent: Friday, March 18, 2011 5:06 AM
To: NA30ECC
Cc: NITOPS
Subject: FW: NRC RASCAL estimations

Nuclear Incident Team (NIT)

Office of Emergency Response (NA-42)

National Nuclear Security Administration

U.S. Department of Energy

nitops@nnsa.doe.gov

nit@doe.sgov.gov

202-586-8100

From: PMT02 Hoc [mailto:PMT02.Hoc@nrc.gov]
Sent: Friday, March 18, 2011 4:13 AM
To: PMT02 Hoc; narac@llnl.gov; NITOPS
Cc: CMHT; Brandon, Lou
Subject: RE: NRC RASCAL estimations

In addition we are sorry for the delay. We did our best to work this, but management review and proper modeling of the SFP ST delayed us. Unfortunately, this ST remains speculative due to a lack of information. But is a conservative case that may be used for planning. It does not, as you know, represent the current situation, which we are told is stable.

FYI we have been directed to develop another source term that is realistic. WE hope to base this on field measurement data. this is a hope, anyway. It will take a day or more to develop this ST, if we are successful at all. We will depend upon you to do the analysis, if and when we are successful.

Thank you for your patience and we understand you will have to explain our delay to your management. Feel free to have them discuss this with our management, if need be.

We understand you may have questions and we will be here to help.

Thanks

Randy Sullivan, NRC PMT

From: PMT02 Hoc
Sent: Friday, March 18, 2011 3:57 AM
To: PMT02 Hoc; 'narac@llnl.gov'; 'nitops@nnsa.doe.gov'
Cc: 'cmht@nnsa.doe.gov'; Brandon, Lou
Subject: RE: NRC RASCAL estimations

--- THIS IS A MONITORING OPERATION FOR THE FUKUSHIMA REACTOR IN JAPAN ---

This is a MONITORING OPERATION FOR THE JAPAN EARTHQUAKE TSUNAMI AFTERMATH.

Attached are the following source terms (.CSV and Case Summary files) :

-Unit 2, source term provided for a 33% core melt RASCAL run (25% core activity actually released), no containment.

-Unit 3, 100% spent fuel pool inventory available for release, no containment

- NARAC should divide in half to represent 50% actually released.

Unit four is modeled in two pieces: a single batch for which the activity needs to be multiplied by three (three fresh batches) and a second run that models four older batches in the spent fuel pool.

-Unit 4A, 100% spent fuel pool inventory available for release, no containment*

-one fresh batch modeled. NARAC needs to multiply by three to obtain one full core load inventory available for release and 100% actual release.

-Unit 4B, 100% spent fuel pool inventory available for release, no containment*

- four old batches available for actual release

*NARAC needs to sum three times unit 4A plus unit 4B to obtain the total Unit 4 load which contains a total of seven batches, three new batches and four older batches. Total inventory = 3(4A) + 4B

RASCAL models a spent fuel pool release as a long protracted release. Only the first 48 hours of a potential two week release is captured in these spent fuel source terms. The release from unit 3 and unit 4 spent fuel pools may continue for approximately two weeks. To capture the full inventory and to exhaust all the source term, model for two weeks.

NRC Protective Measures Team

301-816-5419

Please reply to this email to acknowledge receipt.

This information should not be released at this time.

NO PARTICIPATION OR RESPONSE BY CMHT IS EXPECTED

--- THIS IS A MONITORING OPERATION FOR THE FUKUSHIMA REACTOR IN JAPAN

Case Summary

Event Type Spent Fuel

Location
- Name: Fukushima Unit 4 SFP
- City, county, state: <undefined>, <undefined>, <undefined>
- Lat / Long / Elev: 37.4214° N, 141.0325° E, 0 m
- UTC Offset: 9 hours
- Population: not available

Reactor Parameters
- Reactor power: 2350 MW(t)
- Avg spent fuel burn-up: 50000 MWD / MTU
- Assemblies in core: 548

Source Term
- Type: Pool Storage - Uncovered Fuel
- Shutdown for newest batch: 2011/02/11
- Batches in pool 1
- Fuel uncovered: 2011/03/16 15:00
- Fuel recovered: No

Release Pathway
- Type: From Spent Fuel Drained Pool
- Release height: 10. m

Release timings
- To atmosphere start: 2011/03/16 17:00

Filtered: No

Meteorology
- Type: Actual Observations
- Dataset name: Fukushima 17March run at 2316
- Dataset desc: Obs/fcsts for Fukushima Unit 2

Summary of data at release point:	Type	Dir deg	Speed m/s	Stab class	Precip	Temp °C
2011/03/12 14:00	Fcst	265	1.0	B	?	
2011/03/12 15:00	Fcst	265	1.0	B	?	
2011/03/12 16:00	Fcst	277	1.3	B	?	
2011/03/12 17:00	Fcst	260	2.4	B	?	
2011/03/12 18:00	Fcst	241	1.4	E	?	
2011/03/12 19:00	Fcst	236	2.1	E	?	
2011/03/12 20:00	Fcst	239	2.1	E	?	
2011/03/12 21:00	Fcst	229	3.8	E	?	
2011/03/12 22:00	Fcst	224	5.1	E	?	
2011/03/12 23:00	Fcst	226	3.9	E	?	
2011/03/13 00:00	Fcst	228	4.1	E	?	
2011/03/13 01:00	Fcst	235	2.6	E	?	
2011/03/13 02:00	Fcst	233	3.9	E	?	
2011/03/13 03:00	Fcst	225	1.8	E	?	
2011/03/13 04:00	Fcst	225	1.3	E	?	
2011/03/13 05:00	Fcst	225	2.2	E	?	
2011/03/13 06:00	Fcst	225	2.2	E	?	

2011/03/13 07:00	Fcst	248	2.7	E	?
2011/03/13 08:00	Fcst	248	2.7	E	?
2011/03/13 09:00	Fcst	270	3.1	E	?
2011/03/13 12:00	Fcst	271	7.4	D	?
2011/03/13 13:00	Fcst	276	6.2	D	?
2011/03/13 14:00	Fcst	312	2.8	B	?
2011/03/14 18:00	Fcst	258	4.8	unk	?
2011/03/14 19:00	Fcst	268	5.0	unk	?
2011/03/14 20:00	Fcst	330	2.2	unk	?
2011/03/14 21:00	Fcst	337	4.6	unk	?
2011/03/14 22:00	Fcst	323	7.2	unk	?
2011/03/14 23:00	Fcst	305	6.6	unk	?
2011/03/15 00:00	Fcst	015	8.6	unk	?
2011/03/15 02:00	Fcst	002	7.5	unk	?
2011/03/15 03:00	Fcst	347	5.2	E	None
2011/03/15 04:00	Fcst	332	5.6	E	None
2011/03/15 05:00	Fcst	332	4.0	E	None
2011/03/15 06:00	Fcst	344	3.5	E	Lgt rain
2011/03/15 07:00	Fcst	026	3.8	E	Lgt rain
2011/03/15 08:00	Fcst	044	4.4	E	Lgt rain
2011/03/15 09:00	Fcst	020	4.2	E	Lgt rain
2011/03/15 10:00	Fcst	010	3.4	E	None
2011/03/15 11:00	Fcst	030	3.5	D	Lgt rain
2011/03/15 12:00	Fcst	027	3.0	D	Lgt rain
2011/03/15 13:00	Fcst	037	3.4	D	Lgt rain
2011/03/15 14:00	Fcst	053	3.7	B	None
2011/03/15 15:00	Fcst	058	3.7	B	None
2011/03/15 16:00	Fcst	067	3.2	C	Lgt rain
2011/03/15 17:00	Fcst	081	3.9	C	Lgt rain
2011/03/15 18:00	Fcst	089	4.7	B	None
2011/03/15 19:00	Fcst	085	4.4	B	None
2011/03/15 20:00	Fcst	083	4.4	B	Lgt rain
2011/03/15 21:00	Fcst	074	4.6	C	Lgt rain
2011/03/15 22:00	Fcst	054	5.0	D	Lgt rain
2011/03/15 23:00	Fcst	029	5.6	D	Rain
2011/03/16 00:00	Fcst	011	5.1	D	Lgt rain
2011/03/16 01:00	Fcst	346	4.3	C	Lgt rain
2011/03/16 02:00	Fcst	350	5.3	D	Lgt rain
2011/03/16 03:00	Fcst	323	5.6	D	Lgt rain
2011/03/16 04:00	Fcst	316	5.4	D	None
2011/03/16 05:00	Fcst	298	4.8	D	None
2011/03/16 06:00	Fcst	314	5.6	D	None
2011/03/16 07:00	Fcst	312	4.7	D	None
2011/03/16 08:00	Fcst	331	4.9	D	None
2011/03/16 09:00	Fcst	299	4.2	D	None
2011/03/16 10:00	Fcst	312	5.4	C	None
2011/03/16 11:00	Fcst	309	7.5	C	None
2011/03/16 12:00	Fcst	304	7.2	C	None
2011/03/16 13:00	Fcst	314	8.8	C	None
2011/03/16 14:00	Fcst	325	10.4	C	None
2011/03/16 15:00	Fcst	324	12.3	C	None
2011/03/16 16:00	Fcst	304	14.7	D	None
2011/03/16 17:00	Fcst	299	14.2	D	None
2011/03/16 18:00	Fcst	297	11.3	D	None
2011/03/16 19:00	Fcst	316	9.8	D	None
2011/03/16 20:00	Fcst	309	9.4	D	None

2011/03/16 21:00	Fcst	294	9.5	D	None
2011/03/16 22:00	Fcst	299	7.6	D	None
2011/03/16 23:00	Fcst	300	9.7	D	None
2011/03/17 00:00	Fcst	294	5.0	D	None
2011/03/17 01:00	Fcst	281	3.7	D	None
2011/03/17 02:00	Fcst	271	6.7	D	None
2011/03/17 03:00	Fcst	302	6.2	D	None
2011/03/17 04:00	Fcst	315	5.0	D	None
2011/03/17 05:00	Fcst	320	4.1	D	None
2011/03/17 06:00	Fcst	324	4.6	D	None
2011/03/17 07:00	Fcst	295	5.1	C	None
2011/03/17 08:00	Fcst	324	5.4	C	None
2011/03/17 09:00	Fcst	275	6.5	D	None
2011/03/17 10:00	Fcst	289	9.1	C	None
2011/03/17 11:00	Fcst	291	9.3	C	None
2011/03/17 12:00	Fcst	314	7.5	C	Lgt rain
2011/03/17 13:00	Fcst	312	10.8	C	Lgt rain
2011/03/17 14:00	Fcst	302	12.1	C	None
2011/03/17 15:00	Fcst	300	11.2	C	None
2011/03/17 16:00	Fcst	300	10.7	D	None
2011/03/17 17:00	Fcst	303	9.1	D	None
2011/03/17 18:00	Fcst	308	8.4	D	None
2011/03/17 19:00	Fcst	303	9.1	D	None
2011/03/17 20:00	Fcst	308	7.0	D	None
2011/03/17 21:00	Fcst	322	5.8	D	None
2011/03/17 22:00	Fcst	321	6.5	D	None
2011/03/17 23:00	Fcst	330	6.4	D	None
2011/03/18 00:00	Fcst	322	6.3	D	None
2011/03/18 01:00	Fcst	319	5.4	D	None
2011/03/18 02:00	Fcst	315	6.3	D	None
2011/03/18 03:00	Fcst	313	5.8	D	None
2011/03/18 04:00	Fcst	319	7.1	D	None
2011/03/18 05:00	Fcst	316	8.8	D	None
2011/03/18 06:00	Fcst	319	8.8	D	None
2011/03/18 07:00	Fcst	325	8.2	C	None
2011/03/18 08:00	Fcst	334	7.6	C	None
2011/03/18 09:00	Fcst	340	6.4	C	None
2011/03/18 10:00	Fcst	333	6.6	C	None
2011/03/18 11:00	Fcst	321	5.8	C	None
2011/03/18 12:00	Fcst	291	3.4	C	None
2011/03/18 13:00	Fcst	292	3.5	C	None
2011/03/18 14:00	Fcst	282	3.6	C	None
2011/03/18 15:00	Fcst	272	2.3	C	None
2011/03/18 16:00	Fcst	279	5.4	C	None
2011/03/18 17:00	Fcst	280	8.0	D	None
2011/03/18 18:00	Fcst	257	2.9	E	None
2011/03/18 19:00	Fcst	269	2.8	F	None
2011/03/18 20:00	Fcst	284	7.5	D	None
2011/03/18 21:00	Fcst	271	5.2	D	None
2011/03/18 22:00	Fcst	255	6.7	D	None
2011/03/18 23:00	Fcst	261	7.3	D	None
2011/03/19 00:00	Fcst	251	5.5	D	None
2011/03/19 01:00	Fcst	189	2.2	F	None
2011/03/19 02:00	Fcst	212	2.3	F	None
2011/03/19 03:00	Fcst	226	5.0	E	None
2011/03/19 04:00	Fcst	227	6.7	D	None

2011/03/19 05:00	Fcst	231	6.3	D	None
2011/03/19 06:00	Fcst	243	6.3	D	None
2011/03/19 07:00	Fcst	245	9.0	D	None
2011/03/19 08:00	Fcst	218	4.2	D	None
2011/03/19 09:00	Fcst	197	2.1	C	None
2011/03/19 10:00	Fcst	237	3.4	C	None
2011/03/19 11:00	Fcst	223	3.4	C	None
2011/03/19 12:00	Fcst	222	0.9	B	None
2011/03/19 13:00	Fcst	257	3.4	C	None
2011/03/19 14:00	Fcst	269	6.4	C	None
2011/03/19 15:00	Fcst	272	6.7	C	None
2011/03/19 16:00	Fcst	265	6.9	D	None
2011/03/19 17:00	Fcst	264	6.6	D	None
2011/03/19 18:00	Fcst	267	7.7	D	None
2011/03/19 19:00	Fcst	265	9.1	D	None
2011/03/19 20:00	Fcst	275	9.2	D	None
2011/03/19 21:00	Fcst	281	7.8	D	None
2011/03/19 22:00	Fcst	275	7.0	D	None
2011/03/19 23:00	Fcst	263	5.0	E	None
2011/03/20 00:00	Fcst	252	5.3	D	None
2011/03/20 01:00	Fcst	264	7.0	D	None
2011/03/20 02:00	Fcst	282	8.7	D	None
2011/03/20 03:00	Fcst	287	9.3	D	None

Dataset options: Est. missing stability using: Wind speed, time of day, etc.
Adjust stability for consistency: No
Modify winds for topography: Yes

Calculations

Case description: Unit 4 SF pool 100 % damage, 17 March 2330 one batch
End of calculations: 2011/03/18 17:00
Start of release to atmosphere + 48 h
Distance of calculation: Close-in + to 50 miles
Close-in distances: 0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0, 10.0 miles

RASCAL v4.1.0 Source Term
File created: 2011/03/18 00:37
Case name: Unit 3 SF pool damage release approximation 17 MAR 2330 48 hour release
Radionuclide units: Ci

Interval	########	########	########	########	########	########	########	########	########
Start	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00
Am-241	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
Ba-140	8.19E-01	8.18E-01	8.18E-01	8.17E-01	8.17E-01	8.16E-01	8.16E-01	8.15E-01	8.15E-01
Ce-141	7.91E-02	7.91E-02	7.91E-02	7.91E-02	7.90E-02	7.90E-02	7.90E-02	7.90E-02	7.90E-02
Ce-144	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01
Cm-242	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02
Cs-134	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
Cs-136	1.52E+01	1.52E+01	1.52E+01	1.52E+01	1.52E+01	1.52E+01	1.52E+01	1.52E+01	1.51E+01
Cs-137	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
I-131	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.10E+01	2.09E+01	2.09E+01	2.09E+01	2.09E+01
I-132	3.46E-05	3.20E-05	2.98E-05	2.76E-05	2.57E-05	2.39E-05	2.21E-05	2.06E-05	1.92E-05
Kr-85	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
La-140	3.08E-02	3.42E-02	3.75E-02	4.09E-02	4.42E-02	4.75E-02	5.09E-02	5.41E-02	5.73E-02
Nb-95	4.12E-01	4.12E-01	4.12E-01	4.12E-01	4.12E-01	4.12E-01	4.12E-01	4.12E-01	4.11E-01
Nd-147	4.19E-04	4.19E-04	4.19E-04	4.19E-04	4.18E-04	4.18E-04	4.18E-04	4.17E-04	4.17E-04
Pm-147	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
Pr-143	3.30E-03	3.30E-03	3.29E-03	3.29E-03	3.29E-03	3.29E-03	3.29E-03	3.29E-03	3.29E-03
Pr-144	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01
Pu-238	2.10E-04	2.10E-04	2.10E-04	2.10E-04	2.10E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
Pu-239	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
Pu-241	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
Rb-86	2.79E+00	2.79E+00	2.79E+00	2.79E+00	2.78E+00	2.78E+00	2.78E+00	2.78E+00	2.78E+00
Rh-103m	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01
Ru-103	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01
Ru-106	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
Sb-127	9.36E-07	9.36E-07	9.36E-07	9.36E-07	9.27E-07	9.27E-07	9.27E-07	9.27E-07	9.27E-07
Sr-89	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.85E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01
Sr-90	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
Te-127	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01
Te-127m	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01
Te-129	6.36E+00	6.36E+00	6.36E+00	6.36E+00	6.36E+00	6.35E+00	6.35E+00	6.35E+00	6.35E+00
Te-129m	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.72E+00	9.72E+00	9.72E+00
Te-132	5.12E-07	5.11E-07	5.10E-07	5.09E-07	5.08E-07	5.07E-07	5.06E-07	5.05E-07	5.03E-07
Xe-131m	7.16E+00	7.16E+00	7.15E+00	7.15E+00	7.14E+00	7.14E+00	7.13E+00	7.13E+00	7.12E+00
Xe-133	5.24E-01	5.23E-01	5.22E-01	5.22E-01	5.21E-01	5.20E-01	5.19E-01	5.19E-01	5.18E-01
Xe-133m	8.22E-11	8.19E-11	8.16E-11	8.14E-11	8.11E-11	8.08E-11	8.06E-11	8.03E-11	8.00E-11
Y-90	1.08E+00	1.19E+00	1.31E+00	1.42E+00	1.53E+00	1.65E+00	1.76E+00	1.87E+00	1.99E+00
Y-91	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01
Zr-95	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01

########	########	########	########	########	########	########	########	########	########
15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
8.15E-01	8.15E-01	8.14E-01	8.14E-01	8.13E-01	8.13E-01	8.12E-01	8.12E-01	8.11E-01	8.10E-01
7.89E-02	7.89E-02	7.89E-02	7.89E-02	7.89E-02	7.88E-02	7.88E-02	7.88E-02	7.88E-02	7.88E-02
5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.97E-01
1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
2.09E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.08E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01
1.78E-05	1.66E-05	1.54E-05	1.43E-05	1.33E-05	1.23E-05	1.15E-05	1.07E-05	9.99E-06	9.27E-06
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
6.06E-02	6.38E-02	6.71E-02	7.03E-02	7.34E-02	7.66E-02	7.97E-02	8.29E-02	8.60E-02	8.91E-02
4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01
4.17E-04	4.16E-04	4.16E-04	4.16E-04	4.16E-04	4.15E-04	4.15E-04	4.15E-04	4.14E-04	4.14E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.29E-03	3.29E-03	3.29E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.28E-03	3.27E-03	3.27E-03
5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01	5.98E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.78E+00	2.78E+00	2.78E+00	2.77E+00	2.77E+00	2.77E+00	2.77E+00	2.77E+00	2.77E+00	2.77E+00
3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01
3.42E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
9.27E-07	9.18E-07	9.18E-07	9.18E-07	9.18E-07	9.18E-07	9.09E-07	9.09E-07	9.09E-07	9.09E-07
2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.03E+01	1.04E+01	1.04E+01
1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01
6.35E+00	6.35E+00	6.35E+00	6.35E+00	6.35E+00	6.35E+00	6.35E+00	6.35E+00	6.35E+00	6.34E+00
9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00
5.02E-07	5.01E-07	5.00E-07	4.99E-07	4.98E-07	4.97E-07	4.96E-07	4.95E-07	4.93E-07	4.92E-07
7.12E+00	7.11E+00	7.11E+00	7.10E+00	7.10E+00	7.09E+00	7.09E+00	7.09E+00	7.08E+00	7.08E+00
5.18E-01	5.17E-01	5.16E-01	5.16E-01	5.15E-01	5.14E-01	5.13E-01	5.12E-01	5.12E-01	5.11E-01
7.97E-11	7.95E-11	7.92E-11	7.90E-11	7.88E-11	7.85E-11	7.82E-11	7.79E-11	7.77E-11	7.74E-11
2.10E+00	2.21E+00	2.32E+00	2.43E+00	2.55E+00	2.66E+00	2.76E+00	2.88E+00	2.99E+00	3.10E+00
1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01
2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.37E-01	2.36E-01

########	########	########	########	########	########	########	########	########	########
17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
8.10E-01	8.09E-01	8.09E-01	8.08E-01	8.08E-01	8.07E-01	8.07E-01	8.06E-01	8.06E-01	8.06E-01
7.88E-02	7.88E-02	7.88E-02	7.88E-02	7.88E-02	7.87E-02	7.87E-02	7.87E-02	7.87E-02	7.87E-02
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.05E+01	2.05E+01	2.05E+01	2.05E+01	2.05E+01
8.63E-06	8.04E-06	7.49E-06	6.98E-06	6.51E-06	6.08E-06	5.67E-06	5.29E-06	4.94E-06	4.62E-06
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
9.18E-02	9.54E-02	9.81E-02	1.02E-01	1.04E-01	1.07E-01	1.11E-01	1.13E-01	1.16E-01	1.20E-01
4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.11E-01
4.14E-04	4.13E-04	4.13E-04	4.13E-04	4.13E-04	4.12E-04	4.12E-04	4.12E-04	4.11E-04	4.11E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.27E-03	3.27E-03	3.27E-03	3.26E-03	3.26E-03	3.26E-03	3.26E-03	3.26E-03	3.25E-03	3.25E-03
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.77E+00	2.77E+00	2.76E+00	2.76E+00	2.76E+00	2.76E+00	2.76E+00	2.76E+00	2.76E+00	2.76E+00
3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.39E-01
3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
9.09E-07	9.00E-07	9.00E-07	9.00E-07	8.99E-07	8.97E-07	8.96E-07	8.94E-07	8.92E-07	8.90E-07
2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01
6.34E+00	6.34E+00	6.34E+00	6.34E+00	6.34E+00	6.33E+00	6.33E+00	6.33E+00	6.33E+00	6.33E+00
9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00
4.91E-07	4.91E-07	4.90E-07	4.88E-07	4.87E-07	4.86E-07	4.85E-07	4.84E-07	4.82E-07	4.82E-07
7.07E+00	7.07E+00	7.07E+00	7.07E+00	7.06E+00	7.06E+00	7.05E+00	7.05E+00	7.04E+00	7.04E+00
5.10E-01	5.09E-01	5.09E-01	5.09E-01	5.08E-01	5.07E-01	5.06E-01	5.06E-01	5.05E-01	5.04E-01
7.72E-11	7.70E-11	7.67E-11	7.64E-11	7.61E-11	7.60E-11	7.57E-11	7.54E-11	7.52E-11	7.49E-11
3.20E+00	3.31E+00	3.42E+00	3.53E+00	3.64E+00	3.74E+00	3.85E+00	3.96E+00	4.07E+00	4.18E+00
1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01

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20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
8.06E-01	8.05E-01	8.05E-01	8.04E-01	8.04E-01	8.03E-01	8.03E-01	8.02E-01	8.02E-01	8.01E-01
7.86E-02	7.86E-02	7.86E-02	7.86E-02	7.86E-02	7.86E-02	7.85E-02	7.85E-02	7.85E-02	7.85E-02
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.50E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
2.04E+01	2.04E+01	2.04E+01	2.04E+01	2.04E+01	2.03E+01	2.03E+01	2.03E+01	2.03E+01	2.03E+01
4.32E-06	4.04E-06	3.78E-06	3.54E-06	3.32E-06	3.11E-06	2.93E-06	2.75E-06	2.58E-06	2.43E-06
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
1.22E-01	1.25E-01	1.28E-01	1.31E-01	1.34E-01	1.37E-01	1.40E-01	1.42E-01	1.45E-01	1.49E-01
4.11E-01	4.11E-01	4.11E-01	4.11E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01
4.11E-04	4.10E-04	4.10E-04	4.10E-04	4.10E-04	4.10E-04	4.10E-04	4.10E-04	4.09E-04	4.09E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.25E-03	3.25E-03	3.25E-03	3.25E-03	3.24E-03	3.24E-03	3.24E-03	3.24E-03	3.24E-03	3.23E-03
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00
3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01
3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
8.88E-07	8.87E-07	8.86E-07	8.84E-07	8.82E-07	8.80E-07	8.78E-07	8.77E-07	8.76E-07	8.74E-07
2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.08E+01	1.07E+01
6.33E+00	6.33E+00	6.32E+00	6.32E+00	6.32E+00	6.32E+00	6.32E+00	6.32E+00	6.32E+00	6.31E+00
9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00
4.81E-07	4.80E-07	4.79E-07	4.77E-07	4.76E-07	4.75E-07	4.74E-07	4.73E-07	4.73E-07	4.71E-07
7.03E+00	7.03E+00	7.02E+00	7.02E+00	7.01E+00	7.01E+00	7.00E+00	7.00E+00	7.00E+00	6.99E+00
5.03E-01	5.03E-01	5.02E-01	5.01E-01	5.00E-01	5.00E-01	5.00E-01	4.99E-01	4.98E-01	4.97E-01
7.47E-11	7.44E-11	7.42E-11	7.40E-11	7.37E-11	7.34E-11	7.33E-11	7.30E-11	7.27E-11	7.25E-11
4.28E+00	4.39E+00	4.50E+00	4.60E+00	4.71E+00	4.82E+00	4.91E+00	5.02E+00	5.12E+00	5.23E+00
1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01

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22:45	23:00	23:15	23:30	23:45	0:00	0:15	0:30	0:45	1:00
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
8.01E-01	8.00E-01	8.00E-01	7.99E-01	7.99E-01	7.98E-01	7.98E-01	7.97E-01	7.97E-01	7.97E-01
7.85E-02	7.84E-02	7.84E-02	7.84E-02	7.84E-02	7.84E-02	7.83E-02	7.83E-02	7.83E-02	7.83E-02
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01	1.49E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
2.03E+01	2.03E+01	2.03E+01	2.03E+01	2.03E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01	2.02E+01
2.29E-06	2.15E-06	2.03E-06	1.92E-06	1.81E-06	1.71E-06	1.62E-06	1.54E-06	1.46E-06	1.39E-06
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
1.51E-01	1.54E-01	1.57E-01	1.59E-01	1.62E-01	1.65E-01	1.67E-01	1.70E-01	1.73E-01	1.76E-01
4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01
4.09E-04	4.08E-04	4.08E-04	4.08E-04	4.08E-04	4.07E-04	4.07E-04	4.07E-04	4.06E-04	4.06E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.23E-03	3.23E-03	3.23E-03	3.23E-03	3.22E-03	3.22E-03	3.22E-03	3.22E-03	3.22E-03	3.21E-03
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.74E+00	2.74E+00	2.74E+00
3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
8.72E-07	8.70E-07	8.69E-07	8.68E-07	8.66E-07	8.64E-07	8.62E-07	8.60E-07	8.60E-07	8.58E-07
2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.31E+00	6.31E+00	6.31E+00	6.31E+00	6.31E+00	6.30E+00	6.30E+00	6.30E+00	6.30E+00	6.30E+00
9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00	9.72E+00
4.70E-07	4.69E-07	4.68E-07	4.67E-07	4.66E-07	4.65E-07	4.64E-07	4.63E-07	4.62E-07	4.61E-07
6.99E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.97E+00	6.97E+00	6.96E+00	6.96E+00	6.95E+00
4.97E-01	4.96E-01	4.95E-01	4.94E-01	4.94E-01	4.93E-01	4.92E-01	4.91E-01	4.91E-01	4.91E-01
7.23E-11	7.20E-11	7.18E-11	7.16E-11	7.13E-11	7.11E-11	7.08E-11	7.07E-11	7.04E-11	7.01E-11
5.34E+00	5.44E+00	5.54E+00	5.64E+00	5.74E+00	5.85E+00	5.95E+00	6.05E+00	6.16E+00	6.26E+00
1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01	2.36E-01

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1:15	1:30	1:45	2:00	2:15	2:30	2:45	3:00	3:15	3:30
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.97E-01	7.96E-01	7.96E-01	7.95E-01	7.95E-01	7.94E-01	7.94E-01	7.93E-01	7.93E-01	7.92E-01
7.83E-02	7.82E-02	7.82E-02	7.82E-02	7.82E-02	7.82E-02	7.81E-02	7.81E-02	7.81E-02	7.81E-02
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.49E+01	1.49E+01	1.49E+01	1.48E+01	1.48E+01	1.48E+01	1.48E+01	1.48E+01	1.48E+01	1.48E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
2.01E+01	2.01E+01	2.01E+01	2.01E+01	2.01E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01	2.00E+01
1.32E-06	1.26E-06	1.20E-06	1.14E-06	1.10E-06	1.05E-06	1.01E-06	9.63E-07	9.27E-07	8.94E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
1.78E-01	1.81E-01	1.84E-01	1.86E-01	1.89E-01	1.92E-01	1.94E-01	1.96E-01	1.99E-01	2.02E-01
4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01
4.06E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.04E-04	4.04E-04	4.04E-04	4.03E-04	4.03E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.74E+00	2.74E+00	2.74E+00	2.74E+00	2.74E+00	2.73E+00	2.73E+00	2.73E+00	2.73E+00	2.73E+00
3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
8.56E-07	8.54E-07	8.52E-07	8.51E-07	8.50E-07	8.48E-07	8.46E-07	8.45E-07	8.43E-07	8.42E-07
2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.30E+00	6.30E+00	6.29E+00	6.29E+00	6.29E+00	6.29E+00	6.29E+00	6.29E+00	6.29E+00	6.28E+00
9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00
4.60E-07	4.59E-07	4.58E-07	4.56E-07	4.55E-07	4.55E-07	4.54E-07	4.53E-07	4.52E-07	4.51E-07
6.95E+00	6.94E+00	6.94E+00	6.93E+00	6.93E+00	6.93E+00	6.92E+00	6.92E+00	6.91E+00	6.91E+00
4.90E-01	4.89E-01	4.89E-01	4.88E-01	4.87E-01	4.86E-01	4.86E-01	4.85E-01	4.84E-01	4.83E-01
6.99E-11	6.97E-11	6.95E-11	6.92E-11	6.90E-11	6.88E-11	6.86E-11	6.83E-11	6.81E-11	6.79E-11
6.35E+00	6.45E+00	6.55E+00	6.65E+00	6.76E+00	6.86E+00	6.96E+00	7.06E+00	7.16E+00	7.25E+00
1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
2.36E-01	2.36E-01	2.36E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01

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3:45	4:00	4:15	4:30	4:45	5:00	5:15	5:30	5:45	6:00
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.92E-01	7.91E-01	7.91E-01	7.90E-01	7.90E-01	7.89E-01	7.89E-01	7.88E-01	7.88E-01	7.88E-01
7.81E-02	7.80E-02	7.80E-02	7.80E-02	7.80E-02	7.80E-02	7.80E-02	7.79E-02	7.79E-02	7.79E-02
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.48E+01	1.48E+01	1.48E+01	1.48E+01	1.47E+01	1.47E+01	1.47E+01	1.47E+01	1.47E+01	1.47E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.99E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01	1.98E+01
8.62E-07	8.32E-07	8.04E-07	7.79E-07	7.54E-07	7.32E-07	7.11E-07	6.91E-07	6.73E-07	6.56E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
2.04E-01	2.07E-01	2.09E-01	2.12E-01	2.14E-01	2.17E-01	2.19E-01	2.21E-01	2.24E-01	2.26E-01
4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01
4.03E-04	4.03E-04	4.02E-04	4.02E-04	4.02E-04	4.01E-04	4.01E-04	4.01E-04	4.01E-04	4.01E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.20E-03	3.19E-03	3.19E-03	3.19E-03	3.19E-03	3.19E-03
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.73E+00	2.73E+00	2.73E+00	2.73E+00	2.72E+00	2.72E+00	2.72E+00	2.72E+00	2.72E+00	2.72E+00
3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
8.40E-07	8.39E-07	8.37E-07	8.35E-07	8.33E-07	8.33E-07	8.31E-07	8.29E-07	8.27E-07	8.26E-07
2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01	2.83E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.28E+00	6.28E+00	6.28E+00	6.28E+00	6.28E+00	6.27E+00	6.27E+00	6.27E+00	6.27E+00	6.27E+00
9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00
4.50E-07	4.49E-07	4.47E-07	4.46E-07	4.46E-07	4.45E-07	4.44E-07	4.43E-07	4.42E-07	4.41E-07
6.90E+00	6.90E+00	6.89E+00	6.89E+00	6.89E+00	6.89E+00	6.88E+00	6.88E+00	6.88E+00	6.87E+00
4.83E-01	4.82E-01	4.82E-01	4.82E-01	4.81E-01	4.80E-01	4.79E-01	4.79E-01	4.78E-01	4.77E-01
6.77E-11	6.74E-11	6.72E-11	6.70E-11	6.68E-11	6.65E-11	6.63E-11	6.61E-11	6.59E-11	6.57E-11
7.34E+00	7.44E+00	7.54E+00	7.64E+00	7.74E+00	7.84E+00	7.93E+00	8.03E+00	8.13E+00	8.22E+00
1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.51E-01	1.51E-01
2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01

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6:15	6:30	6:45	7:00	7:15	7:30	7:45	8:00	8:15	8:30
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.88E-01	7.87E-01	7.87E-01	7.86E-01	7.86E-01	7.85E-01	7.85E-01	7.84E-01	7.84E-01	7.83E-01
7.79E-02	7.79E-02	7.79E-02	7.79E-02	7.79E-02	7.79E-02	7.79E-02	7.78E-02	7.78E-02	7.78E-02
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.96E-01	5.96E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.47E+01	1.47E+01	1.47E+01	1.47E+01	1.47E+01	1.46E+01	1.46E+01	1.46E+01	1.46E+01	1.46E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.97E+01	1.97E+01	1.97E+01	1.97E+01	1.97E+01	1.96E+01	1.96E+01	1.96E+01	1.96E+01	1.96E+01
6.41E-07	6.26E-07	6.13E-07	5.99E-07	5.88E-07	5.77E-07	5.66E-07	5.57E-07	5.48E-07	5.39E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
2.29E-01	2.31E-01	2.33E-01	2.36E-01	2.39E-01	2.40E-01	2.43E-01	2.45E-01	2.48E-01	2.50E-01
4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.10E-01
4.01E-04	4.01E-04	4.00E-04	4.00E-04	4.00E-04	3.99E-04	3.99E-04	3.99E-04	3.99E-04	3.98E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.19E-03	3.18E-03	3.18E-03	3.18E-03	3.18E-03	3.18E-03	3.17E-03	3.17E-03	3.17E-03	3.17E-03
5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.97E-01	5.96E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.72E+00	2.72E+00	2.72E+00	2.71E+00	2.71E+00	2.71E+00	2.71E+00	2.71E+00	2.71E+00	2.71E+00
3.38E-01	3.38E-01	3.38E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01
3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
8.24E-07	8.23E-07	8.22E-07	8.20E-07	8.18E-07	8.16E-07	8.15E-07	8.14E-07	8.12E-07	8.11E-07
2.83E+01	2.83E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.27E+00	6.27E+00	6.26E+00	6.26E+00	6.26E+00	6.26E+00	6.26E+00	6.26E+00	6.26E+00	6.26E+00
9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00
4.40E-07	4.39E-07	4.38E-07	4.37E-07	4.36E-07	4.35E-07	4.34E-07	4.33E-07	4.32E-07	4.31E-07
6.87E+00	6.86E+00	6.86E+00	6.85E+00	6.85E+00	6.84E+00	6.84E+00	6.83E+00	6.83E+00	6.82E+00
4.76E-01	4.76E-01	4.75E-01	4.74E-01	4.73E-01	4.73E-01	4.73E-01	4.72E-01	4.72E-01	4.71E-01
6.54E-11	6.53E-11	6.50E-11	6.48E-11	6.46E-11	6.44E-11	6.42E-11	6.40E-11	6.37E-11	6.35E-11
8.32E+00	8.42E+00	8.51E+00	8.60E+00	8.69E+00	8.79E+00	8.88E+00	8.97E+00	9.09E+00	9.18E+00
1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01
2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01

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8:45	9:00	9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.83E-01	7.82E-01	7.82E-01	7.81E-01	7.81E-01	7.80E-01	7.80E-01	7.79E-01	7.79E-01	7.79E-01
7.78E-02	7.78E-02	7.77E-02	7.77E-02	7.77E-02	7.77E-02	7.77E-02	7.76E-02	7.76E-02	7.76E-02
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.46E+01	1.46E+01	1.46E+01	1.46E+01	1.46E+01	1.46E+01	1.45E+01	1.45E+01	1.45E+01	1.45E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.95E+01	1.95E+01	1.95E+01	1.95E+01	1.95E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01
5.32E-07	5.24E-07	5.18E-07	5.10E-07	5.05E-07	4.99E-07	4.93E-07	4.89E-07	4.83E-07	4.80E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
2.52E-01	2.55E-01	2.57E-01	2.59E-01	2.61E-01	2.64E-01	2.66E-01	2.68E-01	2.70E-01	2.72E-01
4.10E-01	4.10E-01	4.10E-01	4.10E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01
3.98E-04	3.98E-04	3.97E-04	3.97E-04	3.97E-04	3.97E-04	3.96E-04	3.96E-04	3.96E-04	3.95E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.17E-03	3.16E-03	3.16E-03	3.16E-03	3.16E-03	3.16E-03	3.16E-03	3.15E-03	3.15E-03	3.15E-03
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.71E+00	2.70E+00	2.70E+00	2.70E+00	2.70E+00	2.70E+00	2.70E+00	2.70E+00	2.70E+00	2.70E+00
3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.36E-01	3.36E-01	3.36E-01
3.38E-01	3.38E-01	3.38E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
8.09E-07	8.07E-07	8.06E-07	8.05E-07	8.03E-07	8.02E-07	8.00E-07	7.98E-07	7.97E-07	7.96E-07
2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.82E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.26E+00	6.26E+00	6.26E+00	6.26E+00	6.26E+00	6.25E+00	6.25E+00	6.25E+00	6.25E+00	6.25E+00
9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.63E+00
4.30E-07	4.29E-07	4.28E-07	4.28E-07	4.27E-07	4.26E-07	4.25E-07	4.24E-07	4.23E-07	4.22E-07
6.82E+00	6.82E+00	6.81E+00	6.81E+00	6.80E+00	6.80E+00	6.80E+00	6.80E+00	6.79E+00	6.79E+00
4.70E-01	4.69E-01	4.69E-01	4.68E-01	4.67E-01	4.67E-01	4.66E-01	4.65E-01	4.64E-01	4.64E-01
6.34E-11	6.31E-11	6.29E-11	6.27E-11	6.25E-11	6.23E-11	6.21E-11	6.19E-11	6.17E-11	6.15E-11
9.27E+00	9.36E+00	9.45E+00	9.54E+00	9.63E+00	9.72E+00	9.81E+00	9.90E+00	9.99E+00	1.01E+01
1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01
2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.35E-01	2.34E-01	2.34E-01	2.34E-01

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11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.79E-01	7.78E-01	7.78E-01	7.77E-01	7.77E-01	7.76E-01	7.76E-01	7.75E-01	7.75E-01	7.74E-01
7.76E-02	7.76E-02	7.76E-02	7.75E-02	7.75E-02	7.75E-02	7.75E-02	7.75E-02	7.74E-02	7.74E-02
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.45E+01	1.45E+01	1.45E+01	1.45E+01	1.45E+01	1.45E+01	1.45E+01	1.44E+01	1.44E+01	1.44E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.94E+01	1.93E+01	1.93E+01	1.93E+01	1.93E+01
4.75E-07	4.71E-07	4.67E-07	4.64E-07	4.61E-07	4.57E-07	4.55E-07	4.52E-07	4.48E-07	4.46E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
2.75E-01	2.76E-01	2.79E-01	2.81E-01	2.83E-01	2.85E-01	2.87E-01	2.89E-01	2.92E-01	2.93E-01
4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01
3.95E-04	3.95E-04	3.95E-04	3.94E-04	3.94E-04	3.94E-04	3.93E-04	3.93E-04	3.93E-04	3.93E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.15E-03	3.15E-03	3.14E-03	3.14E-03	3.14E-03	3.14E-03	3.14E-03	3.13E-03	3.13E-03	3.13E-03
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.69E+00	2.69E+00	2.69E+00	2.69E+00	2.69E+00	2.69E+00	2.69E+00	2.69E+00	2.68E+00	2.68E+00
3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01
3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.36E-01	3.36E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
7.94E-07	7.93E-07	7.91E-07	7.89E-07	7.88E-07	7.87E-07	7.85E-07	7.84E-07	7.82E-07	7.81E-07
2.82E+01	2.82E+01	2.82E+01	2.82E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.25E+00	6.25E+00	6.24E+00	6.24E+00	6.24E+00	6.24E+00	6.24E+00	6.24E+00	6.24E+00	6.23E+00
9.63E+00	9.63E+00	9.63E+00	9.63E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00
4.21E-07	4.20E-07	4.19E-07	4.18E-07	4.17E-07	4.16E-07	4.15E-07	4.14E-07	4.13E-07	4.12E-07
6.78E+00	6.78E+00	6.77E+00	6.77E+00	6.77E+00	6.76E+00	6.76E+00	6.75E+00	6.75E+00	6.74E+00
4.64E-01	4.63E-01	4.63E-01	4.62E-01	4.61E-01	4.60E-01	4.60E-01	4.59E-01	4.58E-01	4.58E-01
6.13E-11	6.11E-11	6.08E-11	6.07E-11	6.05E-11	6.03E-11	6.00E-11	5.99E-11	5.97E-11	5.95E-11
1.02E+01	1.03E+01	1.04E+01	1.04E+01	1.05E+01	1.06E+01	1.07E+01	1.08E+01	1.09E+01	1.10E+01
1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01
2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01

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13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.74E-01	7.73E-01	7.73E-01	7.73E-01	7.72E-01	7.72E-01	7.71E-01	7.71E-01	7.70E-01	7.70E-01
7.74E-02	7.74E-02	7.74E-02	7.73E-02	7.73E-02	7.73E-02	7.73E-02	7.73E-02	7.72E-02	7.72E-02
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.43E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.93E+01	1.92E+01	1.92E+01	1.92E+01	1.92E+01	1.92E+01	1.91E+01	1.91E+01	1.91E+01	1.91E+01
4.44E-07	4.41E-07	4.39E-07	4.37E-07	4.35E-07	4.33E-07	4.31E-07	4.29E-07	4.28E-07	4.26E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
2.95E-01	2.98E-01	3.00E-01	3.02E-01	3.03E-01	3.06E-01	3.08E-01	3.10E-01	3.11E-01	3.13E-01
4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.09E-01	4.08E-01
3.92E-04	3.92E-04	3.92E-04	3.92E-04	3.92E-04	3.92E-04	3.92E-04	3.91E-04	3.91E-04	3.91E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.13E-03	3.13E-03	3.13E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.11E-03	3.11E-03
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.67E+00	2.67E+00	2.67E+00
3.36E-01	3.36E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01
3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01	3.36E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
7.79E-07	7.78E-07	7.77E-07	7.75E-07	7.73E-07	7.72E-07	7.70E-07	7.70E-07	7.68E-07	7.66E-07
2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.23E+00	6.23E+00	6.23E+00	6.23E+00	6.23E+00	6.22E+00	6.22E+00	6.22E+00	6.22E+00	6.22E+00
9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00
4.11E-07	4.10E-07	4.10E-07	4.09E-07	4.08E-07	4.07E-07	4.06E-07	4.05E-07	4.04E-07	4.03E-07
6.74E+00	6.73E+00	6.73E+00	6.72E+00	6.72E+00	6.72E+00	6.71E+00	6.71E+00	6.71E+00	6.71E+00
4.57E-01	4.56E-01	4.56E-01	4.55E-01	4.55E-01	4.55E-01	4.54E-01	4.53E-01	4.52E-01	4.52E-01
5.93E-11	5.91E-11	5.89E-11	5.87E-11	5.85E-11	5.83E-11	5.81E-11	5.80E-11	5.78E-11	5.75E-11
1.11E+01	1.12E+01	1.13E+01	1.13E+01	1.14E+01	1.15E+01	1.16E+01	1.17E+01	1.18E+01	1.19E+01
1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01
2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01

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16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.70E-01	7.70E-01	7.69E-01	7.69E-01	7.68E-01	7.68E-01	7.67E-01	7.67E-01	7.66E-01	7.66E-01
7.72E-02	7.72E-02	7.72E-02	7.72E-02	7.71E-02	7.71E-02	7.71E-02	7.71E-02	7.71E-02	7.70E-02
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.91E+01	1.90E+01	1.90E+01	1.90E+01	1.90E+01	1.90E+01	1.90E+01	1.89E+01	1.89E+01	1.89E+01
4.24E-07	4.22E-07	4.21E-07	4.19E-07	4.18E-07	4.17E-07	4.15E-07	4.14E-07	4.12E-07	4.11E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
3.16E-01	3.18E-01	3.20E-01	3.21E-01	3.23E-01	3.25E-01	3.27E-01	3.29E-01	3.31E-01	3.33E-01
4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01
3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.89E-04	3.89E-04	3.89E-04	3.88E-04	3.88E-04	3.88E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.10E-03
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.67E+00	2.67E+00	2.67E+00	2.67E+00	2.67E+00	2.67E+00	2.66E+00	2.66E+00	2.66E+00	2.66E+00
3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01
3.36E-01	3.36E-01	3.36E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
7.65E-07	7.63E-07	7.62E-07	7.61E-07	7.59E-07	7.58E-07	7.56E-07	7.55E-07	7.53E-07	7.52E-07
2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.81E+01	2.80E+01	2.80E+01	2.80E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.22E+00	6.22E+00	6.21E+00	6.21E+00	6.21E+00	6.21E+00	6.21E+00	6.21E+00	6.21E+00	6.20E+00
9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00
4.02E-07	4.01E-07	4.01E-07	4.00E-07	3.99E-07	3.98E-07	3.97E-07	3.96E-07	3.95E-07	3.94E-07
6.70E+00	6.70E+00	6.69E+00	6.69E+00	6.68E+00	6.68E+00	6.68E+00	6.67E+00	6.67E+00	6.66E+00
4.51E-01	4.50E-01	4.50E-01	4.49E-01	4.48E-01	4.48E-01	4.47E-01	4.46E-01	4.46E-01	4.46E-01
5.73E-11	5.72E-11	5.70E-11	5.68E-11	5.66E-11	5.64E-11	5.63E-11	5.61E-11	5.59E-11	5.57E-11
1.20E+01	1.21E+01	1.21E+01	1.22E+01	1.22E+01	1.23E+01	1.24E+01	1.25E+01	1.26E+01	1.27E+01
1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01
2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01

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18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.25E-04
7.65E-01	7.65E-01	7.64E-01	7.64E-01	7.63E-01	7.63E-01	7.62E-01	7.62E-01	7.61E-01	7.61E-01
7.70E-02	7.70E-02	7.70E-02	7.70E-02	7.70E-02	7.70E-02	7.70E-02	7.70E-02	7.70E-02	7.69E-02
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.89E+01	1.89E+01	1.88E+01	1.88E+01	1.88E+01	1.88E+01	1.88E+01	1.87E+01	1.87E+01	1.87E+01
4.10E-07	4.09E-07	4.08E-07	4.07E-07	4.05E-07	4.04E-07	4.03E-07	4.02E-07	4.01E-07	4.00E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
3.35E-01	3.37E-01	3.38E-01	3.40E-01	3.42E-01	3.44E-01	3.46E-01	3.47E-01	3.49E-01	3.51E-01
4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01
3.88E-04	3.87E-04	3.87E-04	3.87E-04	3.86E-04	3.86E-04	3.86E-04	3.86E-04	3.85E-04	3.85E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.10E-03	3.10E-03	3.10E-03	3.10E-03	3.10E-03	3.09E-03	3.09E-03	3.09E-03	3.09E-03	3.09E-03
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.66E+00	2.66E+00	2.66E+00	2.66E+00	2.66E+00	2.66E+00	2.66E+00	2.66E+00	2.66E+00	2.66E+00
3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01
3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.35E-01	3.34E-01	3.34E-01	3.34E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
7.51E-07	7.49E-07	7.48E-07	7.46E-07	7.45E-07	7.43E-07	7.43E-07	7.41E-07	7.40E-07	7.38E-07
2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.20E+00	6.20E+00	6.20E+00	6.20E+00	6.20E+00	6.20E+00	6.19E+00	6.19E+00	6.19E+00	6.19E+00
9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00
3.93E-07	3.93E-07	3.92E-07	3.92E-07	3.91E-07	3.90E-07	3.89E-07	3.88E-07	3.87E-07	3.86E-07
6.66E+00	6.65E+00	6.65E+00	6.64E+00	6.64E+00	6.64E+00	6.63E+00	6.63E+00	6.62E+00	6.62E+00
4.45E-01	4.45E-01	4.44E-01	4.43E-01	4.42E-01	4.42E-01	4.41E-01	4.40E-01	4.40E-01	4.39E-01
5.55E-11	5.54E-11	5.52E-11	5.50E-11	5.48E-11	5.46E-11	5.45E-11	5.43E-11	5.41E-11	5.39E-11
1.28E+01	1.29E+01	1.30E+01	1.31E+01	1.31E+01	1.32E+01	1.32E+01	1.33E+01	1.34E+01	1.35E+01
1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01
2.34E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01

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21:15	21:30	21:45	22:00	22:15	22:30	22:45	23:00	23:15	23:30
7.25E-04	7.25E-04	7.25E-04	7.25E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04
7.61E-01	7.61E-01	7.60E-01	7.60E-01	7.60E-01	7.59E-01	7.59E-01	7.58E-01	7.58E-01	7.57E-01
7.69E-02	7.69E-02	7.69E-02	7.69E-02	7.69E-02	7.68E-02	7.68E-02	7.68E-02	7.68E-02	7.68E-02
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.95E-01	5.95E-01	5.95E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.42E+01	1.42E+01	1.41E+01	1.41E+01	1.41E+01	1.41E+01	1.41E+01	1.41E+01	1.41E+01	1.41E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.87E+01	1.87E+01	1.87E+01	1.86E+01	1.86E+01	1.86E+01	1.86E+01	1.86E+01	1.85E+01	1.85E+01
3.99E-07	3.98E-07	3.97E-07	3.96E-07	3.95E-07	3.94E-07	3.92E-07	3.92E-07	3.91E-07	3.90E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
3.53E-01	3.55E-01	3.56E-01	3.58E-01	3.59E-01	3.61E-01	3.63E-01	3.65E-01	3.66E-01	3.68E-01
4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.08E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01
3.85E-04	3.84E-04	3.84E-04	3.84E-04	3.84E-04	3.83E-04	3.83E-04	3.83E-04	3.83E-04	3.83E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.08E-03	3.08E-03	3.08E-03	3.08E-03	3.08E-03	3.08E-03	3.07E-03	3.07E-03	3.07E-03	3.07E-03
5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.96E-01	5.95E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.66E+00	2.66E+00	2.66E+00	2.65E+00	2.65E+00	2.65E+00	2.65E+00	2.65E+00	2.65E+00	2.65E+00
3.34E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01
3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
7.37E-07	7.35E-07	7.34E-07	7.33E-07	7.31E-07	7.30E-07	7.28E-07	7.27E-07	7.25E-07	7.25E-07
2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.79E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.19E+00	6.19E+00	6.18E+00	6.18E+00	6.18E+00	6.18E+00	6.18E+00	6.18E+00	6.18E+00	6.17E+00
9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.54E+00	9.45E+00	9.45E+00
3.85E-07	3.84E-07	3.83E-07	3.83E-07	3.82E-07	3.81E-07	3.80E-07	3.79E-07	3.78E-07	3.77E-07
6.62E+00	6.62E+00	6.61E+00	6.61E+00	6.61E+00	6.60E+00	6.60E+00	6.59E+00	6.59E+00	6.58E+00
4.38E-01	4.38E-01	4.37E-01	4.37E-01	4.37E-01	4.36E-01	4.35E-01	4.35E-01	4.34E-01	4.33E-01
5.37E-11	5.36E-11	5.34E-11	5.32E-11	5.30E-11	5.28E-11	5.27E-11	5.25E-11	5.23E-11	5.21E-11
1.36E+01	1.37E+01	1.38E+01	1.39E+01	1.40E+01	1.40E+01	1.40E+01	1.41E+01	1.42E+01	1.43E+01
1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01
2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01

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23:45	0:00	0:15	0:30	0:45	1:00	1:15	1:30	1:45	2:00
7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04
7.57E-01	7.56E-01	7.56E-01	7.55E-01	7.55E-01	7.54E-01	7.54E-01	7.53E-01	7.53E-01	7.52E-01
7.67E-02	7.67E-02	7.67E-02	7.67E-02	7.67E-02	7.66E-02	7.66E-02	7.66E-02	7.66E-02	7.66E-02
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.41E+01	1.41E+01	1.41E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.85E+01	1.85E+01	1.85E+01	1.85E+01	1.85E+01	1.85E+01	1.85E+01	1.85E+01	1.85E+01	1.84E+01
3.89E-07	3.88E-07	3.87E-07	3.86E-07	3.85E-07	3.84E-07	3.83E-07	3.83E-07	3.82E-07	3.81E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
3.70E-01	3.72E-01	3.73E-01	3.74E-01	3.76E-01	3.78E-01	3.80E-01	3.81E-01	3.83E-01	3.84E-01
4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01
3.83E-04	3.83E-04	3.82E-04	3.82E-04	3.82E-04	3.82E-04	3.81E-04	3.81E-04	3.81E-04	3.80E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.07E-03	3.06E-03	3.06E-03	3.06E-03	3.06E-03	3.06E-03	3.06E-03	3.05E-03	3.05E-03	3.05E-03
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.65E+00	2.65E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00	2.64E+00
3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01
3.34E-01	3.34E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
7.23E-07	7.22E-07	7.20E-07	7.19E-07	7.17E-07	7.16E-07	7.15E-07	7.14E-07	7.12E-07	7.11E-07
2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01
4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.37E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.17E+00	6.17E+00	6.17E+00	6.17E+00	6.17E+00	6.17E+00	6.17E+00	6.17E+00	6.17E+00	6.17E+00
9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00
3.77E-07	3.76E-07	3.75E-07	3.74E-07	3.74E-07	3.73E-07	3.72E-07	3.71E-07	3.70E-07	3.69E-07
6.58E+00	6.57E+00	6.57E+00	6.57E+00	6.56E+00	6.56E+00	6.55E+00	6.55E+00	6.54E+00	6.54E+00
4.33E-01	4.32E-01	4.31E-01	4.31E-01	4.30E-01	4.30E-01	4.29E-01	4.28E-01	4.28E-01	4.28E-01
5.19E-11	5.18E-11	5.17E-11	5.15E-11	5.13E-11	5.11E-11	5.09E-11	5.08E-11	5.06E-11	5.04E-11
1.44E+01	1.45E+01	1.46E+01	1.47E+01	1.48E+01	1.48E+01	1.49E+01	1.49E+01	1.50E+01	1.51E+01
1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01
2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01

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2:15	2:30	2:45	3:00	3:15	3:30	3:45	4:00	4:15	4:30
7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04
7.52E-01	7.52E-01	7.52E-01	7.51E-01	7.51E-01	7.50E-01	7.50E-01	7.50E-01	7.49E-01	7.49E-01
7.65E-02	7.65E-02	7.65E-02	7.65E-02	7.65E-02	7.65E-02	7.64E-02	7.64E-02	7.64E-02	7.64E-02
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.84E+01	1.84E+01	1.84E+01	1.84E+01	1.83E+01	1.83E+01	1.83E+01	1.83E+01	1.83E+01	1.83E+01
3.80E-07	3.79E-07	3.78E-07	3.77E-07	3.76E-07	3.75E-07	3.75E-07	3.74E-07	3.74E-07	3.73E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
3.86E-01	3.87E-01	3.89E-01	3.91E-01	3.92E-01	3.93E-01	3.95E-01	3.97E-01	3.98E-01	4.00E-01
4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01	4.07E-01
3.80E-04	3.80E-04	3.80E-04	3.79E-04	3.79E-04	3.79E-04	3.78E-04	3.78E-04	3.78E-04	3.78E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.05E-03	3.05E-03	3.04E-03	3.04E-03	3.04E-03	3.04E-03	3.04E-03	3.04E-03	3.03E-03	3.03E-03
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.64E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00
3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01
3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.32E-01	3.32E-01	3.32E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
7.09E-07	7.08E-07	7.07E-07	7.06E-07	7.05E-07	7.03E-07	7.02E-07	7.00E-07	6.99E-07	6.98E-07
2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01	2.79E+01
4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
6.17E+00	6.17E+00	6.17E+00	6.16E+00	6.16E+00	6.16E+00	6.16E+00	6.16E+00	6.16E+00	6.16E+00
9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00
3.68E-07	3.67E-07	3.67E-07	3.66E-07	3.65E-07	3.65E-07	3.64E-07	3.63E-07	3.62E-07	3.61E-07
6.53E+00	6.53E+00	6.53E+00	6.53E+00	6.53E+00	6.52E+00	6.52E+00	6.51E+00	6.51E+00	6.50E+00
4.27E-01	4.27E-01	4.26E-01	4.25E-01	4.25E-01	4.24E-01	4.23E-01	4.23E-01	4.22E-01	4.21E-01
5.03E-11	5.01E-11	5.00E-11	4.98E-11	4.96E-11	4.95E-11	4.93E-11	4.91E-11	4.90E-11	4.88E-11
1.52E+01	1.53E+01	1.53E+01	1.54E+01	1.55E+01	1.56E+01	1.57E+01	1.58E+01	1.58E+01	1.58E+01
1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01
2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.33E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01

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4:45	5:00	5:15	5:30	5:45	6:00	6:15	6:30	6:45	7:00
7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04
7.48E-01	7.48E-01	7.47E-01	7.47E-01	7.46E-01	7.46E-01	7.45E-01	7.45E-01	7.44E-01	7.44E-01
7.64E-02	7.63E-02	7.63E-02	7.63E-02	7.63E-02	7.63E-02	7.62E-02	7.62E-02	7.62E-02	7.62E-02
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.40E+01	1.39E+01	1.39E+01	1.39E+01	1.39E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.82E+01	1.82E+01	1.82E+01	1.82E+01	1.82E+01	1.81E+01	1.81E+01	1.81E+01	1.81E+01	1.81E+01
3.72E-07	3.71E-07	3.70E-07	3.69E-07	3.68E-07	3.67E-07	3.66E-07	3.65E-07	3.65E-07	3.64E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
4.01E-01	4.02E-01	4.04E-01	4.06E-01	4.07E-01	4.09E-01	4.10E-01	4.11E-01	4.13E-01	4.14E-01
4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01
3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.76E-04	3.76E-04	3.76E-04	3.75E-04	3.75E-04	3.75E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.03E-03	3.03E-03	3.03E-03	3.02E-03	3.02E-03	3.02E-03	3.02E-03	3.02E-03	3.02E-03	3.02E-03
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.62E+00	2.62E+00	2.62E+00	2.62E+00	2.62E+00	2.62E+00	2.62E+00	2.62E+00	2.62E+00	2.61E+00
3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01
3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
6.97E-07	6.95E-07	6.94E-07	6.92E-07	6.91E-07	6.90E-07	6.89E-07	6.88E-07	6.86E-07	6.85E-07
2.79E+01	2.79E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01
4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01
6.15E+00	6.15E+00	6.15E+00	6.15E+00	6.15E+00	6.15E+00	6.14E+00	6.14E+00	6.14E+00	6.14E+00
9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00
3.60E-07	3.60E-07	3.59E-07	3.58E-07	3.57E-07	3.56E-07	3.56E-07	3.55E-07	3.54E-07	3.53E-07
6.50E+00	6.50E+00	6.49E+00	6.49E+00	6.48E+00	6.48E+00	6.47E+00	6.47E+00	6.47E+00	6.46E+00
4.21E-01	4.20E-01	4.19E-01	4.19E-01	4.19E-01	4.19E-01	4.18E-01	4.17E-01	4.17E-01	4.16E-01
4.87E-11	4.85E-11	4.83E-11	4.82E-11	4.80E-11	4.79E-11	4.77E-11	4.75E-11	4.73E-11	4.73E-11
1.59E+01	1.60E+01	1.61E+01	1.62E+01	1.62E+01	1.63E+01	1.64E+01	1.65E+01	1.66E+01	1.66E+01
1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.50E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01

########	########	########	########	########	########	########	########	########	########
7:15	7:30	7:45	8:00	8:15	8:30	8:45	9:00	9:15	9:30
7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04
7.43E-01	7.43E-01	7.43E-01	7.43E-01	7.43E-01	7.42E-01	7.42E-01	7.41E-01	7.41E-01	7.40E-01
7.62E-02	7.62E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02	7.61E-02
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.39E+01	1.39E+01	1.39E+01	1.39E+01	1.39E+01	1.39E+01	1.39E+01	1.39E+01	1.38E+01	1.38E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.81E+01	1.80E+01	1.80E+01	1.80E+01	1.80E+01	1.80E+01	1.79E+01	1.79E+01	1.79E+01	1.79E+01
3.64E-07	3.63E-07	3.62E-07	3.61E-07	3.60E-07	3.59E-07	3.58E-07	3.57E-07	3.56E-07	3.56E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
4.16E-01	4.17E-01	4.19E-01	4.19E-01	4.21E-01	4.23E-01	4.24E-01	4.26E-01	4.27E-01	4.28E-01
4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01
3.75E-04	3.74E-04	3.74E-04	3.74E-04	3.74E-04	3.74E-04	3.74E-04	3.74E-04	3.73E-04	3.73E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.02E-03	3.02E-03	3.02E-03	3.02E-03	3.02E-03	3.01E-03	3.01E-03	3.01E-03	3.01E-03	3.01E-03
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.61E+00	2.61E+00	2.61E+00	2.61E+00	2.61E+00	2.61E+00	2.61E+00	2.61E+00	2.60E+00	2.60E+00
3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01
3.32E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
6.83E-07	6.82E-07	6.81E-07	6.80E-07	6.79E-07	6.77E-07	6.76E-07	6.74E-07	6.73E-07	6.72E-07
2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01
4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01
6.14E+00	6.14E+00	6.14E+00	6.13E+00	6.13E+00	6.13E+00	6.13E+00	6.13E+00	6.13E+00	6.13E+00
9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00	9.45E+00
3.53E-07	3.52E-07	3.51E-07	3.50E-07	3.49E-07	3.48E-07	3.47E-07	3.47E-07	3.47E-07	3.46E-07
6.46E+00	6.45E+00	6.45E+00	6.44E+00	6.44E+00	6.44E+00	6.44E+00	6.44E+00	6.43E+00	6.43E+00
4.15E-01	4.15E-01	4.14E-01	4.13E-01	4.13E-01	4.12E-01	4.12E-01	4.11E-01	4.10E-01	4.10E-01
4.71E-11	4.69E-11	4.68E-11	4.66E-11	4.64E-11	4.63E-11	4.62E-11	4.60E-11	4.58E-11	4.57E-11
1.67E+01	1.67E+01	1.68E+01	1.69E+01	1.70E+01	1.70E+01	1.71E+01	1.72E+01	1.73E+01	1.73E+01
1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01

########	########	########	########	########	########	########	########	########	########
9:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00
7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04	7.26E-04
7.40E-01	7.39E-01	7.39E-01	7.38E-01	7.38E-01	7.37E-01	7.37E-01	7.36E-01	7.36E-01	7.36E-01
7.61E-02	7.61E-02	7.60E-02	7.60E-02	7.60E-02	7.60E-02	7.60E-02	7.60E-02	7.59E-02	7.59E-02
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02	1.30E-02
2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04	2.66E+04
1.38E+01	1.38E+01	1.38E+01	1.38E+01	1.38E+01	1.38E+01	1.38E+01	1.38E+01	1.38E+01	1.38E+01
2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04	2.97E+04
1.79E+01	1.79E+01	1.78E+01	1.78E+01	1.78E+01	1.78E+01	1.78E+01	1.78E+01	1.77E+01	1.77E+01
3.56E-07	3.55E-07	3.54E-07	3.53E-07	3.52E-07	3.51E-07	3.50E-07	3.50E-07	3.49E-07	3.48E-07
7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03	7.88E+03
4.29E-01	4.31E-01	4.32E-01	4.33E-01	4.35E-01	4.36E-01	4.37E-01	4.38E-01	4.40E-01	4.41E-01
4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.06E-01	4.05E-01	4.05E-01	4.05E-01	4.05E-01	4.05E-01
3.73E-04	3.73E-04	3.72E-04	3.72E-04	3.72E-04	3.72E-04	3.71E-04	3.71E-04	3.71E-04	3.70E-04
6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03	6.53E-03
3.00E-03	3.00E-03	3.00E-03	3.00E-03	3.00E-03	3.00E-03	2.99E-03	2.99E-03	2.99E-03	2.99E-03
5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01	5.95E-01
2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
2.60E+00	2.60E+00	2.60E+00	2.60E+00	2.60E+00	2.60E+00	2.60E+00	2.59E+00	2.59E+00	2.59E+00
3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01
3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.30E-01	3.30E-01	3.30E-01	3.30E-01
1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00
6.71E-07	6.70E-07	6.68E-07	6.67E-07	6.66E-07	6.64E-07	6.63E-07	6.62E-07	6.61E-07	6.60E-07
2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.78E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01
4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01	4.36E+01
1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01	1.04E+01
1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01	1.06E+01
6.12E+00	6.12E+00	6.12E+00	6.12E+00	6.12E+00	6.12E+00	6.12E+00	6.11E+00	6.11E+00	6.11E+00
9.45E+00	9.45E+00	9.36E+00	9.36E+00	9.36E+00	9.36E+00	9.36E+00	9.36E+00	9.36E+00	9.36E+00
3.45E-07	3.44E-07	3.43E-07	3.43E-07	3.42E-07	3.41E-07	3.40E-07	3.39E-07	3.38E-07	3.38E-07
6.42E+00	6.42E+00	6.41E+00	6.41E+00	6.41E+00	6.40E+00	6.40E+00	6.39E+00	6.39E+00	6.38E+00
4.10E-01	4.09E-01	4.09E-01	4.08E-01	4.08E-01	4.07E-01	4.06E-01	4.06E-01	4.05E-01	4.04E-01
4.55E-11	4.54E-11	4.53E-11	4.51E-11	4.49E-11	4.48E-11	4.46E-11	4.45E-11	4.44E-11	4.42E-11
1.74E+01	1.75E+01	1.76E+01	1.76E+01	1.76E+01	1.77E+01	1.78E+01	1.79E+01	1.80E+01	1.80E+01
1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.32E-01	2.31E-01

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12:15	12:30	12:45
7.26E-04	7.26E-04	7.26E-04
7.35E-01	7.35E-01	7.34E-01
7.59E-02	7.59E-02	7.59E-02
5.95E-01	5.95E-01	5.95E-01
1.30E-02	1.29E-02	1.29E-02
2.66E+04	2.66E+04	2.66E+04
1.37E+01	1.37E+01	1.37E+01
2.97E+04	2.97E+04	2.97E+04
1.77E+01	1.77E+01	1.77E+01
3.47E-07	3.47E-07	3.46E-07
7.88E+03	7.88E+03	7.88E+03
4.42E-01	4.44E-01	4.45E-01
4.05E-01	4.05E-01	4.05E-01
3.70E-04	3.70E-04	3.70E-04
6.53E-03	6.53E-03	6.53E-03
2.99E-03	2.99E-03	2.98E-03
5.95E-01	5.95E-01	5.95E-01
2.11E-04	2.11E-04	2.11E-04
7.48E-06	7.48E-06	7.48E-06
2.48E-01	2.48E-01	2.48E-01
2.59E+00	2.59E+00	2.59E+00
3.29E-01	3.29E-01	3.29E-01
3.30E-01	3.30E-01	3.30E-01
1.20E+00	1.20E+00	1.20E+00
6.58E-07	6.57E-07	6.56E-07
2.77E+01	2.77E+01	2.77E+01
4.36E+01	4.36E+01	4.36E+01
1.04E+01	1.04E+01	1.04E+01
1.06E+01	1.06E+01	1.06E+01
6.11E+00	6.11E+00	6.11E+00
9.36E+00	9.36E+00	9.36E+00
3.38E-07	3.37E-07	3.36E-07
6.38E+00	6.38E+00	6.37E+00
4.04E-01	4.03E-01	4.03E-01
4.41E-11	4.39E-11	4.37E-11
1.81E+01	1.82E+01	1.83E+01
1.49E-01	1.49E-01	1.49E-01
2.31E-01	2.31E-01	2.31E-01

RASCAL v4.1.0 Source Term
File created: 2011/03/18 03:13
Case name: Fukushima Unit 2 33% core melt no recovery 17MAR 2330 met data update
Radionuclide units: Ci

Interval	########	########	########	########	########	########	########	########	########
Start	6:00	6:15	6:30	6:45	7:00	7:15	7:30	7:45	8:00
Am-241	0.00E+00	0.00E+00	7.70E-04	1.21E-03	6.73E-04	3.77E-04	2.11E-04	1.18E-04	7.59E-05
Ba-140	0.00E+00	0.00E+00	5.66E+04	8.79E+04	4.89E+04	2.71E+04	1.50E+04	8.36E+03	5.34E+03
Ce-141	0.00E+00	0.00E+00	1.48E+03	2.30E+03	1.28E+03	7.10E+02	3.94E+02	2.20E+02	1.40E+02
Ce-143	0.00E+00	0.00E+00	2.31E+02	3.58E+02	1.98E+02	1.09E+02	6.05E+01	3.34E+01	2.12E+01
Ce-144	0.00E+00	0.00E+00	1.27E+03	1.98E+03	1.10E+03	6.11E+02	3.39E+02	1.89E+02	1.21E+02
Cm-242	0.00E+00	0.00E+00	1.60E+01	2.49E+01	1.39E+01	7.69E+00	4.27E+00	2.37E+00	1.51E+00
Cs-134	3.96E+04	6.17E+04	8.71E+04	1.01E+05	5.63E+04	3.12E+04	1.74E+04	9.63E+03	6.17E+03
Cs-136	1.34E+04	2.08E+04	2.93E+04	3.41E+04	1.89E+04	1.05E+04	5.84E+03	3.24E+03	2.07E+03
Cs-137	2.75E+04	4.28E+04	6.04E+04	7.02E+04	3.90E+04	2.17E+04	1.21E+04	6.69E+03	4.28E+03
I-131	2.19E+05	3.40E+05	5.53E+05	6.71E+05	3.73E+05	2.07E+05	1.14E+05	6.37E+04	4.07E+04
I-132	1.97E+05	2.99E+05	4.83E+05	5.81E+05	3.03E+05	1.58E+05	8.30E+04	4.35E+04	2.62E+04
I-133	3.22E+04	4.98E+04	8.03E+04	9.63E+04	5.33E+04	2.93E+04	1.62E+04	8.91E+03	5.65E+03
I-135	5.92E+01	8.97E+01	1.42E+02	1.68E+02	9.09E+01	4.92E+01	2.66E+01	1.44E+01	8.97E+00
Kr-83m	2.04E-10	3.26E-10	1.30E-09	1.86E-09	1.27E-09	8.66E-10	5.90E-10	4.03E-10	2.75E-10
Kr-85	3.18E+03	5.55E+03	2.43E+04	3.83E+04	2.87E+04	2.15E+04	1.61E+04	1.22E+04	9.09E+03
Kr-85m	1.28E-01	2.15E-01	9.00E-01	1.37E+00	9.90E-01	7.15E-01	5.16E-01	3.72E-01	2.68E-01
Kr-88	1.33E-04	2.20E-04	9.00E-04	1.34E-03	9.45E-04	6.66E-04	4.70E-04	3.32E-04	2.34E-04
La-140	0.00E+00	0.00E+00	6.34E+02	1.12E+03	8.28E+02	5.74E+02	3.83E+02	2.48E+02	1.80E+02
La-141	0.00E+00	0.00E+00	1.22E-04	1.83E-04	9.72E-05	5.16E-05	2.75E-05	1.46E-05	8.91E-06
Mo-99	0.00E+00	0.00E+00	3.56E+03	5.52E+03	3.06E+03	1.69E+03	9.36E+02	5.20E+02	3.32E+02
Nb-95	0.00E+00	0.00E+00	6.52E+02	1.02E+03	5.63E+02	3.13E+02	1.74E+02	9.63E+01	6.17E+01
Nb-97	0.00E+00	0.00E+00	9.54E-01	1.48E+00	8.11E-01	4.46E-01	2.45E-01	1.35E-01	8.53E-02
Nd-147	0.00E+00	0.00E+00	2.02E+02	3.13E+02	1.74E+02	9.63E+01	5.36E+01	2.98E+01	1.90E+01
Np-239	0.00E+00	0.00E+00	7.06E+03	1.10E+04	6.06E+03	3.36E+03	1.86E+03	1.03E+03	6.56E+02
Pm-147	0.00E+00	0.00E+00	5.99E-01	9.36E-01	5.20E-01	2.90E-01	1.61E-01	8.99E-02	5.76E-02
Pr-143	0.00E+00	0.00E+00	4.77E+02	7.42E+02	4.11E+02	2.29E+02	1.27E+02	7.05E+01	4.50E+01
Pr-144	0.00E+00	0.00E+00	5.09E+02	9.81E+02	7.97E+02	5.18E+02	3.11E+02	1.80E+02	1.18E+02
Pu-238	0.00E+00	0.00E+00	3.20E-03	4.98E-03	2.77E-03	1.54E-03	8.56E-04	4.76E-04	3.05E-04
Pu-239	0.00E+00	0.00E+00	3.65E-03	5.68E-03	3.16E-03	1.76E-03	9.81E-04	5.45E-04	3.49E-04
Pu-241	0.00E+00	0.00E+00	1.20E+02	1.87E+02	1.04E+02	5.77E+01	3.20E+01	1.78E+01	1.13E+01
Rb-86	5.03E+02	7.82E+02	1.11E+03	1.29E+03	7.13E+02	3.96E+02	2.20E+02	1.22E+02	7.80E+01
Rb-88	1.11E-04	1.70E-04	2.35E-04	4.02E-04	4.43E-04	3.62E-04	2.70E-04	1.95E-04	1.60E-04
Rh-103m	0.00E+00	0.00E+00	7.36E+03	1.14E+04	6.36E+03	3.54E+03	1.96E+03	1.09E+03	6.97E+02
Rh-105	0.00E+00	0.00E+00	1.05E+03	1.63E+03	9.00E+02	4.98E+02	2.75E+02	1.52E+02	9.63E+01
Ru-103	0.00E+00	0.00E+00	7.38E+03	1.15E+04	6.37E+03	3.55E+03	1.97E+03	1.09E+03	6.98E+02
Ru-105	0.00E+00	0.00E+00	6.26E-03	9.36E-03	5.00E-03	2.67E-03	1.43E-03	7.62E-04	4.69E-04
Ru-106	0.00E+00	0.00E+00	2.17E+03	3.38E+03	1.87E+03	1.04E+03	5.79E+02	3.21E+02	2.05E+02
Sb-127	0.00E+00	0.00E+00	4.49E+03	6.97E+03	3.86E+03	2.14E+03	1.19E+03	6.59E+02	4.20E+02
Sb-129	0.00E+00	0.00E+00	2.42E-02	3.63E-02	1.94E-02	1.04E-02	5.51E-03	2.94E-03	1.81E-03
Sr-89	0.00E+00	0.00E+00	3.32E+04	5.18E+04	2.87E+04	1.59E+04	8.87E+03	4.92E+03	3.15E+03
Sr-90	0.00E+00	0.00E+00	2.69E+03	4.19E+03	2.33E+03	1.30E+03	7.19E+02	4.00E+02	2.56E+02

Sr-91	0.00E+00	0.00E+00	7.26E+01	1.11E+02	6.06E+01	3.30E+01	1.80E+01	9.81E+00	6.17E+00
Sr-92	0.00E+00	0.00E+00	8.59E-06	1.25E-05	6.53E-06	3.40E-06	1.77E-06	9.27E-07	5.54E-07
Tc-99m	0.00E+00	0.00E+00	3.43E+03	5.32E+03	2.95E+03	1.64E+03	9.09E+02	5.02E+02	3.20E+02
Te-127	0.00E+00	0.00E+00	6.37E+03	9.90E+03	5.49E+03	3.04E+03	1.69E+03	9.36E+02	5.99E+02
Te-127m	0.00E+00	0.00E+00	1.43E+03	2.23E+03	1.24E+03	6.88E+02	3.83E+02	2.12E+02	1.36E+02
Te-129	0.00E+00	0.00E+00	3.71E+03	5.76E+03	3.20E+03	1.77E+03	9.90E+02	5.48E+02	3.50E+02
Te-129m	0.00E+00	0.00E+00	5.69E+03	8.85E+03	4.91E+03	2.73E+03	1.51E+03	8.42E+02	5.38E+02
Te-131	0.00E+00	0.00E+00	5.82E+02	9.00E+02	4.97E+02	2.75E+02	1.52E+02	8.38E+01	5.33E+01
Te-131m	0.00E+00	0.00E+00	2.58E+03	4.00E+03	2.21E+03	1.22E+03	6.74E+02	3.73E+02	2.37E+02
Te-132	0.00E+00	0.00E+00	6.35E+04	9.90E+04	5.46E+04	3.03E+04	1.68E+04	9.27E+03	5.94E+03
Xe-131m	4.34E+03	7.59E+03	3.31E+04	5.23E+04	3.92E+04	2.93E+04	2.21E+04	1.65E+04	1.23E+04
Xe-133	4.99E+05	8.72E+05	3.81E+06	5.99E+06	4.49E+06	3.37E+06	2.52E+06	1.89E+06	1.41E+06
Xe-133m	7.99E+03	1.40E+04	6.08E+04	9.54E+04	7.15E+04	5.34E+04	3.99E+04	2.98E+04	2.23E+04
Xe-135	2.30E+03	3.96E+03	1.70E+04	2.64E+04	1.94E+04	1.42E+04	1.05E+04	7.72E+03	5.68E+03
Xe-135m	1.28E+01	2.07E+01	8.99E+01	1.22E+02	5.64E+01	2.67E+01	1.31E+01	6.48E+00	3.29E+00
Y-90	0.00E+00	0.00E+00	3.05E+01	5.15E+01	3.48E+01	2.28E+01	1.46E+01	9.18E+00	6.52E+00
Y-91	0.00E+00	0.00E+00	4.43E+02	6.89E+02	3.83E+02	2.12E+02	1.18E+02	6.57E+01	4.19E+01
Y-91m	0.00E+00	0.00E+00	4.60E-01	5.02E+00	8.93E+00	7.66E+00	5.44E+00	3.54E+00	2.51E+00
Y-92	0.00E+00	0.00E+00	7.28E-05	1.08E-04	5.75E-05	3.06E-05	1.63E-05	8.66E-06	5.29E-06
Y-93	0.00E+00	0.00E+00	8.89E-01	1.36E+00	7.43E-01	4.06E-01	2.21E-01	1.21E-01	7.61E-02
Zr-95	0.00E+00	0.00E+00	6.19E+02	9.63E+02	5.35E+02	2.97E+02	1.65E+02	9.18E+01	5.86E+01
Zr-97	0.00E+00	0.00E+00	1.67E+01	2.58E+01	1.42E+01	7.81E+00	4.30E+00	2.37E+00	1.49E+00

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8:15	8:30	8:45	9:00	9:15	9:30	9:45	10:00	10:15	10:30
5.52E-05	4.01E-05	2.92E-05	2.12E-05	1.55E-05	1.13E-05	8.16E-06	5.94E-06	4.32E-06	3.14E-06
3.85E+03	2.78E+03	2.01E+03	1.45E+03	1.04E+03	7.56E+02	5.46E+02	3.94E+02	2.84E+02	2.05E+02
1.01E+02	7.31E+01	5.27E+01	3.81E+01	2.75E+01	1.99E+01	1.43E+01	1.04E+01	7.49E+00	5.41E+00
1.53E+01	1.10E+01	7.88E+00	5.66E+00	4.07E+00	2.93E+00	2.11E+00	1.51E+00	1.09E+00	7.80E-01
8.70E+01	6.29E+01	4.55E+01	3.29E+01	2.37E+01	1.71E+01	1.23E+01	8.94E+00	6.45E+00	4.66E+00
1.10E+00	7.90E-01	5.72E-01	4.12E-01	2.98E-01	2.15E-01	1.56E-01	1.13E-01	8.12E-02	5.86E-02
4.46E+03	3.21E+03	2.32E+03	1.68E+03	1.22E+03	8.76E+02	6.33E+02	4.57E+02	3.30E+02	2.39E+02
1.49E+03	1.08E+03	7.79E+02	5.63E+02	4.07E+02	2.93E+02	2.12E+02	1.53E+02	1.11E+02	7.97E+01
3.09E+03	2.23E+03	1.61E+03	1.16E+03	8.42E+02	6.08E+02	4.39E+02	3.17E+02	2.30E+02	1.66E+02
2.93E+04	2.12E+04	1.53E+04	1.11E+04	7.97E+03	5.75E+03	4.15E+03	3.00E+03	2.16E+03	1.56E+03
1.78E+04	1.22E+04	8.33E+03	5.69E+03	3.90E+03	2.67E+03	1.84E+03	1.26E+03	8.67E+02	5.97E+02
4.05E+03	2.90E+03	2.08E+03	1.49E+03	1.06E+03	7.63E+02	5.47E+02	3.92E+02	2.81E+02	2.01E+02
6.32E+00	4.45E+00	3.13E+00	2.21E+00	1.55E+00	1.09E+00	7.67E-01	5.40E-01	3.80E-01	2.67E-01
1.87E-10	1.28E-10	8.73E-11	5.96E-11	4.07E-11	2.77E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.81E+03	5.11E+03	3.83E+03	2.87E+03	2.16E+03	1.62E+03	1.22E+03	9.09E+02	6.82E+02	5.11E+02
1.94E-01	1.40E-01	1.01E-01	7.28E-02	5.26E-02	3.79E-02	2.74E-02	1.97E-02	1.42E-02	1.03E-02
1.65E-04	1.16E-04	8.22E-05	5.80E-05	4.09E-05	2.89E-05	2.03E-05	1.44E-05	1.02E-05	7.15E-06
1.47E+02	1.17E+02	9.27E+01	7.31E+01	5.71E+01	4.43E+01	3.42E+01	2.63E+01	2.02E+01	1.54E+01
6.16E-06	4.26E-06	2.94E-06	2.03E-06	1.40E-06	9.72E-07	6.72E-07	4.64E-07	3.21E-07	2.22E-07
2.39E+02	1.72E+02	1.24E+02	8.94E+01	6.44E+01	4.64E+01	3.35E+01	2.41E+01	1.74E+01	1.25E+01
4.46E+01	3.22E+01	2.32E+01	1.68E+01	1.22E+01	8.77E+00	6.34E+00	4.57E+00	3.30E+00	2.39E+00
6.10E-02	4.37E-02	3.11E-02	2.23E-02	1.59E-02	1.14E-02	8.15E-03	5.83E-03	4.17E-03	2.98E-03
1.38E+01	9.90E+00	7.16E+00	5.17E+00	3.74E+00	2.69E+00	1.94E+00	1.40E+00	1.02E+00	7.32E-01
4.73E+02	3.40E+02	2.45E+02	1.76E+02	1.27E+02	9.18E+01	6.59E+01	4.74E+01	3.42E+01	2.47E+01
4.17E-02	3.02E-02	2.19E-02	1.58E-02	1.14E-02	8.31E-03	6.01E-03	4.36E-03	3.16E-03	2.29E-03
3.25E+01	2.35E+01	1.69E+01	1.22E+01	8.84E+00	6.38E+00	4.61E+00	3.32E+00	2.40E+00	1.74E+00
8.59E+01	6.25E+01	4.53E+01	3.28E+01	2.37E+01	1.71E+01	1.23E+01	8.94E+00	6.45E+00	4.66E+00
2.21E-04	1.59E-04	1.15E-04	8.33E-05	6.03E-05	4.36E-05	3.15E-05	2.28E-05	1.65E-05	1.20E-05
2.52E-04	1.83E-04	1.32E-04	9.54E-05	6.91E-05	5.00E-05	3.62E-05	2.62E-05	1.89E-05	1.37E-05
8.22E+00	5.94E+00	4.28E+00	3.10E+00	2.24E+00	1.62E+00	1.17E+00	8.43E-01	6.09E-01	4.40E-01
5.63E+01	4.07E+01	2.93E+01	2.12E+01	1.53E+01	1.11E+01	7.98E+00	5.77E+00	4.17E+00	3.01E+00
1.37E-04	1.06E-04	7.88E-05	5.72E-05	4.10E-05	2.92E-05	2.06E-05	1.46E-05	1.04E-05	7.29E-06
5.03E+02	3.64E+02	2.63E+02	1.90E+02	1.37E+02	9.90E+01	7.15E+01	5.16E+01	3.73E+01	2.69E+01
6.96E+01	5.00E+01	3.59E+01	2.58E+01	1.85E+01	1.33E+01	9.63E+00	6.89E+00	4.96E+00	3.56E+00
5.04E+02	3.65E+02	2.63E+02	1.90E+02	1.37E+02	9.90E+01	7.16E+01	5.18E+01	3.74E+01	2.70E+01
3.26E-04	2.26E-04	1.58E-04	1.09E-04	7.59E-05	5.27E-05	3.66E-05	2.55E-05	1.76E-05	1.22E-05
1.49E+02	1.07E+02	7.75E+01	5.60E+01	4.04E+01	2.93E+01	2.11E+01	1.52E+01	1.10E+01	7.96E+00
3.03E+02	2.19E+02	1.58E+02	1.13E+02	8.20E+01	5.91E+01	4.26E+01	3.07E+01	2.21E+01	1.59E+01
1.25E-03	8.69E-04	6.03E-04	4.19E-04	2.91E-04	2.02E-04	1.40E-04	9.72E-05	6.74E-05	4.68E-05
2.28E+03	1.64E+03	1.19E+03	8.57E+02	6.18E+02	4.47E+02	3.23E+02	2.33E+02	1.68E+02	1.22E+02
1.85E+02	1.33E+02	9.63E+01	6.96E+01	5.02E+01	3.63E+01	2.62E+01	1.89E+01	1.37E+01	9.90E+00

4.37E+00	3.11E+00	2.21E+00	1.57E+00	1.11E+00	7.86E-01	5.57E-01	3.95E-01	2.81E-01	1.99E-01
3.75E-07	2.55E-07	1.73E-07	1.17E-07	7.92E-08	5.37E-08	3.64E-08	2.47E-08	1.67E-08	1.13E-08
2.30E+02	1.66E+02	1.20E+02	8.62E+01	6.21E+01	4.47E+01	3.22E+01	2.32E+01	1.67E+01	1.21E+01
4.32E+02	3.11E+02	2.25E+02	1.62E+02	1.17E+02	8.43E+01	6.08E+01	4.39E+01	3.17E+01	2.29E+01
9.81E+01	7.08E+01	5.11E+01	3.69E+01	2.67E+01	1.93E+01	1.40E+01	1.01E+01	7.26E+00	5.25E+00
2.53E+02	1.83E+02	1.32E+02	9.54E+01	6.89E+01	4.97E+01	3.59E+01	2.59E+01	1.87E+01	1.35E+01
3.89E+02	2.81E+02	2.03E+02	1.47E+02	1.05E+02	7.63E+01	5.52E+01	3.99E+01	2.88E+01	2.08E+01
3.83E+01	2.75E+01	1.97E+01	1.41E+01	1.02E+01	7.31E+00	5.25E+00	3.77E+00	2.71E+00	1.94E+00
1.70E+02	1.22E+02	8.77E+01	6.29E+01	4.52E+01	3.25E+01	2.33E+01	1.67E+01	1.21E+01	8.64E+00
4.28E+03	3.09E+03	2.22E+03	1.60E+03	1.15E+03	8.33E+02	6.00E+02	4.33E+02	3.12E+02	2.25E+02
9.27E+03	6.95E+03	5.20E+03	3.91E+03	2.93E+03	2.20E+03	1.65E+03	1.23E+03	9.27E+02	6.92E+02
1.06E+06	7.93E+05	5.94E+05	4.45E+05	3.33E+05	2.49E+05	1.87E+05	1.40E+05	1.05E+05	7.86E+04
1.67E+04	1.24E+04	9.36E+03	6.97E+03	5.20E+03	3.89E+03	2.91E+03	2.18E+03	1.63E+03	1.22E+03
4.19E+03	3.08E+03	2.27E+03	1.67E+03	1.22E+03	9.00E+02	6.64E+02	4.89E+02	3.60E+02	2.65E+02
1.76E+00	1.03E+00	6.42E-01	4.20E-01	2.84E-01	1.95E-01	1.35E-01	9.45E-02	6.63E-02	4.65E-02
5.19E+00	4.10E+00	3.21E+00	2.50E+00	1.94E+00	1.49E+00	1.15E+00	8.78E-01	6.70E-01	5.09E-01
3.03E+01	2.19E+01	1.58E+01	1.14E+01	8.25E+00	5.96E+00	4.30E+00	3.11E+00	2.25E+00	1.62E+00
1.95E+00	1.49E+00	1.12E+00	8.24E-01	6.05E-01	4.41E-01	3.20E-01	2.31E-01	1.67E-01	1.20E-01
3.66E-06	2.53E-06	1.75E-06	1.21E-06	8.36E-07	5.78E-07	4.00E-07	2.76E-07	1.91E-07	1.31E-07
5.40E-02	3.83E-02	2.72E-02	1.94E-02	1.38E-02	9.72E-03	6.92E-03	4.91E-03	3.49E-03	2.48E-03
4.23E+01	3.06E+01	2.21E+01	1.59E+01	1.15E+01	8.33E+00	6.01E+00	4.35E+00	3.14E+00	2.27E+00
1.07E+00	7.64E-01	5.46E-01	3.91E-01	2.79E-01	2.00E-01	1.43E-01	1.02E-01	7.30E-02	5.22E-02

########	########	########	########	########	########	########	########	########	########
10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00
2.29E-06	1.66E-06	1.21E-06	8.77E-07	6.37E-07	4.64E-07	3.37E-07	2.45E-07	1.78E-07	1.30E-07
1.49E+02	1.07E+02	7.73E+01	5.58E+01	4.03E+01	2.91E+01	2.11E+01	1.52E+01	1.10E+01	7.91E+00
3.91E+00	2.82E+00	2.03E+00	1.47E+00	1.06E+00	7.68E-01	5.54E-01	4.01E-01	2.89E-01	2.09E-01
5.61E-01	4.03E-01	2.90E-01	2.08E-01	1.49E-01	1.07E-01	7.72E-02	5.54E-02	3.99E-02	2.86E-02
3.37E+00	2.43E+00	1.76E+00	1.27E+00	9.18E-01	6.62E-01	4.79E-01	3.46E-01	2.50E-01	1.81E-01
4.23E-02	3.06E-02	2.21E-02	1.59E-02	1.15E-02	8.33E-03	6.01E-03	4.35E-03	3.14E-03	2.27E-03
1.72E+02	1.24E+02	8.99E+01	6.50E+01	4.69E+01	3.39E+01	2.45E+01	1.77E+01	1.28E+01	9.27E+00
5.76E+01	4.16E+01	3.00E+01	2.17E+01	1.57E+01	1.13E+01	8.15E+00	5.89E+00	4.25E+00	3.07E+00
1.20E+02	8.64E+01	6.24E+01	4.51E+01	3.26E+01	2.35E+01	1.70E+01	1.22E+01	8.87E+00	6.41E+00
1.13E+03	8.13E+02	5.87E+02	4.23E+02	3.05E+02	2.21E+02	1.59E+02	1.15E+02	8.29E+01	5.99E+01
4.11E+02	2.84E+02	1.96E+02	1.36E+02	9.45E+01	6.55E+01	4.55E+01	3.17E+01	2.21E+01	1.54E+01
1.44E+02	1.04E+02	7.40E+01	5.30E+01	3.80E+01	2.72E+01	1.94E+01	1.40E+01	9.99E+00	7.16E+00
1.88E-01	1.32E-01	9.27E-02	6.55E-02	4.61E-02	3.24E-02	2.29E-02	1.60E-02	1.13E-02	7.96E-03
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.83E+02	2.88E+02	2.16E+02	1.62E+02	1.22E+02	9.09E+01	6.83E+01	5.12E+01	3.84E+01	2.88E+01
7.42E-03	5.36E-03	3.86E-03	2.79E-03	2.01E-03	1.45E-03	1.04E-03	7.55E-04	5.45E-04	3.93E-04
5.04E-06	3.56E-06	2.51E-06	1.77E-06	1.25E-06	8.81E-07	6.22E-07	4.38E-07	3.10E-07	2.18E-07
1.17E+01	8.87E+00	6.71E+00	5.07E+00	3.82E+00	2.87E+00	2.15E+00	1.61E+00	1.21E+00	9.00E-01
1.54E-07	1.06E-07	7.34E-08	5.07E-08	3.50E-08	2.42E-08	1.67E-08	1.16E-08	8.00E-09	5.54E-09
9.00E+00	6.49E+00	4.68E+00	3.38E+00	2.43E+00	1.75E+00	1.26E+00	9.09E-01	6.54E-01	4.72E-01
1.73E+00	1.24E+00	9.00E-01	6.50E-01	4.70E-01	3.39E-01	2.45E-01	1.77E-01	1.28E-01	9.27E-02
2.13E-03	1.52E-03	1.09E-03	7.79E-04	5.57E-04	3.98E-04	2.84E-04	2.03E-04	1.46E-04	1.04E-04
5.28E-01	3.82E-01	2.75E-01	1.99E-01	1.43E-01	1.04E-01	7.48E-02	5.40E-02	3.90E-02	2.82E-02
1.77E+01	1.28E+01	9.18E+00	6.62E+00	4.77E+00	3.44E+00	2.48E+00	1.78E+00	1.29E+00	9.27E-01
1.66E-03	1.20E-03	8.68E-04	6.28E-04	4.55E-04	3.29E-04	2.39E-04	1.73E-04	1.25E-04	9.09E-05
1.25E+00	9.00E-01	6.53E-01	4.71E-01	3.40E-01	2.46E-01	1.77E-01	1.28E-01	9.27E-02	6.68E-02
3.37E+00	2.43E+00	1.76E+00	1.27E+00	9.18E-01	6.62E-01	4.79E-01	3.46E-01	2.50E-01	1.81E-01
8.62E-06	6.24E-06	4.51E-06	3.26E-06	2.36E-06	1.71E-06	1.23E-06	8.92E-07	6.45E-07	4.67E-07
9.90E-06	7.17E-06	5.19E-06	3.75E-06	2.72E-06	1.96E-06	1.42E-06	1.03E-06	7.43E-07	5.38E-07
3.18E-01	2.30E-01	1.66E-01	1.20E-01	8.66E-02	6.26E-02	4.52E-02	3.27E-02	2.36E-02	1.70E-02
2.17E+00	1.57E+00	1.13E+00	8.18E-01	5.90E-01	4.27E-01	3.08E-01	2.22E-01	1.60E-01	1.16E-01
5.15E-06	3.63E-06	2.57E-06	1.81E-06	1.28E-06	9.00E-07	6.35E-07	4.48E-07	3.16E-07	2.23E-07
1.94E+01	1.40E+01	1.02E+01	7.33E+00	5.29E+00	3.83E+00	2.76E+00	2.00E+00	1.44E+00	1.04E+00
2.57E+00	1.85E+00	1.32E+00	9.54E-01	6.84E-01	4.92E-01	3.54E-01	2.54E-01	1.83E-01	1.31E-01
1.94E+01	1.40E+01	1.02E+01	7.34E+00	5.30E+00	3.83E+00	2.76E+00	2.00E+00	1.44E+00	1.04E+00
8.53E-06	5.92E-06	4.11E-06	2.86E-06	1.99E-06	1.38E-06	9.63E-07	6.66E-07	4.63E-07	3.21E-07
5.75E+00	4.15E+00	3.00E+00	2.17E+00	1.57E+00	1.13E+00	8.16E-01	5.90E-01	4.27E-01	3.08E-01
1.15E+01	8.31E+00	5.99E+00	4.32E+00	3.11E+00	2.24E+00	1.62E+00	1.17E+00	8.42E-01	6.07E-01
3.25E-05	2.25E-05	1.57E-05	1.09E-05	7.53E-06	5.23E-06	3.63E-06	2.52E-06	1.75E-06	1.22E-06
8.78E+01	6.35E+01	4.58E+01	3.31E+01	2.39E+01	1.73E+01	1.25E+01	9.00E+00	6.51E+00	4.70E+00
7.14E+00	5.16E+00	3.73E+00	2.69E+00	1.94E+00	1.40E+00	1.02E+00	7.33E-01	5.29E-01	3.83E-01

1.41E-01	9.99E-02	7.10E-02	5.04E-02	3.57E-02	2.54E-02	1.80E-02	1.28E-02	9.09E-03	6.42E-03
7.68E-09	5.20E-09	3.53E-09	2.39E-09	1.62E-09	1.10E-09	7.43E-10	5.04E-10	3.41E-10	2.31E-10
8.69E+00	6.26E+00	4.51E+00	3.25E+00	2.34E+00	1.68E+00	1.22E+00	8.76E-01	6.31E-01	4.55E-01
1.65E+01	1.19E+01	8.57E+00	6.18E+00	4.46E+00	3.22E+00	2.32E+00	1.67E+00	1.21E+00	8.71E-01
3.79E+00	2.74E+00	1.98E+00	1.43E+00	1.04E+00	7.46E-01	5.39E-01	3.89E-01	2.81E-01	2.03E-01
9.81E+00	7.06E+00	5.09E+00	3.68E+00	2.66E+00	1.92E+00	1.39E+00	9.99E-01	7.24E-01	5.22E-01
1.50E+01	1.08E+01	7.83E+00	5.65E+00	4.09E+00	2.95E+00	2.13E+00	1.54E+00	1.11E+00	8.03E-01
1.40E+00	9.99E-01	7.21E-01	5.18E-01	3.72E-01	2.67E-01	1.92E-01	1.38E-01	9.90E-02	7.11E-02
6.20E+00	4.46E+00	3.20E+00	2.30E+00	1.65E+00	1.19E+00	8.52E-01	6.12E-01	4.39E-01	3.16E-01
1.62E+02	1.17E+02	8.42E+01	6.07E+01	4.37E+01	3.15E+01	2.27E+01	1.64E+01	1.18E+01	8.51E+00
5.18E+02	3.89E+02	2.92E+02	2.19E+02	1.64E+02	1.22E+02	9.18E+01	6.89E+01	5.17E+01	3.87E+01
5.89E+04	4.41E+04	3.30E+04	2.48E+04	1.85E+04	1.39E+04	1.04E+04	7.78E+03	5.82E+03	4.37E+03
9.09E+02	6.79E+02	5.08E+02	3.80E+02	2.84E+02	2.12E+02	1.58E+02	1.19E+02	8.86E+01	6.62E+01
1.94E+02	1.43E+02	1.05E+02	7.76E+01	5.71E+01	4.20E+01	3.09E+01	2.28E+01	1.67E+01	1.23E+01
3.28E-02	2.30E-02	1.62E-02	1.14E-02	8.01E-03	5.64E-03	3.97E-03	2.79E-03	1.96E-03	1.39E-03
3.86E-01	2.93E-01	2.21E-01	1.67E-01	1.25E-01	9.36E-02	7.03E-02	5.27E-02	3.93E-02	2.94E-02
1.17E+00	8.47E-01	6.11E-01	4.42E-01	3.19E-01	2.30E-01	1.67E-01	1.21E-01	8.69E-02	6.27E-02
8.55E-02	6.11E-02	4.37E-02	3.11E-02	2.21E-02	1.58E-02	1.13E-02	7.98E-03	5.68E-03	4.03E-03
9.09E-08	6.29E-08	4.35E-08	3.00E-08	2.07E-08	1.43E-08	9.90E-09	6.82E-09	4.72E-09	3.26E-09
1.76E-03	1.25E-03	8.87E-04	6.30E-04	4.47E-04	3.18E-04	2.26E-04	1.60E-04	1.13E-04	8.08E-05
1.64E+00	1.18E+00	8.54E-01	6.17E-01	4.46E-01	3.22E-01	2.32E-01	1.68E-01	1.22E-01	8.76E-02
3.74E-02	2.67E-02	1.91E-02	1.37E-02	9.72E-03	6.98E-03	4.99E-03	3.56E-03	2.55E-03	1.83E-03

########	########	########	########	########	########	########	########	########	########
13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30
9.36E-08	6.83E-08	4.96E-08	3.61E-08	2.62E-08	1.91E-08	1.39E-08	1.01E-08	7.30E-09	5.30E-09
5.71E+00	4.12E+00	2.98E+00	2.15E+00	1.55E+00	1.12E+00	8.09E-01	5.84E-01	4.21E-01	3.04E-01
1.51E-01	1.09E-01	7.87E-02	5.68E-02	4.10E-02	2.96E-02	2.14E-02	1.55E-02	1.12E-02	8.06E-03
2.06E-02	1.48E-02	1.06E-02	7.64E-03	5.49E-03	3.94E-03	2.84E-03	2.03E-03	1.47E-03	1.05E-03
1.31E-01	9.45E-02	6.80E-02	4.91E-02	3.55E-02	2.57E-02	1.85E-02	1.34E-02	9.63E-03	6.98E-03
1.64E-03	1.18E-03	8.55E-04	6.17E-04	4.46E-04	3.22E-04	2.33E-04	1.68E-04	1.22E-04	8.78E-05
6.67E+00	4.82E+00	3.48E+00	2.51E+00	1.82E+00	1.31E+00	9.45E-01	6.85E-01	4.95E-01	3.57E-01
2.21E+00	1.60E+00	1.15E+00	8.34E-01	6.02E-01	4.35E-01	3.14E-01	2.27E-01	1.64E-01	1.18E-01
4.63E+00	3.34E+00	2.41E+00	1.75E+00	1.26E+00	9.09E-01	6.58E-01	4.75E-01	3.43E-01	2.48E-01
4.32E+01	3.11E+01	2.25E+01	1.62E+01	1.17E+01	8.46E+00	6.10E+00	4.41E+00	3.18E+00	2.30E+00
1.08E+01	7.54E+00	5.28E+00	3.71E+00	2.60E+00	1.83E+00	1.29E+00	9.09E-01	6.42E-01	4.53E-01
5.13E+00	3.67E+00	2.64E+00	1.89E+00	1.35E+00	9.72E-01	6.94E-01	4.97E-01	3.56E-01	2.55E-01
5.60E-03	3.94E-03	2.77E-03	1.95E-03	1.37E-03	9.63E-04	6.80E-04	4.78E-04	3.37E-04	2.37E-04
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.16E+01	1.62E+01	1.22E+01	9.09E+00	6.84E+00	5.13E+00	3.84E+00	2.88E+00	2.16E+00	1.62E+00
2.84E-04	2.05E-04	1.48E-04	1.06E-04	7.70E-05	5.55E-05	4.01E-05	2.89E-05	2.09E-05	1.50E-05
1.54E-07	1.09E-07	7.66E-08	5.41E-08	3.82E-08	2.69E-08	1.90E-08	1.34E-08	9.45E-09	6.67E-09
6.74E-01	5.02E-01	3.74E-01	2.78E-01	2.07E-01	1.54E-01	1.14E-01	8.45E-02	6.26E-02	4.64E-02
3.83E-09	2.65E-09	1.83E-09	1.26E-09	8.74E-10	6.04E-10	4.18E-10	2.89E-10	2.00E-10	1.38E-10
3.40E-01	2.45E-01	1.76E-01	1.27E-01	9.18E-02	6.60E-02	4.75E-02	3.43E-02	2.47E-02	1.78E-02
6.68E-02	4.82E-02	3.48E-02	2.52E-02	1.82E-02	1.31E-02	9.45E-03	6.85E-03	4.95E-03	3.57E-03
7.44E-05	5.32E-05	3.81E-05	2.72E-05	1.94E-05	1.40E-05	9.90E-06	7.11E-06	5.09E-06	3.64E-06
2.03E-02	1.47E-02	1.06E-02	7.64E-03	5.52E-03	3.98E-03	2.87E-03	2.08E-03	1.49E-03	1.08E-03
6.66E-01	4.80E-01	3.46E-01	2.48E-01	1.79E-01	1.29E-01	9.27E-02	6.69E-02	4.82E-02	3.47E-02
6.55E-05	4.74E-05	3.44E-05	2.49E-05	1.80E-05	1.31E-05	9.45E-06	6.84E-06	4.95E-06	3.58E-06
4.82E-02	3.48E-02	2.51E-02	1.82E-02	1.31E-02	9.45E-03	6.83E-03	4.93E-03	3.56E-03	2.57E-03
1.31E-01	9.45E-02	6.80E-02	4.91E-02	3.55E-02	2.57E-02	1.85E-02	1.34E-02	9.63E-03	6.98E-03
3.38E-07	2.44E-07	1.76E-07	1.28E-07	9.27E-08	6.68E-08	4.82E-08	3.49E-08	2.53E-08	1.83E-08
3.90E-07	2.82E-07	2.03E-07	1.48E-07	1.06E-07	7.71E-08	5.58E-08	4.03E-08	2.92E-08	2.12E-08
1.23E-02	8.89E-03	6.43E-03	4.64E-03	3.35E-03	2.42E-03	1.75E-03	1.26E-03	9.09E-04	6.60E-04
8.37E-02	6.05E-02	4.37E-02	3.15E-02	2.28E-02	1.65E-02	1.19E-02	8.58E-03	6.19E-03	4.47E-03
1.58E-07	1.11E-07	7.83E-08	5.52E-08	3.90E-08	2.75E-08	1.94E-08	1.37E-08	9.63E-09	6.80E-09
7.52E-01	5.43E-01	3.92E-01	2.83E-01	2.04E-01	1.48E-01	1.06E-01	7.70E-02	5.56E-02	4.01E-02
9.45E-02	6.79E-02	4.88E-02	3.51E-02	2.52E-02	1.81E-02	1.31E-02	9.36E-03	6.73E-03	4.84E-03
7.52E-01	5.44E-01	3.92E-01	2.84E-01	2.05E-01	1.48E-01	1.07E-01	7.72E-02	5.57E-02	4.02E-02
2.23E-07	1.55E-07	1.08E-07	7.49E-08	5.20E-08	3.62E-08	2.51E-08	1.75E-08	1.22E-08	8.42E-09
2.22E-01	1.60E-01	1.16E-01	8.38E-02	6.06E-02	4.37E-02	3.16E-02	2.29E-02	1.65E-02	1.19E-02
4.37E-01	3.15E-01	2.28E-01	1.64E-01	1.18E-01	8.52E-02	6.15E-02	4.43E-02	3.20E-02	2.30E-02
8.42E-07	5.84E-07	4.05E-07	2.81E-07	1.95E-07	1.35E-07	9.36E-08	6.53E-08	4.53E-08	3.14E-08
3.39E+00	2.46E+00	1.77E+00	1.28E+00	9.27E-01	6.68E-01	4.82E-01	3.48E-01	2.52E-01	1.82E-01
2.76E-01	2.00E-01	1.44E-01	1.04E-01	7.52E-02	5.44E-02	3.92E-02	2.84E-02	2.05E-02	1.48E-02

4.55E-03	3.23E-03	2.30E-03	1.63E-03	1.15E-03	8.17E-04	5.80E-04	4.11E-04	2.92E-04	2.07E-04
1.57E-10	1.06E-10	7.20E-11	4.88E-11	3.30E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.28E-01	2.36E-01	1.70E-01	1.22E-01	8.83E-02	6.36E-02	4.58E-02	3.30E-02	2.38E-02	1.71E-02
6.28E-01	4.54E-01	3.27E-01	2.36E-01	1.70E-01	1.22E-01	8.86E-02	6.39E-02	4.61E-02	3.32E-02
1.47E-01	1.06E-01	7.66E-02	5.54E-02	4.00E-02	2.89E-02	2.09E-02	1.50E-02	1.09E-02	7.86E-03
3.77E-01	2.73E-01	1.97E-01	1.42E-01	1.03E-01	7.42E-02	5.36E-02	3.87E-02	2.79E-02	2.02E-02
5.80E-01	4.19E-01	3.02E-01	2.19E-01	1.58E-01	1.14E-01	8.23E-02	5.94E-02	4.29E-02	3.10E-02
5.10E-02	3.66E-02	2.64E-02	1.89E-02	1.36E-02	9.72E-03	7.00E-03	5.03E-03	3.62E-03	2.59E-03
2.27E-01	1.63E-01	1.17E-01	8.40E-02	6.03E-02	4.33E-02	3.11E-02	2.23E-02	1.60E-02	1.15E-02
6.14E+00	4.42E+00	3.19E+00	2.30E+00	1.66E+00	1.20E+00	8.60E-01	6.20E-01	4.47E-01	3.22E-01
2.91E+01	2.18E+01	1.63E+01	1.22E+01	9.18E+00	6.87E+00	5.15E+00	3.86E+00	2.89E+00	2.17E+00
3.27E+03	2.45E+03	1.84E+03	1.38E+03	1.03E+03	7.70E+02	5.77E+02	4.32E+02	3.24E+02	2.42E+02
4.95E+01	3.70E+01	2.76E+01	2.07E+01	1.55E+01	1.15E+01	8.64E+00	6.45E+00	4.82E+00	3.61E+00
9.09E+00	6.67E+00	4.91E+00	3.61E+00	2.66E+00	1.95E+00	1.44E+00	1.06E+00	7.79E-01	5.73E-01
9.72E-04	6.85E-04	4.82E-04	3.39E-04	2.39E-04	1.67E-04	1.18E-04	8.31E-05	5.85E-05	4.11E-05
2.20E-02	1.63E-02	1.22E-02	9.00E-03	6.71E-03	4.99E-03	3.70E-03	2.74E-03	2.03E-03	1.50E-03
4.53E-02	3.28E-02	2.37E-02	1.71E-02	1.23E-02	8.91E-03	6.44E-03	4.65E-03	3.36E-03	2.42E-03
2.86E-03	2.03E-03	1.44E-03	1.03E-03	7.27E-04	5.17E-04	3.66E-04	2.60E-04	1.85E-04	1.31E-04
2.25E-09	1.55E-09	1.07E-09	7.39E-10	5.10E-10	3.52E-10	2.43E-10	1.67E-10	1.16E-10	7.98E-11
5.74E-05	4.08E-05	2.90E-05	2.05E-05	1.46E-05	1.04E-05	7.36E-06	5.23E-06	3.71E-06	2.64E-06
6.33E-02	4.57E-02	3.30E-02	2.39E-02	1.72E-02	1.24E-02	8.99E-03	6.49E-03	4.69E-03	3.38E-03
1.31E-03	9.36E-04	6.67E-04	4.77E-04	3.41E-04	2.44E-04	1.75E-04	1.24E-04	8.91E-05	6.37E-05

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15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00
3.85E-09	2.80E-09	2.03E-09	1.48E-09	1.07E-09	7.79E-10	5.66E-10	4.11E-10	2.99E-10	2.17E-10
2.20E-01	1.58E-01	1.14E-01	8.27E-02	5.97E-02	4.31E-02	3.11E-02	2.25E-02	1.62E-02	1.17E-02
5.82E-03	4.20E-03	3.04E-03	2.20E-03	1.58E-03	1.14E-03	8.27E-04	5.97E-04	4.31E-04	3.11E-04
7.56E-04	5.44E-04	3.91E-04	2.81E-04	2.02E-04	1.45E-04	1.04E-04	7.49E-05	5.38E-05	3.86E-05
5.04E-03	3.65E-03	2.63E-03	1.90E-03	1.38E-03	9.90E-04	7.16E-04	5.18E-04	3.74E-04	2.70E-04
6.34E-05	4.58E-05	3.30E-05	2.39E-05	1.73E-05	1.24E-05	9.00E-06	6.51E-06	4.70E-06	3.39E-06
2.58E-01	1.86E-01	1.35E-01	9.72E-02	7.03E-02	5.08E-02	3.67E-02	2.65E-02	1.92E-02	1.39E-02
8.53E-02	6.16E-02	4.45E-02	3.21E-02	2.32E-02	1.67E-02	1.21E-02	8.72E-03	6.30E-03	4.55E-03
1.79E-01	1.30E-01	9.36E-02	6.75E-02	4.88E-02	3.52E-02	2.55E-02	1.84E-02	1.33E-02	9.63E-03
1.66E+00	1.20E+00	8.63E-01	6.23E-01	4.50E-01	3.25E-01	2.34E-01	1.69E-01	1.22E-01	8.80E-02
3.20E-01	2.27E-01	1.61E-01	1.14E-01	8.09E-02	5.75E-02	4.09E-02	2.91E-02	2.07E-02	1.48E-02
1.83E-01	1.31E-01	9.36E-02	6.71E-02	4.82E-02	3.45E-02	2.47E-02	1.77E-02	1.27E-02	9.09E-03
1.67E-04	1.17E-04	8.25E-05	5.81E-05	4.09E-05	2.87E-05	2.03E-05	1.42E-05	9.99E-06	7.05E-06
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.22E+00	9.09E-01	6.84E-01	5.13E-01	3.85E-01	2.89E-01	2.17E-01	1.62E-01	1.22E-01	9.18E-02
1.09E-05	7.84E-06	5.66E-06	4.09E-06	2.94E-06	2.12E-06	1.53E-06	1.11E-06	7.98E-07	5.76E-07
4.70E-09	3.32E-09	2.34E-09	1.65E-09	1.16E-09	8.22E-10	5.80E-10	4.09E-10	2.89E-10	2.03E-10
3.43E-02	2.53E-02	1.87E-02	1.38E-02	1.02E-02	7.52E-03	5.54E-03	4.08E-03	3.01E-03	2.21E-03
9.54E-11	6.59E-11	4.55E-11	3.15E-11	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*	*0.00E+00*
1.28E-02	9.27E-03	6.65E-03	4.79E-03	3.46E-03	2.48E-03	1.79E-03	1.29E-03	9.27E-04	6.71E-04
2.58E-03	1.86E-03	1.35E-03	9.72E-04	7.04E-04	5.09E-04	3.67E-04	2.66E-04	1.92E-04	1.39E-04
2.60E-06	1.86E-06	1.33E-06	9.54E-07	6.80E-07	4.86E-07	3.47E-07	2.48E-07	1.77E-07	1.27E-07
7.81E-04	5.63E-04	4.07E-04	2.93E-04	2.12E-04	1.53E-04	1.11E-04	7.98E-05	5.76E-05	4.16E-05
2.50E-02	1.80E-02	1.30E-02	9.36E-03	6.72E-03	4.84E-03	3.48E-03	2.51E-03	1.81E-03	1.31E-03
2.59E-06	1.88E-06	1.36E-06	9.81E-07	7.14E-07	5.17E-07	3.74E-07	2.71E-07	1.96E-07	1.42E-07
1.85E-03	1.34E-03	9.63E-04	6.98E-04	5.04E-04	3.64E-04	2.63E-04	1.90E-04	1.37E-04	9.90E-05
5.04E-03	3.65E-03	2.63E-03	1.90E-03	1.38E-03	9.90E-04	7.16E-04	5.18E-04	3.74E-04	2.70E-04
1.32E-08	9.54E-09	6.90E-09	5.00E-09	3.61E-09	2.61E-09	1.89E-09	1.37E-09	9.90E-10	7.15E-10
1.53E-08	1.11E-08	7.99E-09	5.78E-09	4.19E-09	3.02E-09	2.19E-09	1.58E-09	1.14E-09	8.28E-10
4.76E-04	3.44E-04	2.48E-04	1.80E-04	1.30E-04	9.36E-05	6.77E-05	4.89E-05	3.54E-05	2.56E-05
3.23E-03	2.33E-03	1.68E-03	1.22E-03	8.78E-04	6.34E-04	4.58E-04	3.30E-04	2.39E-04	1.73E-04
4.81E-09	3.38E-09	2.39E-09	1.68E-09	1.19E-09	8.40E-10	5.92E-10	4.18E-10	2.94E-10	2.08E-10
2.90E-02	2.10E-02	1.51E-02	1.09E-02	7.89E-03	5.71E-03	4.12E-03	2.98E-03	2.15E-03	1.55E-03
3.48E-03	2.50E-03	1.80E-03	1.30E-03	9.27E-04	6.68E-04	4.80E-04	3.45E-04	2.48E-04	1.78E-04
2.91E-02	2.10E-02	1.52E-02	1.10E-02	7.91E-03	5.72E-03	4.13E-03	2.98E-03	2.15E-03	1.56E-03
5.85E-09	4.07E-09	2.83E-09	1.96E-09	1.36E-09	9.45E-10	6.58E-10	4.57E-10	3.18E-10	2.21E-10
8.60E-03	6.22E-03	4.49E-03	3.24E-03	2.34E-03	1.69E-03	1.22E-03	8.84E-04	6.38E-04	4.61E-04
1.67E-02	1.20E-02	8.64E-03	6.23E-03	4.49E-03	3.24E-03	2.33E-03	1.68E-03	1.22E-03	8.76E-04
2.18E-08	1.51E-08	1.05E-08	7.29E-09	5.06E-09	3.51E-09	2.44E-09	1.69E-09	1.17E-09	8.15E-10
1.31E-01	9.45E-02	6.85E-02	4.94E-02	3.57E-02	2.58E-02	1.86E-02	1.35E-02	9.72E-03	7.02E-03
1.07E-02	7.72E-03	5.58E-03	4.03E-03	2.92E-03	2.11E-03	1.52E-03	1.10E-03	7.93E-04	5.73E-04

1.47E-04	1.04E-04	7.39E-05	5.24E-05	3.72E-05	2.64E-05	1.87E-05	1.32E-05	9.45E-06	6.68E-06
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.23E-02	8.90E-03	6.41E-03	4.62E-03	3.33E-03	2.39E-03	1.73E-03	1.24E-03	8.96E-04	6.46E-04
2.40E-02	1.73E-02	1.25E-02	9.00E-03	6.50E-03	4.69E-03	3.38E-03	2.44E-03	1.76E-03	1.27E-03
5.68E-03	4.10E-03	2.96E-03	2.14E-03	1.55E-03	1.12E-03	8.06E-04	5.82E-04	4.21E-04	3.04E-04
1.46E-02	1.05E-02	7.60E-03	5.49E-03	3.96E-03	2.86E-03	2.07E-03	1.49E-03	1.08E-03	7.79E-04
2.24E-02	1.62E-02	1.17E-02	8.43E-03	6.09E-03	4.40E-03	3.18E-03	2.30E-03	1.66E-03	1.20E-03
1.86E-03	1.34E-03	9.63E-04	6.91E-04	4.96E-04	3.56E-04	2.56E-04	1.84E-04	1.32E-04	9.45E-05
8.28E-03	5.95E-03	4.28E-03	3.07E-03	2.21E-03	1.58E-03	1.13E-03	8.16E-04	5.87E-04	4.21E-04
2.32E-01	1.67E-01	1.21E-01	8.69E-02	6.26E-02	4.52E-02	3.26E-02	2.35E-02	1.69E-02	1.22E-02
1.63E+00	1.22E+00	9.09E-01	6.84E-01	5.13E-01	3.84E-01	2.88E-01	2.16E-01	1.62E-01	1.22E-01
1.82E+02	1.36E+02	1.02E+02	7.63E+01	5.72E+01	4.28E+01	3.20E+01	2.40E+01	1.80E+01	1.35E+01
2.70E+00	2.02E+00	1.50E+00	1.13E+00	8.42E-01	6.29E-01	4.71E-01	3.52E-01	2.63E-01	1.96E-01
4.22E-01	3.11E-01	2.29E-01	1.68E-01	1.23E-01	9.09E-02	6.70E-02	4.93E-02	3.63E-02	2.67E-02
2.90E-05	2.03E-05	1.43E-05	1.01E-05	7.10E-06	5.00E-06	3.52E-06	2.48E-06	1.74E-06	1.22E-06
1.11E-03	8.22E-04	6.07E-04	4.48E-04	3.30E-04	2.44E-04	1.80E-04	1.32E-04	9.72E-05	7.19E-05
1.76E-03	1.27E-03	9.18E-04	6.61E-04	4.77E-04	3.45E-04	2.48E-04	1.80E-04	1.30E-04	9.36E-05
9.27E-05	6.59E-05	4.67E-05	3.32E-05	2.35E-05	1.67E-05	1.19E-05	8.40E-06	5.96E-06	4.23E-06
5.51E-11	3.80E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.87E-06	1.33E-06	9.45E-07	6.70E-07	4.76E-07	3.38E-07	2.40E-07	1.70E-07	1.21E-07	8.60E-08
2.45E-03	1.76E-03	1.28E-03	9.18E-04	6.66E-04	4.81E-04	3.47E-04	2.51E-04	1.81E-04	1.31E-04
4.55E-05	3.26E-05	2.33E-05	1.67E-05	1.19E-05	8.51E-06	6.08E-06	4.36E-06	3.11E-06	2.22E-06

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18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30
1.58E-10	1.14E-10	8.31E-11	6.04E-11	4.38E-11	3.19E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.46E-03	6.10E-03	4.41E-03	3.19E-03	2.30E-03	1.66E-03	1.20E-03	8.65E-04	6.25E-04	4.51E-04
2.25E-04	1.63E-04	1.17E-04	8.48E-05	6.12E-05	4.42E-05	3.20E-05	2.30E-05	1.67E-05	1.21E-05
2.78E-05	2.00E-05	1.43E-05	1.04E-05	7.41E-06	5.32E-06	3.83E-06	2.75E-06	1.98E-06	1.42E-06
1.95E-04	1.41E-04	1.02E-04	7.35E-05	5.32E-05	3.84E-05	2.77E-05	2.01E-05	1.45E-05	1.04E-05
2.45E-06	1.77E-06	1.28E-06	9.27E-07	6.68E-07	4.82E-07	3.48E-07	2.52E-07	1.82E-07	1.31E-07
9.99E-03	7.22E-03	5.21E-03	3.76E-03	2.72E-03	1.96E-03	1.42E-03	1.03E-03	7.41E-04	5.36E-04
3.29E-03	2.37E-03	1.71E-03	1.23E-03	8.92E-04	6.44E-04	4.65E-04	3.36E-04	2.42E-04	1.75E-04
6.93E-03	5.00E-03	3.62E-03	2.61E-03	1.89E-03	1.37E-03	9.81E-04	7.12E-04	5.14E-04	3.72E-04
6.35E-02	4.59E-02	3.31E-02	2.39E-02	1.73E-02	1.24E-02	8.98E-03	6.48E-03	4.68E-03	3.38E-03
1.05E-02	7.52E-03	5.37E-03	3.83E-03	2.75E-03	1.96E-03	1.40E-03	1.01E-03	7.20E-04	5.16E-04
6.51E-03	4.66E-03	3.34E-03	2.39E-03	1.71E-03	1.22E-03	8.79E-04	6.30E-04	4.52E-04	3.23E-04
4.96E-06	3.49E-06	2.46E-06	1.73E-06	1.22E-06	8.56E-07	6.02E-07	4.24E-07	2.98E-07	2.10E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.85E-02	5.14E-02	3.85E-02	2.89E-02	2.17E-02	1.63E-02	1.22E-02	9.18E-03	6.86E-03	5.15E-03
4.16E-07	3.00E-07	2.17E-07	1.57E-07	1.13E-07	8.14E-08	5.87E-08	4.24E-08	3.06E-08	2.21E-08
1.44E-10	1.02E-10	7.15E-11	5.04E-11	3.56E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.63E-03	1.20E-03	8.79E-04	6.46E-04	4.75E-04	3.48E-04	2.56E-04	1.88E-04	1.38E-04	1.01E-04
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.83E-04	3.48E-04	2.51E-04	1.81E-04	1.31E-04	9.36E-05	6.76E-05	4.87E-05	3.51E-05	2.53E-05
9.99E-05	7.22E-05	5.22E-05	3.77E-05	2.72E-05	1.97E-05	1.42E-05	1.03E-05	7.42E-06	5.36E-06
9.09E-08	6.49E-08	4.64E-08	3.32E-08	2.38E-08	1.70E-08	1.22E-08	8.68E-09	6.20E-09	4.44E-09
3.01E-05	2.17E-05	1.57E-05	1.13E-05	8.15E-06	5.89E-06	4.25E-06	3.07E-06	2.21E-06	1.60E-06
9.36E-04	6.76E-04	4.87E-04	3.50E-04	2.52E-04	1.82E-04	1.31E-04	9.45E-05	6.79E-05	4.89E-05
1.03E-07	7.43E-08	5.38E-08	3.90E-08	2.83E-08	2.04E-08	1.48E-08	1.07E-08	7.75E-09	5.62E-09
7.15E-05	5.16E-05	3.73E-05	2.69E-05	1.94E-05	1.40E-05	1.01E-05	7.31E-06	5.27E-06	3.81E-06
1.95E-04	1.41E-04	1.02E-04	7.36E-05	5.32E-05	3.84E-05	2.77E-05	2.01E-05	1.45E-05	1.04E-05
5.17E-10	3.74E-10	2.70E-10	1.95E-10	1.41E-10	1.03E-10	7.39E-11	5.35E-11	3.86E-11	2.80E-11
5.99E-10	4.33E-10	3.13E-10	2.27E-10	1.64E-10	1.19E-10	8.58E-11	6.20E-11	4.49E-11	3.25E-11
1.85E-05	1.33E-05	9.63E-06	6.95E-06	5.02E-06	3.63E-06	2.62E-06	1.89E-06	1.37E-06	9.90E-07
1.24E-04	8.99E-05	6.49E-05	4.69E-05	3.38E-05	2.45E-05	1.76E-05	1.28E-05	9.18E-06	6.64E-06
1.47E-10	1.04E-10	7.30E-11	5.15E-11	3.64E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.13E-03	8.10E-04	5.85E-04	4.22E-04	3.05E-04	2.21E-04	1.59E-04	1.15E-04	8.31E-05	5.99E-05
1.28E-04	9.18E-05	6.62E-05	4.76E-05	3.42E-05	2.46E-05	1.77E-05	1.27E-05	9.18E-06	6.57E-06
1.13E-03	8.12E-04	5.86E-04	4.23E-04	3.06E-04	2.21E-04	1.59E-04	1.15E-04	8.32E-05	6.01E-05
1.53E-10	1.06E-10	7.40E-11	5.14E-11	3.57E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.33E-04	2.40E-04	1.74E-04	1.25E-04	9.09E-05	6.55E-05	4.73E-05	3.42E-05	2.47E-05	1.78E-05
6.31E-04	4.55E-04	3.29E-04	2.37E-04	1.71E-04	1.23E-04	8.87E-05	6.40E-05	4.61E-05	3.32E-05
5.65E-10	3.92E-10	2.72E-10	1.89E-10	1.31E-10	9.09E-11	6.31E-11	4.38E-11	3.04E-11	0.00E+00
5.08E-03	3.66E-03	2.65E-03	1.91E-03	1.38E-03	9.99E-04	7.20E-04	5.20E-04	3.75E-04	2.72E-04
4.14E-04	2.99E-04	2.16E-04	1.56E-04	1.13E-04	8.15E-05	5.89E-05	4.25E-05	3.07E-05	2.21E-05

4.73E-06	3.36E-06	2.39E-06	1.69E-06	1.20E-06	8.51E-07	6.03E-07	4.28E-07	3.03E-07	2.15E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.65E-04	3.36E-04	2.42E-04	1.74E-04	1.25E-04	9.00E-05	6.52E-05	4.69E-05	3.38E-05	2.44E-05
9.18E-04	6.61E-04	4.76E-04	3.44E-04	2.48E-04	1.79E-04	1.29E-04	9.27E-05	6.71E-05	4.84E-05
2.20E-04	1.58E-04	1.14E-04	8.28E-05	5.99E-05	4.32E-05	3.12E-05	2.26E-05	1.63E-05	1.18E-05
5.63E-04	4.07E-04	2.93E-04	2.12E-04	1.53E-04	1.11E-04	7.98E-05	5.77E-05	4.17E-05	3.01E-05
8.64E-04	6.25E-04	4.51E-04	3.26E-04	2.35E-04	1.70E-04	1.22E-04	8.87E-05	6.40E-05	4.63E-05
6.81E-05	4.90E-05	3.51E-05	2.52E-05	1.81E-05	1.31E-05	9.36E-06	6.71E-06	4.82E-06	3.47E-06
3.02E-04	2.17E-04	1.56E-04	1.13E-04	8.06E-05	5.78E-05	4.15E-05	2.98E-05	2.14E-05	1.54E-05
8.79E-03	6.34E-03	4.56E-03	3.29E-03	2.38E-03	1.71E-03	1.23E-03	8.88E-04	6.41E-04	4.62E-04
9.09E-02	6.81E-02	5.11E-02	3.83E-02	2.87E-02	2.15E-02	1.61E-02	1.21E-02	9.09E-03	6.80E-03
1.01E+01	7.55E+00	5.66E+00	4.24E+00	3.18E+00	2.38E+00	1.78E+00	1.33E+00	9.99E-01	7.48E-01
1.47E-01	1.10E-01	8.21E-02	6.14E-02	4.59E-02	3.43E-02	2.57E-02	1.92E-02	1.43E-02	1.07E-02
1.96E-02	1.45E-02	1.06E-02	7.82E-03	5.76E-03	4.24E-03	3.11E-03	2.30E-03	1.69E-03	1.24E-03
8.62E-07	6.07E-07	4.27E-07	3.01E-07	2.12E-07	1.49E-07	1.04E-07	7.36E-08	5.18E-08	3.65E-08
5.29E-05	3.89E-05	2.86E-05	2.11E-05	1.55E-05	1.13E-05	8.34E-06	6.13E-06	4.50E-06	3.30E-06
6.78E-05	4.90E-05	3.54E-05	2.56E-05	1.85E-05	1.33E-05	9.63E-06	6.95E-06	5.02E-06	3.63E-06
3.00E-06	2.12E-06	1.51E-06	1.07E-06	7.59E-07	5.38E-07	3.82E-07	2.71E-07	1.93E-07	1.36E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.10E-08	4.33E-08	3.08E-08	2.19E-08	1.55E-08	1.10E-08	7.82E-09	5.55E-09	3.94E-09	2.80E-09
9.45E-05	6.83E-05	4.93E-05	3.56E-05	2.57E-05	1.86E-05	1.34E-05	9.72E-06	7.01E-06	5.06E-06
1.59E-06	1.13E-06	8.14E-07	5.81E-07	4.16E-07	2.97E-07	2.12E-07	1.52E-07	1.09E-07	7.78E-08

########	########	########	########	########	########	########	########	########	########
20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45	23:00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.26E-04	2.35E-04	1.70E-04	1.22E-04	8.85E-05	6.38E-05	4.61E-05	3.33E-05	2.40E-05	1.74E-05
8.69E-06	6.27E-06	4.53E-06	3.28E-06	2.37E-06	1.71E-06	1.23E-06	8.90E-07	6.44E-07	4.64E-07
1.02E-06	7.34E-07	5.27E-07	3.79E-07	2.72E-07	1.95E-07	1.40E-07	1.01E-07	7.25E-08	5.21E-08
7.55E-06	5.45E-06	3.94E-06	2.84E-06	2.05E-06	1.49E-06	1.07E-06	7.75E-07	5.60E-07	4.04E-07
9.45E-08	6.85E-08	4.95E-08	3.57E-08	2.58E-08	1.86E-08	1.35E-08	9.72E-09	7.03E-09	5.08E-09
3.86E-04	2.79E-04	2.02E-04	1.46E-04	1.05E-04	7.61E-05	5.49E-05	3.97E-05	2.86E-05	2.07E-05
1.26E-04	9.09E-05	6.59E-05	4.75E-05	3.44E-05	2.48E-05	1.79E-05	1.30E-05	9.36E-06	6.74E-06
2.68E-04	1.94E-04	1.40E-04	1.01E-04	7.31E-05	5.27E-05	3.82E-05	2.75E-05	1.99E-05	1.44E-05
2.44E-03	1.76E-03	1.27E-03	9.18E-04	6.62E-04	4.77E-04	3.45E-04	2.48E-04	1.79E-04	1.30E-04
3.70E-04	2.66E-04	1.90E-04	1.37E-04	9.81E-05	7.04E-05	5.05E-05	3.63E-05	2.61E-05	1.87E-05
2.31E-04	1.66E-04	1.19E-04	8.52E-05	6.10E-05	4.37E-05	3.13E-05	2.24E-05	1.61E-05	1.15E-05
1.48E-07	1.04E-07	7.31E-08	5.15E-08	3.62E-08	2.55E-08	1.79E-08	1.26E-08	8.87E-09	6.25E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.86E-03	2.90E-03	2.17E-03	1.63E-03	1.22E-03	9.18E-04	6.87E-04	5.15E-04	3.86E-04	2.90E-04
1.59E-08	1.15E-08	8.29E-09	5.98E-09	4.31E-09	3.11E-09	2.25E-09	1.62E-09	1.17E-09	8.44E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.41E-05	5.43E-05	3.98E-05	2.92E-05	2.13E-05	1.57E-05	1.14E-05	8.37E-06	6.12E-06	4.47E-06
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.82E-05	1.31E-05	9.45E-06	6.81E-06	4.91E-06	3.54E-06	2.55E-06	1.84E-06	1.32E-06	9.54E-07
3.87E-06	2.80E-06	2.02E-06	1.46E-06	1.05E-06	7.61E-07	5.50E-07	3.97E-07	2.87E-07	2.07E-07
3.17E-09	2.27E-09	1.62E-09	1.16E-09	8.29E-10	5.93E-10	4.24E-10	3.03E-10	2.17E-10	1.55E-10
1.15E-06	8.33E-07	6.02E-07	4.35E-07	3.13E-07	2.27E-07	1.64E-07	1.18E-07	8.51E-08	6.15E-08
3.52E-05	2.54E-05	1.83E-05	1.31E-05	9.45E-06	6.82E-06	4.91E-06	3.54E-06	2.55E-06	1.84E-06
4.07E-09	2.94E-09	2.13E-09	1.54E-09	1.12E-09	8.08E-10	5.85E-10	4.23E-10	3.07E-10	2.22E-10
2.75E-06	1.99E-06	1.43E-06	1.04E-06	7.47E-07	5.39E-07	3.90E-07	2.81E-07	2.03E-07	1.47E-07
7.55E-06	5.45E-06	3.94E-06	2.84E-06	2.06E-06	1.49E-06	1.07E-06	7.75E-07	5.60E-07	4.04E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.14E-07	5.16E-07	3.73E-07	2.69E-07	1.94E-07	1.40E-07	1.02E-07	7.33E-08	5.29E-08	3.83E-08
4.80E-06	3.47E-06	2.50E-06	1.81E-06	1.31E-06	9.45E-07	6.80E-07	4.91E-07	3.55E-07	2.57E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.33E-05	3.13E-05	2.26E-05	1.63E-05	1.18E-05	8.51E-06	6.15E-06	4.44E-06	3.20E-06	2.31E-06
4.73E-06	3.39E-06	2.44E-06	1.76E-06	1.26E-06	9.09E-07	6.52E-07	4.69E-07	3.37E-07	2.42E-07
4.34E-05	3.13E-05	2.27E-05	1.64E-05	1.18E-05	8.53E-06	6.17E-06	4.45E-06	3.21E-06	2.32E-06
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.29E-05	9.27E-06	6.72E-06	4.86E-06	3.51E-06	2.54E-06	1.83E-06	1.32E-06	9.54E-07	6.90E-07
2.39E-05	1.73E-05	1.24E-05	8.99E-06	6.48E-06	4.67E-06	3.37E-06	2.43E-06	1.76E-06	1.26E-06
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.96E-04	1.41E-04	1.03E-04	7.39E-05	5.34E-05	3.85E-05	2.78E-05	2.01E-05	1.45E-05	1.05E-05
1.60E-05	1.16E-05	8.36E-06	6.04E-06	4.37E-06	3.15E-06	2.28E-06	1.65E-06	1.19E-06	8.59E-07

1.53E-07	1.08E-07	7.69E-08	5.45E-08	3.87E-08	2.75E-08	1.94E-08	1.38E-08	9.81E-09	6.95E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.76E-05	1.27E-05	9.09E-06	6.56E-06	4.73E-06	3.41E-06	2.46E-06	1.77E-06	1.28E-06	9.18E-07
3.49E-05	2.52E-05	1.82E-05	1.31E-05	9.45E-06	6.82E-06	4.92E-06	3.56E-06	2.57E-06	1.85E-06
8.50E-06	6.14E-06	4.44E-06	3.20E-06	2.31E-06	1.67E-06	1.21E-06	8.72E-07	6.30E-07	4.55E-07
2.17E-05	1.57E-05	1.13E-05	8.19E-06	5.91E-06	4.27E-06	3.09E-06	2.23E-06	1.61E-06	1.16E-06
3.34E-05	2.41E-05	1.74E-05	1.26E-05	9.09E-06	6.56E-06	4.73E-06	3.42E-06	2.48E-06	1.78E-06
2.48E-06	1.79E-06	1.29E-06	9.18E-07	6.62E-07	4.75E-07	3.42E-07	2.46E-07	1.76E-07	1.27E-07
1.11E-05	7.94E-06	5.70E-06	4.10E-06	2.94E-06	2.12E-06	1.52E-06	1.09E-06	7.83E-07	5.63E-07
3.33E-04	2.39E-04	1.73E-04	1.24E-04	8.98E-05	6.47E-05	4.67E-05	3.37E-05	2.42E-05	1.75E-05
5.09E-03	3.82E-03	2.86E-03	2.14E-03	1.61E-03	1.21E-03	9.00E-04	6.77E-04	5.08E-04	3.80E-04
5.61E-01	4.19E-01	3.14E-01	2.36E-01	1.76E-01	1.32E-01	9.90E-02	7.41E-02	5.55E-02	4.16E-02
8.01E-03	5.99E-03	4.47E-03	3.35E-03	2.50E-03	1.87E-03	1.40E-03	1.04E-03	7.80E-04	5.83E-04
9.18E-04	6.72E-04	4.95E-04	3.65E-04	2.68E-04	1.97E-04	1.45E-04	1.07E-04	7.86E-05	5.78E-05
2.57E-08	1.81E-08	1.27E-08	8.94E-09	6.29E-09	4.43E-09	3.11E-09	2.20E-09	1.54E-09	1.09E-09
2.42E-06	1.77E-06	1.31E-06	9.54E-07	6.99E-07	5.12E-07	3.75E-07	2.75E-07	2.01E-07	1.48E-07
2.62E-06	1.89E-06	1.37E-06	9.90E-07	7.13E-07	5.15E-07	3.72E-07	2.68E-07	1.94E-07	1.40E-07
9.63E-08	6.86E-08	4.87E-08	3.46E-08	2.45E-08	1.74E-08	1.23E-08	8.74E-09	6.20E-09	4.40E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.99E-09	1.41E-09	9.99E-10	7.12E-10	5.06E-10	3.59E-10	2.55E-10	1.81E-10	1.29E-10	9.09E-11
3.65E-06	2.64E-06	1.91E-06	1.38E-06	9.99E-07	7.19E-07	5.19E-07	3.75E-07	2.71E-07	1.95E-07
5.56E-08	3.98E-08	2.84E-08	2.03E-08	1.45E-08	1.04E-08	7.43E-09	5.31E-09	3.80E-09	2.72E-09

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23:15	23:30	23:45	0:00	0:15	0:30	0:45	1:00	1:15	1:30
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.25E-05	9.00E-06	6.53E-06	4.72E-06	3.40E-06	2.46E-06	1.77E-06	1.28E-06	9.27E-07	6.68E-07
3.36E-07	2.42E-07	1.75E-07	1.26E-07	9.09E-08	6.59E-08	4.76E-08	3.44E-08	2.48E-08	1.79E-08
3.74E-08	2.69E-08	1.94E-08	1.40E-08	9.99E-09	7.18E-09	5.16E-09	3.71E-09	2.66E-09	1.92E-09
2.93E-07	2.12E-07	1.52E-07	1.10E-07	7.96E-08	5.75E-08	4.15E-08	3.00E-08	2.17E-08	1.57E-08
3.67E-09	2.65E-09	1.92E-09	1.39E-09	9.99E-10	7.22E-10	5.21E-10	3.76E-10	2.72E-10	1.96E-10
1.49E-05	1.08E-05	7.80E-06	5.64E-06	4.08E-06	2.94E-06	2.12E-06	1.54E-06	1.11E-06	8.01E-07
4.86E-06	3.51E-06	2.54E-06	1.83E-06	1.32E-06	9.54E-07	6.89E-07	4.98E-07	3.59E-07	2.59E-07
1.04E-05	7.50E-06	5.42E-06	3.92E-06	2.83E-06	2.04E-06	1.48E-06	1.06E-06	7.70E-07	5.56E-07
9.36E-05	6.75E-05	4.87E-05	3.52E-05	2.54E-05	1.83E-05	1.32E-05	9.54E-06	6.89E-06	4.97E-06
1.35E-05	9.72E-06	6.97E-06	5.00E-06	3.60E-06	2.59E-06	1.86E-06	1.34E-06	9.63E-07	6.95E-07
8.25E-06	5.91E-06	4.24E-06	3.03E-06	2.18E-06	1.56E-06	1.12E-06	7.99E-07	5.72E-07	4.10E-07
4.39E-09	3.10E-09	2.18E-09	1.53E-09	1.08E-09	7.58E-10	5.34E-10	3.75E-10	2.65E-10	1.86E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.17E-04	1.63E-04	1.22E-04	9.18E-05	6.88E-05	5.16E-05	3.87E-05	2.90E-05	2.18E-05	1.63E-05
6.09E-10	4.39E-10	3.17E-10	2.29E-10	1.66E-10	1.19E-10	8.60E-11	6.21E-11	4.48E-11	3.23E-11
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.28E-06	2.39E-06	1.75E-06	1.28E-06	9.36E-07	6.83E-07	4.99E-07	3.65E-07	2.66E-07	1.94E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.87E-07	4.95E-07	3.56E-07	2.57E-07	1.85E-07	1.33E-07	9.63E-08	6.92E-08	4.99E-08	3.59E-08
1.49E-07	1.08E-07	7.81E-08	5.64E-08	4.08E-08	2.94E-08	2.12E-08	1.54E-08	1.11E-08	8.02E-09
1.11E-10	7.92E-11	5.66E-11	4.05E-11	2.90E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.44E-08	3.20E-08	2.31E-08	1.67E-08	1.21E-08	8.70E-09	6.28E-09	4.54E-09	3.28E-09	2.37E-09
1.32E-06	9.54E-07	6.86E-07	4.94E-07	3.56E-07	2.57E-07	1.85E-07	1.33E-07	9.54E-08	6.89E-08
1.60E-10	1.16E-10	8.42E-11	6.09E-11	4.41E-11	3.20E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.06E-07	7.64E-08	5.52E-08	3.99E-08	2.88E-08	2.08E-08	1.50E-08	1.08E-08	7.82E-09	5.64E-09
2.93E-07	2.12E-07	1.52E-07	1.10E-07	7.96E-08	5.75E-08	4.15E-08	3.00E-08	2.17E-08	1.57E-08
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.76E-08	2.00E-08	1.44E-08	1.04E-08	7.52E-09	5.44E-09	3.92E-09	2.84E-09	2.05E-09	1.48E-09
1.85E-07	1.33E-07	9.63E-08	6.97E-08	5.03E-08	3.64E-08	2.62E-08	1.89E-08	1.37E-08	9.90E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.67E-06	1.21E-06	8.73E-07	6.30E-07	4.55E-07	3.29E-07	2.38E-07	1.72E-07	1.24E-07	8.95E-08
1.74E-07	1.25E-07	8.99E-08	6.46E-08	4.64E-08	3.34E-08	2.40E-08	1.73E-08	1.24E-08	8.92E-09
1.67E-06	1.22E-06	8.75E-07	6.32E-07	4.56E-07	3.29E-07	2.38E-07	1.72E-07	1.24E-07	8.96E-08
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.99E-07	3.60E-07	2.60E-07	1.88E-07	1.36E-07	9.81E-08	7.08E-08	5.12E-08	3.70E-08	2.67E-08
9.09E-07	6.57E-07	4.73E-07	3.41E-07	2.46E-07	1.77E-07	1.28E-07	9.27E-08	6.65E-08	4.80E-08
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.58E-06	5.47E-06	3.95E-06	2.85E-06	2.06E-06	1.49E-06	1.08E-06	7.77E-07	5.62E-07	4.05E-07
6.20E-07	4.48E-07	3.23E-07	2.34E-07	1.69E-07	1.22E-07	8.81E-08	6.36E-08	4.60E-08	3.32E-08

4.92E-09	3.49E-09	2.48E-09	1.76E-09	1.25E-09	8.85E-10	6.27E-10	4.46E-10	3.16E-10	2.24E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.62E-07	4.77E-07	3.44E-07	2.48E-07	1.78E-07	1.29E-07	9.27E-08	6.67E-08	4.81E-08	3.47E-08
1.33E-06	9.63E-07	6.94E-07	5.00E-07	3.61E-07	2.60E-07	1.88E-07	1.36E-07	9.81E-08	7.06E-08
3.29E-07	2.38E-07	1.72E-07	1.24E-07	8.96E-08	6.47E-08	4.67E-08	3.38E-08	2.44E-08	1.76E-08
8.39E-07	6.06E-07	4.37E-07	3.16E-07	2.29E-07	1.65E-07	1.19E-07	8.60E-08	6.21E-08	4.49E-08
1.29E-06	9.27E-07	6.72E-07	4.86E-07	3.51E-07	2.54E-07	1.83E-07	1.32E-07	9.54E-08	6.89E-08
9.09E-08	6.53E-08	4.69E-08	3.37E-08	2.42E-08	1.74E-08	1.25E-08	8.96E-09	6.44E-09	4.63E-09
4.04E-07	2.90E-07	2.08E-07	1.49E-07	1.07E-07	7.71E-08	5.54E-08	3.98E-08	2.86E-08	2.05E-08
1.26E-05	9.09E-06	6.54E-06	4.72E-06	3.40E-06	2.45E-06	1.76E-06	1.27E-06	9.18E-07	6.62E-07
2.85E-04	2.13E-04	1.60E-04	1.20E-04	8.99E-05	6.74E-05	5.05E-05	3.79E-05	2.84E-05	2.12E-05
3.11E-02	2.33E-02	1.75E-02	1.31E-02	9.81E-03	7.34E-03	5.50E-03	4.11E-03	3.09E-03	2.31E-03
4.37E-04	3.26E-04	2.44E-04	1.82E-04	1.36E-04	1.02E-04	7.61E-05	5.69E-05	4.26E-05	3.18E-05
4.26E-05	3.13E-05	2.30E-05	1.69E-05	1.25E-05	9.18E-06	6.76E-06	4.97E-06	3.65E-06	2.69E-06
7.64E-10	5.37E-10	3.78E-10	2.66E-10	1.87E-10	1.31E-10	9.27E-11	6.53E-11	4.59E-11	3.23E-11
1.08E-07	7.88E-08	5.77E-08	4.21E-08	3.09E-08	2.25E-08	1.65E-08	1.21E-08	8.80E-09	6.43E-09
1.01E-07	7.31E-08	5.28E-08	3.82E-08	2.75E-08	1.99E-08	1.44E-08	1.04E-08	7.50E-09	5.42E-09
3.12E-09	2.21E-09	1.57E-09	1.12E-09	7.89E-10	5.60E-10	3.98E-10	2.82E-10	2.00E-10	1.42E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.49E-11	4.61E-11	3.27E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.41E-07	1.02E-07	7.37E-08	5.33E-08	3.85E-08	2.78E-08	2.01E-08	1.45E-08	1.04E-08	7.57E-09
1.94E-09	1.39E-09	9.90E-10	7.10E-10	5.08E-10	3.63E-10	2.59E-10	1.85E-10	1.32E-10	9.45E-11

########	########	########	########	########	########	########	########	########	########
1:45	2:00	2:15	2:30	2:45	3:00	3:15	3:30	3:45	4:00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.82E-07	3.48E-07	2.51E-07	1.82E-07	1.31E-07	9.45E-08	6.83E-08	4.93E-08	3.56E-08	2.57E-08
1.30E-08	9.36E-09	6.76E-09	4.88E-09	3.53E-09	2.55E-09	1.84E-09	1.33E-09	9.63E-10	6.93E-10
1.38E-09	9.90E-10	7.11E-10	5.11E-10	3.67E-10	2.64E-10	1.90E-10	1.36E-10	9.81E-11	7.04E-11
1.13E-08	8.17E-09	5.90E-09	4.27E-09	3.08E-09	2.22E-09	1.61E-09	1.16E-09	8.39E-10	6.06E-10
1.42E-10	1.03E-10	7.41E-11	5.35E-11	3.86E-11	2.79E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.79E-07	4.19E-07	3.02E-07	2.18E-07	1.58E-07	1.14E-07	8.23E-08	5.94E-08	4.29E-08	3.11E-08
1.87E-07	1.35E-07	9.72E-08	7.05E-08	5.09E-08	3.67E-08	2.66E-08	1.92E-08	1.39E-08	9.99E-09
4.01E-07	2.91E-07	2.10E-07	1.51E-07	1.10E-07	7.90E-08	5.72E-08	4.12E-08	2.98E-08	2.15E-08
3.59E-06	2.59E-06	1.87E-06	1.35E-06	9.72E-07	7.03E-07	5.07E-07	3.66E-07	2.64E-07	1.91E-07
5.00E-07	3.60E-07	2.59E-07	1.86E-07	1.34E-07	9.72E-08	6.98E-08	5.02E-08	3.62E-08	2.60E-08
2.93E-07	2.11E-07	1.51E-07	1.08E-07	7.74E-08	5.54E-08	3.97E-08	2.84E-08	2.04E-08	1.46E-08
1.31E-10	9.18E-11	6.48E-11	4.55E-11	3.20E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.22E-05	9.18E-06	6.89E-06	5.17E-06	3.87E-06	2.91E-06	2.18E-06	1.63E-06	1.22E-06	9.18E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.41E-07	1.04E-07	7.55E-08	5.51E-08	4.01E-08	2.93E-08	2.13E-08	1.56E-08	1.13E-08	8.28E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.59E-08	1.86E-08	1.34E-08	9.72E-09	6.98E-09	5.02E-09	3.62E-09	2.61E-09	1.88E-09	1.35E-09
5.80E-09	4.19E-09	3.02E-09	2.19E-09	1.58E-09	1.14E-09	8.24E-10	5.95E-10	4.29E-10	3.11E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.71E-09	1.23E-09	8.89E-10	6.43E-10	4.64E-10	3.35E-10	2.41E-10	1.75E-10	1.26E-10	9.09E-11
4.96E-08	3.57E-08	2.57E-08	1.85E-08	1.33E-08	9.63E-09	6.92E-09	4.99E-09	3.59E-09	2.58E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.08E-09	2.94E-09	2.12E-09	1.53E-09	1.11E-09	7.99E-10	5.77E-10	4.17E-10	3.01E-10	2.17E-10
1.13E-08	8.17E-09	5.90E-09	4.27E-09	3.08E-09	2.22E-09	1.61E-09	1.16E-09	8.39E-10	6.06E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.07E-09	7.72E-10	5.58E-10	4.03E-10	2.91E-10	2.11E-10	1.52E-10	1.10E-10	7.93E-11	5.72E-11
7.14E-09	5.15E-09	3.72E-09	2.68E-09	1.94E-09	1.40E-09	1.01E-09	7.30E-10	5.27E-10	3.81E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.46E-08	4.67E-08	3.38E-08	2.44E-08	1.76E-08	1.27E-08	9.18E-09	6.62E-09	4.79E-09	3.46E-09
6.42E-09	4.61E-09	3.31E-09	2.39E-09	1.71E-09	1.23E-09	8.85E-10	6.36E-10	4.57E-10	3.29E-10
6.48E-08	4.68E-08	3.38E-08	2.44E-08	1.76E-08	1.27E-08	9.18E-09	6.64E-09	4.80E-09	3.47E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.93E-08	1.40E-08	1.01E-08	7.27E-09	5.26E-09	3.80E-09	2.75E-09	1.98E-09	1.43E-09	1.04E-09
3.46E-08	2.49E-08	1.80E-08	1.30E-08	9.36E-09	6.74E-09	4.86E-09	3.50E-09	2.53E-09	1.82E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.93E-07	2.12E-07	1.53E-07	1.11E-07	7.97E-08	5.76E-08	4.16E-08	3.01E-08	2.17E-08	1.57E-08
2.40E-08	1.74E-08	1.25E-08	9.09E-09	6.53E-09	4.72E-09	3.41E-09	2.47E-09	1.78E-09	1.29E-09

1.59E-10	1.13E-10	7.99E-11	5.67E-11	4.02E-11	2.85E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.49E-08	1.80E-08	1.30E-08	9.36E-09	6.72E-09	4.84E-09	3.49E-09	2.51E-09	1.81E-09	1.31E-09
5.09E-08	3.67E-08	2.65E-08	1.91E-08	1.38E-08	9.90E-09	7.17E-09	5.18E-09	3.74E-09	2.69E-09
1.27E-08	9.18E-09	6.64E-09	4.80E-09	3.47E-09	2.50E-09	1.81E-09	1.31E-09	9.45E-10	6.81E-10
3.24E-08	2.34E-08	1.69E-08	1.22E-08	8.82E-09	6.37E-09	4.60E-09	3.32E-09	2.40E-09	1.74E-09
4.98E-08	3.60E-08	2.60E-08	1.87E-08	1.36E-08	9.81E-09	7.07E-09	5.10E-09	3.69E-09	2.66E-09
3.32E-09	2.39E-09	1.71E-09	1.23E-09	8.84E-10	6.35E-10	4.55E-10	3.28E-10	2.35E-10	1.69E-10
1.48E-08	1.06E-08	7.61E-09	5.46E-09	3.92E-09	2.82E-09	2.03E-09	1.46E-09	1.04E-09	7.51E-10
4.77E-07	3.44E-07	2.48E-07	1.78E-07	1.29E-07	9.27E-08	6.69E-08	4.82E-08	3.47E-08	2.50E-08
1.59E-05	1.20E-05	8.96E-06	6.71E-06	5.03E-06	3.77E-06	2.83E-06	2.12E-06	1.59E-06	1.19E-06
1.73E-03	1.30E-03	9.72E-04	7.26E-04	5.45E-04	4.08E-04	3.05E-04	2.29E-04	1.71E-04	1.29E-04
2.38E-05	1.77E-05	1.33E-05	9.90E-06	7.43E-06	5.54E-06	4.15E-06	3.10E-06	2.32E-06	1.74E-06
1.98E-06	1.46E-06	1.07E-06	7.89E-07	5.81E-07	4.28E-07	3.14E-07	2.31E-07	1.70E-07	1.25E-07
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.70E-09	3.43E-09	2.50E-09	1.83E-09	1.33E-09	9.72E-10	7.12E-10	5.19E-10	3.79E-10	2.76E-10
3.92E-09	2.83E-09	2.04E-09	1.48E-09	1.06E-09	7.70E-10	5.56E-10	4.01E-10	2.90E-10	2.10E-10
1.01E-10	7.14E-11	5.06E-11	3.59E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.46E-09	3.95E-09	2.85E-09	2.06E-09	1.49E-09	1.07E-09	7.76E-10	5.61E-10	4.05E-10	2.93E-10
6.79E-11	4.85E-11	3.47E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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4:15	4:30	4:45	5:00	5:15	5:30	5:45	6:00	6:15	6:30
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.85E-08	1.34E-08	9.63E-09	6.98E-09	5.04E-09	3.64E-09	2.63E-09	1.90E-09	1.37E-09	9.90E-10
5.00E-10	3.61E-10	2.61E-10	1.88E-10	1.36E-10	9.81E-11	7.10E-11	5.13E-11	3.71E-11	0.00E+00
5.06E-11	3.64E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.37E-10	3.16E-10	2.29E-10	1.65E-10	1.19E-10	8.60E-11	6.22E-11	4.49E-11	3.24E-11	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.24E-08	1.62E-08	1.17E-08	8.44E-09	6.10E-09	4.41E-09	3.19E-09	2.30E-09	1.67E-09	1.20E-09
7.21E-09	5.20E-09	3.75E-09	2.71E-09	1.96E-09	1.41E-09	1.02E-09	7.37E-10	5.32E-10	3.84E-10
1.56E-08	1.13E-08	8.12E-09	5.86E-09	4.24E-09	3.06E-09	2.21E-09	1.59E-09	1.15E-09	8.33E-10
1.38E-07	9.90E-08	7.16E-08	5.18E-08	3.74E-08	2.69E-08	1.94E-08	1.40E-08	1.02E-08	7.32E-09
1.87E-08	1.35E-08	9.72E-09	7.01E-09	5.05E-09	3.65E-09	2.62E-09	1.89E-09	1.36E-09	9.81E-10
1.04E-08	7.50E-09	5.37E-09	3.84E-09	2.75E-09	1.97E-09	1.41E-09	1.02E-09	7.26E-10	5.20E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.89E-07	5.17E-07	3.88E-07	2.91E-07	2.18E-07	1.64E-07	1.22E-07	9.18E-08	6.89E-08	5.18E-08
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.04E-09	4.40E-09	3.20E-09	2.34E-09	1.70E-09	1.24E-09	9.00E-10	6.58E-10	4.79E-10	3.49E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.72E-10	7.03E-10	5.07E-10	3.65E-10	2.63E-10	1.89E-10	1.37E-10	9.81E-11	7.08E-11	5.10E-11
2.24E-10	1.62E-10	1.17E-10	8.45E-11	6.10E-11	4.41E-11	3.19E-11	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.56E-11	4.73E-11	3.42E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.86E-09	1.34E-09	9.63E-10	6.96E-10	5.01E-10	3.61E-10	2.60E-10	1.87E-10	1.35E-10	9.72E-11
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.57E-10	1.13E-10	8.18E-11	5.90E-11	4.27E-11	3.08E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.37E-10	3.16E-10	2.29E-10	1.65E-10	1.19E-10	8.60E-11	6.22E-11	4.49E-11	3.24E-11	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.14E-11	2.99E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.75E-10	1.99E-10	1.43E-10	1.04E-10	7.48E-11	5.40E-11	3.90E-11	2.82E-11	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.49E-09	1.80E-09	1.31E-09	9.45E-10	6.80E-10	4.91E-10	3.55E-10	2.57E-10	1.85E-10	1.33E-10
2.37E-10	1.70E-10	1.22E-10	8.78E-11	6.31E-11	4.54E-11	3.26E-11	0.00E+00	0.00E+00	0.00E+00
2.50E-09	1.81E-09	1.31E-09	9.45E-10	6.81E-10	4.91E-10	3.56E-10	2.57E-10	1.85E-10	1.34E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.47E-10	5.39E-10	3.90E-10	2.82E-10	2.03E-10	1.47E-10	1.06E-10	7.67E-11	5.54E-11	4.00E-11
1.31E-09	9.45E-10	6.83E-10	4.92E-10	3.56E-10	2.57E-10	1.85E-10	1.33E-10	9.63E-11	6.92E-11
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.13E-08	8.17E-09	5.90E-09	4.27E-09	3.08E-09	2.22E-09	1.61E-09	1.16E-09	8.38E-10	6.06E-10
9.27E-10	6.71E-10	4.84E-10	3.50E-10	2.53E-10	1.83E-10	1.32E-10	9.54E-11	6.89E-11	4.98E-11

0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.36E-10	6.78E-10	4.88E-10	3.52E-10	2.54E-10	1.83E-10	1.31E-10	9.45E-11	6.83E-11	4.92E-11
1.94E-09	1.40E-09	1.01E-09	7.29E-10	5.26E-10	3.79E-10	2.74E-10	1.97E-10	1.42E-10	1.03E-10
4.92E-10	3.56E-10	2.57E-10	1.85E-10	1.34E-10	9.72E-11	6.99E-11	5.05E-11	3.65E-11	0.00E+00
1.25E-09	9.00E-10	6.53E-10	4.72E-10	3.40E-10	2.46E-10	1.77E-10	1.29E-10	9.27E-11	6.70E-11
1.93E-09	1.39E-09	9.99E-10	7.25E-10	5.23E-10	3.78E-10	2.73E-10	1.97E-10	1.42E-10	1.03E-10
1.22E-10	8.71E-11	6.26E-11	4.49E-11	3.23E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.39E-10	3.87E-10	2.78E-10	2.00E-10	1.43E-10	1.03E-10	7.40E-11	5.31E-11	3.82E-11	2.75E-11
1.81E-08	1.31E-08	9.36E-09	6.76E-09	4.87E-09	3.51E-09	2.53E-09	1.83E-09	1.31E-09	9.45E-10
8.93E-07	6.70E-07	5.01E-07	3.76E-07	2.82E-07	2.12E-07	1.58E-07	1.19E-07	8.89E-08	6.67E-08
9.63E-05	7.20E-05	5.39E-05	4.04E-05	3.02E-05	2.27E-05	1.69E-05	1.27E-05	9.54E-06	7.13E-06
1.30E-06	9.72E-07	7.24E-07	5.41E-07	4.04E-07	3.02E-07	2.26E-07	1.69E-07	1.26E-07	9.45E-08
9.18E-08	6.79E-08	5.00E-08	3.67E-08	2.70E-08	1.99E-08	1.47E-08	1.08E-08	7.92E-09	5.83E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.02E-10	1.48E-10	1.07E-10	7.83E-11	5.71E-11	4.16E-11	3.03E-11	0.00E+00	0.00E+00	0.00E+00
1.51E-10	1.09E-10	7.89E-11	5.71E-11	4.12E-11	2.98E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.12E-10	1.53E-10	1.10E-10	7.97E-11	5.75E-11	4.16E-11	3.00E-11	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

########	########	########	########	########	########	########	########	########	########
6:45	7:00	7:15	7:30	7:45	8:00	8:15	8:30	8:45	9:00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.14E-10	5.16E-10	3.72E-10	2.69E-10	1.94E-10	1.40E-10	1.01E-10	7.30E-11	5.27E-11	3.81E-11
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.67E-10	6.26E-10	4.53E-10	3.27E-10	2.36E-10	1.71E-10	1.23E-10	8.90E-11	6.43E-11	4.64E-11
2.77E-10	2.01E-10	1.45E-10	1.04E-10	7.53E-11	5.45E-11	3.93E-11	2.84E-11	0.00E+00	0.00E+00
6.02E-10	4.35E-10	3.14E-10	2.27E-10	1.64E-10	1.19E-10	8.55E-11	6.18E-11	4.46E-11	3.22E-11
5.27E-09	3.81E-09	2.75E-09	1.98E-09	1.43E-09	1.04E-09	7.46E-10	5.38E-10	3.89E-10	2.81E-10
7.07E-10	5.09E-10	3.67E-10	2.65E-10	1.91E-10	1.38E-10	9.90E-11	7.14E-11	5.14E-11	3.71E-11
3.73E-10	2.67E-10	1.91E-10	1.37E-10	9.81E-11	7.03E-11	5.04E-11	3.61E-11	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.88E-08	2.91E-08	2.19E-08	1.64E-08	1.22E-08	9.18E-09	6.90E-09	5.18E-09	3.89E-09	2.92E-09
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.54E-10	1.85E-10	1.35E-10	9.81E-11	7.13E-11	5.18E-11	3.77E-11	2.75E-11	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.68E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.99E-11	5.03E-11	3.63E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.63E-11	6.97E-11	5.03E-11	3.64E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.63E-11	6.98E-11	5.04E-11	3.65E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.89E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.00E-11	3.60E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.37E-10	3.16E-10	2.29E-10	1.65E-10	1.19E-10	8.60E-11	6.21E-11	4.48E-11	3.24E-11	0.00E+00
3.59E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.55E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.41E-11	5.35E-11	3.85E-11	2.78E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.83E-11	3.49E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.43E-11	5.36E-11	3.87E-11	2.80E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.83E-10	4.92E-10	3.55E-10	2.56E-10	1.85E-10	1.33E-10	9.54E-11	6.91E-11	4.98E-11	3.59E-11
5.00E-08	3.74E-08	2.81E-08	2.11E-08	1.58E-08	1.18E-08	8.87E-09	6.64E-09	4.98E-09	3.74E-09
5.34E-06	4.00E-06	3.00E-06	2.24E-06	1.68E-06	1.26E-06	9.45E-07	7.06E-07	5.28E-07	3.96E-07
7.06E-08	5.27E-08	3.94E-08	2.95E-08	2.21E-08	1.65E-08	1.23E-08	9.18E-09	6.89E-09	5.15E-09
4.29E-09	3.16E-09	2.32E-09	1.71E-09	1.26E-09	9.27E-10	6.81E-10	5.01E-10	3.69E-10	2.72E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

########	########	########	########	########	########	########	########	########	########
9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.75E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.36E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.03E-10	1.46E-10	1.05E-10	7.61E-11	5.49E-11	3.97E-11	2.86E-11	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.19E-09	1.64E-09	1.23E-09	9.18E-10	6.91E-10	5.18E-10	3.89E-10	2.92E-10	2.19E-10	1.64E-10
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.80E-09	2.10E-09	1.58E-09	1.18E-09	8.83E-10	6.62E-10	4.96E-10	3.72E-10	2.79E-10	2.09E-10
2.96E-07	2.22E-07	1.67E-07	1.24E-07	9.36E-08	6.99E-08	5.24E-08	3.92E-08	2.93E-08	2.20E-08
3.84E-09	2.87E-09	2.15E-09	1.60E-09	1.20E-09	8.97E-10	6.71E-10	5.01E-10	3.75E-10	2.80E-10
2.00E-10	1.47E-10	1.08E-10	7.96E-11	5.86E-11	4.31E-11	3.17E-11	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

########	########	########	########	########	########	########	########	########	########
11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.23E-10	9.27E-11	6.92E-11	5.19E-11	3.90E-11	2.92E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.57E-10	1.17E-10	8.79E-11	6.60E-11	4.94E-11	3.71E-11	2.77E-11	0.00E+00	0.00E+00	0.00E+00
1.65E-08	1.23E-08	9.27E-09	6.92E-09	5.18E-09	3.88E-09	2.91E-09	2.18E-09	1.63E-09	1.22E-09
2.10E-10	1.57E-10	1.17E-10	8.75E-11	6.54E-11	4.89E-11	3.65E-11	2.74E-11	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

########	########	########	########	########	########	########	########	########	########
14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.18E-10	6.86E-10	5.13E-10	3.84E-10	2.88E-10	2.16E-10	1.62E-10	1.21E-10	9.09E-11	6.79E-11
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

########	########	########	########
16:45	17:00	17:15	17:30
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00

0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.09E-11	3.81E-11	2.85E-11	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.00E+00	0.00E+00	0.00E+00	0.00E+00

RASCAL v4.1.0 Source Term
File created: 2011/03/18 00:19
Case name 17 March 2330 4 old batches - pool remainder
Radionuclide units: Ci

Interval	########	########	########	########	########	########	########	########	########
Start	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00
Am-241	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
Ce-141	2.83E-06	2.83E-06	2.83E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06
Ce-144	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
Cm-242	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03
Cs-134	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
Cs-136	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10
Cs-137	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
Kr-85	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
Nb-95	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03
Pm-147	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
Pr-144	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
Pu-238	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
Pu-239	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
Pu-241	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
Rb-86	5.20E-08	5.19E-08	5.19E-08	5.19E-08	5.19E-08	5.18E-08	5.18E-08	5.18E-08	5.18E-08
Rh-103m	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05
Ru-103	7.18E-05	7.18E-05	7.18E-05	7.18E-05	7.17E-05	7.17E-05	7.17E-05	7.17E-05	7.17E-05
Ru-106	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
Sr-89	3.92E-02	3.92E-02	3.92E-02	3.92E-02	3.92E-02	3.92E-02	3.91E-02	3.91E-02	3.91E-02
Sr-90	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
Te-127	4.83E-01	4.83E-01	4.83E-01	4.83E-01	4.84E-01	4.84E-01	4.84E-01	4.84E-01	4.85E-01
Te-127m	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01
Te-129	3.18E-04	3.18E-04	3.18E-04	3.18E-04	3.18E-04	3.18E-04	3.17E-04	3.17E-04	3.17E-04
Te-129m	4.88E-04	4.88E-04	4.88E-04	4.88E-04	4.88E-04	4.87E-04	4.87E-04	4.87E-04	4.87E-04
Y-90	1.37E+00	1.51E+00	1.66E+00	1.80E+00	1.94E+00	2.09E+00	2.23E+00	2.38E+00	2.52E+00
Y-91	5.18E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04
Zr-95	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03

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19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.81E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.18E-08	5.18E-08	5.18E-08	5.18E-08	5.18E-08	5.17E-08	5.17E-08	5.17E-08	5.17E-08	5.17E-08
7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.15E-05	7.15E-05	7.15E-05	7.15E-05	7.15E-05
7.17E-05	7.17E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.91E-02	3.91E-02	3.91E-02	3.91E-02	3.91E-02	3.91E-02	3.91E-02	3.91E-02	3.91E-02	3.91E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.85E-01	4.85E-01	4.85E-01	4.86E-01	4.86E-01	4.86E-01	4.86E-01	4.86E-01	4.87E-01	4.87E-01
5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01
3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.16E-04
4.87E-04	4.87E-04	4.87E-04	4.87E-04	4.87E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04
2.66E+00	2.81E+00	2.95E+00	3.09E+00	3.23E+00	3.38E+00	3.51E+00	3.65E+00	3.79E+00	3.93E+00
5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.17E-04	5.16E-04	5.16E-04	5.16E-04	5.16E-04
1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03

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21:45	22:00	22:15	22:30	22:45	23:00	23:15	23:30	23:45	0:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.81E-06	2.81E-06	2.81E-06	2.81E-06	2.81E-06	2.81E-06	2.81E-06	2.81E-06	2.81E-06	2.81E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.40E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.16E-08	5.16E-08	5.16E-08	5.16E-08	5.15E-08	5.15E-08	5.15E-08	5.15E-08	5.15E-08	5.14E-08
7.15E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.13E-05	7.13E-05
7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.16E-05	7.15E-05	7.15E-05	7.15E-05	7.15E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.91E-02	3.91E-02	3.91E-02	3.91E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.87E-01	4.87E-01	4.87E-01	4.88E-01	4.88E-01	4.88E-01	4.88E-01	4.88E-01	4.88E-01	4.89E-01
5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.09E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01
3.16E-04	3.16E-04	3.16E-04	3.16E-04	3.16E-04	3.16E-04	3.16E-04	3.16E-04	3.16E-04	3.16E-04
4.86E-04	4.86E-04	4.86E-04	4.85E-04	4.85E-04	4.85E-04	4.85E-04	4.85E-04	4.85E-04	4.85E-04
4.07E+00	4.21E+00	4.35E+00	4.48E+00	4.63E+00	4.76E+00	4.90E+00	5.03E+00	5.17E+00	5.30E+00
5.16E-04	5.16E-04	5.16E-04	5.16E-04	5.16E-04	5.16E-04	5.16E-04	5.16E-04	5.16E-04	5.16E-04
1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03

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0:15	0:30	0:45	1:00	1:15	1:30	1:45	2:00	2:15	2:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.81E-06	2.81E-06	2.81E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.38E-10	1.38E-10	1.38E-10	1.38E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.14E-08	5.14E-08	5.14E-08	5.13E-08	5.13E-08	5.13E-08	5.13E-08	5.13E-08	5.12E-08	5.12E-08
7.13E-05	7.13E-05	7.13E-05	7.13E-05	7.13E-05	7.12E-05	7.12E-05	7.12E-05	7.12E-05	7.12E-05
7.15E-05	7.15E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.14E-05	7.13E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02	3.90E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.90E-01	4.90E-01	4.90E-01	4.90E-01
5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01
3.16E-04	3.16E-04	3.15E-04	3.15E-04	3.15E-04	3.15E-04	3.15E-04	3.15E-04	3.15E-04	3.15E-04
4.85E-04	4.85E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04	4.84E-04
5.44E+00	5.57E+00	5.71E+00	5.84E+00	5.98E+00	6.11E+00	6.25E+00	6.37E+00	6.51E+00	6.64E+00
5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.15E-04
1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03

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2:45	3:00	3:15	3:30	3:45	4:00	4:15	4:30	4:45	5:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.80E-06	2.79E-06	2.79E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.38E-10	1.38E-10	1.38E-10	1.38E-10	1.38E-10	1.38E-10	1.38E-10	1.38E-10	1.37E-10	1.37E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.12E-08	5.12E-08	5.11E-08	5.11E-08	5.11E-08	5.11E-08	5.11E-08	5.10E-08	5.10E-08	5.10E-08
7.12E-05	7.12E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05	7.10E-05
7.13E-05	7.13E-05	7.13E-05	7.13E-05	7.13E-05	7.13E-05	7.12E-05	7.12E-05	7.12E-05	7.12E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.90E-01	4.90E-01	4.90E-01	4.90E-01	4.90E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01
5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01	5.08E-01
3.15E-04	3.15E-04	3.15E-04	3.15E-04	3.15E-04	3.15E-04	3.14E-04	3.14E-04	3.14E-04	3.14E-04
4.84E-04	4.83E-04	4.83E-04	4.83E-04	4.83E-04	4.83E-04	4.83E-04	4.83E-04	4.83E-04	4.82E-04
6.77E+00	6.90E+00	7.03E+00	7.16E+00	7.29E+00	7.43E+00	7.55E+00	7.69E+00	7.81E+00	7.94E+00
5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.15E-04	5.14E-04	5.14E-04	5.14E-04	5.14E-04	5.14E-04
1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03

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5:15	5:30	5:45	6:00	6:15	6:30	6:45	7:00	7:15	7:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.79E-06	2.79E-06	2.79E-06	2.79E-06	2.79E-06	2.79E-06	2.79E-06	2.79E-06	2.79E-06	2.79E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.69E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10	1.37E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.88E-03	2.88E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.10E-08	5.09E-08	5.09E-08	5.09E-08	5.09E-08	5.09E-08	5.09E-08	5.09E-08	5.09E-08	5.09E-08
7.10E-05	7.10E-05	7.10E-05	7.10E-05	7.10E-05	7.10E-05	7.09E-05	7.09E-05	7.09E-05	7.09E-05
7.12E-05	7.12E-05	7.12E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05	7.11E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.89E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01
5.08E-01	5.08E-01	5.08E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01
3.14E-04	3.14E-04	3.14E-04	3.14E-04	3.14E-04	3.14E-04	3.14E-04	3.14E-04	3.14E-04	3.13E-04
4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04
8.06E+00	8.20E+00	8.33E+00	8.45E+00	8.58E+00	8.70E+00	8.83E+00	8.96E+00	9.09E+00	9.18E+00
5.14E-04	5.14E-04	5.14E-04	5.14E-04	5.14E-04	5.14E-04	5.14E-04	5.14E-04	5.14E-04	5.13E-04
1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03

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7:45	8:00	8:15	8:30	8:45	9:00	9:15	9:30	9:45	10:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.79E-06	2.79E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.36E-10	1.36E-10	1.36E-10	1.36E-10	1.36E-10	1.36E-10	1.36E-10	1.36E-10	1.36E-10	1.36E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.08E-08	5.08E-08	5.08E-08	5.08E-08	5.08E-08	5.07E-08	5.07E-08	5.07E-08	5.07E-08	5.07E-08
7.09E-05	7.09E-05	7.09E-05	7.08E-05	7.08E-05	7.08E-05	7.08E-05	7.08E-05	7.08E-05	7.08E-05
7.10E-05	7.10E-05	7.10E-05	7.10E-05	7.10E-05	7.10E-05	7.10E-05	7.09E-05	7.09E-05	7.09E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02	3.88E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01	4.91E-01
5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01
3.13E-04	3.13E-04	3.13E-04	3.13E-04	3.13E-04	3.13E-04	3.13E-04	3.13E-04	3.13E-04	3.13E-04
4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.82E-04	4.81E-04	4.81E-04	4.81E-04
9.36E+00	9.45E+00	9.54E+00	9.72E+00	9.81E+00	9.99E+00	1.01E+01	1.02E+01	1.04E+01	1.04E+01
5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04	5.13E-04
1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03

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10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.78E-06	2.77E-06	2.77E-06	2.77E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.36E-10	1.36E-10	1.35E-10	1.35E-10	1.35E-10	1.35E-10	1.35E-10	1.35E-10	1.35E-10	1.35E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.86E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.06E-08	5.06E-08	5.06E-08	5.06E-08	5.05E-08	5.05E-08	5.05E-08	5.05E-08	5.05E-08	5.04E-08
7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05
7.09E-05	7.09E-05	7.09E-05	7.09E-05	7.08E-05	7.08E-05	7.08E-05	7.08E-05	7.08E-05	7.08E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.88E-02	3.88E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.91E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01	5.07E-01
3.13E-04	3.13E-04	3.12E-04	3.12E-04	3.12E-04	3.12E-04	3.12E-04	3.12E-04	3.12E-04	3.12E-04
4.81E-04	4.81E-04	4.81E-04	4.81E-04	4.81E-04	4.80E-04	4.80E-04	4.80E-04	4.80E-04	4.80E-04
1.05E+01	1.07E+01	1.08E+01	1.09E+01	1.11E+01	1.12E+01	1.13E+01	1.14E+01	1.15E+01	1.16E+01
5.13E-04	5.13E-04	5.13E-04	5.12E-04	5.12E-04	5.12E-04	5.12E-04	5.12E-04	5.12E-04	5.12E-04
1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03

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12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.77E-06	2.77E-06	2.77E-06	2.77E-06	2.77E-06	2.77E-06	2.77E-06	2.77E-06	2.77E-06	2.77E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.35E-10	1.35E-10	1.35E-10	1.35E-10	1.34E-10	1.34E-10	1.34E-10	1.34E-10	1.34E-10	1.34E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.04E-08	5.04E-08	5.04E-08	5.04E-08	5.03E-08	5.03E-08	5.03E-08	5.03E-08	5.02E-08	5.02E-08
7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.06E-05	7.06E-05	7.06E-05	7.06E-05	7.06E-05	7.06E-05
7.08E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.87E-02	3.86E-02	3.86E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01
3.12E-04	3.12E-04	3.12E-04	3.12E-04	3.12E-04	3.12E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04
4.80E-04	4.80E-04	4.80E-04	4.80E-04	4.79E-04	4.79E-04	4.79E-04	4.79E-04	4.79E-04	4.79E-04
1.18E+01	1.19E+01	1.20E+01	1.22E+01	1.22E+01	1.23E+01	1.24E+01	1.26E+01	1.27E+01	1.28E+01
5.12E-04	5.12E-04	5.12E-04	5.12E-04	5.12E-04	5.12E-04	5.12E-04	5.11E-04	5.11E-04	5.11E-04
1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03

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15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.77E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.34E-10	1.34E-10	1.34E-10	1.34E-10	1.34E-10	1.34E-10	1.34E-10	1.33E-10	1.33E-10	1.33E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.02E-08	5.02E-08	5.02E-08	5.01E-08	5.01E-08	5.01E-08	5.01E-08	5.00E-08	5.00E-08	5.00E-08
7.06E-05	7.05E-05	7.05E-05	7.05E-05	7.05E-05	7.05E-05	7.05E-05	7.04E-05	7.04E-05	7.04E-05
7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.07E-05	7.06E-05	7.06E-05	7.06E-05	7.06E-05	7.06E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.86E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01
3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04
4.79E-04	4.79E-04	4.79E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04
1.30E+01	1.31E+01	1.31E+01	1.32E+01	1.34E+01	1.35E+01	1.36E+01	1.37E+01	1.39E+01	1.40E+01
5.11E-04	5.11E-04	5.11E-04	5.11E-04	5.11E-04	5.11E-04	5.11E-04	5.11E-04	5.11E-04	5.11E-04
1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03

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17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.76E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.33E-10	1.33E-10	1.33E-10	1.33E-10	1.33E-10	1.33E-10	1.33E-10	1.33E-10	1.33E-10	1.32E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.85E-03	2.85E-03	2.85E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
5.00E-08	5.00E-08	5.00E-08	5.00E-08	5.00E-08	5.00E-08	5.00E-08	4.99E-08	4.99E-08	4.99E-08
7.04E-05	7.04E-05	7.04E-05	7.04E-05	7.03E-05	7.03E-05	7.03E-05	7.03E-05	7.03E-05	7.03E-05
7.06E-05	7.05E-05	7.05E-05	7.05E-05	7.05E-05	7.05E-05	7.05E-05	7.05E-05	7.04E-05	7.04E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.86E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01
5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.06E-01	5.05E-01	5.05E-01	5.05E-01
3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04
4.78E-04	4.78E-04	4.77E-04	4.77E-04	4.77E-04	4.77E-04	4.77E-04	4.77E-04	4.77E-04	4.77E-04
1.40E+01	1.41E+01	1.43E+01	1.44E+01	1.45E+01	1.46E+01	1.47E+01	1.49E+01	1.49E+01	1.50E+01
5.11E-04	5.11E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04
1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03

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20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.28E-03	5.27E-03	5.27E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.99E-08	4.98E-08	4.98E-08	4.98E-08	4.98E-08	4.98E-08	4.97E-08	4.97E-08	4.97E-08	4.97E-08
7.03E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.01E-05	7.01E-05
7.04E-05	7.04E-05	7.04E-05	7.04E-05	7.04E-05	7.03E-05	7.03E-05	7.03E-05	7.03E-05	7.03E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.85E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02	3.85E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01
5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01
3.11E-04	3.11E-04	3.11E-04	3.10E-04	3.10E-04	3.10E-04	3.10E-04	3.10E-04	3.10E-04	3.10E-04
4.76E-04	4.76E-04	4.76E-04	4.76E-04	4.76E-04	4.76E-04	4.76E-04	4.76E-04	4.76E-04	4.75E-04
1.51E+01	1.53E+01	1.54E+01	1.55E+01	1.56E+01	1.57E+01	1.58E+01	1.59E+01	1.60E+01	1.61E+01
5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.10E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04
1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03

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22:45	23:00	23:15	23:30	23:45	0:00	0:15	0:30	0:45	1:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.32E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.97E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.96E-08	4.95E-08	4.95E-08	4.95E-08	4.95E-08
7.01E-05	7.01E-05	7.01E-05	7.01E-05	7.01E-05	7.00E-05	7.00E-05	7.00E-05	7.00E-05	7.00E-05
7.03E-05	7.03E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.02E-05	7.01E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.85E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01
5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.05E-01
3.10E-04	3.10E-04	3.10E-04	3.10E-04	3.10E-04	3.10E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04
4.75E-04	4.75E-04	4.75E-04	4.75E-04	4.75E-04	4.75E-04	4.75E-04	4.75E-04	4.74E-04	4.74E-04
1.62E+01	1.63E+01	1.65E+01	1.66E+01	1.67E+01	1.67E+01	1.68E+01	1.69E+01	1.71E+01	1.72E+01
5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04
1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03

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1:15	1:30	1:45	2:00	2:15	2:30	2:45	3:00	3:15	3:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.75E-06	2.74E-06	2.74E-06	2.74E-06	2.74E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.94E-08	4.94E-08	4.94E-08	4.94E-08	4.94E-08	4.93E-08	4.93E-08	4.93E-08	4.93E-08	4.93E-08
7.00E-05	7.00E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05	6.98E-05
7.01E-05	7.01E-05	7.01E-05	7.01E-05	7.01E-05	7.01E-05	7.00E-05	7.00E-05	7.00E-05	7.00E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.83E-02	3.83E-02	3.83E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.05E-01	5.05E-01	5.05E-01	5.05E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01
3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04	3.09E-04
4.74E-04	4.74E-04	4.74E-04	4.74E-04	4.74E-04	4.74E-04	4.74E-04	4.73E-04	4.73E-04	4.73E-04
1.73E+01	1.74E+01	1.75E+01	1.76E+01	1.76E+01	1.78E+01	1.79E+01	1.80E+01	1.81E+01	1.82E+01
5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.09E-04
1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03

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3:45	4:00	4:15	4:30	4:45	5:00	5:15	5:30	5:45	6:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.74E-06	2.74E-06	2.74E-06	2.74E-06	2.74E-06	2.74E-06	2.74E-06	2.74E-06	2.74E-06	2.74E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.31E-10	1.30E-10	1.30E-10	1.30E-10	1.30E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.92E-08	4.92E-08	4.92E-08	4.92E-08	4.91E-08	4.91E-08	4.91E-08	4.91E-08	4.91E-08	4.91E-08
6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05
7.00E-05	7.00E-05	7.00E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05	6.99E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01
3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01
3.08E-04	3.08E-04	3.08E-04	3.08E-04	3.08E-04	3.08E-04	3.08E-04	3.08E-04	3.08E-04	3.08E-04
4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.73E-04
1.83E+01	1.84E+01	1.85E+01	1.85E+01	1.87E+01	1.88E+01	1.89E+01	1.90E+01	1.91E+01	1.92E+01
5.09E-04	5.09E-04	5.09E-04	5.09E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04
1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03

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6:15	6:30	6:45	7:00	7:15	7:30	7:45	8:00	8:15	8:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.73E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.30E-10	1.30E-10	1.30E-10	1.30E-10	1.30E-10	1.30E-10	1.30E-10	1.30E-10	1.30E-10	1.29E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.91E-08	4.91E-08	4.91E-08	4.91E-08	4.90E-08	4.90E-08	4.90E-08	4.90E-08	4.90E-08	4.89E-08
6.98E-05	6.98E-05	6.98E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05
6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.98E-05
5.00E-01	5.00E-01	5.00E-01	5.00E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01	5.04E-01
3.08E-04	3.08E-04	3.08E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04
4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.73E-04	4.72E-04	4.72E-04	4.72E-04	4.72E-04	4.72E-04
1.93E+01	1.94E+01	1.94E+01	1.95E+01	1.96E+01	1.98E+01	1.99E+01	2.00E+01	2.01E+01	2.02E+01
5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.08E-04	5.07E-04
1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.29E-03	1.28E-03	1.28E-03

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8:45	9:00	9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.73E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.91E+04
1.29E-10	1.29E-10	1.29E-10	1.29E-10	1.29E-10	1.29E-10	1.29E-10	1.29E-10	1.29E-10	1.29E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.89E-08	4.89E-08	4.89E-08	4.88E-08	4.88E-08	4.88E-08	4.88E-08	4.88E-08	4.87E-08	4.87E-08
6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.95E-05	6.95E-05	6.95E-05
6.98E-05	6.98E-05	6.98E-05	6.98E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05
4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02	3.83E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.04E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01
3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.06E-04	3.06E-04	3.06E-04
4.72E-04	4.72E-04	4.72E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04	4.71E-04
2.03E+01	2.03E+01	2.04E+01	2.05E+01	2.06E+01	2.07E+01	2.08E+01	2.09E+01	2.10E+01	2.11E+01
5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04	5.07E-04
1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03

########	########	########	########	########	########	########	########	########	########
11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01
1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.68E-03	1.67E-03	1.67E-03
1.91E+04	1.91E+04	1.91E+04	1.91E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04
1.29E-10	1.28E-10	1.28E-10	1.28E-10	1.28E-10	1.28E-10	1.28E-10	1.28E-10	1.28E-10	1.28E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.87E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.87E-08	4.87E-08	4.87E-08	4.86E-08	4.86E-08	4.86E-08	4.86E-08	4.86E-08	4.85E-08	4.85E-08
6.95E-05	6.95E-05	6.95E-05	6.95E-05	6.95E-05	6.94E-05	6.94E-05	6.94E-05	6.94E-05	6.94E-05
6.97E-05	6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.96E-05	6.95E-05	6.95E-05
4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01
5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01
3.06E-04	3.06E-04	3.06E-04	3.06E-04	3.06E-04	3.06E-04	3.06E-04	3.06E-04	3.06E-04	3.06E-04
4.71E-04	4.71E-04	4.70E-04	4.70E-04	4.70E-04	4.70E-04	4.70E-04	4.70E-04	4.70E-04	4.70E-04
2.12E+01	2.12E+01	2.13E+01	2.14E+01	2.15E+01	2.16E+01	2.17E+01	2.18E+01	2.19E+01	2.20E+01
5.07E-04	5.07E-04	5.07E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04
1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03

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13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00
1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03	1.99E-03
2.71E-06	2.71E-06	2.71E-06	2.71E-06	2.71E-06	2.71E-06	2.71E-06	2.71E-06	2.71E-06	2.71E-06
1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01
1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03
1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04	1.90E+04
1.28E-10	1.28E-10	1.28E-10	1.28E-10	1.27E-10	1.27E-10	1.27E-10	1.27E-10	1.27E-10	1.27E-10
3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03	9.18E+03
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01
3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01	3.01E-01
4.85E-08	4.85E-08	4.85E-08	4.84E-08	4.84E-08	4.84E-08	4.84E-08	4.83E-08	4.83E-08	4.83E-08
6.94E-05	6.94E-05	6.93E-05	6.93E-05	6.93E-05	6.93E-05	6.93E-05	6.93E-05	6.93E-05	6.92E-05
6.95E-05	6.95E-05	6.95E-05	6.95E-05	6.95E-05	6.94E-05	6.94E-05	6.94E-05	6.94E-05	6.94E-05
4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01
3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.81E-02	3.81E-02	3.81E-02
5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01	5.54E+01
4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.91E-01	4.91E-01
5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.02E-01	5.02E-01
3.06E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04
4.70E-04	4.69E-04	4.69E-04	4.69E-04	4.69E-04	4.69E-04	4.69E-04	4.69E-04	4.69E-04	4.69E-04
2.21E+01	2.21E+01	2.22E+01	2.23E+01	2.24E+01	2.25E+01	2.26E+01	2.27E+01	2.28E+01	2.29E+01
5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.06E-04	5.05E-04	5.05E-04
1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03

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16:15	16:30	16:45
1.99E-03	1.99E-03	1.99E-03
2.71E-06	2.71E-06	2.71E-06
1.86E-01	1.86E-01	1.86E-01
1.67E-03	1.67E-03	1.67E-03
1.90E+04	1.90E+04	1.90E+04
1.27E-10	1.27E-10	1.27E-10
3.78E+04	3.78E+04	3.78E+04
9.18E+03	9.18E+03	9.18E+03
2.84E-03	2.84E-03	2.83E-03
5.27E-03	5.27E-03	5.27E-03
1.86E-01	1.86E-01	1.86E-01
3.55E-04	3.55E-04	3.55E-04
9.99E-06	9.99E-06	9.99E-06
3.01E-01	3.01E-01	3.01E-01
4.83E-08	4.83E-08	4.82E-08
6.92E-05	6.92E-05	6.92E-05
6.94E-05	6.94E-05	6.94E-05
4.99E-01	4.99E-01	4.99E-01
3.81E-02	3.81E-02	3.81E-02
5.54E+01	5.54E+01	5.54E+01
4.91E-01	4.91E-01	4.91E-01
5.02E-01	5.02E-01	5.02E-01
3.05E-04	3.05E-04	3.05E-04
4.68E-04	4.68E-04	4.68E-04
2.30E+01	2.30E+01	2.31E+01
5.05E-04	5.05E-04	5.05E-04
1.28E-03	1.28E-03	1.28E-03

Case Summary

Event Type Spent Fuel

Location

Name:	Fukushima U3 SFP
City, county, state:	<undefined>, <undefined>, <undefined>
Lat / Long / Elev:	37.4214° N, 141.0325° E, 0 m
UTC Offset:	9 hours
Population:	not available

Reactor Parameters

Reactor power:	2350 MW(t)
Avg spent fuel burn-up:	50000 MWD / MTU
Assemblies in core:	548

Source Term

Type:	Pool Storage - Uncovered Fuel
Shutdown for newest batch:	2010/12/01
Batches in pool	3
Fuel uncovered:	2011/03/14 11:00
Fuel recovered:	No

Release Pathway

Type:	From Spent Fuel Drained Pool
Release height:	10. m
Release timings	
To atmosphere start:	2011/03/14 13:00
Filtered:	No

Meteorology

Type:	Actual Observations
Dataset name:	Fukushima 17March run at 2316
Dataset desc:	Obs/fcsts for Fukushima Unit 2

Summary of data at release point:	Type	Dir deg	Speed m/s	Stab class	Precip	Temp °C
2011/03/12 14:00	Fcst	265	1.0	B	?	
2011/03/12 15:00	Fcst	265	1.0	B	?	
2011/03/12 16:00	Fcst	277	1.3	B	?	
2011/03/12 17:00	Fcst	260	2.4	B	?	
2011/03/12 18:00	Fcst	241	1.4	E	?	
2011/03/12 19:00	Fcst	236	2.1	E	?	
2011/03/12 20:00	Fcst	239	2.1	E	?	
2011/03/12 21:00	Fcst	229	3.8	E	?	
2011/03/12 22:00	Fcst	224	5.1	E	?	
2011/03/12 23:00	Fcst	226	3.9	E	?	
2011/03/13 00:00	Fcst	228	4.1	E	?	
2011/03/13 01:00	Fcst	235	2.6	E	?	
2011/03/13 02:00	Fcst	233	3.9	E	?	
2011/03/13 03:00	Fcst	225	1.8	E	?	
2011/03/13 04:00	Fcst	225	1.3	E	?	
2011/03/13 05:00	Fcst	225	2.2	E	?	
2011/03/13 06:00	Fcst	225	2.2	E	?	

2011/03/13 07:00	Fcst	248	2.7	E	?
2011/03/13 08:00	Fcst	248	2.7	E	?
2011/03/13 09:00	Fcst	270	3.1	E	?
2011/03/13 12:00	Fcst	271	7.4	D	?
2011/03/13 13:00	Fcst	276	6.2	D	?
2011/03/13 14:00	Fcst	312	2.8	B	?
2011/03/14 18:00	Fcst	258	4.8	unk	?
2011/03/14 19:00	Fcst	268	5.0	unk	?
2011/03/14 20:00	Fcst	330	2.2	unk	?
2011/03/14 21:00	Fcst	337	4.6	unk	?
2011/03/14 22:00	Fcst	323	7.2	unk	?
2011/03/14 23:00	Fcst	305	6.6	unk	?
2011/03/15 00:00	Fcst	015	8.6	unk	?
2011/03/15 02:00	Fcst	002	7.5	unk	?
2011/03/15 03:00	Fcst	347	5.2	E	None
2011/03/15 04:00	Fcst	332	5.6	E	None
2011/03/15 05:00	Fcst	332	4.0	E	None
2011/03/15 06:00	Fcst	344	3.5	E	Lgt rain
2011/03/15 07:00	Fcst	026	3.8	E	Lgt rain
2011/03/15 08:00	Fcst	044	4.4	E	Lgt rain
2011/03/15 09:00	Fcst	020	4.2	E	Lgt rain
2011/03/15 10:00	Fcst	010	3.4	E	None
2011/03/15 11:00	Fcst	030	3.5	D	Lgt rain
2011/03/15 12:00	Fcst	027	3.0	D	Lgt rain
2011/03/15 13:00	Fcst	037	3.4	D	Lgt rain
2011/03/15 14:00	Fcst	053	3.7	B	None
2011/03/15 15:00	Fcst	058	3.7	B	None
2011/03/15 16:00	Fcst	067	3.2	C	Lgt rain
2011/03/15 17:00	Fcst	081	3.9	C	Lgt rain
2011/03/15 18:00	Fcst	089	4.7	B	None
2011/03/15 19:00	Fcst	085	4.4	B	None
2011/03/15 20:00	Fcst	083	4.4	B	Lgt rain
2011/03/15 21:00	Fcst	074	4.6	C	Lgt rain
2011/03/15 22:00	Fcst	054	5.0	D	Lgt rain
2011/03/15 23:00	Fcst	029	5.6	D	Rain
2011/03/16 00:00	Fcst	011	5.1	D	Lgt rain
2011/03/16 01:00	Fcst	346	4.3	C	Lgt rain
2011/03/16 02:00	Fcst	350	5.3	D	Lgt rain
2011/03/16 03:00	Fcst	323	5.6	D	Lgt rain
2011/03/16 04:00	Fcst	316	5.4	D	None
2011/03/16 05:00	Fcst	298	4.8	D	None
2011/03/16 06:00	Fcst	314	5.6	D	None
2011/03/16 07:00	Fcst	312	4.7	D	None
2011/03/16 08:00	Fcst	331	4.9	D	None
2011/03/16 09:00	Fcst	299	4.2	D	None
2011/03/16 10:00	Fcst	312	5.4	C	None
2011/03/16 11:00	Fcst	309	7.5	C	None
2011/03/16 12:00	Fcst	304	7.2	C	None
2011/03/16 13:00	Fcst	314	8.8	C	None
2011/03/16 14:00	Fcst	325	10.4	C	None
2011/03/16 15:00	Fcst	324	12.3	C	None
2011/03/16 16:00	Fcst	304	14.7	D	None
2011/03/16 17:00	Fcst	299	14.2	D	None
2011/03/16 18:00	Fcst	297	11.3	D	None
2011/03/16 19:00	Fcst	316	9.8	D	None
2011/03/16 20:00	Fcst	309	9.4	D	None

2011/03/16 21:00	Fcst	294	9.5	D	None
2011/03/16 22:00	Fcst	299	7.6	D	None
2011/03/16 23:00	Fcst	300	9.7	D	None
2011/03/17 00:00	Fcst	294	5.0	D	None
2011/03/17 01:00	Fcst	281	3.7	D	None
2011/03/17 02:00	Fcst	271	6.7	D	None
2011/03/17 03:00	Fcst	302	6.2	D	None
2011/03/17 04:00	Fcst	315	5.0	D	None
2011/03/17 05:00	Fcst	320	4.1	D	None
2011/03/17 06:00	Fcst	324	4.6	D	None
2011/03/17 07:00	Fcst	295	5.1	C	None
2011/03/17 08:00	Fcst	324	5.4	C	None
2011/03/17 09:00	Fcst	275	6.5	D	None
2011/03/17 10:00	Fcst	289	9.1	C	None
2011/03/17 11:00	Fcst	291	9.3	C	None
2011/03/17 12:00	Fcst	314	7.5	C	Lgt rain
2011/03/17 13:00	Fcst	312	10.8	C	Lgt rain
2011/03/17 14:00	Fcst	302	12.1	C	None
2011/03/17 15:00	Fcst	300	11.2	C	None
2011/03/17 16:00	Fcst	300	10.7	D	None
2011/03/17 17:00	Fcst	303	9.1	D	None
2011/03/17 18:00	Fcst	308	8.4	D	None
2011/03/17 19:00	Fcst	303	9.1	D	None
2011/03/17 20:00	Fcst	308	7.0	D	None
2011/03/17 21:00	Fcst	322	5.8	D	None
2011/03/17 22:00	Fcst	321	6.5	D	None
2011/03/17 23:00	Fcst	330	6.4	D	None
2011/03/18 00:00	Fcst	322	6.3	D	None
2011/03/18 01:00	Fcst	319	5.4	D	None
2011/03/18 02:00	Fcst	315	6.3	D	None
2011/03/18 03:00	Fcst	313	5.8	D	None
2011/03/18 04:00	Fcst	319	7.1	D	None
2011/03/18 05:00	Fcst	316	8.8	D	None
2011/03/18 06:00	Fcst	319	8.8	D	None
2011/03/18 07:00	Fcst	325	8.2	C	None
2011/03/18 08:00	Fcst	334	7.6	C	None
2011/03/18 09:00	Fcst	340	6.4	C	None
2011/03/18 10:00	Fcst	333	6.6	C	None
2011/03/18 11:00	Fcst	321	5.8	C	None
2011/03/18 12:00	Fcst	291	3.4	C	None
2011/03/18 13:00	Fcst	292	3.5	C	None
2011/03/18 14:00	Fcst	282	3.6	C	None
2011/03/18 15:00	Fcst	272	2.3	C	None
2011/03/18 16:00	Fcst	279	5.4	C	None
2011/03/18 17:00	Fcst	280	8.0	D	None
2011/03/18 18:00	Fcst	257	2.9	E	None
2011/03/18 19:00	Fcst	269	2.8	F	None
2011/03/18 20:00	Fcst	284	7.5	D	None
2011/03/18 21:00	Fcst	271	5.2	D	None
2011/03/18 22:00	Fcst	255	6.7	D	None
2011/03/18 23:00	Fcst	261	7.3	D	None
2011/03/19 00:00	Fcst	251	5.5	D	None
2011/03/19 01:00	Fcst	189	2.2	F	None
2011/03/19 02:00	Fcst	212	2.3	F	None
2011/03/19 03:00	Fcst	226	5.0	E	None
2011/03/19 04:00	Fcst	227	6.7	D	None

2011/03/19 05:00	Fcst	231	6.3	D	None
2011/03/19 06:00	Fcst	243	6.3	D	None
2011/03/19 07:00	Fcst	245	9.0	D	None
2011/03/19 08:00	Fcst	218	4.2	D	None
2011/03/19 09:00	Fcst	197	2.1	C	None
2011/03/19 10:00	Fcst	237	3.4	C	None
2011/03/19 11:00	Fcst	223	3.4	C	None
2011/03/19 12:00	Fcst	222	0.9	B	None
2011/03/19 13:00	Fcst	257	3.4	C	None
2011/03/19 14:00	Fcst	269	6.4	C	None
2011/03/19 15:00	Fcst	272	6.7	C	None
2011/03/19 16:00	Fcst	265	6.9	D	None
2011/03/19 17:00	Fcst	264	6.6	D	None
2011/03/19 18:00	Fcst	267	7.7	D	None
2011/03/19 19:00	Fcst	265	9.1	D	None
2011/03/19 20:00	Fcst	275	9.2	D	None
2011/03/19 21:00	Fcst	281	7.8	D	None
2011/03/19 22:00	Fcst	275	7.0	D	None
2011/03/19 23:00	Fcst	263	5.0	E	None
2011/03/20 00:00	Fcst	252	5.3	D	None
2011/03/20 01:00	Fcst	264	7.0	D	None
2011/03/20 02:00	Fcst	282	8.7	D	None
2011/03/20 03:00	Fcst	287	9.3	D	None

Dataset options: Est. missing stability using: Wind speed, time of day, etc.
Adjust stability for consistency: No
Modify winds for topography: Yes

Calculations

Case description: Unit 3 SF pool damage release approximation 17 MAR 2330 48 hour release

End of calculations: 2011/03/16 13:00
Start of release to atmosphere + 48 h

Distance of calculation: Close-in + to 50 miles

Close-in distances: 0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0, 10.0 miles

Case Summary

Event Type Spent Fuel

Location
- Name: Fukushima Unit 4 SFP
- City, county, state: <undefined>, <undefined>, <undefined>
- Lat / Long / Elev: 37.4214° N, 141.0325° E, 0 m
- UTC Offset: 9 hours
- Population: not available

Reactor Parameters
- Reactor power: 2350 MW(t)
- Avg spent fuel burn-up: 50000 MWD / MTU
- Assemblies in core: 548

Source Term
- Type: Pool Storage - Uncovered Fuel
- Shutdown for newest batch: 2009/08/10
- Batches in pool 4
- Fuel uncovered: 2011/03/16 15:00
- Fuel recovered: No

Release Pathway
- Type: From Spent Fuel Drained Pool
- Release height: 10. m

Release timings
- To atmosphere start: 2011/03/16 17:00

Filtered: No

Meteorology
- Type: Actual Observations
- Dataset name: Fukushima 17March run at 2316
- Dataset desc: Obs/fcsts for Fukushima Unit 2

Summary of data at release point:	Type	Dir deg	Speed m/s	Stab class	Precip	Temp °C
2011/03/12 14:00	Fcst	265	1.0	B	?	
2011/03/12 15:00	Fcst	265	1.0	B	?	
2011/03/12 16:00	Fcst	277	1.3	B	?	
2011/03/12 17:00	Fcst	260	2.4	B	?	
2011/03/12 18:00	Fcst	241	1.4	E	?	
2011/03/12 19:00	Fcst	236	2.1	E	?	
2011/03/12 20:00	Fcst	239	2.1	E	?	
2011/03/12 21:00	Fcst	229	3.8	E	?	
2011/03/12 22:00	Fcst	224	5.1	E	?	
2011/03/12 23:00	Fcst	226	3.9	E	?	
2011/03/13 00:00	Fcst	228	4.1	E	?	
2011/03/13 01:00	Fcst	235	2.6	E	?	
2011/03/13 02:00	Fcst	233	3.9	E	?	
2011/03/13 03:00	Fcst	225	1.8	E	?	
2011/03/13 04:00	Fcst	225	1.3	E	?	
2011/03/13 05:00	Fcst	225	2.2	E	?	
2011/03/13 06:00	Fcst	225	2.2	E	?	

2011/03/13 07:00	Fcst	248	2.7	E	?
2011/03/13 08:00	Fcst	248	2.7	E	?
2011/03/13 09:00	Fcst	270	3.1	E	?
2011/03/13 12:00	Fcst	271	7.4	D	?
2011/03/13 13:00	Fcst	276	6.2	D	?
2011/03/13 14:00	Fcst	312	2.8	B	?
2011/03/14 18:00	Fcst	258	4.8	unk	?
2011/03/14 19:00	Fcst	268	5.0	unk	?
2011/03/14 20:00	Fcst	330	2.2	unk	?
2011/03/14 21:00	Fcst	337	4.6	unk	?
2011/03/14 22:00	Fcst	323	7.2	unk	?
2011/03/14 23:00	Fcst	305	6.6	unk	?
2011/03/15 00:00	Fcst	015	8.6	unk	?
2011/03/15 02:00	Fcst	002	7.5	unk	?
2011/03/15 03:00	Fcst	347	5.2	E	None
2011/03/15 04:00	Fcst	332	5.6	E	None
2011/03/15 05:00	Fcst	332	4.0	E	None
2011/03/15 06:00	Fcst	344	3.5	E	Lgt rain
2011/03/15 07:00	Fcst	026	3.8	E	Lgt rain
2011/03/15 08:00	Fcst	044	4.4	E	Lgt rain
2011/03/15 09:00	Fcst	020	4.2	E	Lgt rain
2011/03/15 10:00	Fcst	010	3.4	E	None
2011/03/15 11:00	Fcst	030	3.5	D	Lgt rain
2011/03/15 12:00	Fcst	027	3.0	D	Lgt rain
2011/03/15 13:00	Fcst	037	3.4	D	Lgt rain
2011/03/15 14:00	Fcst	053	3.7	B	None
2011/03/15 15:00	Fcst	058	3.7	B	None
2011/03/15 16:00	Fcst	067	3.2	C	Lgt rain
2011/03/15 17:00	Fcst	081	3.9	C	Lgt rain
2011/03/15 18:00	Fcst	089	4.7	B	None
2011/03/15 19:00	Fcst	085	4.4	B	None
2011/03/15 20:00	Fcst	083	4.4	B	Lgt rain
2011/03/15 21:00	Fcst	074	4.6	C	Lgt rain
2011/03/15 22:00	Fcst	054	5.0	D	Lgt rain
2011/03/15 23:00	Fcst	029	5.6	D	Rain
2011/03/16 00:00	Fcst	011	5.1	D	Lgt rain
2011/03/16 01:00	Fcst	346	4.3	C	Lgt rain
2011/03/16 02:00	Fcst	350	5.3	D	Lgt rain
2011/03/16 03:00	Fcst	323	5.6	D	Lgt rain
2011/03/16 04:00	Fcst	316	5.4	D	None
2011/03/16 05:00	Fcst	298	4.8	D	None
2011/03/16 06:00	Fcst	314	5.6	D	None
2011/03/16 07:00	Fcst	312	4.7	D	None
2011/03/16 08:00	Fcst	331	4.9	D	None
2011/03/16 09:00	Fcst	299	4.2	D	None
2011/03/16 10:00	Fcst	312	5.4	C	None
2011/03/16 11:00	Fcst	309	7.5	C	None
2011/03/16 12:00	Fcst	304	7.2	C	None
2011/03/16 13:00	Fcst	314	8.8	C	None
2011/03/16 14:00	Fcst	325	10.4	C	None
2011/03/16 15:00	Fcst	324	12.3	C	None
2011/03/16 16:00	Fcst	304	14.7	D	None
2011/03/16 17:00	Fcst	299	14.2	D	None
2011/03/16 18:00	Fcst	297	11.3	D	None
2011/03/16 19:00	Fcst	316	9.8	D	None
2011/03/16 20:00	Fcst	309	9.4	D	None

2011/03/16 21:00	Fcst	294	9.5	D	None
2011/03/16 22:00	Fcst	299	7.6	D	None
2011/03/16 23:00	Fcst	300	9.7	D	None
2011/03/17 00:00	Fcst	294	5.0	D	None
2011/03/17 01:00	Fcst	281	3.7	D	None
2011/03/17 02:00	Fcst	271	6.7	D	None
2011/03/17 03:00	Fcst	302	6.2	D	None
2011/03/17 04:00	Fcst	315	5.0	D	None
2011/03/17 05:00	Fcst	320	4.1	D	None
2011/03/17 06:00	Fcst	324	4.6	D	None
2011/03/17 07:00	Fcst	295	5.1	C	None
2011/03/17 08:00	Fcst	324	5.4	C	None
2011/03/17 09:00	Fcst	275	6.5	D	None
2011/03/17 10:00	Fcst	289	9.1	C	None
2011/03/17 11:00	Fcst	291	9.3	C	None
2011/03/17 12:00	Fcst	314	7.5	C	Lgt rain
2011/03/17 13:00	Fcst	312	10.8	C	Lgt rain
2011/03/17 14:00	Fcst	302	12.1	C	None
2011/03/17 15:00	Fcst	300	11.2	C	None
2011/03/17 16:00	Fcst	300	10.7	D	None
2011/03/17 17:00	Fcst	303	9.1	D	None
2011/03/17 18:00	Fcst	308	8.4	D	None
2011/03/17 19:00	Fcst	303	9.1	D	None
2011/03/17 20:00	Fcst	308	7.0	D	None
2011/03/17 21:00	Fcst	322	5.8	D	None
2011/03/17 22:00	Fcst	321	6.5	D	None
2011/03/17 23:00	Fcst	330	6.4	D	None
2011/03/18 00:00	Fcst	322	6.3	D	None
2011/03/18 01:00	Fcst	319	5.4	D	None
2011/03/18 02:00	Fcst	315	6.3	D	None
2011/03/18 03:00	Fcst	313	5.8	D	None
2011/03/18 04:00	Fcst	319	7.1	D	None
2011/03/18 05:00	Fcst	316	8.8	D	None
2011/03/18 06:00	Fcst	319	8.8	D	None
2011/03/18 07:00	Fcst	325	8.2	C	None
2011/03/18 08:00	Fcst	334	7.6	C	None
2011/03/18 09:00	Fcst	340	6.4	C	None
2011/03/18 10:00	Fcst	333	6.6	C	None
2011/03/18 11:00	Fcst	321	5.8	C	None
2011/03/18 12:00	Fcst	291	3.4	C	None
2011/03/18 13:00	Fcst	292	3.5	C	None
2011/03/18 14:00	Fcst	282	3.6	C	None
2011/03/18 15:00	Fcst	272	2.3	C	None
2011/03/18 16:00	Fcst	279	5.4	C	None
2011/03/18 17:00	Fcst	280	8.0	D	None
2011/03/18 18:00	Fcst	257	2.9	E	None
2011/03/18 19:00	Fcst	269	2.8	F	None
2011/03/18 20:00	Fcst	284	7.5	D	None
2011/03/18 21:00	Fcst	271	5.2	D	None
2011/03/18 22:00	Fcst	255	6.7	D	None
2011/03/18 23:00	Fcst	261	7.3	D	None
2011/03/19 00:00	Fcst	251	5.5	D	None
2011/03/19 01:00	Fcst	189	2.2	F	None
2011/03/19 02:00	Fcst	212	2.3	F	None
2011/03/19 03:00	Fcst	226	5.0	E	None
2011/03/19 04:00	Fcst	227	6.7	D	None

2011/03/19 05:00	Fcst	231	6.3	D	None
2011/03/19 06:00	Fcst	243	6.3	D	None
2011/03/19 07:00	Fcst	245	9.0	D	None
2011/03/19 08:00	Fcst	218	4.2	D	None
2011/03/19 09:00	Fcst	197	2.1	C	None
2011/03/19 10:00	Fcst	237	3.4	C	None
2011/03/19 11:00	Fcst	223	3.4	C	None
2011/03/19 12:00	Fcst	222	0.9	B	None
2011/03/19 13:00	Fcst	257	3.4	C	None
2011/03/19 14:00	Fcst	269	6.4	C	None
2011/03/19 15:00	Fcst	272	6.7	C	None
2011/03/19 16:00	Fcst	265	6.9	D	None
2011/03/19 17:00	Fcst	264	6.6	D	None
2011/03/19 18:00	Fcst	267	7.7	D	None
2011/03/19 19:00	Fcst	265	9.1	D	None
2011/03/19 20:00	Fcst	275	9.2	D	None
2011/03/19 21:00	Fcst	281	7.8	D	None
2011/03/19 22:00	Fcst	275	7.0	D	None
2011/03/19 23:00	Fcst	263	5.0	E	None
2011/03/20 00:00	Fcst	252	5.3	D	None
2011/03/20 01:00	Fcst	264	7.0	D	None
2011/03/20 02:00	Fcst	282	8.7	D	None
2011/03/20 03:00	Fcst	287	9.3	D	None

Dataset options: Est. missing stability using: Wind speed, time of day, etc.
Adjust stability for consistency: No
Modify winds for topography: Yes

Calculations

Case description: Unit 4 SF pool 100 % damage, 17 March 2330 4 old batches - pool remainder

End of calculations: 2011/03/18 17:00
Start of release to atmosphere + 48 h

Distance of calculation: Close-in + to 50 miles

Close-in distances: 0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0, 10.0 miles

Case Summary

Event Type Nuclear Power Plant

Location

Name:	Fukushima Unit 2
City, county, state:	<undefined>, <undefined>, <undefined>
Lat / Long / Elev:	37.4214° N, 141.0325° E, 0 m
UTC Offset:	9 hours
Population:	not available

Reactor Parameters

Reactor power:	2350 MWt
Average fuel burn-up:	30000 MWD / MTU
Containment type:	BWR Mark I
Containment volume:	2.50E+05 ft^3
Design pressure:	60 lb/in^2
Design leak rate:	0.54 %/d
Coolant mass:	1.25E+05 kg
Assemblies in core:	550

Source Term

Type:	Time Core Is Uncovered
Shutdown:	2011/03/11 14:46
Core uncovered:	2011/03/15 06:00
Core recovered:	2011/03/15 07:00

Release Pathway

Type:	BWR - Release Through Dry Well via direct, unfiltered pathway
Description:	total failure of containment
Release height:	10. m

Release events

2011/03/15 06:00	Leak rate (% vol) Total failure
2011/03/16 19:05	Sprays Off

Meteorology

Type:	Actual Observations
Dataset name:	Fukushima 17March run at 2316
Dataset desc:	Obs/fcsts for Fukushima Unit 2

Summary of data at release point:	Type	Dir deg	Speed m/s	Stab class	Precip	Temp °C
2011/03/12 14:00	Fcst	265	1.0	B	?	
2011/03/12 15:00	Fcst	265	1.0	B	?	
2011/03/12 16:00	Fcst	277	1.3	B	?	
2011/03/12 17:00	Fcst	260	2.4	B	?	
2011/03/12 18:00	Fcst	241	1.4	E	?	
2011/03/12 19:00	Fcst	236	2.1	E	?	
2011/03/12 20:00	Fcst	239	2.1	E	?	
2011/03/12 21:00	Fcst	229	3.8	E	?	
2011/03/12 22:00	Fcst	224	5.1	E	?	
2011/03/12 23:00	Fcst	226	3.9	E	?	
2011/03/13 00:00	Fcst	228	4.1	E	?	

2011/03/13 01:00	Fcst	235	2.6	E	?
2011/03/13 02:00	Fcst	233	3.9	E	?
2011/03/13 03:00	Fcst	225	1.8	E	?
2011/03/13 04:00	Fcst	225	1.3	E	?
2011/03/13 05:00	Fcst	225	2.2	E	?
2011/03/13 06:00	Fcst	225	2.2	E	?
2011/03/13 07:00	Fcst	248	2.7	E	?
2011/03/13 08:00	Fcst	248	2.7	E	?
2011/03/13 09:00	Fcst	270	3.1	E	?
2011/03/13 12:00	Fcst	271	7.4	D	?
2011/03/13 13:00	Fcst	276	6.2	D	?
2011/03/13 14:00	Fcst	312	2.8	B	?
2011/03/14 18:00	Fcst	258	4.8	unk	?
2011/03/14 19:00	Fcst	268	5.0	unk	?
2011/03/14 20:00	Fcst	330	2.2	unk	?
2011/03/14 21:00	Fcst	337	4.6	unk	?
2011/03/14 22:00	Fcst	323	7.2	unk	?
2011/03/14 23:00	Fcst	305	6.6	unk	?
2011/03/15 00:00	Fcst	015	8.6	unk	?
2011/03/15 02:00	Fcst	002	7.5	unk	?
2011/03/15 03:00	Fcst	347	5.2	E	None
2011/03/15 04:00	Fcst	332	5.6	E	None
2011/03/15 05:00	Fcst	332	4.0	E	None
2011/03/15 06:00	Fcst	344	3.5	E	Lgt rain
2011/03/15 07:00	Fcst	026	3.8	E	Lgt rain
2011/03/15 08:00	Fcst	044	4.4	E	Lgt rain
2011/03/15 09:00	Fcst	020	4.2	E	Lgt rain
2011/03/15 10:00	Fcst	010	3.4	E	None
2011/03/15 11:00	Fcst	030	3.5	D	Lgt rain
2011/03/15 12:00	Fcst	027	3.0	D	Lgt rain
2011/03/15 13:00	Fcst	037	3.4	D	Lgt rain
2011/03/15 14:00	Fcst	053	3.7	B	None
2011/03/15 15:00	Fcst	058	3.7	B	None
2011/03/15 16:00	Fcst	067	3.2	C	Lgt rain
2011/03/15 17:00	Fcst	081	3.9	C	Lgt rain
2011/03/15 18:00	Fcst	089	4.7	B	None
2011/03/15 19:00	Fcst	085	4.4	B	None
2011/03/15 20:00	Fcst	083	4.4	B	Lgt rain
2011/03/15 21:00	Fcst	074	4.6	C	Lgt rain
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2011/03/15 23:00	Fcst	029	5.6	D	Rain
2011/03/16 00:00	Fcst	011	5.1	D	Lgt rain
2011/03/16 01:00	Fcst	346	4.3	C	Lgt rain
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2011/03/16 03:00	Fcst	323	5.6	D	Lgt rain
2011/03/16 04:00	Fcst	316	5.4	D	None
2011/03/16 05:00	Fcst	298	4.8	D	None
2011/03/16 06:00	Fcst	314	5.6	D	None
2011/03/16 07:00	Fcst	312	4.7	D	None
2011/03/16 08:00	Fcst	331	4.9	D	None
2011/03/16 09:00	Fcst	299	4.2	D	None
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2011/03/16 12:00	Fcst	304	7.2	C	None
2011/03/16 13:00	Fcst	314	8.8	C	None
2011/03/16 14:00	Fcst	325	10.4	C	None

2011/03/16 15:00	Fcst	324	12.3	C	None
2011/03/16 16:00	Fcst	304	14.7	D	None
2011/03/16 17:00	Fcst	299	14.2	D	None
2011/03/16 18:00	Fcst	297	11.3	D	None
2011/03/16 19:00	Fcst	316	9.8	D	None
2011/03/16 20:00	Fcst	309	9.4	D	None
2011/03/16 21:00	Fcst	294	9.5	D	None
2011/03/16 22:00	Fcst	299	7.6	D	None
2011/03/16 23:00	Fcst	300	9.7	D	None
2011/03/17 00:00	Fcst	294	5.0	D	None
2011/03/17 01:00	Fcst	281	3.7	D	None
2011/03/17 02:00	Fcst	271	6.7	D	None
2011/03/17 03:00	Fcst	302	6.2	D	None
2011/03/17 04:00	Fcst	315	5.0	D	None
2011/03/17 05:00	Fcst	320	4.1	D	None
2011/03/17 06:00	Fcst	324	4.6	D	None
2011/03/17 07:00	Fcst	295	5.1	C	None
2011/03/17 08:00	Fcst	324	5.4	C	None
2011/03/17 09:00	Fcst	275	6.5	D	None
2011/03/17 10:00	Fcst	289	9.1	C	None
2011/03/17 11:00	Fcst	291	9.3	C	None
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2011/03/17 13:00	Fcst	312	10.8	C	Lgt rain
2011/03/17 14:00	Fcst	302	12.1	C	None
2011/03/17 15:00	Fcst	300	11.2	C	None
2011/03/17 16:00	Fcst	300	10.7	D	None
2011/03/17 17:00	Fcst	303	9.1	D	None
2011/03/17 18:00	Fcst	308	8.4	D	None
2011/03/17 19:00	Fcst	303	9.1	D	None
2011/03/17 20:00	Fcst	308	7.0	D	None
2011/03/17 21:00	Fcst	322	5.8	D	None
2011/03/17 22:00	Fcst	321	6.5	D	None
2011/03/17 23:00	Fcst	330	6.4	D	None
2011/03/18 00:00	Fcst	322	6.3	D	None
2011/03/18 01:00	Fcst	319	5.4	D	None
2011/03/18 02:00	Fcst	315	6.3	D	None
2011/03/18 03:00	Fcst	313	5.8	D	None
2011/03/18 04:00	Fcst	319	7.1	D	None
2011/03/18 05:00	Fcst	316	8.8	D	None
2011/03/18 06:00	Fcst	319	8.8	D	None
2011/03/18 07:00	Fcst	325	8.2	C	None
2011/03/18 08:00	Fcst	334	7.6	C	None
2011/03/18 09:00	Fcst	340	6.4	C	None
2011/03/18 10:00	Fcst	333	6.6	C	None
2011/03/18 11:00	Fcst	321	5.8	C	None
2011/03/18 12:00	Fcst	291	3.4	C	None
2011/03/18 13:00	Fcst	292	3.5	C	None
2011/03/18 14:00	Fcst	282	3.6	C	None
2011/03/18 15:00	Fcst	272	2.3	C	None
2011/03/18 16:00	Fcst	279	5.4	C	None
2011/03/18 17:00	Fcst	280	8.0	D	None
2011/03/18 18:00	Fcst	257	2.9	E	None
2011/03/18 19:00	Fcst	269	2.8	F	None
2011/03/18 20:00	Fcst	284	7.5	D	None
2011/03/18 21:00	Fcst	271	5.2	D	None
2011/03/18 22:00	Fcst	255	6.7	D	None

2011/03/18 23:00	Fcst	261	7.3	D	None
2011/03/19 00:00	Fcst	251	5.5	D	None
2011/03/19 01:00	Fcst	189	2.2	F	None
2011/03/19 02:00	Fcst	212	2.3	F	None
2011/03/19 03:00	Fcst	226	5.0	E	None
2011/03/19 04:00	Fcst	227	6.7	D	None
2011/03/19 05:00	Fcst	231	6.3	D	None
2011/03/19 06:00	Fcst	243	6.3	D	None
2011/03/19 07:00	Fcst	245	9.0	D	None
2011/03/19 08:00	Fcst	218	4.2	D	None
2011/03/19 09:00	Fcst	197	2.1	C	None
2011/03/19 10:00	Fcst	237	3.4	C	None
2011/03/19 11:00	Fcst	223	3.4	C	None
2011/03/19 12:00	Fcst	222	0.9	B	None
2011/03/19 13:00	Fcst	257	3.4	C	None
2011/03/19 14:00	Fcst	269	6.4	C	None
2011/03/19 15:00	Fcst	272	6.7	C	None
2011/03/19 16:00	Fcst	265	6.9	D	None
2011/03/19 17:00	Fcst	264	6.6	D	None
2011/03/19 18:00	Fcst	267	7.7	D	None
2011/03/19 19:00	Fcst	265	9.1	D	None
2011/03/19 20:00	Fcst	275	9.2	D	None
2011/03/19 21:00	Fcst	281	7.8	D	None
2011/03/19 22:00	Fcst	275	7.0	D	None
2011/03/19 23:00	Fcst	263	5.0	E	None
2011/03/20 00:00	Fcst	252	5.3	D	None
2011/03/20 01:00	Fcst	264	7.0	D	None
2011/03/20 02:00	Fcst	282	8.7	D	None
2011/03/20 03:00	Fcst	287	9.3	D	None

Dataset options: Est. missing stability using: Wind speed, time of day, etc.
Adjust stability for consistency: No
Modify winds for topography: Yes

Calculations

Case description: Fukushima Unit 2 33% core melt no recovery 17MAR 2330 met data update

End of calculations: 2011/03/15 18:00
Start of release to atmosphere + 12 h

Distance of calculation: Close-in + to 50 miles

Close-in distances: 0.5, 1.0, 1.5, 2.0, 3.0, 5.0, 7.0, 10.0 miles

RASCAL v4.1.0 Source Term
File created: 2011/03/18 00:15
Case name 17 March 2330 one bundle
Radionuclide units: Ci

Interval	########	########	########	########	########	########	########	########	########
Start	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00
Am-241	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05
Ba-140	3.70E+01	3.70E+01	3.70E+01	3.70E+01	3.69E+01	3.69E+01	3.69E+01	3.69E+01	3.68E+01
Ce-141	3.51E-01	3.51E-01	3.51E-01	3.51E-01	3.50E-01	3.50E-01	3.50E-01	3.50E-01	3.50E-01
Ce-143	2.90E-08	2.88E-08	2.86E-08	2.85E-08	2.84E-08	2.82E-08	2.81E-08	2.79E-08	2.78E-08
Ce-144	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
Cm-242	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
Cs-134	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04
Cs-136	6.13E+02	6.13E+02	6.12E+02	6.12E+02	6.11E+02	6.11E+02	6.11E+02	6.10E+02	6.10E+02
Cs-137	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
I-131	8.65E+03	8.64E+03	8.64E+03	8.63E+03	8.62E+03	8.61E+03	8.60E+03	8.60E+03	8.59E+03
I-132	9.72E+01	9.00E+01	8.36E+01	7.77E+01	7.21E+01	6.70E+01	6.23E+01	5.78E+01	5.37E+01
I-133	6.12E-07	6.08E-07	6.02E-07	5.98E-07	5.92E-07	5.88E-07	5.82E-07	5.78E-07	5.72E-07
Kr-85	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
La-140	1.40E+00	1.55E+00	1.70E+00	1.85E+00	2.00E+00	2.15E+00	2.30E+00	2.45E+00	2.59E+00
Mo-99	4.93E-04	4.91E-04	4.91E-04	4.89E-04	4.88E-04	4.87E-04	4.85E-04	4.84E-04	4.82E-04
Nb-95	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01
Nd-147	3.41E-02	3.41E-02	3.41E-02	3.41E-02	3.40E-02	3.40E-02	3.40E-02	3.40E-02	3.39E-02
Np-239	4.65E-04	4.64E-04	4.63E-04	4.62E-04	4.60E-04	4.59E-04	4.57E-04	4.56E-04	4.55E-04
Pm-147	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
Pr-143	1.16E-01	1.16E-01	1.16E-01	1.16E-01	1.16E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
Pr-144	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
Pu-238	1.24E-05	1.24E-05	1.24E-05	1.24E-05	1.24E-05	1.24E-05	1.24E-05	1.24E-05	1.24E-05
Pu-239	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
Pu-241	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02
Rb-86	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.70E+01	3.70E+01
Rh-103m	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00
Rh-105	1.99E-07	1.98E-07	1.97E-07	1.96E-07	1.95E-07	1.94E-07	1.94E-07	1.93E-07	1.92E-07
Ru-103	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00
Ru-106	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01
Sb-127	2.71E-01	2.70E-01	2.70E-01	2.69E-01	2.69E-01	2.68E-01	2.67E-01	2.67E-01	2.66E-01
Sr-89	7.43E+01	7.43E+01	7.43E+01	7.43E+01	7.43E+01	7.43E+01	7.43E+01	7.43E+01	7.42E+01
Sr-90	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
Tc-99m	4.75E-04	4.74E-04	4.73E-04	4.72E-04	4.70E-04	4.69E-04	4.68E-04	4.66E-04	4.65E-04
Te-127	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01
Te-127m	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
Te-129	2.69E+01	2.69E+01	2.69E+01	2.69E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01
Te-129m	4.13E+01	4.13E+01	4.13E+01	4.12E+01	4.12E+01	4.12E+01	4.12E+01	4.12E+01	4.12E+01
Te-131	4.55E-07	4.52E-07	4.49E-07	4.47E-07	4.45E-07	4.42E-07	4.39E-07	4.37E-07	4.34E-07
Te-131m	2.02E-06	2.01E-06	2.00E-06	1.99E-06	1.97E-06	1.96E-06	1.95E-06	1.94E-06	1.93E-06
Te-132	1.44E+00	1.44E+00	1.43E+00	1.43E+00	1.42E+00	1.42E+00	1.42E+00	1.41E+00	1.41E+00
Xe-131m	4.19E+02	4.18E+02	4.18E+02	4.18E+02	4.17E+02	4.17E+02	4.17E+02	4.17E+02	4.16E+02

Xe-133	5.29E+03	5.28E+03	5.27E+03	5.27E+03	5.26E+03	5.26E+03	5.25E+03	5.24E+03	5.23E+03
Xe-133m	3.27E-01	3.25E-01	3.24E-01	3.23E-01	3.22E-01	3.21E-01	3.20E-01	3.19E-01	3.18E-01
Y-90	3.74E-01	4.13E-01	4.53E-01	4.92E-01	5.32E-01	5.72E-01	6.10E-01	6.50E-01	6.89E-01
Y-91	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01
Zr-95	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.03E-01	5.02E-01	5.02E-01	5.02E-01

########	########	########	########	########	########	########	########	########	########
19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30
1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.33E-05	1.34E-05
3.68E+01	3.68E+01	3.68E+01	3.68E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01	3.66E+01	3.66E+01
3.50E-01	3.50E-01	3.50E-01	3.50E-01	3.50E-01	3.50E-01	3.50E-01	3.49E-01	3.49E-01	3.49E-01
2.76E-08	2.75E-08	2.74E-08	2.72E-08	2.71E-08	2.69E-08	2.67E-08	2.66E-08	2.65E-08	2.64E-08
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04
6.10E+02	6.09E+02	6.09E+02	6.09E+02	6.08E+02	6.08E+02	6.08E+02	6.08E+02	6.08E+02	6.07E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.59E+03	8.58E+03	8.57E+03	8.56E+03	8.55E+03	8.54E+03	8.53E+03	8.53E+03	8.52E+03	8.51E+03
5.00E+01	4.64E+01	4.31E+01	4.01E+01	3.73E+01	3.47E+01	3.23E+01	3.01E+01	2.80E+01	2.60E+01
5.68E-07	5.63E-07	5.59E-07	5.54E-07	5.49E-07	5.45E-07	5.40E-07	5.36E-07	5.31E-07	5.27E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
2.74E+00	2.89E+00	3.03E+00	3.18E+00	3.32E+00	3.47E+00	3.61E+00	3.74E+00	3.89E+00	4.03E+00
4.82E-04	4.80E-04	4.79E-04	4.78E-04	4.76E-04	4.75E-04	4.74E-04	4.73E-04	4.72E-04	4.70E-04
6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01
3.39E-02	3.39E-02	3.39E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02	3.38E-02
4.53E-04	4.52E-04	4.50E-04	4.49E-04	4.47E-04	4.46E-04	4.45E-04	4.44E-04	4.42E-04	4.41E-04
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01	1.15E-01
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
1.24E-05	1.24E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02
3.70E+01	3.70E+01	3.70E+01	3.70E+01	3.69E+01	3.69E+01	3.69E+01	3.69E+01	3.69E+01	3.69E+01
1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00
1.91E-07	1.90E-07	1.89E-07	1.87E-07	1.86E-07	1.85E-07	1.85E-07	1.84E-07	1.83E-07	1.82E-07
1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00
9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01	9.27E-01
2.66E-01	2.66E-01	2.66E-01	2.65E-01	2.65E-01	2.64E-01	2.63E-01	2.63E-01	2.62E-01	2.62E-01
7.42E+01	7.42E+01	7.42E+01	7.42E+01	7.42E+01	7.42E+01	7.42E+01	7.42E+01	7.41E+01	7.41E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
4.64E-04	4.63E-04	4.62E-04	4.61E-04	4.59E-04	4.58E-04	4.57E-04	4.55E-04	4.55E-04	4.54E-04
1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01
1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.68E+01	2.67E+01
4.12E+01	4.12E+01	4.12E+01	4.12E+01	4.11E+01	4.11E+01	4.11E+01	4.11E+01	4.11E+01	4.11E+01
4.32E-07	4.29E-07	4.27E-07	4.24E-07	4.22E-07	4.19E-07	4.17E-07	4.15E-07	4.12E-07	4.10E-07
1.92E-06	1.91E-06	1.90E-06	1.88E-06	1.87E-06	1.86E-06	1.85E-06	1.85E-06	1.83E-06	1.82E-06
1.41E+00	1.40E+00	1.40E+00	1.40E+00	1.40E+00	1.40E+00	1.40E+00	1.39E+00	1.39E+00	1.39E+00
4.16E+02	4.16E+02	4.15E+02	4.15E+02	4.15E+02	4.15E+02	4.14E+02	4.14E+02	4.14E+02	4.13E+02

5.22E+03	5.22E+03	5.21E+03	5.20E+03	5.19E+03	5.18E+03	5.18E+03	5.18E+03	5.17E+03	5.16E+03
3.17E-01	3.16E-01	3.15E-01	3.14E-01	3.12E-01	3.11E-01	3.11E-01	3.10E-01	3.09E-01	3.08E-01
7.28E-01	7.67E-01	8.06E-01	8.44E-01	8.83E-01	9.18E-01	9.63E-01	9.99E-01	1.04E+00	1.07E+00
3.49E-01	3.49E-01	3.49E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01
5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01

########	########	########	########	########	########	########	########	########	########
21:45	22:00	22:15	22:30	22:45	23:00	23:15	23:30	23:45	0:00
1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05
3.66E+01	3.66E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01
3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.49E-01	3.48E-01	3.48E-01
2.62E-08	2.61E-08	2.59E-08	2.58E-08	2.57E-08	2.56E-08	2.54E-08	2.53E-08	2.51E-08	2.50E-08
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04
6.07E+02	6.07E+02	6.06E+02	6.06E+02	6.05E+02	6.05E+02	6.05E+02	6.04E+02	6.04E+02	6.04E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.51E+03	8.50E+03	8.49E+03	8.48E+03	8.48E+03	8.47E+03	8.46E+03	8.45E+03	8.44E+03	8.43E+03
2.42E+01	2.26E+01	2.11E+01	1.96E+01	1.83E+01	1.71E+01	1.59E+01	1.49E+01	1.39E+01	1.30E+01
5.23E-07	5.18E-07	5.14E-07	5.09E-07	5.06E-07	5.01E-07	4.97E-07	4.93E-07	4.89E-07	4.85E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
4.17E+00	4.31E+00	4.45E+00	4.58E+00	4.73E+00	4.86E+00	5.00E+00	5.13E+00	5.27E+00	5.40E+00
4.69E-04	4.68E-04	4.66E-04	4.65E-04	4.64E-04	4.63E-04	4.62E-04	4.61E-04	4.59E-04	4.58E-04
6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01
3.38E-02	3.37E-02	3.37E-02	3.37E-02	3.37E-02	3.36E-02	3.36E-02	3.36E-02	3.36E-02	3.35E-02
4.39E-04	4.38E-04	4.37E-04	4.36E-04	4.34E-04	4.33E-04	4.31E-04	4.30E-04	4.28E-04	4.28E-04
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.84E-03
1.15E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02	8.97E-02
3.68E+01	3.68E+01	3.68E+01	3.68E+01	3.68E+01	3.68E+01	3.67E+01	3.67E+01	3.67E+01	3.67E+01
1.17E+00	1.17E+00	1.17E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
1.81E-07	1.80E-07	1.79E-07	1.78E-07	1.78E-07	1.77E-07	1.76E-07	1.76E-07	1.75E-07	1.74E-07
1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00
9.27E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.61E-01	2.61E-01	2.60E-01	2.60E-01	2.59E-01	2.59E-01	2.58E-01	2.58E-01	2.57E-01	2.57E-01
7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.41E+01	7.40E+01	7.40E+01	7.40E+01	7.40E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
4.52E-04	4.51E-04	4.50E-04	4.48E-04	4.47E-04	4.46E-04	4.45E-04	4.44E-04	4.43E-04	4.42E-04
1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01
1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01
4.11E+01	4.11E+01	4.11E+01	4.11E+01	4.11E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
4.08E-07	4.05E-07	4.02E-07	4.01E-07	3.98E-07	3.96E-07	3.93E-07	3.92E-07	3.89E-07	3.87E-07
1.81E-06	1.80E-06	1.79E-06	1.78E-06	1.76E-06	1.76E-06	1.75E-06	1.74E-06	1.73E-06	1.72E-06
1.38E+00	1.38E+00	1.38E+00	1.37E+00	1.37E+00	1.37E+00	1.36E+00	1.36E+00	1.36E+00	1.35E+00
4.13E+02	4.13E+02	4.13E+02	4.12E+02	4.12E+02	4.12E+02	4.12E+02	4.11E+02	4.11E+02	4.11E+02

5.16E+03	5.15E+03	5.14E+03	5.13E+03	5.12E+03	5.12E+03	5.11E+03	5.10E+03	5.09E+03	5.09E+03
3.07E-01	3.06E-01	3.04E-01	3.03E-01	3.02E-01	3.02E-01	3.01E-01	3.00E-01	2.99E-01	2.98E-01
1.12E+00	1.15E+00	1.19E+00	1.22E+00	1.26E+00	1.30E+00	1.34E+00	1.38E+00	1.41E+00	1.45E+00
3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01
5.02E-01	5.02E-01	5.02E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01

########	########	########	########	########	########	########	########	########	########
0:15	0:30	0:45	1:00	1:15	1:30	1:45	2:00	2:15	2:30
1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05	1.34E-05
3.65E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.63E+01	3.63E+01	3.63E+01	3.63E+01	3.63E+01
3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.48E-01
2.48E-08	2.48E-08	2.47E-08	2.45E-08	2.44E-08	2.42E-08	2.41E-08	2.39E-08	2.39E-08	2.38E-08
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04
6.03E+02	6.03E+02	6.02E+02	6.02E+02	6.02E+02	6.01E+02	6.01E+02	6.01E+02	6.00E+02	6.00E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.43E+03	8.42E+03	8.42E+03	8.41E+03	8.40E+03	8.39E+03	8.39E+03	8.38E+03	8.37E+03	8.36E+03
1.22E+01	1.13E+01	1.06E+01	9.99E+00	9.36E+00	8.74E+00	8.20E+00	7.70E+00	7.25E+00	6.81E+00
4.81E-07	4.77E-07	4.73E-07	4.69E-07	4.65E-07	4.62E-07	4.57E-07	4.54E-07	4.50E-07	4.46E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
5.54E+00	5.66E+00	5.80E+00	5.92E+00	6.06E+00	6.18E+00	6.32E+00	6.44E+00	6.57E+00	6.70E+00
4.57E-04	4.55E-04	4.55E-04	4.54E-04	4.52E-04	4.51E-04	4.50E-04	4.48E-04	4.47E-04	4.46E-04
6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.65E-01	6.65E-01	6.65E-01
3.35E-02	3.35E-02	3.35E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.33E-02	3.33E-02	3.33E-02
4.27E-04	4.25E-04	4.24E-04	4.22E-04	4.21E-04	4.19E-04	4.19E-04	4.18E-04	4.16E-04	4.15E-04
2.84E-03	2.84E-03	2.84E-03	2.84E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.14E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.26E-05	1.26E-05	1.26E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.97E-02	8.97E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.67E+01	3.67E+01	3.67E+01	3.66E+01	3.66E+01	3.66E+01	3.66E+01	3.66E+01	3.66E+01	3.65E+01
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
1.73E-07	1.72E-07	1.71E-07	1.70E-07	1.69E-07	1.68E-07	1.67E-07	1.67E-07	1.66E-07	1.65E-07
1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.57E-01	2.56E-01	2.56E-01	2.55E-01	2.55E-01	2.54E-01	2.54E-01	2.53E-01	2.53E-01	2.52E-01
7.40E+01	7.40E+01	7.40E+01	7.40E+01	7.40E+01	7.39E+01	7.39E+01	7.39E+01	7.39E+01	7.39E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
4.40E-04	4.39E-04	4.38E-04	4.37E-04	4.36E-04	4.35E-04	4.34E-04	4.32E-04	4.31E-04	4.30E-04
1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01
1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.67E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01
4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
3.84E-07	3.83E-07	3.80E-07	3.78E-07	3.76E-07	3.74E-07	3.72E-07	3.69E-07	3.67E-07	3.65E-07
1.71E-06	1.70E-06	1.69E-06	1.68E-06	1.67E-06	1.66E-06	1.65E-06	1.64E-06	1.63E-06	1.62E-06
1.35E+00	1.35E+00	1.34E+00	1.34E+00	1.34E+00	1.33E+00	1.33E+00	1.33E+00	1.32E+00	1.32E+00
4.10E+02	4.10E+02	4.10E+02	4.10E+02	4.10E+02	4.10E+02	4.10E+02	4.09E+02	4.09E+02	4.09E+02

5.09E+03	5.08E+03	5.07E+03	5.06E+03	5.06E+03	5.05E+03	5.04E+03	5.03E+03	5.03E+03	5.02E+03
2.97E-01	2.96E-01	2.94E-01	2.93E-01	2.93E-01	2.92E-01	2.91E-01	2.90E-01	2.89E-01	2.88E-01
1.49E+00	1.52E+00	1.56E+00	1.59E+00	1.63E+00	1.67E+00	1.71E+00	1.75E+00	1.78E+00	1.82E+00
3.48E-01	3.48E-01	3.48E-01	3.48E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01
5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.01E-01	5.00E-01

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2:45	3:00	3:15	3:30	3:45	4:00	4:15	4:30	4:45	5:00
1.34E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05
3.62E+01	3.62E+01	3.62E+01	3.62E+01	3.61E+01	3.61E+01	3.61E+01	3.61E+01	3.60E+01	3.60E+01
3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01
2.36E-08	2.35E-08	2.34E-08	2.32E-08	2.31E-08	2.30E-08	2.29E-08	2.28E-08	2.27E-08	2.25E-08
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.31E-01	5.31E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04
6.00E+02	5.99E+02	5.99E+02	5.99E+02	5.99E+02	5.99E+02	5.98E+02	5.98E+02	5.98E+02	5.97E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.35E+03	8.34E+03	8.34E+03	8.33E+03	8.33E+03	8.32E+03	8.31E+03	8.30E+03	8.30E+03	8.29E+03
6.42E+00	6.04E+00	5.70E+00	5.38E+00	5.09E+00	4.82E+00	4.55E+00	4.32E+00	4.10E+00	3.90E+00
4.43E-07	4.39E-07	4.36E-07	4.32E-07	4.28E-07	4.25E-07	4.21E-07	4.18E-07	4.14E-07	4.10E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
6.82E+00	6.95E+00	7.07E+00	7.20E+00	7.33E+00	7.45E+00	7.57E+00	7.70E+00	7.81E+00	7.94E+00
4.45E-04	4.44E-04	4.43E-04	4.42E-04	4.40E-04	4.39E-04	4.38E-04	4.37E-04	4.36E-04	4.35E-04
6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01
3.33E-02	3.33E-02	3.32E-02	3.32E-02	3.32E-02	3.32E-02	3.31E-02	3.31E-02	3.31E-02	3.31E-02
4.13E-04	4.12E-04	4.10E-04	4.10E-04	4.09E-04	4.07E-04	4.06E-04	4.05E-04	4.03E-04	4.02E-04
2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01
5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01	5.32E-01
1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
1.65E-07	1.64E-07	1.63E-07	1.62E-07	1.61E-07	1.60E-07	1.59E-07	1.58E-07	1.58E-07	1.58E-07
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.52E-01	2.51E-01	2.51E-01	2.50E-01	2.50E-01	2.49E-01	2.48E-01	2.48E-01	2.48E-01	2.48E-01
7.39E+01	7.39E+01	7.39E+01	7.38E+01	7.38E+01	7.38E+01	7.38E+01	7.38E+01	7.38E+01	7.38E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
4.29E-04	4.28E-04	4.27E-04	4.26E-04	4.25E-04	4.23E-04	4.22E-04	4.21E-04	4.20E-04	4.19E-04
1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01
1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01
4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.09E+01	4.09E+01	4.09E+01	4.09E+01	4.09E+01
3.63E-07	3.61E-07	3.59E-07	3.56E-07	3.55E-07	3.53E-07	3.51E-07	3.48E-07	3.47E-07	3.45E-07
1.61E-06	1.60E-06	1.59E-06	1.58E-06	1.58E-06	1.57E-06	1.56E-06	1.55E-06	1.54E-06	1.53E-06
1.32E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.30E+00	1.30E+00	1.30E+00
4.09E+02	4.08E+02	4.08E+02	4.08E+02	4.08E+02	4.07E+02	4.07E+02	4.07E+02	4.06E+02	4.06E+02

5.01E+03	5.00E+03	5.00E+03	5.00E+03	4.99E+03	4.98E+03	4.97E+03	4.97E+03	4.96E+03	4.95E+03
2.87E-01	2.86E-01	2.85E-01	2.84E-01	2.84E-01	2.83E-01	2.82E-01	2.81E-01	2.80E-01	2.79E-01
1.85E+00	1.89E+00	1.93E+00	1.95E+00	1.99E+00	2.03E+00	2.06E+00	2.10E+00	2.13E+00	2.17E+00
3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01

########	########	########	########	########	########	########	########	########	########
5:15	5:30	5:45	6:00	6:15	6:30	6:45	7:00	7:15	7:30
1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05
3.60E+01	3.60E+01	3.60E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01	3.58E+01	3.58E+01	3.58E+01
3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01
2.24E-08	2.23E-08	2.21E-08	2.21E-08	2.20E-08	2.19E-08	2.17E-08	2.16E-08	2.15E-08	2.14E-08
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04	1.45E+04
5.97E+02	5.96E+02	5.96E+02	5.96E+02	5.95E+02	5.95E+02	5.95E+02	5.94E+02	5.94E+02	5.94E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.28E+03	8.27E+03	8.26E+03	8.25E+03	8.25E+03	8.24E+03	8.24E+03	8.23E+03	8.22E+03	8.22E+03
3.71E+00	3.54E+00	3.37E+00	3.22E+00	3.08E+00	2.94E+00	2.83E+00	2.71E+00	2.61E+00	2.51E+00
4.07E-07	4.04E-07	4.01E-07	3.97E-07	3.94E-07	3.91E-07	3.87E-07	3.84E-07	3.81E-07	3.78E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
8.06E+00	8.18E+00	8.30E+00	8.42E+00	8.53E+00	8.65E+00	8.77E+00	8.88E+00	9.00E+00	9.09E+00
4.34E-04	4.32E-04	4.31E-04	4.30E-04	4.29E-04	4.28E-04	4.27E-04	4.26E-04	4.25E-04	4.23E-04
6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.65E-01
3.30E-02	3.30E-02	3.30E-02	3.30E-02	3.29E-02	3.29E-02	3.29E-02	3.29E-02	3.29E-02	3.29E-02
4.01E-04	4.00E-04	3.99E-04	3.97E-04	3.96E-04	3.95E-04	3.93E-04	3.92E-04	3.92E-04	3.90E-04
2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05	1.26E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.65E+01	3.65E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.64E+01	3.63E+01	3.63E+01
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
1.57E-07	1.56E-07	1.55E-07	1.54E-07	1.53E-07	1.53E-07	1.52E-07	1.51E-07	1.50E-07	1.49E-07
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.47E-01	2.47E-01	2.46E-01	2.46E-01	2.45E-01	2.45E-01	2.44E-01	2.44E-01	2.43E-01	2.43E-01
7.38E+01	7.38E+01	7.37E+01	7.37E+01	7.37E+01	7.37E+01	7.37E+01	7.37E+01	7.37E+01	7.37E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
4.18E-04	4.17E-04	4.16E-04	4.15E-04	4.13E-04	4.12E-04	4.11E-04	4.10E-04	4.10E-04	4.08E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01
4.09E+01	4.09E+01	4.09E+01	4.09E+01	4.09E+01	4.08E+01	4.08E+01	4.08E+01	4.08E+01	4.08E+01
3.43E-07	3.40E-07	3.38E-07	3.37E-07	3.35E-07	3.33E-07	3.31E-07	3.29E-07	3.27E-07	3.25E-07
1.52E-06	1.51E-06	1.50E-06	1.49E-06	1.49E-06	1.48E-06	1.47E-06	1.46E-06	1.45E-06	1.45E-06
1.29E+00	1.29E+00	1.29E+00	1.29E+00	1.28E+00	1.28E+00	1.28E+00	1.27E+00	1.27E+00	1.27E+00
4.06E+02	4.06E+02	4.05E+02	4.05E+02	4.05E+02	4.05E+02	4.04E+02	4.04E+02	4.04E+02	4.03E+02

4.94E+03	4.94E+03	4.93E+03	4.92E+03	4.91E+03	4.91E+03	4.91E+03	4.90E+03	4.89E+03	4.89E+03
2.78E-01	2.77E-01	2.76E-01	2.75E-01	2.75E-01	2.74E-01	2.73E-01	2.72E-01	2.71E-01	2.70E-01
2.21E+00	2.24E+00	2.28E+00	2.31E+00	2.34E+00	2.38E+00	2.41E+00	2.45E+00	2.48E+00	2.51E+00
3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01

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7:45	8:00	8:15	8:30	8:45	9:00	9:15	9:30	9:45	10:00
1.35E-05	1.35E-05	1.35E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05
3.58E+01	3.58E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
3.47E-01	3.47E-01	3.47E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01
2.12E-08	2.12E-08	2.11E-08	2.10E-08	2.08E-08	2.07E-08	2.06E-08	2.05E-08	2.04E-08	2.03E-08
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.45E+04	1.45E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.93E+02	5.93E+02	5.92E+02	5.92E+02	5.92E+02	5.91E+02	5.91E+02	5.91E+02	5.90E+02	5.90E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.21E+03	8.20E+03	8.19E+03	8.18E+03	8.17E+03	8.17E+03	8.16E+03	8.15E+03	8.15E+03	8.14E+03
2.42E+00	2.34E+00	2.26E+00	2.19E+00	2.12E+00	2.05E+00	2.00E+00	1.94E+00	1.89E+00	1.85E+00
3.74E-07	3.72E-07	3.68E-07	3.65E-07	3.63E-07	3.59E-07	3.56E-07	3.54E-07	3.50E-07	3.47E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
9.27E+00	9.36E+00	9.45E+00	9.54E+00	9.72E+00	9.81E+00	9.90E+00	9.99E+00	1.01E+01	1.03E+01
4.22E-04	4.21E-04	4.20E-04	4.19E-04	4.18E-04	4.17E-04	4.16E-04	4.15E-04	4.13E-04	4.12E-04
6.65E-01	6.65E-01	6.65E-01	6.65E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01
3.29E-02	3.29E-02	3.28E-02	3.28E-02	3.28E-02	3.28E-02	3.27E-02	3.27E-02	3.27E-02	3.27E-02
3.89E-04	3.88E-04	3.86E-04	3.85E-04	3.84E-04	3.83E-04	3.82E-04	3.81E-04	3.80E-04	3.78E-04
2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.13E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.26E-05	1.26E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.63E+01	3.63E+01	3.63E+01	3.63E+01	3.63E+01	3.62E+01	3.62E+01	3.62E+01	3.62E+01	3.62E+01
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
1.49E-07	1.49E-07	1.48E-07	1.47E-07	1.46E-07	1.45E-07	1.45E-07	1.44E-07	1.43E-07	1.42E-07
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.42E-01	2.42E-01	2.41E-01	2.41E-01	2.40E-01	2.40E-01	2.39E-01	2.39E-01	2.39E-01	2.39E-01
7.36E+01	7.36E+01	7.36E+01	7.36E+01	7.36E+01	7.36E+01	7.36E+01	7.36E+01	7.36E+01	7.35E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
4.07E-04	4.06E-04	4.05E-04	4.04E-04	4.02E-04	4.01E-04	4.01E-04	4.00E-04	3.99E-04	3.98E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.66E+01	2.65E+01	2.65E+01	2.65E+01	2.65E+01
4.08E+01	4.08E+01	4.08E+01	4.08E+01	4.08E+01	4.08E+01	4.07E+01	4.07E+01	4.07E+01	4.07E+01
3.23E-07	3.21E-07	3.20E-07	3.18E-07	3.16E-07	3.14E-07	3.12E-07	3.11E-07	3.09E-07	3.07E-07
1.44E-06	1.43E-06	1.42E-06	1.41E-06	1.40E-06	1.40E-06	1.39E-06	1.38E-06	1.37E-06	1.37E-06
1.26E+00	1.26E+00	1.26E+00	1.25E+00	1.25E+00	1.25E+00	1.24E+00	1.24E+00	1.24E+00	1.24E+00
4.03E+02	4.03E+02	4.03E+02	4.02E+02	4.02E+02	4.02E+02	4.02E+02	4.01E+02	4.01E+02	4.01E+02

4.88E+03	4.87E+03	4.86E+03	4.86E+03	4.85E+03	4.84E+03	4.83E+03	4.83E+03	4.82E+03	4.82E+03
2.69E-01	2.68E-01	2.67E-01	2.66E-01	2.66E-01	2.65E-01	2.64E-01	2.63E-01	2.62E-01	2.61E-01
2.55E+00	2.58E+00	2.62E+00	2.66E+00	2.68E+00	2.72E+00	2.75E+00	2.78E+00	2.82E+00	2.85E+00
3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01
5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01	5.00E-01

########	########	########	########	########	########	########	########	########	########
10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30
1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05
3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.55E+01	3.55E+01	3.55E+01	3.55E+01	3.54E+01
3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01
2.02E-08	2.01E-08	2.00E-08	1.99E-08	1.98E-08	1.96E-08	1.95E-08	1.94E-08	1.94E-08	1.93E-08
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.90E+02	5.90E+02	5.90E+02	5.90E+02	5.89E+02	5.89E+02	5.88E+02	5.88E+02	5.88E+02	5.87E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.14E+03	8.13E+03	8.12E+03	8.11E+03	8.10E+03	8.09E+03	8.09E+03	8.08E+03	8.07E+03	8.06E+03
1.80E+00	1.76E+00	1.72E+00	1.68E+00	1.65E+00	1.62E+00	1.59E+00	1.57E+00	1.54E+00	1.51E+00
3.45E-07	3.42E-07	3.39E-07	3.37E-07	3.33E-07	3.30E-07	3.28E-07	3.25E-07	3.22E-07	3.20E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.04E+01	1.04E+01	1.05E+01	1.07E+01	1.08E+01	1.09E+01	1.10E+01	1.11E+01	1.12E+01	1.13E+01
4.11E-04	4.10E-04	4.10E-04	4.08E-04	4.07E-04	4.06E-04	4.05E-04	4.04E-04	4.02E-04	4.01E-04
6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01
3.27E-02	3.26E-02	3.26E-02	3.26E-02	3.26E-02	3.25E-02	3.25E-02	3.25E-02	3.25E-02	3.24E-02
3.77E-04	3.76E-04	3.74E-04	3.74E-04	3.73E-04	3.72E-04	3.70E-04	3.69E-04	3.68E-04	3.67E-04
2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03
1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.62E+01	3.61E+01	3.61E+01	3.61E+01	3.61E+01	3.61E+01	3.61E+01	3.61E+01	3.60E+01	3.60E+01
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
1.42E-07	1.41E-07	1.40E-07	1.40E-07	1.40E-07	1.39E-07	1.38E-07	1.37E-07	1.37E-07	1.36E-07
1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.38E-01	2.38E-01	2.37E-01	2.37E-01	2.36E-01	2.36E-01	2.35E-01	2.35E-01	2.34E-01	2.34E-01
7.35E+01	7.35E+01	7.35E+01	7.35E+01	7.35E+01	7.35E+01	7.35E+01	7.34E+01	7.34E+01	7.34E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.96E-04	3.95E-04	3.94E-04	3.93E-04	3.92E-04	3.92E-04	3.91E-04	3.89E-04	3.88E-04	3.87E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.65E+01	2.65E+01	2.65E+01	2.65E+01	2.65E+01	2.65E+01	2.65E+01	2.65E+01	2.65E+01	2.65E+01
4.07E+01	4.07E+01	4.07E+01	4.07E+01	4.07E+01	4.07E+01	4.06E+01	4.06E+01	4.06E+01	4.06E+01
3.05E-07	3.03E-07	3.02E-07	3.00E-07	2.98E-07	2.96E-07	2.95E-07	2.93E-07	2.92E-07	2.90E-07
1.36E-06	1.35E-06	1.34E-06	1.33E-06	1.32E-06	1.31E-06	1.31E-06	1.31E-06	1.30E-06	1.29E-06
1.23E+00	1.23E+00	1.23E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00
4.01E+02	4.01E+02	4.01E+02	4.01E+02	4.00E+02	4.00E+02	4.00E+02	4.00E+02	3.99E+02	3.99E+02

4.81E+03	4.81E+03	4.80E+03	4.79E+03	4.79E+03	4.78E+03	4.77E+03	4.76E+03	4.76E+03	4.75E+03
2.60E-01	2.59E-01	2.58E-01	2.57E-01	2.57E-01	2.56E-01	2.55E-01	2.54E-01	2.53E-01	2.52E-01
2.89E+00	2.92E+00	2.95E+00	2.99E+00	3.02E+00	3.05E+00	3.08E+00	3.11E+00	3.15E+00	3.18E+00
3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.47E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01
5.00E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01

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12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00
1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05
3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.52E+01	3.52E+01
3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.44E-01	3.44E-01	3.44E-01
1.92E-08	1.91E-08	1.90E-08	1.88E-08	1.87E-08	1.86E-08	1.85E-08	1.85E-08	1.84E-08	1.83E-08
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.87E+02	5.87E+02	5.86E+02	5.86E+02	5.86E+02	5.85E+02	5.85E+02	5.84E+02	5.84E+02	5.84E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
8.06E+03	8.06E+03	8.05E+03	8.04E+03	8.03E+03	8.02E+03	8.02E+03	8.01E+03	8.00E+03	7.99E+03
1.49E+00	1.48E+00	1.45E+00	1.43E+00	1.41E+00	1.40E+00	1.39E+00	1.37E+00	1.36E+00	1.35E+00
3.17E-07	3.14E-07	3.12E-07	3.10E-07	3.07E-07	3.04E-07	3.02E-07	2.99E-07	2.97E-07	2.94E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.14E+01	1.15E+01	1.16E+01	1.17E+01	1.18E+01	1.19E+01	1.20E+01	1.22E+01	1.22E+01	1.23E+01
4.01E-04	4.00E-04	3.99E-04	3.98E-04	3.96E-04	3.95E-04	3.94E-04	3.93E-04	3.92E-04	3.92E-04
6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01	6.64E-01
3.24E-02	3.24E-02	3.24E-02	3.23E-02	3.23E-02	3.23E-02	3.23E-02	3.23E-02	3.22E-02	3.22E-02
3.65E-04	3.65E-04	3.64E-04	3.63E-04	3.61E-04	3.60E-04	3.59E-04	3.58E-04	3.57E-04	3.56E-04
2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03
1.12E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.27E-05	1.28E-05	1.28E-05	1.28E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.60E+01	3.60E+01	3.60E+01	3.60E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01	3.59E+01
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
1.35E-07	1.34E-07	1.34E-07	1.33E-07	1.32E-07	1.31E-07	1.31E-07	1.31E-07	1.30E-07	1.30E-07
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.33E-01	2.33E-01	2.32E-01	2.32E-01	2.31E-01	2.31E-01	2.31E-01	2.30E-01	2.30E-01	2.30E-01
7.34E+01	7.34E+01	7.34E+01	7.34E+01	7.34E+01	7.34E+01	7.34E+01	7.34E+01	7.34E+01	7.34E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.86E-04	3.85E-04	3.84E-04	3.83E-04	3.83E-04	3.81E-04	3.80E-04	3.79E-04	3.78E-04	3.77E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.65E+01	2.65E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01
4.06E+01	4.06E+01	4.06E+01	4.06E+01	4.06E+01	4.06E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01
2.88E-07	2.86E-07	2.84E-07	2.84E-07	2.82E-07	2.80E-07	2.78E-07	2.76E-07	2.75E-07	2.74E-07
1.28E-06	1.27E-06	1.27E-06	1.26E-06	1.25E-06	1.24E-06	1.23E-06	1.23E-06	1.22E-06	1.22E-06
1.21E+00	1.21E+00	1.21E+00	1.20E+00	1.20E+00	1.20E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00
3.99E+02	3.99E+02	3.98E+02	3.98E+02	3.98E+02	3.97E+02	3.97E+02	3.97E+02	3.97E+02	3.96E+02

4.74E+03	4.73E+03	4.73E+03	4.73E+03	4.72E+03	4.72E+03	4.71E+03	4.70E+03	4.69E+03	4.69E+03
2.52E-01	2.51E-01	2.50E-01	2.49E-01	2.48E-01	2.48E-01	2.47E-01	2.46E-01	2.45E-01	2.44E-01
3.21E+00	3.24E+00	3.28E+00	3.31E+00	3.34E+00	3.38E+00	3.40E+00	3.44E+00	3.47E+00	3.50E+00
3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01
4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.99E-01	4.98E-01	4.98E-01	4.98E-01

########	########	########	########	########	########	########	########	########	########
15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30
1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05
3.52E+01	3.52E+01	3.52E+01	3.51E+01	3.51E+01	3.51E+01	3.51E+01	3.50E+01	3.50E+01	3.50E+01
3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.43E-01
1.82E-08	1.81E-08	1.80E-08	1.79E-08	1.78E-08	1.77E-08	1.76E-08	1.76E-08	1.75E-08	1.74E-08
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.83E+02	5.83E+02	5.83E+02	5.82E+02	5.82E+02	5.82E+02	5.81E+02	5.81E+02	5.81E+02	5.81E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.98E+03	7.98E+03	7.97E+03	7.97E+03	7.96E+03	7.95E+03	7.95E+03	7.94E+03	7.93E+03	7.92E+03
1.33E+00	1.32E+00	1.31E+00	1.31E+00	1.30E+00	1.29E+00	1.28E+00	1.27E+00	1.26E+00	1.25E+00
2.92E-07	2.90E-07	2.87E-07	2.84E-07	2.83E-07	2.80E-07	2.77E-07	2.75E-07	2.73E-07	2.71E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.24E+01	1.25E+01	1.26E+01	1.27E+01	1.28E+01	1.29E+01	1.30E+01	1.31E+01	1.31E+01	1.32E+01
3.91E-04	3.89E-04	3.88E-04	3.87E-04	3.86E-04	3.85E-04	3.84E-04	3.83E-04	3.83E-04	3.81E-04
6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01
3.22E-02	3.22E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.20E-02	3.20E-02	3.20E-02	3.20E-02
3.55E-04	3.54E-04	3.53E-04	3.52E-04	3.50E-04	3.49E-04	3.48E-04	3.47E-04	3.47E-04	3.45E-04
2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03
1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.59E+01	3.58E+01	3.58E+01	3.58E+01	3.58E+01	3.58E+01	3.58E+01	3.57E+01	3.57E+01	3.57E+01
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
1.29E-07	1.28E-07	1.27E-07	1.27E-07	1.26E-07	1.25E-07	1.25E-07	1.24E-07	1.23E-07	1.23E-07
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.30E-01	2.29E-01	2.29E-01	2.28E-01	2.28E-01	2.27E-01	2.27E-01	2.26E-01	2.26E-01	2.25E-01
7.34E+01	7.34E+01	7.34E+01	7.34E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01	7.33E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.76E-04	3.75E-04	3.74E-04	3.74E-04	3.73E-04	3.71E-04	3.70E-04	3.69E-04	3.68E-04	3.67E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.64E+01	2.63E+01	2.63E+01
4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.05E+01	4.04E+01	4.04E+01	4.04E+01
2.72E-07	2.70E-07	2.69E-07	2.67E-07	2.66E-07	2.65E-07	2.63E-07	2.61E-07	2.59E-07	2.58E-07
1.21E-06	1.20E-06	1.20E-06	1.19E-06	1.18E-06	1.17E-06	1.17E-06	1.16E-06	1.15E-06	1.14E-06
1.18E+00	1.18E+00	1.18E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.16E+00	1.16E+00	1.16E+00
3.96E+02	3.96E+02	3.96E+02	3.95E+02	3.95E+02	3.95E+02	3.95E+02	3.94E+02	3.94E+02	3.94E+02

4.68E+03	4.67E+03	4.67E+03	4.66E+03	4.65E+03	4.64E+03	4.64E+03	4.64E+03	4.63E+03	4.63E+03
2.43E-01	2.43E-01	2.42E-01	2.41E-01	2.40E-01	2.39E-01	2.39E-01	2.38E-01	2.37E-01	2.37E-01
3.53E+00	3.56E+00	3.59E+00	3.63E+00	3.65E+00	3.68E+00	3.72E+00	3.74E+00	3.78E+00	3.81E+00
3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.46E-01	3.45E-01	3.45E-01	3.45E-01
4.98E-01	4.98E-01	4.98E-01	4.98E-01	4.98E-01	4.98E-01	4.98E-01	4.98E-01	4.98E-01	4.98E-01

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17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00
1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.38E-05	1.38E-05	1.38E-05
3.50E+01	3.50E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.48E+01	3.48E+01	3.48E+01	3.48E+01
3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01
1.73E-08	1.72E-08	1.71E-08	1.70E-08	1.69E-08	1.68E-08	1.67E-08	1.67E-08	1.66E-08	1.65E-08
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.81E+02	5.80E+02	5.80E+02	5.80E+02	5.79E+02	5.79E+02	5.79E+02	5.78E+02	5.78E+02	5.78E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.92E+03	7.91E+03	7.90E+03	7.89E+03	7.88E+03	7.88E+03	7.88E+03	7.87E+03	7.86E+03	7.85E+03
1.24E+00	1.24E+00	1.23E+00	1.22E+00	1.22E+00	1.22E+00	1.21E+00	1.21E+00	1.20E+00	1.20E+00
2.68E-07	2.66E-07	2.64E-07	2.62E-07	2.60E-07	2.57E-07	2.56E-07	2.53E-07	2.51E-07	2.49E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.33E+01	1.34E+01	1.35E+01	1.37E+01	1.38E+01	1.39E+01	1.40E+01	1.40E+01	1.41E+01	1.42E+01
3.80E-04	3.79E-04	3.78E-04	3.77E-04	3.76E-04	3.75E-04	3.74E-04	3.74E-04	3.73E-04	3.71E-04
6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01
3.20E-02	3.20E-02	3.20E-02	3.20E-02	3.20E-02	3.19E-02	3.19E-02	3.19E-02	3.19E-02	3.18E-02
3.44E-04	3.43E-04	3.42E-04	3.41E-04	3.40E-04	3.38E-04	3.38E-04	3.37E-04	3.36E-04	3.35E-04
2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03
1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01
1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05	1.28E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.14E+00	1.14E+00
1.22E-07	1.22E-07	1.22E-07	1.21E-07	1.20E-07	1.20E-07	1.19E-07	1.18E-07	1.18E-07	1.17E-07
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.25E-01	2.24E-01	2.24E-01	2.23E-01	2.23E-01	2.23E-01	2.22E-01	2.22E-01	2.21E-01	2.21E-01
7.33E+01	7.33E+01	7.33E+01	7.32E+01	7.32E+01	7.32E+01	7.32E+01	7.32E+01	7.32E+01	7.32E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.66E-04	3.65E-04	3.65E-04	3.64E-04	3.63E-04	3.62E-04	3.61E-04	3.60E-04	3.59E-04	3.58E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.63E+01	2.63E+01	2.63E+01	2.63E+01	2.63E+01	2.63E+01	2.63E+01	2.63E+01	2.63E+01	2.63E+01
4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.04E+01	4.03E+01	4.03E+01	4.03E+01
2.57E-07	2.56E-07	2.54E-07	2.52E-07	2.51E-07	2.49E-07	2.48E-07	2.47E-07	2.45E-07	2.44E-07
1.14E-06	1.13E-06	1.13E-06	1.12E-06	1.12E-06	1.11E-06	1.10E-06	1.10E-06	1.09E-06	1.08E-06
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.14E+00	1.14E+00	1.14E+00	1.13E+00	1.13E+00	1.13E+00
3.93E+02	3.93E+02	3.93E+02	3.93E+02	3.92E+02	3.92E+02	3.92E+02	3.92E+02	3.92E+02	3.92E+02

4.62E+03	4.61E+03	4.60E+03	4.60E+03	4.59E+03	4.58E+03	4.58E+03	4.57E+03	4.56E+03	4.56E+03
2.36E-01	2.35E-01	2.34E-01	2.33E-01	2.32E-01	2.31E-01	2.31E-01	2.30E-01	2.30E-01	2.29E-01
3.84E+00	3.87E+00	3.90E+00	3.93E+00	3.96E+00	3.99E+00	4.02E+00	4.05E+00	4.08E+00	4.11E+00
3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01
4.98E-01	4.98E-01	4.98E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01

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20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30
1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05
3.48E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01
3.43E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01
1.64E-08	1.63E-08	1.62E-08	1.61E-08	1.60E-08	1.59E-08	1.58E-08	1.58E-08	1.57E-08	1.57E-08
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.77E+02	5.77E+02	5.77E+02	5.76E+02	5.76E+02	5.76E+02	5.75E+02	5.75E+02	5.74E+02	5.74E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.85E+03	7.84E+03	7.83E+03	7.82E+03	7.82E+03	7.81E+03	7.80E+03	7.79E+03	7.79E+03	7.79E+03
1.19E+00	1.19E+00	1.18E+00	1.18E+00	1.17E+00	1.17E+00	1.17E+00	1.16E+00	1.16E+00	1.15E+00
2.47E-07	2.45E-07	2.43E-07	2.41E-07	2.39E-07	2.37E-07	2.35E-07	2.33E-07	2.31E-07	2.30E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.43E+01	1.43E+01	1.44E+01	1.45E+01	1.46E+01	1.47E+01	1.48E+01	1.49E+01	1.49E+01	1.50E+01
3.70E-04	3.69E-04	3.68E-04	3.67E-04	3.66E-04	3.65E-04	3.65E-04	3.64E-04	3.63E-04	3.62E-04
6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.63E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01
3.18E-02	3.18E-02	3.18E-02	3.17E-02	3.17E-02	3.17E-02	3.17E-02	3.17E-02	3.16E-02	3.16E-02
3.34E-04	3.33E-04	3.31E-04	3.30E-04	3.29E-04	3.29E-04	3.28E-04	3.27E-04	3.26E-04	3.25E-04
2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.86E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03
1.10E-01	1.10E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01
5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.31E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.28E-05	1.28E-05	1.28E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.55E+01	3.55E+01	3.55E+01
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
1.16E-07	1.16E-07	1.15E-07	1.15E-07	1.14E-07	1.13E-07	1.13E-07	1.13E-07	1.12E-07	1.12E-07
1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.15E+00	1.14E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.21E-01	2.21E-01	2.20E-01	2.20E-01	2.19E-01	2.19E-01	2.18E-01	2.18E-01	2.18E-01	2.17E-01
7.32E+01	7.32E+01	7.31E+01	7.31E+01	7.31E+01	7.31E+01	7.31E+01	7.31E+01	7.31E+01	7.31E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.57E-04	3.56E-04	3.55E-04	3.54E-04	3.53E-04	3.52E-04	3.51E-04	3.50E-04	3.49E-04	3.48E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.63E+01	2.63E+01	2.63E+01	2.63E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01
4.03E+01	4.03E+01	4.03E+01	4.03E+01	4.03E+01	4.03E+01	4.03E+01	4.02E+01	4.02E+01	4.02E+01
2.42E-07	2.41E-07	2.39E-07	2.39E-07	2.37E-07	2.35E-07	2.34E-07	2.32E-07	2.31E-07	2.30E-07
1.08E-06	1.07E-06	1.06E-06	1.06E-06	1.05E-06	1.04E-06	1.04E-06	1.04E-06	1.03E-06	1.02E-06
1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.12E+00	1.12E+00	1.12E+00	1.11E+00	1.11E+00
3.92E+02	3.92E+02	3.91E+02	3.91E+02	3.91E+02	3.90E+02	3.90E+02	3.90E+02	3.90E+02	3.89E+02

4.55E+03	4.55E+03	4.54E+03	4.54E+03	4.53E+03	4.52E+03	4.52E+03	4.51E+03	4.50E+03	4.50E+03
2.28E-01	2.27E-01	2.27E-01	2.26E-01	2.25E-01	2.24E-01	2.23E-01	2.22E-01	2.22E-01	2.21E-01
4.14E+00	4.17E+00	4.20E+00	4.23E+00	4.26E+00	4.28E+00	4.32E+00	4.35E+00	4.37E+00	4.40E+00
3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.45E-01	3.44E-01	3.44E-01
4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.97E-01	4.96E-01

########	########	########	########	########	########	########	########	########	########
22:45	23:00	23:15	23:30	23:45	0:00	0:15	0:30	0:45	1:00
1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.39E-05
3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.45E+01	3.45E+01	3.45E+01	3.45E+01	3.44E+01
3.42E-01	3.42E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01
1.56E-08	1.55E-08	1.54E-08	1.53E-08	1.52E-08	1.51E-08	1.50E-08	1.49E-08	1.49E-08	1.49E-08
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.74E+02	5.73E+02	5.73E+02	5.73E+02	5.72E+02	5.72E+02	5.72E+02	5.72E+02	5.72E+02	5.72E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.78E+03	7.77E+03	7.76E+03	7.76E+03	7.75E+03	7.74E+03	7.73E+03	7.72E+03	7.72E+03	7.71E+03
1.15E+00	1.15E+00	1.14E+00	1.14E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
2.28E-07	2.25E-07	2.23E-07	2.21E-07	2.20E-07	2.18E-07	2.16E-07	2.14E-07	2.12E-07	2.11E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.51E+01	1.52E+01	1.53E+01	1.54E+01	1.55E+01	1.56E+01	1.57E+01	1.57E+01	1.58E+01	1.58E+01
3.61E-04	3.60E-04	3.59E-04	3.58E-04	3.57E-04	3.56E-04	3.55E-04	3.54E-04	3.53E-04	3.52E-04
6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01
3.16E-02	3.16E-02	3.15E-02	3.15E-02	3.15E-02	3.15E-02	3.14E-02	3.14E-02	3.14E-02	3.14E-02
3.24E-04	3.22E-04	3.21E-04	3.20E-04	3.20E-04	3.19E-04	3.18E-04	3.17E-04	3.16E-04	3.15E-04
2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03
1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.09E-01	1.08E-01	1.08E-01	1.08E-01
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.55E+01	3.55E+01	3.55E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01	3.54E+01
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
1.11E-07	1.11E-07	1.10E-07	1.09E-07	1.09E-07	1.08E-07	1.08E-07	1.07E-07	1.07E-07	1.06E-07
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.17E-01	2.16E-01	2.16E-01	2.15E-01	2.15E-01	2.14E-01	2.14E-01	2.14E-01	2.13E-01	2.13E-01
7.30E+01	7.30E+01	7.30E+01	7.30E+01	7.30E+01	7.30E+01	7.30E+01	7.30E+01	7.30E+01	7.29E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.47E-04	3.47E-04	3.46E-04	3.45E-04	3.44E-04	3.43E-04	3.42E-04	3.41E-04	3.40E-04	3.39E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01	1.62E+01
2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01	2.62E+01
4.02E+01	4.02E+01	4.02E+01	4.02E+01	4.02E+01	4.02E+01	4.02E+01	4.02E+01	4.01E+01	4.01E+01
2.29E-07	2.28E-07	2.26E-07	2.25E-07	2.23E-07	2.22E-07	2.21E-07	2.20E-07	2.19E-07	2.17E-07
1.02E-06	1.01E-06	1.01E-06	9.99E-07	9.90E-07	9.90E-07	9.81E-07	9.72E-07	9.72E-07	9.63E-07
1.11E+00	1.11E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.09E+00	1.09E+00	1.09E+00	1.08E+00
3.89E+02	3.89E+02	3.89E+02	3.88E+02	3.88E+02	3.88E+02	3.88E+02	3.87E+02	3.87E+02	3.87E+02

4.49E+03	4.48E+03	4.48E+03	4.47E+03	4.46E+03	4.46E+03	4.46E+03	4.45E+03	4.45E+03	4.44E+03
2.21E-01	2.20E-01	2.19E-01	2.19E-01	2.18E-01	2.17E-01	2.16E-01	2.15E-01	2.15E-01	2.14E-01
4.44E+00	4.46E+00	4.49E+00	4.52E+00	4.55E+00	4.58E+00	4.61E+00	4.64E+00	4.66E+00	4.69E+00
3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01
4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.96E-01

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1:15	1:30	1:45	2:00	2:15	2:30	2:45	3:00	3:15	3:30
1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05
3.44E+01	3.44E+01	3.44E+01	3.44E+01	3.43E+01	3.43E+01	3.43E+01	3.43E+01	3.43E+01	3.42E+01
3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01
1.48E-08	1.47E-08	1.46E-08	1.45E-08	1.44E-08	1.44E-08	1.43E-08	1.42E-08	1.41E-08	1.40E-08
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.71E+02	5.71E+02	5.71E+02	5.70E+02	5.70E+02	5.70E+02	5.69E+02	5.69E+02	5.68E+02	5.68E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.70E+03	7.70E+03	7.70E+03	7.69E+03	7.68E+03	7.67E+03	7.67E+03	7.66E+03	7.65E+03	7.64E+03
1.12E+00	1.12E+00	1.12E+00	1.11E+00	1.11E+00	1.11E+00	1.11E+00	1.10E+00	1.10E+00	1.10E+00
2.09E-07	2.07E-07	2.06E-07	2.04E-07	2.03E-07	2.01E-07	1.99E-07	1.97E-07	1.95E-07	1.94E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.59E+01	1.60E+01	1.61E+01	1.62E+01	1.63E+01	1.63E+01	1.64E+01	1.65E+01	1.66E+01	1.67E+01
3.51E-04	3.50E-04	3.49E-04	3.48E-04	3.47E-04	3.47E-04	3.46E-04	3.45E-04	3.44E-04	3.43E-04
6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01
3.14E-02	3.13E-02	3.13E-02	3.13E-02	3.13E-02	3.12E-02	3.12E-02	3.12E-02	3.12E-02	3.11E-02
3.14E-04	3.13E-04	3.12E-04	3.11E-04	3.11E-04	3.09E-04	3.08E-04	3.07E-04	3.06E-04	3.05E-04
2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03
1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01	1.08E-01
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.29E-05	1.30E-05	1.30E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.52E+01	3.52E+01	3.52E+01
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
1.05E-07	1.05E-07	1.04E-07	1.04E-07	1.04E-07	1.04E-07	1.03E-07	1.02E-07	1.02E-07	1.01E-07
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.12E-01	2.12E-01	2.12E-01	2.12E-01	2.11E-01	2.11E-01	2.11E-01	2.10E-01	2.10E-01	2.09E-01
7.29E+01	7.29E+01	7.29E+01	7.29E+01	7.29E+01	7.29E+01	7.29E+01	7.29E+01	7.28E+01	7.28E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.38E-04	3.38E-04	3.37E-04	3.36E-04	3.35E-04	3.34E-04	3.33E-04	3.32E-04	3.31E-04	3.30E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01
2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01
4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
2.16E-07	2.14E-07	2.13E-07	2.12E-07	2.11E-07	2.10E-07	2.09E-07	2.07E-07	2.06E-07	2.05E-07
9.63E-07	9.54E-07	9.45E-07	9.45E-07	9.36E-07	9.27E-07	9.27E-07	9.18E-07	9.18E-07	9.09E-07
1.08E+00	1.08E+00	1.08E+00	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.06E+00	1.06E+00	1.06E+00
3.87E+02	3.86E+02	3.86E+02	3.86E+02	3.86E+02	3.85E+02	3.85E+02	3.85E+02	3.84E+02	3.84E+02

4.43E+03	4.42E+03	4.42E+03	4.41E+03	4.40E+03	4.40E+03	4.39E+03	4.38E+03	4.38E+03	4.37E+03
2.13E-01	2.12E-01	2.12E-01	2.12E-01	2.11E-01	2.10E-01	2.09E-01	2.09E-01	2.08E-01	2.07E-01
4.72E+00	4.74E+00	4.78E+00	4.81E+00	4.83E+00	4.86E+00	4.89E+00	4.91E+00	4.94E+00	4.97E+00
3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.44E-01	3.43E-01
4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.96E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01

########	########	########	########	########	########	########	########	########	########
3:45	4:00	4:15	4:30	4:45	5:00	5:15	5:30	5:45	6:00
1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05	1.39E-05
3.42E+01	3.42E+01	3.42E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.40E+01	3.40E+01
3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.40E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01
1.40E-08	1.40E-08	1.39E-08	1.38E-08	1.37E-08	1.36E-08	1.36E-08	1.35E-08	1.34E-08	1.33E-08
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.68E+02	5.67E+02	5.67E+02	5.67E+02	5.66E+02	5.66E+02	5.66E+02	5.65E+02	5.65E+02	5.65E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.63E+03	7.63E+03	7.62E+03	7.61E+03	7.61E+03	7.61E+03	7.60E+03	7.59E+03	7.58E+03	7.58E+03
1.09E+00	1.09E+00	1.09E+00	1.09E+00	1.08E+00	1.08E+00	1.08E+00	1.07E+00	1.07E+00	1.07E+00
1.93E-07	1.91E-07	1.89E-07	1.88E-07	1.86E-07	1.85E-07	1.83E-07	1.82E-07	1.80E-07	1.78E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.67E+01	1.68E+01	1.68E+01	1.69E+01	1.70E+01	1.71E+01	1.72E+01	1.72E+01	1.73E+01	1.74E+01
3.42E-04	3.41E-04	3.40E-04	3.39E-04	3.38E-04	3.38E-04	3.37E-04	3.36E-04	3.35E-04	3.34E-04
6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01
3.11E-02	3.11E-02	3.11E-02	3.11E-02	3.11E-02	3.11E-02	3.11E-02	3.11E-02	3.10E-02	3.10E-02
3.04E-04	3.03E-04	3.02E-04	3.02E-04	3.01E-04	3.00E-04	2.99E-04	2.98E-04	2.97E-04	2.96E-04
2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03
1.08E-01	1.08E-01	1.08E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.52E+01	3.52E+01	3.52E+01	3.51E+01	3.51E+01	3.51E+01	3.51E+01	3.51E+01	3.51E+01	3.51E+01
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
1.01E-07	9.99E-08	9.99E-08	9.90E-08	9.90E-08	9.81E-08	9.72E-08	9.72E-08	9.63E-08	9.63E-08
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.09E-01	2.08E-01	2.08E-01	2.08E-01	2.07E-01	2.07E-01	2.06E-01	2.06E-01	2.05E-01	2.05E-01
7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.27E+01	7.27E+01	7.27E+01	7.27E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.30E-04	3.29E-04	3.29E-04	3.28E-04	3.27E-04	3.26E-04	3.25E-04	3.24E-04	3.23E-04	3.22E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01
2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.61E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01
4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.00E+01
2.03E-07	2.03E-07	2.02E-07	2.00E-07	1.99E-07	1.98E-07	1.97E-07	1.95E-07	1.94E-07	1.94E-07
9.09E-07	9.00E-07	8.95E-07	8.89E-07	8.84E-07	8.79E-07	8.74E-07	8.69E-07	8.64E-07	8.59E-07
1.06E+00	1.05E+00	1.05E+00	1.05E+00	1.04E+00	1.04E+00	1.04E+00	1.04E+00	1.04E+00	1.04E+00
3.84E+02	3.84E+02	3.83E+02	3.83E+02	3.83E+02	3.83E+02	3.83E+02	3.83E+02	3.83E+02	3.83E+02

4.37E+03	4.37E+03	4.36E+03	4.35E+03	4.35E+03	4.34E+03	4.33E+03	4.33E+03	4.32E+03	4.31E+03
2.06E-01	2.06E-01	2.05E-01	2.04E-01	2.03E-01	2.03E-01	2.03E-01	2.02E-01	2.01E-01	2.01E-01
5.00E+00	5.02E+00	5.05E+00	5.08E+00	5.10E+00	5.13E+00	5.16E+00	5.18E+00	5.21E+00	5.24E+00
3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01
4.95E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01	4.95E-01

########	########	########	########	########	########	########	########	########	########
6:15	6:30	6:45	7:00	7:15	7:30	7:45	8:00	8:15	8:30
1.39E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05
3.40E+01	3.40E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.38E+01	3.38E+01	3.38E+01
3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01
1.33E-08	1.32E-08	1.31E-08	1.31E-08	1.30E-08	1.30E-08	1.29E-08	1.28E-08	1.27E-08	1.27E-08
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.64E+02	5.64E+02	5.64E+02	5.63E+02	5.63E+02	5.63E+02	5.63E+02	5.63E+02	5.63E+02	5.62E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.57E+03	7.56E+03	7.55E+03	7.55E+03	7.54E+03	7.53E+03	7.52E+03	7.52E+03	7.52E+03	7.51E+03
1.07E+00	1.06E+00	1.06E+00	1.06E+00	1.05E+00	1.05E+00	1.05E+00	1.05E+00	1.04E+00	1.04E+00
1.77E-07	1.76E-07	1.74E-07	1.73E-07	1.71E-07	1.70E-07	1.68E-07	1.67E-07	1.66E-07	1.64E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.75E+01	1.76E+01	1.76E+01	1.76E+01	1.77E+01	1.78E+01	1.78E+01	1.79E+01	1.80E+01	1.81E+01
3.33E-04	3.32E-04	3.31E-04	3.30E-04	3.29E-04	3.29E-04	3.29E-04	3.28E-04	3.27E-04	3.26E-04
6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01
3.10E-02	3.10E-02	3.10E-02	3.09E-02	3.09E-02	3.09E-02	3.09E-02	3.08E-02	3.08E-02	3.08E-02
2.95E-04	2.94E-04	2.93E-04	2.93E-04	2.92E-04	2.91E-04	2.90E-04	2.89E-04	2.88E-04	2.87E-04
2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.87E-03	2.88E-03	2.88E-03	2.88E-03
1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.07E-01	1.06E-01
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.30E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.50E+01	3.50E+01	3.50E+01	3.50E+01	3.50E+01	3.50E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01
1.14E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
9.54E-08	9.54E-08	9.45E-08	9.45E-08	9.36E-08	9.36E-08	9.27E-08	9.27E-08	9.18E-08	9.18E-08
1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.05E-01	2.04E-01	2.04E-01	2.03E-01	2.03E-01	2.03E-01	2.03E-01	2.03E-01	2.02E-01	2.02E-01
7.27E+01	7.27E+01	7.27E+01	7.27E+01	7.27E+01	7.26E+01	7.26E+01	7.26E+01	7.26E+01	7.26E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.21E-04	3.20E-04	3.20E-04	3.19E-04	3.18E-04	3.17E-04	3.16E-04	3.16E-04	3.15E-04	3.14E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01
2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01
4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	4.00E+01	3.99E+01
1.93E-07	1.91E-07	1.90E-07	1.89E-07	1.88E-07	1.87E-07	1.85E-07	1.85E-07	1.84E-07	1.83E-07
8.54E-07	8.49E-07	8.44E-07	8.40E-07	8.34E-07	8.30E-07	8.25E-07	8.20E-07	8.15E-07	8.11E-07
1.04E+00	1.04E+00	1.03E+00	1.03E+00	1.03E+00	1.03E+00	1.02E+00	1.02E+00	1.02E+00	1.02E+00
3.82E+02	3.82E+02	3.82E+02	3.82E+02	3.81E+02	3.81E+02	3.81E+02	3.81E+02	3.80E+02	3.80E+02

4.31E+03	4.30E+03	4.29E+03	4.29E+03	4.28E+03	4.28E+03	4.28E+03	4.27E+03	4.27E+03	4.26E+03
2.00E-01	1.99E-01	1.98E-01	1.98E-01	1.97E-01	1.96E-01	1.96E-01	1.95E-01	1.94E-01	1.94E-01
5.27E+00	5.29E+00	5.32E+00	5.35E+00	5.37E+00	5.40E+00	5.43E+00	5.45E+00	5.48E+00	5.51E+00
3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01	3.43E-01
4.95E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01

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8:45	9:00	9:15	9:30	9:45	10:00	10:15	10:30	10:45	11:00
1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05
3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.38E+01	3.37E+01	3.37E+01	3.37E+01
3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
1.26E-08	1.25E-08	1.25E-08	1.24E-08	1.23E-08	1.22E-08	1.22E-08	1.22E-08	1.21E-08	1.21E-08
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.62E+02	5.62E+02	5.61E+02	5.61E+02	5.60E+02	5.60E+02	5.60E+02	5.59E+02	5.59E+02	5.59E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.50E+03	7.50E+03	7.49E+03	7.48E+03	7.47E+03	7.47E+03	7.46E+03	7.45E+03	7.44E+03	7.44E+03
1.04E+00	1.04E+00	1.04E+00	1.04E+00	1.04E+00	1.04E+00	1.03E+00	1.03E+00	1.03E+00	1.03E+00
1.63E-07	1.61E-07	1.60E-07	1.59E-07	1.58E-07	1.57E-07	1.55E-07	1.54E-07	1.52E-07	1.51E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.82E+01	1.82E+01	1.83E+01	1.84E+01	1.84E+01	1.85E+01	1.85E+01	1.86E+01	1.86E+01	1.87E+01
3.25E-04	3.24E-04	3.23E-04	3.22E-04	3.21E-04	3.20E-04	3.20E-04	3.19E-04	3.18E-04	3.17E-04
6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.62E-01	6.61E-01
3.08E-02	3.08E-02	3.07E-02	3.07E-02	3.07E-02	3.07E-02	3.06E-02	3.06E-02	3.06E-02	3.06E-02
2.86E-04	2.85E-04	2.84E-04	2.84E-04	2.83E-04	2.82E-04	2.81E-04	2.80E-04	2.79E-04	2.79E-04
2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03
1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.30E-05	1.30E-05	1.30E-05	1.30E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.49E+01	3.49E+01	3.49E+01	3.48E+01	3.48E+01	3.48E+01	3.48E+01	3.48E+01	3.48E+01	3.48E+01
1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
9.09E-08	9.09E-08	9.00E-08	8.98E-08	8.94E-08	8.89E-08	8.85E-08	8.81E-08	8.77E-08	8.72E-08
1.14E+00	1.14E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
2.01E-01	2.01E-01	2.00E-01	2.00E-01	2.00E-01	1.99E-01	1.99E-01	1.98E-01	1.98E-01	1.98E-01
7.26E+01	7.26E+01	7.26E+01	7.26E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.13E-04	3.12E-04	3.11E-04	3.11E-04	3.10E-04	3.09E-04	3.08E-04	3.07E-04	3.07E-04	3.06E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.60E+01
1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01
2.60E+01	2.60E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01
3.99E+01	3.99E+01	3.99E+01	3.99E+01	3.99E+01	3.99E+01	3.99E+01	3.99E+01	3.99E+01	3.99E+01
1.82E-07	1.80E-07	1.79E-07	1.78E-07	1.77E-07	1.76E-07	1.76E-07	1.75E-07	1.74E-07	1.72E-07
8.06E-07	8.01E-07	7.97E-07	7.92E-07	7.88E-07	7.83E-07	7.79E-07	7.74E-07	7.70E-07	7.65E-07
1.01E+00	1.01E+00	1.01E+00	1.01E+00	9.99E-01	9.99E-01	9.99E-01	9.99E-01	9.90E-01	9.90E-01
3.80E+02	3.80E+02	3.79E+02	3.79E+02	3.79E+02	3.79E+02	3.78E+02	3.78E+02	3.78E+02	3.78E+02

4.25E+03	4.25E+03	4.24E+03	4.23E+03	4.23E+03	4.22E+03	4.21E+03	4.21E+03	4.20E+03	4.19E+03
1.94E-01	1.93E-01	1.92E-01	1.92E-01	1.91E-01	1.90E-01	1.90E-01	1.89E-01	1.88E-01	1.87E-01
5.53E+00	5.55E+00	5.58E+00	5.61E+00	5.63E+00	5.66E+00	5.69E+00	5.71E+00	5.73E+00	5.76E+00
3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01
4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.94E-01	4.93E-01	4.93E-01	4.93E-01

########	########	########	########	########	########	########	########	########	########
11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30
1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05
3.37E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.36E+01	3.35E+01	3.35E+01	3.35E+01	3.35E+01
3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
1.20E-08	1.19E-08	1.18E-08	1.18E-08	1.17E-08	1.16E-08	1.16E-08	1.15E-08	1.14E-08	1.14E-08
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.58E+02	5.58E+02	5.58E+02	5.57E+02	5.57E+02	5.57E+02	5.56E+02	5.56E+02	5.56E+02	5.55E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.43E+03	7.43E+03	7.42E+03	7.42E+03	7.41E+03	7.40E+03	7.39E+03	7.39E+03	7.38E+03	7.37E+03
1.02E+00	1.02E+00	1.02E+00	1.02E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	9.99E-01	9.99E-01
1.50E-07	1.49E-07	1.48E-07	1.46E-07	1.45E-07	1.44E-07	1.42E-07	1.41E-07	1.40E-07	1.39E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.88E+01	1.89E+01	1.89E+01	1.90E+01	1.91E+01	1.91E+01	1.92E+01	1.93E+01	1.93E+01	1.94E+01
3.16E-04	3.15E-04	3.15E-04	3.14E-04	3.13E-04	3.12E-04	3.11E-04	3.11E-04	3.10E-04	3.09E-04
6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01
3.06E-02	3.05E-02	3.05E-02	3.05E-02	3.05E-02	3.04E-02	3.04E-02	3.04E-02	3.04E-02	3.04E-02
2.78E-04	2.77E-04	2.76E-04	2.75E-04	2.75E-04	2.74E-04	2.73E-04	2.72E-04	2.71E-04	2.70E-04
2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03
1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.06E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01
5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01	5.30E-01
1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01	3.47E+01
1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
8.68E-08	8.63E-08	8.60E-08	8.55E-08	8.51E-08	8.47E-08	8.42E-08	8.39E-08	8.34E-08	8.31E-08
1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
1.97E-01	1.97E-01	1.96E-01	1.96E-01	1.95E-01	1.95E-01	1.95E-01	1.94E-01	1.94E-01	1.94E-01
7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01	7.25E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
3.05E-04	3.04E-04	3.03E-04	3.02E-04	3.02E-04	3.01E-04	3.00E-04	3.00E-04	2.99E-04	2.98E-04
1.60E+01	1.60E+01	1.60E+01	1.60E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01
1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01
2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.59E+01	2.58E+01	2.58E+01
3.98E+01	3.98E+01	3.98E+01	3.98E+01	3.98E+01	3.98E+01	3.98E+01	3.98E+01	3.98E+01	3.98E+01
1.71E-07	1.70E-07	1.69E-07	1.68E-07	1.67E-07	1.67E-07	1.66E-07	1.65E-07	1.64E-07	1.63E-07
7.61E-07	7.57E-07	7.52E-07	7.48E-07	7.43E-07	7.39E-07	7.35E-07	7.31E-07	7.26E-07	7.23E-07
9.90E-01	9.90E-01	9.81E-01	9.81E-01	9.81E-01	9.81E-01	9.81E-01	9.72E-01	9.72E-01	9.72E-01
3.77E+02	3.77E+02	3.77E+02	3.77E+02	3.76E+02	3.76E+02	3.76E+02	3.75E+02	3.75E+02	3.75E+02

4.19E+03	4.19E+03	4.19E+03	4.18E+03	4.17E+03	4.17E+03	4.16E+03	4.15E+03	4.15E+03	4.14E+03
1.87E-01	1.86E-01	1.85E-01	1.85E-01	1.85E-01	1.84E-01	1.84E-01	1.83E-01	1.82E-01	1.82E-01
5.79E+00	5.81E+00	5.83E+00	5.86E+00	5.89E+00	5.91E+00	5.94E+00	5.96E+00	5.99E+00	6.01E+00
3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01	3.42E-01
4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01	4.93E-01

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13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00
1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05	1.40E-05
3.35E+01	3.34E+01	3.34E+01	3.34E+01	3.34E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
3.38E-01	3.38E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01	3.37E-01
1.13E-08	1.13E-08	1.13E-08	1.12E-08	1.11E-08	1.11E-08	1.10E-08	1.10E-08	1.09E-08	1.08E-08
5.30E-01	5.30E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02	1.58E-02
1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04	1.44E+04
5.55E+02	5.55E+02	5.54E+02	5.54E+02	5.54E+02	5.54E+02	5.54E+02	5.54E+02	5.53E+02	5.53E+02
1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04	1.03E+04
7.37E+03	7.36E+03	7.35E+03	7.34E+03	7.34E+03	7.34E+03	7.33E+03	7.32E+03	7.32E+03	7.31E+03
9.99E-01	9.99E-01	9.90E-01	9.90E-01	9.90E-01	9.90E-01	9.81E-01	9.81E-01	9.81E-01	9.81E-01
1.38E-07	1.37E-07	1.36E-07	1.34E-07	1.33E-07	1.32E-07	1.31E-07	1.31E-07	1.29E-07	1.28E-07
2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03	2.93E+03
1.94E+01	1.94E+01	1.95E+01	1.96E+01	1.96E+01	1.97E+01	1.98E+01	1.98E+01	1.99E+01	2.00E+01
3.08E-04	3.07E-04	3.07E-04	3.06E-04	3.05E-04	3.04E-04	3.03E-04	3.02E-04	3.02E-04	3.01E-04
6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01	6.61E-01
3.03E-02	3.03E-02	3.03E-02	3.03E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02	3.02E-02
2.69E-04	2.68E-04	2.67E-04	2.67E-04	2.66E-04	2.66E-04	2.65E-04	2.64E-04	2.63E-04	2.62E-04
2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03	2.88E-03
1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01	1.05E-01
5.30E-01	5.30E-01	5.30E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05	1.31E-05
2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02	8.96E-02
3.47E+01	3.47E+01	3.47E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01	3.46E+01
1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
8.26E-08	8.22E-08	8.18E-08	8.15E-08	8.10E-08	8.06E-08	8.02E-08	7.98E-08	7.95E-08	7.90E-08
1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01	9.18E-01
1.94E-01	1.94E-01	1.93E-01	1.93E-01	1.92E-01	1.92E-01	1.92E-01	1.91E-01	1.91E-01	1.90E-01
7.25E+01	7.24E+01	7.24E+01	7.24E+01	7.24E+01	7.24E+01	7.24E+01	7.24E+01	7.24E+01	7.24E+01
1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
2.97E-04	2.96E-04	2.95E-04	2.94E-04	2.94E-04	2.93E-04	2.93E-04	2.92E-04	2.91E-04	2.90E-04
1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01	1.59E+01
1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01
2.58E+01	2.58E+01	2.58E+01	2.58E+01	2.58E+01	2.58E+01	2.58E+01	2.58E+01	2.58E+01	2.58E+01
3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01	3.97E+01
1.62E-07	1.61E-07	1.60E-07	1.59E-07	1.58E-07	1.58E-07	1.57E-07	1.56E-07	1.55E-07	1.54E-07
7.18E-07	7.14E-07	7.10E-07	7.06E-07	7.02E-07	6.98E-07	6.94E-07	6.89E-07	6.86E-07	6.82E-07
9.72E-01	9.63E-01	9.63E-01	9.63E-01	9.63E-01	9.54E-01	9.54E-01	9.54E-01	9.54E-01	9.45E-01
3.75E+02	3.74E+02	3.74E+02	3.74E+02	3.74E+02	3.74E+02	3.74E+02	3.74E+02	3.74E+02	3.73E+02

4.13E+03	4.13E+03	4.12E+03	4.12E+03	4.11E+03	4.10E+03	4.10E+03	4.10E+03	4.09E+03	4.09E+03
1.81E-01	1.80E-01	1.80E-01	1.79E-01	1.78E-01	1.78E-01	1.77E-01	1.76E-01	1.76E-01	1.76E-01
6.04E+00	6.06E+00	6.08E+00	6.11E+00	6.13E+00	6.16E+00	6.18E+00	6.21E+00	6.23E+00	6.26E+00
3.42E-01	3.42E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01	3.41E-01
4.93E-01	4.93E-01	4.93E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01	4.92E-01

########	########	########
16:15	16:30	16:45
1.40E-05	1.40E-05	1.40E-05
3.32E+01	3.32E+01	3.32E+01
3.37E-01	3.37E-01	3.37E-01
1.08E-08	1.07E-08	1.06E-08
5.29E-01	5.29E-01	5.29E-01
1.57E-02	1.57E-02	1.57E-02
1.44E+04	1.44E+04	1.44E+04
5.53E+02	5.52E+02	5.52E+02
1.03E+04	1.03E+04	1.03E+04
7.30E+03	7.29E+03	7.29E+03
9.72E-01	9.72E-01	9.72E-01
1.27E-07	1.26E-07	1.25E-07
2.93E+03	2.93E+03	2.93E+03
2.00E+01	2.01E+01	2.01E+01
3.00E-04	3.00E-04	2.99E-04
6.61E-01	6.61E-01	6.61E-01
3.02E-02	3.02E-02	3.02E-02
2.61E-04	2.60E-04	2.59E-04
2.88E-03	2.88E-03	2.88E-03
1.05E-01	1.04E-01	1.04E-01
5.29E-01	5.29E-01	5.29E-01
1.31E-05	1.31E-05	1.31E-05
2.49E-06	2.49E-06	2.49E-06
8.96E-02	8.96E-02	8.96E-02
3.45E+01	3.45E+01	3.45E+01
1.13E+00	1.13E+00	1.13E+00
7.87E-08	7.83E-08	7.79E-08
1.13E+00	1.13E+00	1.13E+00
9.18E-01	9.18E-01	9.18E-01
1.90E-01	1.90E-01	1.89E-01
7.23E+01	7.23E+01	7.23E+01
1.51E+01	1.51E+01	1.51E+01
2.89E-04	2.89E-04	2.88E-04
1.59E+01	1.59E+01	1.59E+01
1.61E+01	1.61E+01	1.61E+01
2.58E+01	2.58E+01	2.58E+01
3.97E+01	3.96E+01	3.96E+01
1.53E-07	1.52E-07	1.51E-07
6.78E-07	6.74E-07	6.70E-07
9.45E-01	9.45E-01	9.45E-01
3.73E+02	3.73E+02	3.73E+02

4.08E+03	4.08E+03	4.07E+03
1.75E-01	1.75E-01	1.74E-01
6.28E+00	6.30E+00	6.33E+00
3.41E-01	3.41E-01	3.41E-01
4.92E-01	4.92E-01	4.92E-01

RST Support (Seismology Q&A)

Please call the following individuals if you need seismology support:

	Home	Office
Tom Weaver:	**(301) 919-3455**	**(301) 251-7654**
Dogan Seber:	**(858) 775-3842**	**(301) 415-0212**
Michelle Bensi:	**(925) 270-8509**	**(301) 251-7570**
Cliff Munson:	**(301) 414-0268**	**(301) 415-6947**
Stephanie Devlin:	**(607) 229-0540**	**(301) 415-5301**

Do not call Annie Kammerer for Seismology Support

RRR / 32

From: Turtil, Richard
Sent: Friday, March 18, 2011 8:01 AM
To: OST05 Hoc
Cc: LIA04 Hoc; Easson, Stuart; Flannery, Cindy; Lukes, Kim; Rautzen, William; Rivera, Alison; Virgilio, Rosetta
Subject: Re: Talking Points (3-17 (7:30 p.m. EDT))

Kim, Rosetta, Cindy(?). Call me on this BB if you need any transition update. I'll be in office by 9:15.

Richard Turtil
Sent from NRC Blackberry
(b)(6)

From: OST05 Hoc
To: Nguyen, Quynh; Meighan, Sean
Cc: LIA04 Hoc; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; Heck, Jared; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtil, Richard; Virgilio, Rosetta
Sent: Fri Mar 18 07:55:10 2011
Subject: Talking Points (3-17 (7:30 p.m. EDT))

Sean and Quynh –

Please update the file on the Sharepoint site with the attached Talking Points.

Kim Lukes
State Liaison – Liaison Team
Incident Response Center

From: Williams, Kevin
Sent: Friday, March 18, 2011 3:54 PM
To: Anderson, Joseph; LIA06 Hoc; Nelson, Robert; Thaggard, Mark
Cc: Kahler, Robert
Subject: Re: Talking Points (3-17 (7:30 p.m. EDT))

Nelson,

This should be discussed with Trish Milligan as she developed the Q and the A. Do you have the Q and A that Trish developed?

Kevin

Sent from an NRC BlackBerry
Kevin Williams
(b)(6)

From: Anderson, Joseph
To: LIA06 Hoc; Nelson, Robert; Thaggard, Mark
Cc: Kahler, Robert; Williams, Kevin
Sent: Fri Mar 18 15:44:23 2011
Subject: Re: Talking Points (3-17 (7:30 p.m. EDT))

Nelson - When I can get to my account over here at USAID, I will send you what was developed by FEMA, reviewed by 3:40:11 PM and EP, and sent to NRC/FEMA regions for distribution to States/locals.

Both Bob and I will be on 12-hour shifts at USAID over the weekend. However, I will be available via Blackberry to discuss further(b)(6).

From: LIA06 Hoc
To: Nelson, Robert
Cc: LIA06 Hoc; Anderson, Joseph; Kahler, Robert
Sent: Fri Mar 18 15:32:30 2011
Subject: RE: Talking Points (3-17 (7:30 p.m. EDT))

You should probably work with the EP staff (Robert Kahler or Joe Anderson) in developing an appropriate response. The LT role is coordinating with our Federal partners.

Mark Thaggard
Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: Nelson, Robert
Sent: Friday, March 18, 2011 12:41 PM
To: LIA06 Hoc
Subject: FYI: Talking Points (3-17 (7:30 p.m. EDT))

Mark Lombard:

+++/34

There is a get deal of angst about getting the Q re: the 50 mike EPZ finalized & releasable. Is the Liaison Team involved? If so, what's the status. If not, who should I talk to?

NELSON

From: Markley, Michael
Sent: Friday, March 18, 2011 11:35 AM
To: Nelson, Robert
Subject: FW: Talking Points (3-17 (7:30 p.m. EDT))

Attached are the draft OPA talking points.

From: LIA05 Hoc
Sent: Friday, March 18, 2011 9:44 AM
To: Markley, Michael
Subject: FW: Talking Points (3-17 (7:30 p.m. EDT))

Per your request.

FEMA REP Liaison
NRC Operations Center
(301) 816-5187

******FOR OFFICIAL USE ONLY******
DO NOT RELEASE OUTSIDE OF THE FEDERAL FAMILY

From: OST05 Hoc
Sent: Friday, March 18, 2011 9:43 AM
To: LIA05 Hoc
Subject: FW: Talking Points (3-17 (7:30 p.m. EDT))

From: OST05 Hoc
Sent: Friday, March 18, 2011 7:55 AM
To: Nguyen, Quynh; Meighan, Sean
Cc: LIA04 Hoc; Barker, Allan; Browder, Rachel; Erickson, Randy; Logaras, Harral; Maier, Bill; McNamara, Nancy; Tifft, Doug; Trojanowski, Robert; Woodruff, Gena; Collins, Elmo; Dean, Bill; 'Heck, Jared'; McCree, Victor; Pederson, Cynthia; Satorius, Mark; Easson, Stuart; Flannery, Cindy; Lukes, Kim; Maupin, Cardelia; Noonan, Amanda; OST05 Hoc; Rautzen, William; Rivera, Alison; Ryan, Michelle; Turtil, Richard; Virgilio, Rosetta
Subject: Talking Points (3-17 (7:30 p.m. EDT))

Sean and Quynh –

Please update the file on the Sharepoint site with the attached Talking Points.

Kim Lukes
State Liaison – Liaison Team
Incident Response Center

From: Carter, Mary
Sent: Friday, March 18, 2011 9:53 AM
To: OIP Distribution
Cc: Matheson, Mary; LIA06 Hoc; LIA02 Hoc
Subject: interpreter schedules March 18-20, 2011
Attachments: Language Services by Day.20mar.docx; Language Services by Day.18mar.docx; Language Services by Day.19mar.docx

Here is the weekend schedule for interpreters. No one is assigned to the night shift on March 20.

Mary

Mary Faith Carter
Office of International Programs
U. S. Nuclear Regulatory Commission
e-mail:mary.carter@nrc.gov
ph:301-415-2331
fax:301-415-2395

+++ | 35

DAILY LOG – INTERPRETERS FOR JAPAN CRISIS			
Date: March 20, 2011			
Name	Date	Shift	Phone Number
Terumi Gale	03/20/11	7:00a-3:00p	(b)(6)
Yuji Yokoyama	03/20/11	3:00p-11:00p	
Not assigned	03/20/11	11:00p-7:00a+1	

DAILY LOG – INTERPRETERS FOR JAPAN CRISIS			
Date: March 19, 2011			
Name	Date	Shift	Phone Number
Tomoko Kempf	03/19/11	7:00a-3:00p	(b)(6)
Yuji Yokoyama	03/19/11	3:00p-11:00p	
Christopher Field	03/19/11	11:00p-7:00a+1	

DAILY LOG – INTERPRETERS FOR JAPAN CRISIS			
Date: March 18, 2011			
Name	Date	Shift	Phone Number
Kaori Marshall	03/18/11	7:00a-3:00p	(b)(6)
Yuji Yokoyama	03/18/11	3:00p-11:00p	
Christopher Field	03/18/11	11:00p-7:00a+1	

Jackson, Karen

From:	LIA11 Hoc
Sent:	Friday, March 18, 2011 5:42 AM
To:	Trapp, James
Cc:	LIA02 Hoc; LIA07 Hoc; LIA08 Hoc; LIA01 Hoc; RST01 Hoc
Subject:	RE: Japan nuclear threat- time sensitive

Jim,

The RST attempted to contact NASA regarding this robot, but was unsuccessful. The RST's preliminary assessment, following review of available material, is that this robot may be of use in the mid- to long-term. However, there are a number of off-the-shelf robotic systems that may be of better use in the short term.

The RST has the action to follow up with you following a conversation with NASA.

Please let me know if you have any questions.

Thanks,
Scott Sloan
Federal Liaison
NRC Operations Center
(301) 816-5186

-----Original Message-----
From: LIA02 Hoc
Sent: Friday, March 18, 2011 4:34 AM
To: LIA11 Hoc
Subject: FW: Japan nuclear threat- time sensitive

-----Original Message-----
From: Trapp, James
Sent: Friday, March 18, 2011 4:24 AM
To: LIA07 Hoc; LIA08 Hoc; LIA01 Hoc; LIA02 Hoc
Subject: FW: Japan nuclear threat- time sensitive

Could we get someone from the RST to give NASA a call and see if this robot would be useful in this endeavor. I suspect if the robot goes to Fukushima it's not coming back.

Thank You

From: Hughart, Joe [jhughart@ofda.gov]
Sent: Friday, March 18, 2011 3:21 AM
To: RMTPACTSU_ELC
Cc: Trapp, James
Subject: Re: Japan nuclear threat- time sensitive

NRC will discuss directly with NASAM Thanks.

++/36

----- Original Message -----
From: RMTPACTSU_ELC
To: RMTPACTSU_RM; Hughart, Joe
Sent: Fri Mar 18 03:16:14 2011
Subject: RE: Japan nuclear threat- time sensitive

NASA contact is Adam Parsons ((b)(6) or adam.h.parsons@nasa.gov) His phone number is +1- 281.483.3755.

Will the NRC folks contact him directly, or would you like us to facilitate?

Phil

-----Original Message-----
From: RMTPACTSU_RM
Sent: Friday, March 18, 2011 2:49 AM
To: Hughart, Joe
Cc: RMTPACTSU_ELC
Subject: RE: Japan nuclear threat- time sensitive

Not yet but we'll work on getting you one.

-----Original Message-----
From: Hughart, Joe
Sent: Friday, March 18, 2011 2:26 AM
To: RMTPACTSU_RM
Subject: Fw: Japan nuclear threat- time sensitive

Cara, NRC would like more information about the robot. Do you have a POC at NASA? Thanks.
Best,
- Joe Hughart

----- Original Message -----
From: Trapp, James <James.Trapp@nrc.gov>
To: Hughart, Joe
Sent: Fri Mar 18 02:22:33 2011
Subject: RE: Japan nuclear threat- time sensitive

I'm sorry - I don't have any experience with the capability of a N. ASA robot. If we could get some promotional/sales literature it might be helpful. Thanks
From: Hughart, Joe [jhughart@ofda.gov]
Sent: Friday, March 18, 2011 1:26 AM
To: Trapp, James
Cc: asink@ofda.gov.
Subject: Fw: Japan nuclear threat- time sensitive

Jim, do you see any current utility in a N. ASA robot at this point? Given the. Amount of water currently being sprayed onto the reactors by the ladder trucks, I think it might just get knocked over. Best, Joe

----- Original Message -----
From: RMTPACTSU_RM
To: Hughart, Joe
Cc: RMTPACTSU_ELC; RMTPACTSU_PRO; RMTPACTSU_ELNRC
Sent: Fri Mar 18 00:00:19 2011

Subject: FW: Japan nuclear threat- time sensitive

Hi Joe, please see the following inquiry from a Hill staffer about use of a NASA robot for the nuclear situation.
Please advise and reply all whether the DART and NRC see any use for this offer.

Thank you,
Cara

-----Original Message-----
From: Cook, Bette (DCHA/AA) [mailto:bcook@usaid.gov]
Sent: Thursday, March 17, 2011 8:07 PM
To: RMTPACTSU_RM; RMTPACTSU_PRO; RMTPACTSU_ELC
Subject: FW: Japan nuclear threat- time sensitive

Please take a look at this offer of a Robonaut device for Japan and let me have your draft response. Is this something that perhaps the NRC folks might find helpful? Thanks. -- Bette

-----Original Message-----
From: Long, Jeff (Blumenthal) [mailto:Jeff_Long@blumenthal.senate.gov]
Sent: Thursday, March 17, 2011 10:05 AM
To: Cook, Bette (DCHA/AA)
Cc: (b)(6) (b)(6)
Subject: FW: Japan nuclear threat- time sensitive

Hi Betty,

Thank you for taking my call this morning; I know you've got your hands full these days with the tragedy in Japan.

As I mentioned, a friend of mine and Connecticut constituent, David Darst, reached out to me with a very interesting idea to potentially help with the disaster.

Below is the email chain outlining the idea. In a nutshell, an engineer at NASA, Adam Parsons, cc'd, was on the team that developed the Robonaut 2, recently launched on our country's space station. Attached is a picture and here is a link with additional information: http://robonaut.jsc.nasa.gov/default.asp.

This might be a useful human-less device for servicing the nuclear reactors, with a very robust base, the Centaur 2. My friend David's colleague chemist, suggested potentially using the device to deliver highly compressed Helium in order to cool down the reactors, in addition to using water.

Is there anyone at USAID that Adam could speak with to discuss the possibility of getting Robonaut 2 to Japan? Is there anyone else you suggest I reach out to?

I realize this is a long-shot but wanted to at least run this by you.

Many thanks for the consideration,

Jeff

--
Jeff Long
Legislative Aide
Office of U.S. Senator Richard Blumenthal

202-224-6831 (Direct)
202-224-6593 (Office Fax)
jeff_long@blumenthal.senate.gov

-----Original Message-----
From: Darst, David [mailto:(b)(6)]
Sent: Wednesday, March 16, 2011 2:14 PM
To: Long, Jeff (Blumenthal)
Subject: Japan nuclear threat- time sensitive

Jeff,
Below please find some information from a friend of a friend who is at NASA. He helped develop their Robonaut 2, device which is a man-less operated device being used on the space station currently. He believes there could be some use for it, and its Centaur 2 base, in helping the Japanese manage their current nuclear reactor problems at Fukushima Daiichi.

I noticed Senator Blumenthal wrote a letter yesterday to the US Nuclear Regulatory Commission, showing his interest in this area. Do you think he might be willing to pass along the info below to the appropriate people in Japan? Has the US Senate reached out to offer help via US companies/government agencies, in addition to military support? Adam Parsons and his team at NASA are willing to speak with or help however they can. We just need to find the right contacts in Japan who are working on this issue.

Best,
David

-----Original Message-----
From: Adam Parsons (b)(6)
Sent: Wednesday, March 16, 2011 1:38 PM
To: Darst, David
Cc: Claire Richard; Katherine Richard
Subject: Re: Fw: Japan nuclear threat

If you want to see some of it's capabilities check out:

http://www.youtube.com/watch?v=6g3qzOZLs6s
http://robonaut.jsc.nasa.gov/default.asp

We do have a white paper, I'm checking right now to see if that is released yet. However I know that we do not have anything written on the wheeled base, Centaur 2.

As far as nuclear reactors or radiation containment goes I am pretty ignorant. I would think Robonaut 2 with the Centaur 2 base potentially has the capability of replacing a human, that would need to do simple tasks, where human presence is untenable. It has been designed to be tele-operated, meaning that someone could sit in Tokyo or possibly Houston, and direct the robot. This is not to say that radiation does not have adverse effects on robots as well. Radiation does damage electronics. There are certain things you can do to possibly mitigate those effects though.

The Japanese are certainly not lacking in robotics, however I believe that this is the most rugged base to be attached to a humanoid robot.

On Wed, Mar 16, 2011 at 11:48 AM, Darst, David <DarstD@orbimed.com> wrote:
> Adam- thanks for the quick response. This is great. I'll share it with some of my government energy contacts and see what next steps might be. Do you have a written description/white paper on Robonaut 2 that you could send? Do you have thoughts on how it could directly be applied to the

Japan nuclear situation. Attached is an article with a few more details, but obviously there is a lot more to learn.
>
> David
>
> -----Original Message-----
> From: Adam Parsons [mailto(b)(6)
> Sent: Wednesday, March 16, 2011 12:38 PM
> To: Claire Richard
> Cc: Darst, David; Katherine Richard
> Subject: Re: Fw: Japan nuclear threat
>
> David -
> As Claire said I have worked in the Robotics division of NASA for the last four years developing humanoid robotics. Our main project, Robonaut 2, was just put aboard the space station with this last launch. We have very recently implemented an all-terrain wheeled base with Roboanaut 2 that, in my estimation, would have the best chance of providing any assistance to the disaster in Japan. I have included a picture of this. Please let me know what you think. I applaud you on trying to do what you can to avoid anymore tragedy from this earthquake. My group and I would like to help any way possible.
>
> Regards,
> Adam
>
>
> On Wed, Mar 16, 2011 at 11:18 AM, Claire Richard <claire.richard@post.harvard.edu> wrote:
>> David--
>>
>> Meet Adam Parsons. Adam works for NASA in their robotics division
>> and has been instrumental in the development of the robot they're
>> sending to space to perform human tasks.
>>
>> Adam--
>>
>> Meet David. David has founded a number of companies and NGOs and has
>> a big heart with the ability to instrument major change.
>>
>> I hope this is fruitful. Let Kate and me know if there's anyway we
>> can help.
>>
>> Claire
>>
>> ---------- Forwarded message ----------
>> From:(b)(6)
>> Date: Wed, Mar 16, 2011 at 11:12 AM
>> Subject: Re: Fw: Japan nuclear threat
>> To: Claire Richard <claire.richard@post.harvard.edu>
>>
>>
>> I don't know but I would definitely be interested in trying. My
>> group would be happy to set up a teleconference with whomever is
>> appropriate.
>>
>> On Wed, Mar 16, 2011 at 10:43 AM, Claire Richard
>> <claire.richard@post.harvard.edu> wrote:
>>> Could your robot, or any of the robots NASA has, help with this?

>>>
>>> ---------- Forwarded message ----------
>>> From: <katerichard@warwick-energy.com>
>>> Date: Wed, Mar 16, 2011 at 10:38 AM
>>> Subject: Fw: Japan nuclear threat
>>> To: (b)(6)
>>> Cc: (b)(6)
>>>
>>>
>>> Claire Anne,
>>> See David's great suggestion below. Do you think any of your friends
>>> at Exxon or anyone in Adam's robot business unit at Nasa would have
>>> any creative solutions?
>>> K
>>>
>>> Sent via BlackBerry by AT&T
>>>
>>>
>>> From: (b)(6)
>>> Date: Wed, 16 Mar 2011 11:14:19 -0400
>>> To: Charlie Leykum<Charlie@cslenergy.com>; David
>>> Roeske<droeske@soundpostlp.com>; Nitin
>>> Sacheti<nsacheti@tigereuropellc.com>;
>>> <katerichard@warwick-energy.com>; Cedric
>>> Francois<cedric@apellis.com>
>>> Subject: Japan nuclear threat
>>>
>>> To my energy expert friends- any ideas to offer about containing the
>>> nuclear situation? Not sure who you would send them to, but I think
>>> its equally as important as finding ways to invest in Japan... and
>>> the two are certainly connected. I could send to Kleiner Perkins/Al
>>> Gore (I'm sure they are involved in helping) if you think of any
>>> brilliant ways to contain the reactor risks with non-human solutions ideally.
>>> A lot of lives could be at stake.
>>>
>>>
>>>
>>> David
>>>
>>>
>>>
>>> From: Kahn, Jason
>>> Sent: Wednesday, March 16, 2011 11:02 AM
>>> To: 5 - Public Equity
>>> Subject:
>>>
>>>
>>>
>>> DJ EU ENERGY CHIEF: SITUATION AT JAPAN NUCLEAR PLANT OUT OF CONTROL..
>>> DJ EU ENERGY CHIEF: POSSIBLE CATASTROPHIC EVENTS IN NEXT HOURS
>>>
>>>
>>>
>>> _____
>>> Jason Kahn OrbiMed Advisors
>>>

>>> OrbiMed Advisors, LLC
>>> 767 Third Avenue, 30th Floor | New York, NY 10017
>>> (: 212-739-6400
>>> (b)(6)
>>> _____
>>>
>>>
>>>
>>> This message is intended for the individual to whom it is addressed
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>>> exempt from disclosure under applicable laws. If you are not the
>>> intended recipient, you are hereby notified that any dissemination,
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From: LIA06 Hoc
Sent: Friday, March 18, 2011 10:04 AM
To: ET06 Hoc
Subject: FW: SNL ZR FIRE VIDEO
Attachments: Camera-1_Timelapse-360x.wmv

Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: LIA06 Hoc
Sent: Friday, March 18, 2011 10:02 AM
To: RST01 Hoc; Hoc, PMT12; ET02 Hoc
Subject: FW: SNL ZR FIRE VIDEO

The website you can access below has the videos and temperature data for a test done by Sandia to demonstrate a zirc fire in a single fuel assembly. The two minute video is only from the top. The video on the website shows different views of the test rig. Thermocouples at different elevations would show a dramatic rise as the fire approached them and then they would burn out.

Mark Lombard
Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: Donoghue, Joseph
Sent: Friday, March 18, 2011 9:37 AM
To: Lombard, Mark
Cc: LIA06 Hoc
Subject: FW: SNL ZR FIRE VIDEO

From: Ader, Charles
Sent: Monday, March 07, 2011 6:08 PM
To: NRO DSRA Branch Chiefs
Cc: Dube, Donald; Landry, Ralph; Clark, Theresa; Lombard, Mark
Subject: FW: SNL ZR FIRE VIDEO

Interesting video – this is the SNL ZR fire test representative of a spent fuel assembly in a empty fuel pool. I would limit distribution to your staff. If any contractors or others express interest, they should contact RES.

From: Zigh, Ghani
Sent: Monday, March 07, 2011 4:30 PM
Subject: RE: SNL ZR FIRE VIDEO

Charlie
You can view of the test at anytime at:

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http://mediasiteson.sandia.gov/mediasite/Viewer/?peid=20eab58445ac4b94aa5d6d3b86257eb9

Username: (b)(6)

Password: (b)(6)

You can forward the test at any point you want to.
The fire started at 12h:40 minutes.

Attached is also a two-minute video that shows different clips of the original movie. In the bottom of the clip you can see the date and time. The time is the real time at Albuquerque. The fire occurred at 8:40 am Albuquerque time.

I hope that helps.
Also, in three weeks, we will get an official three-minute video that will show the highlights of the experiment. When I get, I will send it to you.

From: Ader, Charles
Sent: Monday, March 07, 2011 4:14 PM
To: Zigh, Ghani
Cc: Gibson, Kathy; Scott, Michael; Lombard, Mark; Clark, Theresa
Subject: SNL ZR FIRE VIDEO

Ghani,

When available, I would like to get the video of the SNL test. Several folks (including Mike Johnson) missed it and would like to see the highlights.

Attachment Camera-1_Timelapse-360x.wmv(3929936 bytes) cannot be converted to PDF format.

From: Steinhurst, Laurel A CIV SEA 08 NR (b)(6)
Sent: Friday, March 18, 2011 10:31 AM
To: RST01 Hoc
Subject: What number to call at 1130???RE: SFP Recommendations

-----Original Message-----
From: RST01 Hoc [mailto:RST01.Hoc@nrc.gov]
Sent: Friday, March 18, 2011 10:00 AM
To: Modeen, David
Cc: Wall, James; Edsinger, Kurt; RST07 Hoc
Subject: RE: SFP Recommendations

Dave,

Here is NRC recommendation summary. Please ensure all phone call participants receive a copy.

Joe Williams

RST Coordinator

From: Modeen, David [mailto:dmodeen@epri.com]
Sent: Friday, March 18, 2011 8:55 AM
To: RST01 Hoc
Cc: Wall, James; Edsinger, Kurt
Subject: SFP Recommendations

Following up from the morning telcon, EPRI Contacts are:

David Modeen - dmodeen@epri.com

Kurt Edsinger - kedsinge@epri.com

James (Joe) Wall - jwall@epri.com

xtt/38

FYI, I am coordinating EPRI's response. Any requests for information or discussion on any other technical topic, the NRC Operations Center duty officer should feel free to contact me any time.

Dave

Director, External Affairs
EPRI Nuclear Power Sector
704-595-2670 (work)
(b)(6) (cell)
dmodeen@epri.com

From: Khan, Omar
Sent: Friday, March 18, 2011 3:25 AM
To: Ma, May; ET03 Hoc
Cc: Golder, Jennifer; Rheaume, Cynthia; Abraham, Susan; Brown, Cris; McDermott, Brian; Allwein, Russell; Mitchell, Reggie; Williams-Johnson, Patrice; Allwein, Russell; Peterson, Gordon; Gott, William; Stransky, Robert; Jackson, Karen
Subject: RE: Re: Ops Center Costs

The OCIMS contractors are currently working an extra 40 hours a week and an extra 48 hours on the weekends for a total of an extra 88 hours every week. They started the shifts on March 11th and are charged at a rate of $95.43. The current costs are:

Date	Hours	Unit Cost	Total Cost
11	8	$95.43	$763.44
12	24	$95.43	$2,290.32
13	24	$95.43	$2,290.32
14	8	$95.43	$763.44
15	8	$95.43	$763.44
16	8	$95.43	$763.44
17	8	$95.43	$763.44
18	8	$95.43	$763.44
To Date	96		$9,161.28

OCIMS has allocated 380 hours for this type of effort which comes to a total of $36,263.40 after this we will require extra funding.

Thank You
Office 301-415-6995
Cell (b)(6)
e-mail Omar.Khan@nrc.gov

From: Ma, May
Sent: Thursday, March 17, 2011 9:33 PM
To: ET03 Hoc
Cc: Golder, Jennifer; Rheaume, Cynthia; Abraham, Susan; Brown, Cris; Khan, Omar; McDermott, Brian; Allwein, Russell; Mitchell, Reggie; Williams-Johnson, Patrice; Allwein, Russell; Peterson, Gordon; McDermott, Brian
Subject: RE: Re: Ops Center Costs

Appreciate it, Tony!!! Omar will provide response to the second Q.

Take care.

May

+++ | 39

From: ET03 Hoc
Sent: Thursday, March 17, 2011 9:27 PM
To: Ma, May
Cc: Golder, Jennifer
Subject: Re: Ops Center Costs

May,

Per the request regarding Ops Center costs in support of the Japan event, below is response to 3 questions specifically asked:

1 – How many people are in the Ops Center?

a. How many shifts? Number of Staff for each shift?

The Ops Center is currently operating on a 24-hr per day basis, 7-days per week, three 8-hr shifts: 7am to 3pm; 3pm to 11pm; 11pm to 7am. The current staffing level includes approximately 35 personnel per shift.

b. How long are we expecting to staff the Ops Center above and beyond the normal everyday level (e.g., 1-month, 2-months, or 3)?

The Ops Center will be staffed as long as we have NRC teams in Japan. We are currently looking at assembling a replacement team to send over to Japan to support thru April 9, 2011. At this time, a good estimate for staffing of the Ops Center at this level should be for a period of one month.

2 – Are there any increased IT costs associated with this situation? Increased contractor support? How much and how long?

Cris Brown, Chief, NSIR/PMDA/ITB, and her staff are working on putting together an estimate that should be forwarded to you sometime late this evening or early tomorrow morning.

3 – Any other administrative costs or technical costs? If so, what, how much, and how long?

Below is an excerpt from an E-mail to Jennifer Golder from Susan Bellosi on Wednesday, March 16, 2011 at 8:56 am regarding some Ops Center costs:

"Below are the costs that ADM has incurred to support activities in Japan:

1. Transferring clearances for 11 people, - $5,500 ($500 per person)
2. Increased cleaning of the Op Center, rest rooms, etc., - $1,040 per week (how many weeks has this been scheduled) We are doing 2 extra cleanings per day and will continue for as long as necessary.
3. Utilities - $300 per day, $1,500 total so far
4. Driver for Chairman - $3,000 (what time period does this cover?) This covered Saturday, Sunday and Monday until 7:00 am, (3/12/11, 3/13/11, 3/14/11 am)
5. Parking for Ops Center staff – no costs to date. We plan to suspend daily parking beginning Monday, March 21 – If we do this, it will be $665 per week.
6. Video activities in Ops Center on Saturday, 3/12/11 – photographer (3 hours) and videographer (5 hours), 8 hrs each @ $111.35/hr (OT) = $890.80 (are they staff or contractors?) Answer - Contractors"

Please let me know if you need any additional information.

Tony

Bowers, Anthony

From: Cherry, Ronald C [CherryRC@state.gov]
Sent: Saturday, March 19, 2011 9:24 AM
To: JapanEmbassy, TaskForce; NITOPS; NNSA CMT; Hoc, PMT12
Cc: Duncan, Aleshia D; DARTDOELiaison1; browncm@nv.doe.gov
Subject: FW: Radiation data by MEXT
Attachments: 20110319_03.pdf; 20110319_04.pdf; 20110319_05.pdf; 20110319_06.pdf; 20110319_07.pdf

Forwarding.

This email is UNCLASSIFIED

-----Original Message-----
From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]
Sent: Saturday, March 19, 2011 9:44 PM
To: Cherry, Ronald C
Cc: Duncan, Aleshia D; Uchida, Koichi; akasaka@mext.go.jp; senami@mext.go.jp; cmht@nnsa.doe.gov; (b)(6) (b)(6) Robinson, Alexis M CTR DTRA; Wright, Curry D Civ DTRA; Wong, Christopher L MAJ USA DTRA; Peeke, Richard S. MAJ USA; Davis, Latrice Y. CPT USA; (b)(6) (b)(6)
Subject: Radiation data by MEXT

Dear Mr. Cherry,

Please see attached the document.

Sincerely yours,

Naoaki

Naoki Akasaka
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology - Japan

xx+/40

プレス発表資料

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月19日16時00分現在
文　部　科　学　省

1. 文部科学省が集計した結果 注）太下線データが今回追加分

＊1　GM（ガイガー=ミューラー計測管）における値
＊2　電離箱における値
＊3 NaI（ヨウ化ナトリウム）シンチレータにおける値

場所（福島第1発電所からの距離）	測定日時	数値（マイクロシーベルト／時）（記載のない限り屋外）	天候	実施者
測定箇所　【1】　（約60Km北西）	3月19日7時03分	7.2 *2	降雨無し	文部科学省
測定箇所　【2】　（約55Km北西）	3月19日9時51分	16.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【2】　（約55Km北西）	**3月19日15時00分**	**12.0 *2**	**降雨無し**	**日本原子力研究開発機構**
測定箇所　【3】　（約45Km北西）	3月19日10時18分	10.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【3】　（約45Km北西）	**3月19日14時31分**	**10.0 *2**	**降雨無し**	**日本原子力研究開発機構**
測定箇所　【4】　（約50Km北西）	3月19日9時52分	2.7 *2	降雨無し	原子力安全技術センター
測定箇所　【5】　（約45Km北）	3月19日10時50分	3.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【5】　（約45Km北）	3月19日11時50分	3.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【5】　（約45Km北）	**3月19日12時50分**	**3.0 *2**	**降雨無し**	**日本原子力研究開発機構**
測定箇所　【6】　（約45Km北）	3月19日11時10分	6.5 *2	降雨無し	日本原子力研究開発機構
測定箇所　【6】　（約45Km北）	**3月19日12時10分**	**5.0 *2**	**降雨無し**	**日本原子力研究開発機構**
測定箇所　【6】　（約45Km北）	**3月19日13時10分**	**4.0 *2**	**降雨無し**	**日本原子力研究開発機構**
測定箇所　【7】　（約45Km北）	3月19日11時16分	5.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【7】　（約45Km北）	**3月19日12時16分**	**4.0 *2**	**降雨無し**	**日本原子力研究開発機構**
測定箇所　【7】　（約45Km北）	**3月19日13時16分**	**3.0 *2**	**降雨無し**	**日本原子力研究開発機構**
測定箇所　【10】　（約40Km北西）	3月19日10時07分	2.4 *2	降雨無し	原子力安全技術センター

＊1　GM(ガイガー=ミューラー計測管)における値
＊2　電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所　【11】　(約40Km北西)	3月19日10時25分	3.5 *2	降雨無し	原子力安全技術センター
測定箇所　【11】　(約40Km北西)	**3月19日14時55分**	**4.2 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【12】　(約40Km西)	3月19日11時04分	0.7 *2	降雨無し	原子力安全技術センター
測定箇所　【13】　(約40Km西)	3月19日11時14分	0.7 *2	降雨無し	原子力安全技術センター
測定箇所　【13】　(約40Km西)	**3月19日12時14分**	**0.7 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【13】　(約40Km西)	**3月19日13時14分**	**0.7 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【14】　(約35Km西)	3月19日11時30分	0.5 *2	降雨無し	原子力安全技術センター
測定箇所　【14】　(約35Km西)	**3月19日12時30分**	**0.5 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【14】　(約35Km西)	**3月19日13時30分**	**0.7 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【15】　(約35Km西)	3月19日11時46分	1.3 *2	降雨無し	原子力安全技術センター
測定箇所　【15】　(約35Km西)	**3月19日12時46分**	**1.4 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【15】　(約35Km西)	**3月19日13時46分**	**1.7 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【20】　(約45Km北西)	3月19日10時50分	0.8 *2	降雨無し	原子力安全技術センター
測定箇所　【20】　(約45Km北西)	**3月19日14時34分**	**1.8 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【21】　(約30Km西北西)	3月19日11時12分	6.0 *2	降雨無し	原子力安全技術センター
測定箇所　【21】　(約30Km西北西)	**3月19日12時12分**	**5.8 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【21】　(約30Km西北西)	**3月19日13時12分**	**5.8 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【22】　(約35Km西北西)	3月19日11時30分	1.5 *2	降雨無し	原子力安全技術センター
測定箇所　【22】　(約35Km西北西)	**3月19日12時30分**	**1.4 *2**	**降雨無し**	**原子力安全技術センター**

＊1　GM(ガイガー=ミューラー計測管)における値
＊2　電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

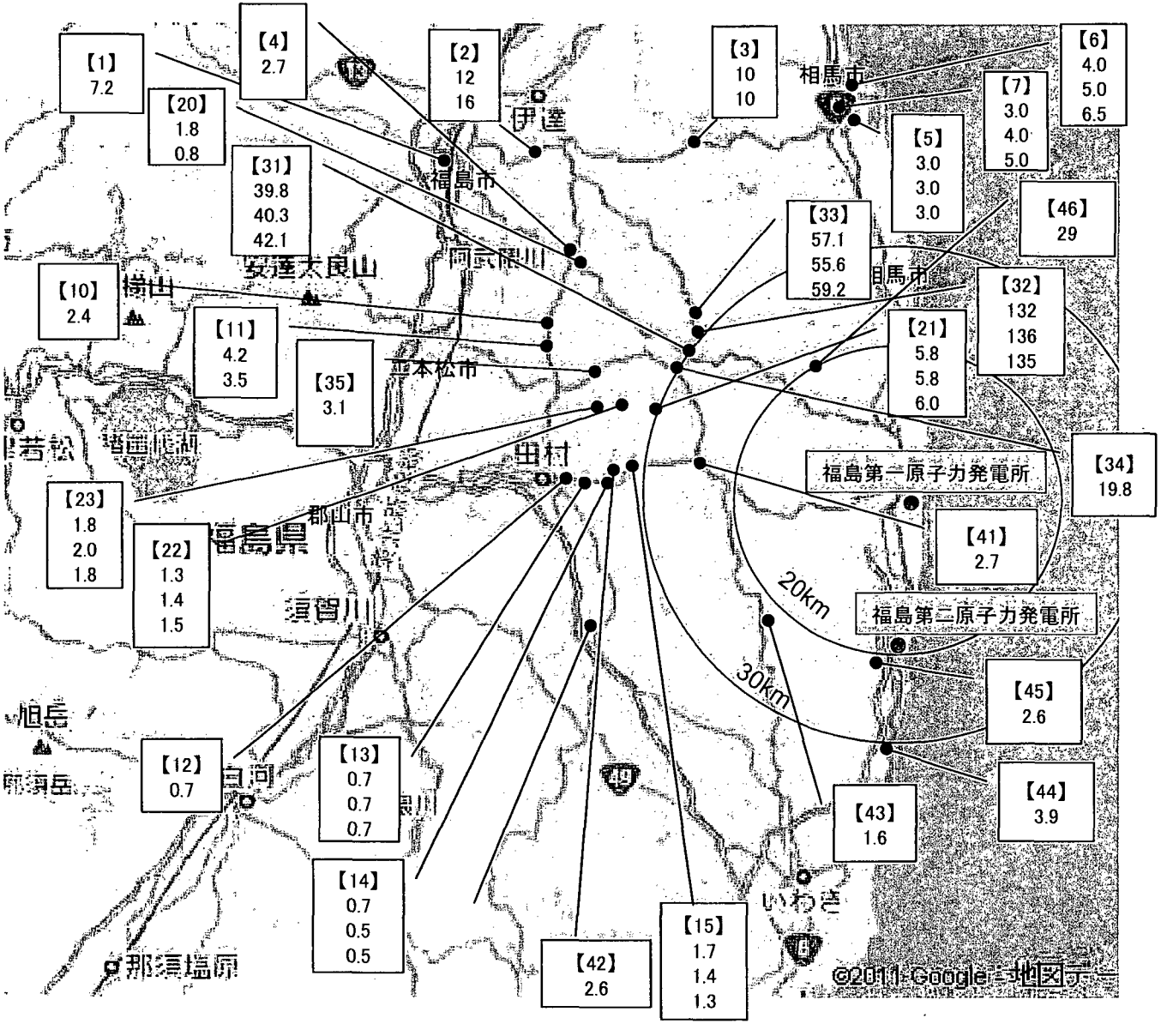
場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所　【22】　(約35Km西北西)	3月19日13時30分	1.3 ＊2	降雨無し	原子力安全技術センター
測定箇所　【23】　(約35Km西北西)	3月19日11時44分	1.8 ＊2	降雨無し	原子力安全技術センター
測定箇所　【23】　(約35Km西北西)	3月19日12時44分	2.0 ＊2	降雨無し	原子力安全技術センター
測定箇所　【23】　(約35Km西北西)	3月19日13時44分	1.8 ＊2	降雨無し	原子力安全技術センター
測定箇所　【31】　(約30Km西北西)	3月19日9時09分	42.1 ＊2	降雨無し	文部科学省
測定箇所　【31】　(約30Km西北西)	3月19日10時09分	40.3 ＊2	降雨無し	文部科学省
測定箇所　【31】　(約30Km西北西)	3月19日11時09分	39.8 ＊2	降雨無し	文部科学省
測定箇所　【32】　(約30Km北西)	3月19日9時20分	135.0 ＊2	降雨無し	文部科学省
測定箇所　【32】　(約30Km北西)	3月19日10時20分	136.0 ＊2	降雨無し	文部科学省
測定箇所　【32】　(約30Km北西)	3月19日11時20分	132.0 ＊2	降雨無し	文部科学省
測定箇所　【33】　(約30Km北西)	3月19日9時35分	59.2 ＊2	降雨無し	文部科学省
測定箇所　【33】　(約30Km北西)	3月19日10時35分	55.6 ＊2	降雨無し	文部科学省
測定箇所　【33】　(約30Km北西)	3月19日11時35分	57.1 ＊2	降雨無し	文部科学省
測定箇所　【34】　(約30Km北西)	3月19日11時56分	19.8 ＊2	降雨無し	文部科学省
測定箇所　【35】　(約30Km南)	3月19日12時13分	3.1 ＊2	降雨無し	文部科学省
測定箇所　【41】　(約20Km西)	3月19日11時15分	2.7 ＊2	降雨無し	関西電力
測定箇所　【42】　(約30Km西)	3月19日11時18分	2.6 ＊2	降雨無し	関西電力
測定箇所　【43】　(約20Km南西)	3月19日11時00分	1.6 ＊2	降雨無し	日本原燃
測定箇所　【44】　(約30Km南)	3月19日11時22分	3.9 ＊2	降雨無し	四国電力

＊1 GM(ガイガー=ミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所 【45】 (約20Km南)	3月19日11時15分	2.6 *2	降雨無し	九州電力
測定箇所 【46】 (約20Km北西)	3月19日11時40分	29.0 *2	降雨無し	中部電力

2. 防衛省の測定については準備中

福島第一原子力発電所周辺のモニタリング結果



測定日時
3月19日
7時03分～15時00分

●測定箇所

単位：マイクロシーベルト毎時

プレス発表資料

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月19日19時00分現在
文　部　科　学　省

1. 文部科学省が集計した結果 注)太下線データが今回追加分

＊1　GM(ガイガー=ミューラー計測管)における値
＊2　電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所　【1】　(約60Km北西)	3月19日7時03分	7.2 *2	降雨無し	文部科学省
測定箇所　【1】　(約60Km北西)	**3月19日17時15分**	**6.5 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【2】　(約55Km北西)	3月19日9時51分	16.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【2】　(約55Km北西)	3月19日15時00分	12.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【3】　(約45Km北西)	3月19日10時18分	10.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【3】　(約45Km北西)	3月19日14時31分	10.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【4】　(約50Km北西)	3月19日9時52分	2.7 *2	降雨無し	原子力安全技術センター
測定箇所　【4】　(約50Km北西)	**3月19日16時06分**	**2.9 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【5】　(約45Km北)	3月19日10時50分	3.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【5】　(約45Km北)	3月19日11時50分	3.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【5】　(約45Km北)	3月19日12時50分	3.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【6】　(約45Km北)	3月19日11時10分	6.5 *2	降雨無し	日本原子力研究開発機構
測定箇所　【6】　(約45Km北)	3月19日12時10分	5.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【6】　(約45Km北)	3月19日13時10分	4.0 *2	降雨無し	日本原子力研究開発機構

＊1　GM(ガイガー=ミューラー計測管)における値
＊2　電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所　【7】　(約45Km北)	3月19日11時16分	5.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【7】　(約45Km北)	3月19日12時16分	4.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【7】　(約45Km北)	3月19日13時16分	3.0 *2	降雨無し	日本原子力研究開発機構
測定箇所　【9】　(約45Km北)	**3月19日16時19分**	**6.0 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【10】　(約40Km北西)	3月19日10時07分	2.4 *2	降雨無し	原子力安全技術センター
測定箇所　【10】　(約40Km北西)	**3月19日15時19分**	**2.5 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【11】　(約40Km北西)	3月19日10時25分	3.5 *2	降雨無し	原子力安全技術センター
測定箇所　【11】　(約40Km北西)	3月19日14時55分	4.2 *2	降雨無し	原子力安全技術センター
測定箇所　【12】　(約40Km西)	3月19日11時04分	0.7 *2	降雨無し	原子力安全技術センター
測定箇所　【12】　(約40Km西)	**3月19日15時32分**	**0.6 *2**	**降雨無し**	**原子力安全技術センター**
測定箇所　【13】　(約40Km西)	3月19日11時14分	0.7 *2	降雨無し	原子力安全技術センター
測定箇所　【13】　(約40Km西)	3月19日12時14分	0.7 *2	降雨無し	原子力安全技術センター
測定箇所　【13】　(約40Km西)	3月19日13時14分	0.7 *2	降雨無し	原子力安全技術センター
測定箇所　【14】　(約35Km西)	3月19日11時30分	0.5 *2	降雨無し	原子力安全技術センター
測定箇所　【14】　(約35Km西)	3月19日12時30分	0.5 *2	降雨無し	原子力安全技術センター
測定箇所　【14】　(約35Km西)	3月19日13時30分	0.7 *2	降雨無し	原子力安全技術センター

＊1　GM(ガイガー=ミューラー計測管)における値
＊2　電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所　【15】　(約35Km西)	3月19日11時46分	1.3 *2	降雨無し	原子力安全技術センター
測定箇所　【15】　(約35Km西)	3月19日12時46分	1.4 *2	降雨無し	原子力安全技術センター
測定箇所　【15】　(約35Km西)	3月19日13時46分	1.7 *2	降雨無し	原子力安全技術センター
測定箇所　【20】　(約45Km北西)	3月19日10時50分	0.8 *2	降雨無し	原子力安全技術センター
測定箇所　【20】　(約45Km北西)	3月19日14時34分	1.8 *2	降雨無し	原子力安全技術センター
測定箇所　【21】　(約30Km西北西)	3月19日11時12分	6.0 *2	降雨無し	原子力安全技術センター
測定箇所　【21】　(約30Km西北西)	3月19日12時12分	5.8 *2	降雨無し	原子力安全技術センター
測定箇所　【21】　(約30Km西北西)	3月19日13時12分	5.8 *2	降雨無し	原子力安全技術センター
測定箇所　【22】　(約35Km西北西)	3月19日11時30分	1.5 *2	降雨無し	原子力安全技術センター
測定箇所　【22】　(約35Km西北西)	3月19日12時30分	1.4 *2	降雨無し	原子力安全技術センター
測定箇所　【22】　(約35Km西北西)	3月19日13時30分	1.3 *2	降雨無し	原子力安全技術センター
測定箇所　【23】　(約35Km西北西)	3月19日11時44分	1.8 *2	降雨無し	原子力安全技術センター
測定箇所　【23】　(約35Km西北西)	3月19日12時44分	2.0 *2	降雨無し	原子力安全技術センター
測定箇所　【23】　(約35Km西北西)	3月19日13時44分	1.8 *2	降雨無し	原子力安全技術センター

＊1　GM(ガイガー=ミューラー計測管)における値
＊2　電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

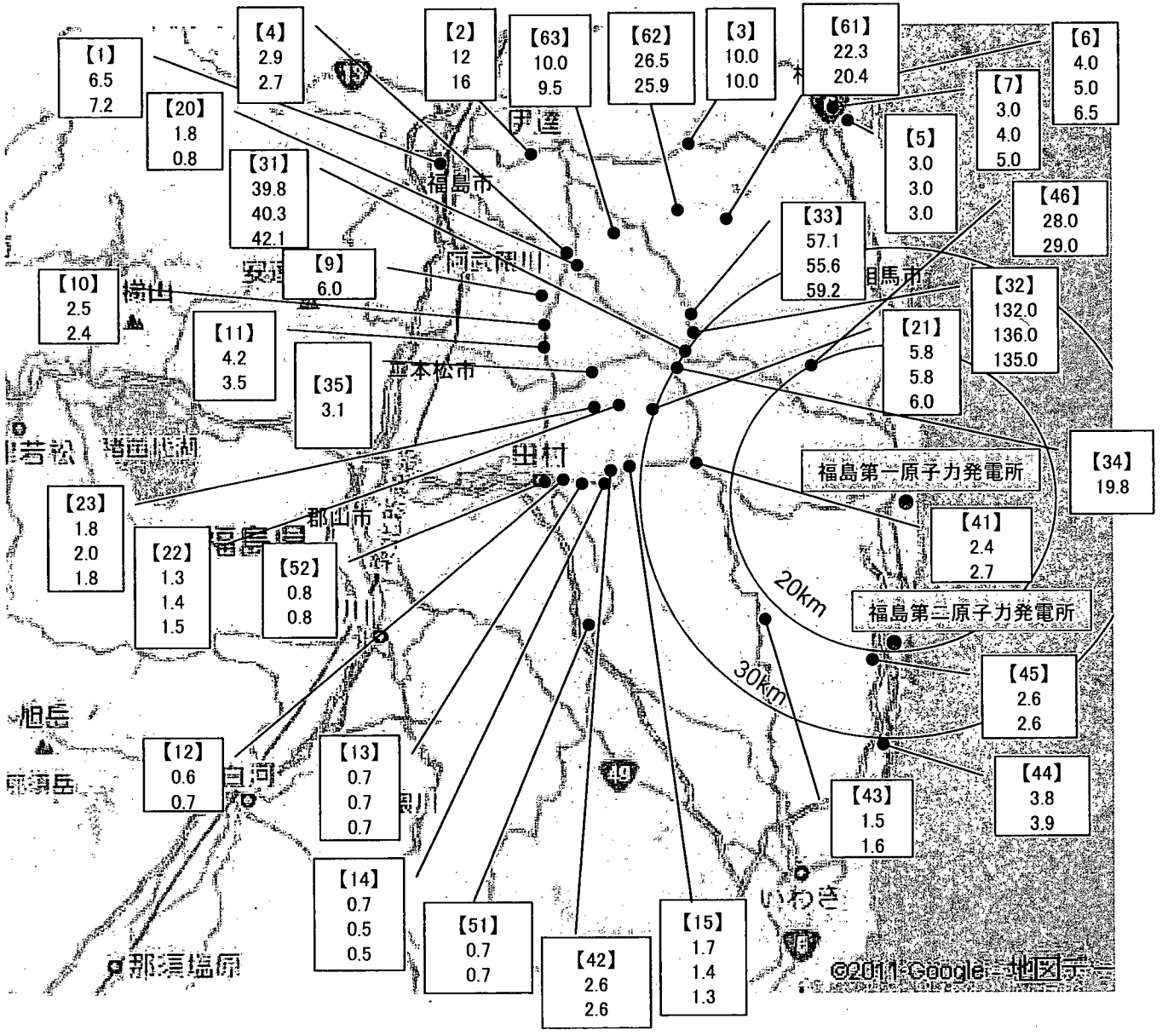
場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所　【31】　(約30Km西北西)	3月19日9時09分	42.1 *2	降雨無し	文部科学省
測定箇所　【31】　(約30Km西北西)	3月19日10時09分	40.3 *2	降雨無し	文部科学省
測定箇所　【31】　(約30Km西北西)	3月19日11時09分	39.8 *2	降雨無し	文部科学省
測定箇所　【32】　(約30Km北西)	3月19日9時20分	135.0 *2	降雨無し	文部科学省
測定箇所　【32】　(約30Km北西)	3月19日10時20分	136.0 *2	降雨無し	文部科学省
測定箇所　【32】　(約30Km北西)	3月19日11時20分	132.0 *2	降雨無し	文部科学省
測定箇所　【33】　(約30Km北西)	3月19日9時35分	59.2 *2	降雨無し	文部科学省
測定箇所　【33】　(約30Km北西)	3月19日10時35分	55.6 *2	降雨無し	文部科学省
測定箇所　【33】　(約30Km北西)	3月19日11時35分	57.1 *2	降雨無し	文部科学省
測定箇所　【34】　(約30Km北西)	3月19日11時56分	19.8 *2	降雨無し	文部科学省
測定箇所　【35】　(約30Km南)	3月19日12時13分	3.1 *2	降雨無し	文部科学省
測定箇所　【41】　(約20Km西)	3月19日11時15分	2.7 *2	降雨無し	関西電力
測定箇所　【41】　(約20Km西)	**3月19日15時23分**	**2.4 *2**	**降雨無し**	**関西電力**
測定箇所　【42】　(約30Km西)	3月19日11時18分	2.6 *2	降雨無し	関西電力
測定箇所　【42】　(約30Km西)	**3月19日15時20分**	**2.6 *2**	**降雨無し**	**関西電力**
測定箇所　【43】　(約20Km南西)	3月19日11時00分	1.6 *2	降雨無し	日本原燃

＊1　GM(ガイガー=ミューラー計測管)における値
＊2　電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所　【43】　(約20Km南西)	3月19日15時00分	1.5 *2	降雨無し	日本原燃
測定箇所　【44】　(約30Km南)	3月19日11時22分	3.9 *2	降雨無し	四国電力
測定箇所　【44】　(約30Km南)	3月19日15時27分	3.8 *2	降雨無し	四国電力
測定箇所　【45】　(約20Km南)	3月19日11時15分	2.6 *2	降雨無し	九州電力
測定箇所　【45】　(約20Km南)	3月19日15時00分	2.6 *2	降雨無し	九州電力
測定箇所　【46】　(約20Km北西)	3月19日11時40分	29.0 *2	降雨無し	中部電力
測定箇所　【46】　(約20Km北西)	3月19日15時00分	28.0 *2	降雨無し	中部電力
測定箇所　【51】　(約40Km南西)	3月19日12時09分	0.7 *3	降雨無し	福島県
測定箇所　【51】　(約40Km南西)	3月19日14時09分	0.7 *3	降雨無し	福島県
測定箇所　【52】　(約40Km西)	3月19日11時29分	0.8 *3	降雨無し	福島県
測定箇所　【52】　(約40Km西)	3月19日14時45分	0.8 *3	降雨無し	福島県
測定箇所　【61】　(約40Km北西)	3月19日12時13分	20.4 *3	降雨無し	福島県
測定箇所　【61】　(約40Km北西)	3月19日14時00分	22.3 *3	降雨無し	福島県
測定箇所　【62】　(約40Km北西)	3月19日11時59分	25.9 *3	降雨無し	福島県
測定箇所　【62】　(約40Km北西)	3月19日14時10分	26.5 *3	降雨無し	福島県
測定箇所　【63】　(約45Km北西)	3月19日11時23分	9.5 *3	降雨無し	福島県
測定箇所　【63】　(約45Km北西)	3月19日14時30分	10.0 *3	降雨無し	福島県

2. 防衛省の測定については準備中

福島第一原子力発電所周辺のモニタリング結果



測定日時
3月19日
7時03分～18時00分

●測定箇所

単位：マイクロシーベルト毎時

環境放射能水準調査結果

H23.3.19 19:00

（μSv/h(マイクロシーベルト毎時)）

	都道府県名	3月18日							3月19日						
		17-18	18-19	19-20	20-21	21-22	22-23	23-24	0-1	1-2	2-3	3-4	4-5	5-6	6-7
1	北海道(札幌市)	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.027	0.028	0.027	0.027	0.028	0.028	0.027
2	青森県(青森市)	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.020	0.019	0.020	0.019	0.020	0.019
3	岩手県(盛岡市)	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028
4	宮城県(仙台市)														
5	秋田県(秋田市)	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034
6	山形県(山形市)	0.039	0.039	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040
7	福島県(双葉郡)														
8	茨城県(水戸市)	0.186	0.186	0.185	0.185	0.184	0.184	0.183	0.183	0.182	0.182	0.181	0.180	0.180	0.180
9	栃木県(宇都宮市)	0.165	0.165	0.164	0.164	0.164	0.163	0.163	0.162	0.161	0.161	0.160	0.159	0.159	0.157
10	群馬県(前橋市)	0.084	0.084	0.083	0.083	0.083	0.083	0.083	0.084	0.084	0.083	0.082	0.083	0.082	0.083
11	埼玉県(さいたま市)		0.058	0.058	0.058	0.057	0.057	0.058	0.058	0.058	0.057	0.058	0.058	0.058	0.058
12	千葉県(市原市)	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.033	0.033	0.033	0.033	0.033
13	東京都(新宿区)	0.047	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.047	0.047	0.047
14	神奈川県(茅ヶ崎市)	0.050	0.050	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049	0.049
15	新潟県(新潟市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.047	0.047	0.047
16	富山県(射水市)	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.049	0.049	0.049	0.048	0.048	0.048
17	石川県(金沢市)	0.046	0.046	0.046	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.047	0.048	0.047	0.047
18	福井県(福井市)	0.045	0.045	0.045	0.045	0.045	0.046	0.046	0.045	0.046	0.046	0.046	0.046	0.046	0.046
19	山梨県(甲府市)	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.045	0.045	0.045
20	長野県(長野市)	0.071	0.071	0.072	0.071	0.072	0.072	0.072	0.072	0.072	0.072	0.072	0.071	0.071	0.071
21	岐阜県(各務原市)	0.060	0.060	0.060	0.060	0.060	0.061	0.061	0.061	0.061	0.061	0.062	0.062	0.062	0.063
22	静岡県(静岡市)	0.037	0.036	0.036	0.036	0.037	0.036	0.037	0.037	0.037	0.037	0.038	0.037	0.038	0.038
23	愛知県(名古屋市)	0.039	0.039	0.038	0.039	0.039	0.039	0.039	0.039	0.039	0.040	0.041	0.041	0.041	0.042
24	三重県(四日市市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.046	0.046	0.046	0.046
25	滋賀県(大津市)	0.033	0.032	0.032	0.032	0.033	0.035	0.034	0.035	0.035	0.036	0.035	0.037	0.038	0.038
26	京都府(京都市)	0.037	0.037	0.038	0.038	0.038	0.038	0.039	0.039	0.039	0.039	0.039	0.039	0.039	0.040
27	大阪府(大阪市)	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.043	0.043	0.044
28	兵庫県(神戸市)	0.036	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.038
29	奈良県(奈良市)	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.049
30	和歌山県(和歌山市)	0.031	0.031	0.031	0.031	0.031	0.032	0.032	0.033	0.033	0.033	0.033	0.033	0.032	0.033
31	鳥取県(東伯郡)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.062	0.063	0.063	0.063	0.063	0.063
32	島根県(松江市)	0.036	0.037	0.037	0.037	0.037	0.038	0.038	0.038	0.038	0.038	0.037	0.037	0.037	0.037
33	岡山県(岡山市)	0.048	0.048	0.048	0.048	0.048	0.048	0.049	0.049	0.049	0.049	0.050	0.050	0.050	0.050
34	広島県(広島市)	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.047	0.048	0.049	0.049	0.050	0.050	0.050
35	山口県(山口市)	0.092	0.093	0.092	0.093	0.093	0.093	0.094	0.094	0.095	0.095	0.096	0.095	0.096	0.096
36	徳島県(徳島市)	0.037	0.037	0.037	0.037	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.038	0.039	0.039
37	香川県(高松市)	0.052	0.052	0.052	0.052	0.052	0.053	0.053	0.053	0.053	0.053	0.054	0.054	0.054	0.054
38	愛媛県(松山市)	0.047	0.047	0.047	0.048	0.049	0.049	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048
39	高知県(高知市)	0.024	0.024	0.024	0.025	0.025	0.025	0.026	0.026	0.026	0.027	0.027	0.027	0.027	0.027
40	福岡県(太宰府市)	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.037	0.037	0.037	0.036	0.036	0.037	0.037
41	佐賀県(佐賀市)	0.040	0.040	0.039	0.039	0.040	0.040	0.040	0.041	0.041	0.041	0.041	0.041	0.041	0.041
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029
43	熊本県(宇土市)	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.027	0.028	0.028	0.028	0.028	0.027	0.027
44	大分県(大分市)	0.050	0.050	0.050	0.050	0.050	0.051	0.050	0.051	0.050	0.051	0.050	0.050	0.050	0.050
45	宮崎県(宮崎市)	0.026	0.026	0.027	0.026	0.026	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027
46	鹿児島県(鹿児島市)	0.034	0.034	0.034	0.034	0.034	0.034	0.035	0.034	0.034	0.035	0.035	0.036	0.035	0.035
47	沖縄県(うるま市)	0.021	0.021	0.020	0.021	0.021	0.021	0.021	0.021	0.020	0.021	0.021	0.021	0.021	0.021

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、宮城県原子力安全対策室HPで公開
*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月19日19:00現在)」参照。
*空欄は機器点検等のための欠測等
*本データは、1μGy/h(マイクログレイ毎時)=1μSv/h(マイクロシーベルト毎時)と換算して算出
*文部科学省が各都道府県等からの報告に基づき作成

環境放射能水準調査結果

H23.3.19 19:00

（μSv/h(マイクロシーベルト毎時)）

	都道府県名	3月19日										
		7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	過去の平常値の範囲
1	北海道(札幌市)	0.028	0.027	0.027	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.02～0.105
2	青森県(青森市)	0.020	0.019	0.020	0.020	0.021	0.023	0.024	0.021	0.021	0.020	0.017～0.102
3	岩手県(盛岡市)	0.028	0.028	0.027	0.027	0.027	0.028	0.031	0.031	0.029	0.029	0.014～0.084
4	宮城県(仙台市)											0.0176～0.0513
5	秋田県(秋田市)	0.034	0.034	0.034	0.034	0.035	0.035	0.035	0.034	0.034	0.034	0.022～0.086
6	山形県(山形市)	0.040	0.040	0.040	0.040	0.040	0.040	0.041	0.044	0.045	0.042	0.025～0.082
7	福島県(双葉郡)											0.037～0.071
8	茨城県(水戸市)	0.178	0.177	0.176	0.174	0.173	0.172	0.171	0.171	0.171	0.170	0.036～0.056
9	栃木県(宇都宮市)	0.156	0.155	0.154	0.153	0.152	0.151	0.150	0.149	0.148	0.148	0.030～0.067
10	群馬県(前橋市)	0.083	0.081	0.080	0.079	0.078	0.077	0.077	0.077	0.076	0.076	0.017～0.045
11	埼玉県(さいたま市)	0.057	0.057	0.057	0.056	0.056	0.055	0.055	0.055	0.055	0.055	0.031～0.060
12	千葉県(市原市)	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.032	0.022～0.044
13	東京都(新宿区)	0.048	0.047	0.048	0.047	0.047	0.047	0.047	0.047	0.046	0.046	0.028～0.079
14	神奈川県(茅ヶ崎市)	0.049	0.049	0.049	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.035～0.069
15	新潟県(新潟市)	0.047	0.047	0.047	0.047	0.046	0.047	0.046	0.046	0.046	0.047	0.031～0.153
16	富山県(射水市)	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.029～0.147
17	石川県(金沢市)	0.046	0.047	0.046	0.046	0.046	0.047	0.046	0.047	0.047	0.046	0.0291～0.1275
18	福井県(福井市)	0.046	0.045	0.045	0.045	0.045	0.044	0.045	0.044	0.044	0.045	0.032～0.097
19	山梨県(甲府市)	0.045	0.045	0.044	0.044	0.044	0.044	0.044	0.043	0.044	0.044	0.040～0.064
20	長野県(長野市)	0.071	0.070	0.069	0.069	0.068	0.067	0.067	0.066	0.067	0.066	0.0299～0.0974
21	岐阜県(各務原市)	0.063	0.062	0.062	0.060	0.061	0.060	0.061	0.060	0.060	0.060	0.057～0.110
22	静岡県(静岡市)	0.037	0.037	0.037	0.038	0.039	0.040	0.040	0.040	0.039	0.038	0.0281～0.0765
23	愛知県(名古屋市)	0.042	0.042	0.041	0.040	0.040	0.039	0.039	0.039	0.039	0.039	0.035～0.074
24	三重県(四日市市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0416～0.0789
25	滋賀県(大津市)	0.037	0.036	0.034	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.031～0.061
26	京都府(京都市)	0.040	0.040	0.039	0.038	0.038	0.038	0.038	0.037	0.037	0.038	0.033～0.087
27	大阪府(大阪市)	0.043	0.044	0.043	0.043	0.042	0.043	0.042	0.042	0.042	0.042	0.042～0.061
28	兵庫県(神戸市)	0.038	0.038	0.037	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.035～0.076
29	奈良県(奈良市)	0.048	0.048	0.048	0.048	0.048	0.047	0.047	0.047	0.047	0.047	0.046～0.08
30	和歌山県(和歌山市)	0.032	0.032	0.032	0.032	0.031	0.031	0.031	0.031	0.031	0.031	0.031～0.056
31	鳥取県(東伯郡)	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.062	0.063	0.036～0.11
32	島根県(松江市)	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.033～0.079
33	岡山県(岡山市)	0.050	0.051	0.049	0.049	0.049	0.048	0.048	0.048	0.048	0.048	0.043～0.104
34	広島県(広島市)	0.050	0.050	0.050	0.048	0.048	0.047	0.046	0.046	0.046	0.046	0.035～0.069
35	山口県(山口市)	0.096	0.096	0.094	0.093	0.092	0.092	0.092	0.092	0.092	0.092	0.084～0.128
36	徳島県(徳島市)	0.039	0.039	0.039	0.039	0.038	0.038	0.038	0.038	0.037	0.037	0.037～0.067
37	香川県(高松市)	0.055	0.053	0.053	0.053	0.052	0.052	0.052	0.051	0.052	0.051	0.051～0.077
38	愛媛県(松山市)	0.048	0.048	0.047	0.047	0.046	0.046	0.046	0.047	0.047	0.047	0.045～0.074
39	高知県(高知市)	0.027	0.027	0.026	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.023～0.076
40	福岡県(太宰府市)	0.037	0.037	0.037	0.036	0.037	0.036	0.036	0.036	0.036	0.036	0.034～0.079
41	佐賀県(佐賀市)	0.041	0.041	0.040	0.040	0.040	0.040	0.040	0.040	0.039	0.039	0.037～0.086
42	長崎県(大村市)	0.029	0.030	0.029	0.029	0.028	0.028	0.028	0.028	0.028	0.028	0.027～0.069
43	熊本県(宇土市)	0.028	0.027	0.027	0.027	0.027	0.026	0.026	0.026	0.026	0.027	0.021～0.067
44	大分県(大分市)	0.050	0.051	0.050	0.050	0.050	0.050	0.050	0.049	0.049	0.050	0.048～0.085
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.0243～0.0664
46	鹿児島県(鹿児島市)	0.035	0.035	0.035	0.035	0.034	0.034	0.034	0.034	0.034	0.034	0.0306～0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.020	0.021	0.020	0.020	0.0133～0.0575

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、宮城県原子力安全対策室HPで公開
*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月19日19:00現在)」参照。
*空欄は機器点検等のための欠測等
*本データは、1μGy/h(マイクログレイ毎時)=1μSv/h(マイクロシーベルト毎時)と換算して算出
*文部科学省が各都道府県等からの報告に基づき作成

茨城県におけるモニタリング状況(1／3)

文部科学省

H23.3.19 19:00

μSv/h(マイクロシーベルト毎時)

日時	日本原子力研究開発機構 原子力科学研究所 (茨城県東海村)	日本原子力研究開発機構 核燃料サイクル工学研究所 (茨城県東海村)	東京大学弥生 (茨城県東海村)
3月15日			
7:00	4.40	4.69	4.62
7:13		5.14	
7:18	5.00		
7:30	5.00	4.59	4.99
7:46			5.80
8:00	5.80	5.06	3.58
8:30	4.90	2.98	3.15
9:00	4.00	2.66	2.85
9:30	3.60	2.39	2.58
10:00	3.30	2.17	2.32
11:00	2.80	1.95	2.14
12:00	2.60	1.67	2.03
12:30	2.60		1.85
13:00	2.40	1.54	1.69
13:30	2.30	1.48	1.63
14:00	2.20	1.43	1.56
14:30	2.10	1.34	1.50
15:00	2.10	1.29	1.51
15:30	2.00	1.25	1.47
16:00	2.00	1.21	1.41
16:30	1.90	1.17	1.36
17:00	1.90	1.15	1.34
17:30	1.80		1.24
18:00	1.80	1.09	1.42
18:30	1.80	1.07	1.29
19:00	1.80	1.05	1.24
19:30	1.80	1.03	1.26
20:00	1.70	1.02	1.33
20:30	1.70		1.22
21:00	1.70	1.00	1.24
21:30		0.98	1.20
22:00	1.70		1.11
22:30	1.70	0.98	1.06
23:00	1.70	0.97	1.22
23:30		0.96	1.20
3月16日			
0:00	1.60	0.96	1.11
0:30		0.95	1.09
1:00	1.60	0.94	1.11
1:30	1.60	0.94	1.08
2:00	1.60	0.95	1.14
2:30	1.60	0.95	1.11
3:00	1.70	0.96	1.12
3:30	1.80	0.95	1.20
4:00	1.70	0.95	1.22
4:30	1.70	0.98	1.30
5:00	2.10	1.57	1.80
5:30	2.50	2.00	2.35
6:00	2.90	2.34	2.71
6:30	2.70	2.13	2.40
7:00	2.50	1.86	2.12
7:30	2.40	1.80	1.99
8:00	2.30	1.71	2.00
8:30	2.30	1.65	1.85
9:00	2.20	1.58	1.85
9:30	2.10	1.53	1.72
10:00	2.10		1.67
10:30			1.63
11:00			1.59
11:30			1.55
12:00	1.90	1.32	1.54
12:30	1.90	1.23	1.42
13:00	1.80		1.41
13:30	1.90	1.19	1.43
14:00	1.80	1.16	1.39
14:30	1.80	1.14	1.37
15:00	1.70	1.12	1.36
15:30	1.70	1.11	1.30
16:00	1.60	1.10	1.36
16:30	1.60		1.35
17:00	1.60	1.07	1.39
17:30	1.60	1.07	1.28
18:00	1.60	1.06	1.30
18:30	1.60	1.06	1.34
19:00	1.60	1.05	1.33

茨城県におけるモニタリング状況(2／3)

文部科学省

H23.3.19 19:00

μSv/h(マイクロシーベルト毎時)

日時	日本原子力研究開発機構 原子力科学研究所 (茨城県東海村)	日本原子力研究開発機構 核燃料サイクル工学研究所 (茨城県東海村)	東京大学弥生 (茨城県東海村)
19:30	1.60	1.04	1.37
20:00	1.60	1.04	1.39
20:30	1.60	1.04	1.24
21:00	1.50		1.27
21:30	1.50	1.04	1.25
22:00	1.50	1.03	1.30
22:30	1.50	1.03	1.33
23:00	1.50	1.02	1.34
23:30	1.50	1.02	1.28
3月17日			
0:00	1.50	1.02	1.22
0:30	1.50	1.01	1.22
1:00	1.50	1.02	1.28
1:30	1.50	1.01	1.19
2:00	1.50	1.01	1.22
2:30	1.50	1.01	1.23
3:00	1.50	1.01	1.18
3:30	1.50	1.01	1.23
4:00	1.50	1.00	1.31
4:30	1.50	1.00	1.23
5:00	1.50	0.99	1.31
5:30	1.50	0.99	1.25
6:00	1.50	0.99	1.13
6:30	1.50	0.99	1.23
7:00	1.50	0.98	1.24
7:30	1.50	0.99	1.13
8:00	1.50	0.98	1.17
8:30	1.50	0.97	1.15
9:00	1.40	0.96	1.20
9:30	1.40	0.96	1.14
10:00	1.40	0.96	1.15
10:30	1.40	0.95	1.15
11:00	1.40	0.94	1.13
11:30	1.40	0.93	1.17
12:00	1.40	0.94	1.22
12:30	1.40	0.94	1.15
13:00	1.40	0.93	1.13
13:30	1.40	0.92	1.12
14:00	1.40	0.92	1.12
14:30	1.40	0.92	1.12
15:00	1.40	0.92	1.12
15:30	1.40	0.91	1.15
16:00	1.40	0.90	1.09
16:30	1.40	0.90	1.03
17:00	1.40	0.89	1.05
17:30	1.30	0.89	1.08
18:00	1.30	0.88	1.16
18:30	1.30	0.88	1.16
19:00	1.30	0.88	1.10
19:30	1.30	0.88	1.07
20:00	1.30	0.88	1.10
20:30	1.30	0.87	1.10
21:00	1.30	1.10	1.10
21:30	1.30	1.10	1.10
22:00	1.30	1.08	1.08
22:30	1.30	1.09	1.09
23:00	1.30	1.09	1.09
23:30	1.30	1.10	1.10
3月18日			
0:00	1.30	0.86	1.09
0:30	1.30	0.85	1.10
1:00	1.30	0.85	1.08
1:30	1.30	0.85	1.06
2:00	1.30	0.85	1.05
2:30	1.30	0.85	1.10
3:00	1.30	0.85	1.09
3:30	1.30	0.85	1.07
4:00	1.30	0.85	1.05
4:30	1.30	0.84	1.08
5:00	1.30	0.84	1.08
5:30	1.30	0.83	1.06
6:00	1.30	0.83	1.07
6:30	1.30	0.83	1.05
7:00	1.30	0.83	1.06
7:30	1.30	0.83	1.04
8:00	1.30	0.83	1.03

茨城県におけるモニタリング状況(3／3)

文部科学省

H23.3.19 19:00

μSv/h(マイクロシーベルト毎時)

日時	日本原子力研究開発機構 原子力科学研究所 (茨城県東海村)	日本原子力研究開発機構 核燃料サイクル工学研究所 (茨城県東海村)	東京大学弥生 (茨城県東海村)
8:30	1.30	0.82	1.00
9:00	1.20	0.82	1.03
9:30	1.20	0.82	0.97
10:00	1.20	0.82	1.07
10:30	1.20	0.81	1.03
11:00	1.20	0.80	1.00
11:30	1.20	0.80	1.00
12:00	1.20	0.80	0.99
12:30	1.20	0.80	0.99
13:00	1.20	0.79	1.03
13:30	1.20	0.79	1.00
14:00	1.20	0.79	0.99
14:30	1.20	0.78	1.06
15:00	1.20	0.78	1.04
15:30	1.20	0.78	0.98
16:00	1.20	0.77	0.96
16:30	1.20	0.77	0.96
17:00	1.20	0.77	0.97
17:30	1.20	0.77	0.96
18:00	1.20	0.76	0.95
18:30	1.20	0.76	0.94
19:00	1.20	0.76	0.94
19:30	1.20	0.76	0.96
20:00	1.10	0.76	0.97
20:30	1.20	0.76	0.97
21:00	1.10	0.76	0.94
21:30	1.10	0.76	0.95
22:00	1.10	0.76	0.95
22:30	1.10	0.76	0.99
23:00	1.10	0.75	0.95
23:30	1.10	0.76	0.95
3月19日			
0:00	1.10	0.75	0.93
0:30	1.10	0.75	0.96
1:00	1.10	0.75	0.94
1:30	1.10	0.75	0.94
2:00	1.10	0.75	0.95
2:30	1.10	0.74	0.95
3:00	1.10	0.74	0.91
3:30	1.10	0.74	0.90
4:00	1.10	0.74	0.87
4:30	1.10	0.74	0.97
5:00	1.10	0.74	0.91
5:30	1.10	0.74	0.94
6:00	1.10	0.73	0.95
6:30	1.10	0.73	0.95
7:00	1.10	0.73	0.91
7:30	1.10	0.73	0.97
8:00	1.10	0.73	0.90
8:30	1.10	0.72	0.93
9:00	1.10	0.72	0.86
9:30	1.10	0.72	0.88
10:00	1.10	0.71	0.91
10:30	1.10	0.71	0.89
11:00	1.10	0.71	0.82
11:30	1.10	0.70	0.86
12:00	1.10	0.70	0.89
12:30	1.00	0.70	0.86
13:00	1.00	0.70	0.89
13:30	1.00	0.69	0.86
14:00	1.00	0.69	0.82
14:30	1.00	0.69	0.88
15:00	1.00	0.69	0.85
15:30	1.00	0.69	0.85
16:00	1.00	0.68	0.86
16:30	1.00	0.68	0.85
17:00	1.00	0.68	0.87
17:30	1.00	0.67	0.88
18:00	0.99	0.67	0.87

環境放射能水準調査結果
（3月18日採取）

H23.3.19 19:00 (Bq/kg)

	都道府県名	上水（蛇口）	
		I－131	Cs－137
1	北海道（札幌市）	不検出	不検出
2	青森県（青森市）	不検出	不検出
3	岩手県（盛岡市）	不検出	不検出
4	宮城県	-	-
5	秋田県（秋田市）	不検出	不検出
6	山形県（山形市）	不検出	不検出
7	福島県	-	-
8	茨城県	-	-
9	栃木県（宇都宮市）	77	1.6
10	群馬県（前橋市）	2.5	0.22
11	埼玉県（さいたま市）	0.62	不検出
12	千葉県（市原市）	0.79	不検出
13	東京都（新宿区）	1.5	不検出
14	神奈川県（茅ヶ崎市）	不検出	不検出
15	新潟県（新潟市）	0.27	不検出
16	富山県（射水市）	不検出	不検出
17	石川県（金沢市）	不検出	不検出
18	福井県（福井市）	不検出	不検出
19	山梨県（甲府市）	不検出	不検出
20	長野県（長野市）	不検出	不検出
21	岐阜県（各務原市）	不検出	不検出
22	静岡県（静岡市）	不検出	不検出
23	愛知県（名古屋市）	不検出	不検出
24	三重県（四日市市）	不検出	不検出
25	滋賀県（大津市）	不検出	不検出
26	京都府（京都市）	不検出	不検出
27	大阪府（大阪市）	不検出	不検出
28	兵庫県（神戸市）	不検出	不検出
29	奈良県	未到達	未到達
30	和歌山県（和歌山市）	不検出	不検出
31	鳥取県（東伯郡）	不検出	不検出
32	島根県（松江市）	不検出	不検出
33	岡山県（岡山市）	不検出	不検出
34	広島県（広島市）	不検出	不検出
35	山口県（宇部市）	不検出	不検出
36	徳島県（徳島市）	不検出	不検出
37	香川県（高松市）	不検出	不検出
38	愛媛県（八幡浜市）	不検出	不検出
39	高知県（高知市）	不検出	不検出
40	福岡県（太宰府市）	不検出	不検出
41	佐賀県（佐賀市）	不検出	不検出
42	長崎県（大村市）	不検出	不検出
43	熊本県（宇土市）	不検出	不検出
44	大分県（大分市）	不検出	不検出
45	宮崎県（宮崎市）	不検出	不検出
46	鹿児島県（鹿児島市）	不検出	不検出
47	沖縄県（那覇市）	不検出	不検出

*宮城県は震災被害によって計測不能、福島県については県が独自に調査・公表している。茨城県については、断水のため水の採取ができない。

*空欄は機器点検等のための欠測等
*本データは、1Bq/Lを1Bq/kgとみなす
*文部科学省が各都道府県等からの報告に基づき作成

*「原子力施設等の防災対策について（原子力安全委員会）」飲食物の摂取制限に関する指標に基づく飲料水の基準　放射性ヨウ素－131：300Bq/kg以上、放射性セシウム：200Bq/kg以上

	FW: 2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call
ation:	Phone: 877-700-1237 and Pass code: (b)(6)
art:	Sat 3/19/2011 11:00 AM
d:	Sat 3/19/2011 12:00 PM
ow Time As:	Tentative
Recurrence:	(none)
Meeting Status:	Not yet responded
Organizer:	OS Secretarys Operations Center

-----Original Appointment-----
From: HOO Hoc **On Behalf Of** OS Secretarys Operations Center
Sent: Thursday, March 17, 2011 10:54 PM
To: OS Secretarys Operations Center
Subject: FW: 2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call
When: Saturday, March 19, 2011 11:00 AM-12:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Phone: 877-700-1237 and Pass code: (b)(6)

-----Original Appointment-----
From: OS Secretarys Operations Center [mailto:hhs.soc@hhs.gov]
Sent: Friday, March 18, 2011 11:52 AM
To: (b)(6)

(b)(6)

(b)

(b)(6)

(b)(6)

CC: (b)(6)

(b)(6)

Subject: 2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call
When: Saturday, March 19, 2011 11:00 AM-12:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Phone: 877-700-1237 and Pass code: (b)(6)

2011 Pacific Basin Earthquake/Tsunami ESF-8 Conference Call

AGENDA

Phone: 877-700-1237 and Pass code: (b)(6)

Objective: Discussion of current response operations and future actions.

Japan Weather Updates:

HHS – Opening Comment
- Quick summary on any HHS issues/concerns

EMG Updates:
EMG OPS/FIELD OPS/OFRD OPS
EMG Logs
EMG Plans
EMG A/F
Public Affairs

Other OPDIVs/STAFF DIVs:
FDA update
CDC update

Supporting Agencies:
DOS update
NRC update
USDA update
EPA update
FAA update
OHSA update

Other supporting Agencies update

Questions:
Adjournment & Closing Comments:
Time for the next conference call: TBD

From: OST01 HOC
Sent: Friday, April 15, 2011 1:37 PM
To: RST01 Hoc
Subject: RE: NRC and IAEA document request

I don't see it in SharePoint. G: drive, or WebEoc.

-----Original Message-----
From: RST01 Hoc
Sent: Friday, April 15, 2011 1:32 PM
To: OST01 HOC
Subject: FW: NRC and IAEA document request
Importance: High

The following document is requested by Pentagon.

(2) IAEA report referenced during the 1630 April 12, 2011, Interagency SVTCs, wrt to the change in INES rating of Fukushima Dai-ichi from a 5 to a 7.

Do you know where it is located?

Thanks.

-----Original Message-----
From: Hoc, PMT12
Sent: Friday, April 15, 2011 10:44 AM
To: RST01 Hoc; RST07 Hoc
Subject: FW: NRC and IAEA document request
Importance: High

This came to the PMT yesterday and I am not sure it got forwarded for response to the RST. Ms Idar just called again, specifically asking to obtain a copy of the "Stability Defined" document.

Please respond as soon as possible.

Sandi
PMT/PAAD

-----Original Message-----
From: Idar, Deanne J CIV OSD POLICY (b)(6)
Sent: Thursday, April 14, 2011 3:47 PM
To: Couret, Ivonne; Hoc, PMT12
Cc: Love, Richard A CIV OSD POLICY; Gross, Laura, CIV, OSD-POLICY

+++/42

Subject: NRC and IAEA document request

Ms. Couret and PMT:
Thank you in advance for your assistance. We are requesting copies of two documents ASAP that have been identified as follows:

(1) NRC Reactor Safety team "Stability Defined" document
(2) IAEA report referenced during the 1630 April 12, 2011, Interagency SVTCs, wrt to the change in INES rating of Fukushima Dai-ichi from a 5 to a 7.

Best,
Deanne

Deanne J. Idar, Ph.D.
Senior Science Advisor
OSD(P)-GSA/CWMD/ CBRN Defense Policy
Office: Rm 5C746 Pentagon
Phone: 703-571-2327
Blackberry: (b)(6)

From: NITOPS
To: CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc
Subject: FW: Radiation data in prefectures by MEXT as of March 18
Date: Saturday, March 19, 2011 10:46:53 AM
Attachments: MEXT Data by Mar18-1700.xlsx
ATT158578.htm

From: Cherry, Ron
Sent: Saturday, March 19, 2011 10:43 AM
To: JapanEmbassy, TaskForce; NITOPS; CMHT; NRC PMT
Cc: Duncan, Aleshia (State Dept); Morales, Russell A; (b)(6)
Subject: FW: Radiation data in prefectures by MEXT as of March 18

Forwarding.

Begin forwarded message:

> **From:** "Mikako Sano" (b)(6)
> **Date:** March 19, 2011 12:05:50 PM GMT+09:00
> **To:** <moralesRA@state.gov>, <anthony.ulses@nrc.gov>, <cherryrc@state.gov>, <duncanad@state.gov>
> **Cc:** "'Akiko Chiba'" <achiba@nsf.gov>, (b)(6), "'Sano, Mikako'" <SanoMX@state.gov>
> **Subject: Radiation data in prefectures by MEXT as of March 18**
>
> Russ,
>
> Attached is MEXT's radiation data in prefectures as of 17:00 of March 18.
>
> Sano

This email is UNCLASSIFIED.

+++|43

From: (b)(6)
To: (b)(6)
(b)(6)
Cc:
Subject: Radiation Data from MEXT
Date: Saturday, March 19, 2011 12:19:15 PM
Attachments: image001.png
FW Radiation data in prefectures by MEXT as of March 18.msg
FW Radiation data by MEXT.msg
FW Radiation data by MEXT.msg

Please find attached MEXT Radiation Data.

Thank you,

Lynda Hinds
Staff Assistant to Ambassador John V. Roos
U.S. Embassy
1-10-5 Akasaka, Minato-ku
Tokyo 107-8420
Tel. (03) 3224- 5370

Twitter.com/AmbassadorRoos

This email is UNCLASSIFIED.

Bowers, Anthony

From: Cherry, Ronald C [CherryRC@state.gov]
Sent: Saturday, March 19, 2011 10:10 AM
To: JapanEmbassy, TaskForce; NITOPS; NNSA CMT; Hoc, PMT12
Cc: Duncan, Aleshia D; Aleshia Duncan
Subject: FW: Radiation data by MEXT
Attachments: 20110319_02.pdf

Forwarding.

-----Original Message-----
From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]
Sent: Saturday, March 19, 2011 5:22 PM
To: Cherry, Ronald C
Cc: Duncan, Aleshia D; Uchida, Koichi; akasaka@mext.go.jp; senami@mext.go.jp; cmht@nnsa.doe.gov; (b)(6) (b)(6) Robinson, Alexis M CTR DTRA; Wright, Curry D Civ DTRA; Wong, Christopher L MAJ USA DTRA; Peeke, Richard S. MAJ USA; Davis, Latrice Y. CPT USA; (b)(6) Cherry, Ronald C (b)(6)
Subject: Radiation data by MEXT

Dear Mr. Cherry,

Please see attached the document.

Sincerely yours,

Naoaki

Naoki Akasaka
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology - Japan

This email is UNCLASSIFIED

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プレス発表資料

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月19日13時00分現在
文　部　科　学　省

1. 文部科学省が集計した結果

＊1 GM(ガイガー=ミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時) (記載のない限り屋外)	天候	実施者
測定箇所 【1】 (約60Km北西)	3月19日7時03分	7.2 ＊2	降雨無し	文部科学省
測定箇所 【2】 (約55Km北西)	3月19日9時51分	16.0 ＊2	降雨無し	日本原子力研究開発機構
測定箇所 【3】 (約45Km北西)	3月19日10時18分	10.0 ＊2	降雨無し	日本原子力研究開発機構
測定箇所 【4】 (約50Km北西)	3月19日9時52分	2.7 ＊2	降雨無し	原子力安全技術センター
測定箇所 【5】 (約45Km北)	3月19日10時50分	3.0 ＊2	降雨無し	日本原子力研究開発機構
測定箇所 【5】 (約45Km北)	3月19日11時50分	3.0 ＊2	降雨無し	日本原子力研究開発機構
測定箇所 【6】 (約45Km北)	3月19日11時10分	6.5 ＊2	降雨無し	日本原子力研究開発機構
測定箇所 【7】 (約45Km北)	3月19日11時16分	5.0 ＊2	降雨無し	日本原子力研究開発機構
測定箇所 【10】 (約40Km北西)	3月19日10時07分	2.4 ＊2	降雨無し	原子力安全技術センター
測定箇所 【11】 (約40Km北西)	3月19日10時25分	3.5 ＊2	降雨無し	原子力安全技術センター
測定箇所 【12】 (約40Km西)	3月19日11時04分	0.7 ＊2	降雨無し	原子力安全技術センター
測定箇所 【13】 (約40Km西)	3月19日11時14分	0.7 ＊2	降雨無し	原子力安全技術センター
測定箇所 【14】 (約35Km西)	3月19日11時30分	0.5 ＊2	降雨無し	原子力安全技術センター
測定箇所 【15】 (約35Km西)	3月19日11時46分	1.3 ＊2	降雨無し	原子力安全技術センター
測定箇所 【20】 (約45Km北西)	3月19日10時50分	0.8 ＊2	降雨無し	原子力安全技術センター

＊1 GM(ガイガーミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

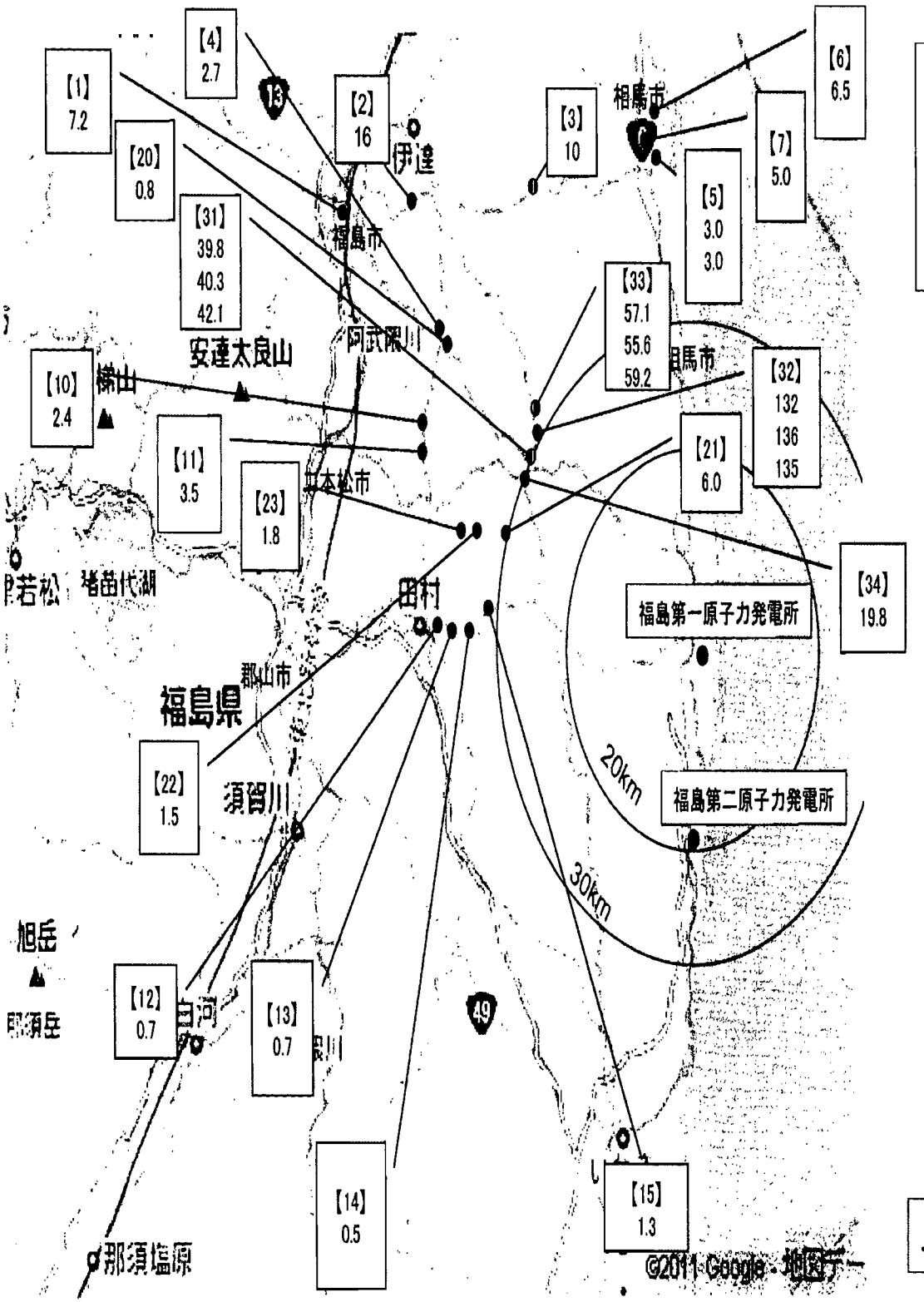
場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定箇所 【21】 (約30Km西北西)	3月19日11時12分	6.0 ＊2	降雨無し	原子力安全技術センター
測定箇所 【22】 (約35Km西北西)	3月19日11時30分	1.5 ＊2	降雨無し	原子力安全技術センター
測定箇所 【23】 (約35Km西北西)	3月19日11時44分	1.8 ＊2	降雨無し	原子力安全技術センター
測定箇所 【31】 (約30Km西北西)	3月19日9時09分	42.1 ＊2	降雨無し	文部科学省
測定箇所 【31】 (約30Km西北西)	3月19日10時09分	40.3 ＊2	降雨無し	文部科学省
測定箇所 【31】 (約30Km西北西)	3月19日11時09分	39.8 ＊2	降雨無し	文部科学省
測定箇所 【32】 (約30Km北西)	3月19日9時20分	135.0 ＊2	降雨無し	文部科学省
測定箇所 【32】 (約30Km北西)	3月19日10時20分	136.0 ＊2	降雨無し	文部科学省
測定箇所 【32】 (約30Km北西)	3月19日11時20分	132.0 ＊2	降雨無し	文部科学省
測定箇所 【33】 (約30Km北西)	3月19日9時35分	59.2 ＊2	降雨無し	文部科学省
測定箇所 【33】 (約30Km北西)	3月19日10時35分	55.6 ＊2	降雨無し	文部科学省
測定箇所 【33】 (約30Km北西)	3月19日11時35分	57.1 ＊2	降雨無し	文部科学省
測定箇所 【34】 (約30Km北西)	3月19日11時56分	19.8 ＊2	降雨無し	文部科学省

2. 防衛省の測定については準備中

測定地点の番号と場所

地点番号	福島第1からの距離と方角	場 所
1	(約60Km北西)	福島県庁前
2	(約55Km北西)	大波小学校前
3	(約45Km北西)	相馬市入り口
4	(約50Km北西)	川俣病院前
5	(約45Km北)	カワチ薬品相馬店
6	(約45Km北)	ツルハドラック店前
7	(約45Km北)	フレスコ(ドラックストア)
9	(約45Km北)	木幡郵便局前
10	(約40Km北西)	二本松東和町コミュニティバス停前(62号と349号の交差点)
11	(約40Km北西)	東和町道の駅
12	(約40Km西)	288号と349号の交差点(かっぱ寿司前)
13	(約40Km西)	西向小学校
14	(約35Km西)	常葉小学校入口駐車場
15	(約35Km西)	山根小学校
16	(約30Km西)	288号カマクラ石材
20	(約45Km北西)	Cルート分岐点(349号から入ったところ)
21	(約30Km西北西)	葛尾村と田村村の境界
22	(約35Km西北西)	JA田村移支店
23	(約35Km西北西)	水中内バス停
31	(約30Km西北西)	114号と399号交差点(399号入口)
32	(約30Km北西)	399号入口から5km地点
33	(約30Km北西)	399号入口から8km地点(飯舘村長瀞十字路)
34	(約30Km北西)	399号から459号の入り口
35	(約30Km南)	399号から459号の入り口
41	(約20Km西)	福島第1から西20km地点付近
42	(約30Km西)	福島第1から西30km地点付近
43	(約20Km南西)	福島第1から南西20km地点付近
44	(約30Km南)	福島第1から南30km地点付近
45	(約20Km南)	福島第1から南20km地点付近
46	(約20Km北西)	福島第1から北西20km地点付近
51	(約40Km南西)	小野町役場
52	(約40Km西)	田村市役所
53	(約45Km南)	いわき合同庁舎
61	(約40Km北西)	石ポロ坂トンネル
62	(約40Km北西)	飯舘公民館前
63	(約45Km北西)	飯舘村境界

福島第一原子力発電所周辺のモニタリング結果

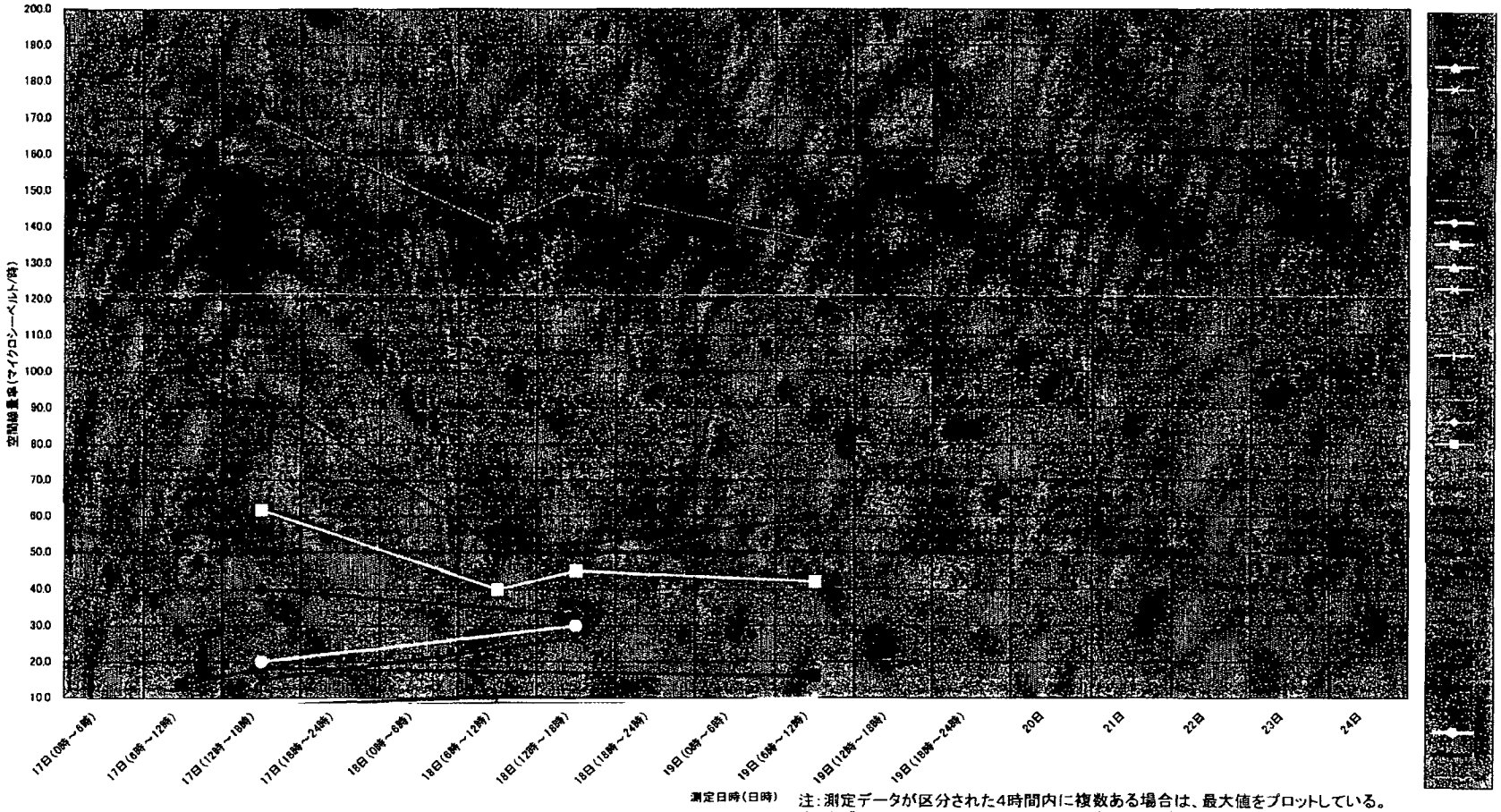


測定日時
3月19日
7時03分～12時00分

●測定箇所

単位：マイクロシーベルト毎時

福島第一原子力発電所の20Km以遠のモニタリング結果の推移



注：測定データが区分された4時間内に複数ある場合は、最大値をプロットしている。
注：本グラフでは、10マイクロシーベルト/時以上のデータのみ表示している。

From: Hoc, PMT12
Sent: Sunday, March 20, 2011 2:20 AM
To: LIA03 Hoc
Subject: FW: ACTION/?? -- FW: Calcium Bentonite - Relief Aid to Japan

From: RST01 Hoc
Sent: Sunday, March 20, 2011 1:23 AM
To: Hoc, PMT12
Subject: FW: ACTION/?? -- FW: Calcium Bentonite - Relief Aid to Japan

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Sunday, March 20, 2011 12:58 AM
To: RST01 Hoc; PMT01 Hoc; LIA11 Hoc
Subject: ACTION/?? -- FW: Calcium Bentonite - Relief Aid to Japan

Hello all,

I did not see a response to this request, and USAID still shows this as an open question. Does anyone have an idea of when we might be able to provide some feedback on this? (Please refer to the email string below.)

Thanks in advance for your help!

Cheer,
Leigh

From: RMTPACTSU_ELNRC
Sent: Saturday, March 19, 2011 11:52 AM
To: RST01 Hoc (RST01.Hoc@nrc.gov); PMT01 Hoc (PMT01.Hoc@nrc.gov); LIA11.Hoc@nrc.gov
Subject: Calcium Bentonite - Relief Aid to Japan

Please advise if this would be useful or needed. See below.

Thanks,
Michael I. Dudek

From: kevinjanejohnson@msn.com [mailto:kevinjanejohnson@msn.com] **On Behalf Of** KEVIN JANE JOHNSON
Sent: Saturday, March 19, 2011 11:30 AM
To: RMTPACTSU_ELC
Subject: RE: relief aid to Japan

Thank you for this information Mr. Gelman.

I am completely new to this and so know nothing of the correct procedure or protocol, if there be such.
Should I contact these Gentlemen directly? Should I contact some other person or persons in your Response Management Team to inform them about the availability of our materials?

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I expect that time is of the essence in this matter and at this time I am not concerned with haggling over the price for our clay. I will make the initial effort to give our calcium bentonite to them, or into your Agency if this would be the better pathway, so that we might just expedite this and get it going.
Thank you again for your continued consideration and assistance-

Kevin R. Johnson

> Subject: RE: relief aid to Japan
> Date: Fri, 18 Mar 2011 22:40:51 -0400
> From: RMTPACTSU_ELC@ofda.gov
> To: kevinj@montanabentonite.com
>
> Dear Mr. Johnson:
>
> The following individuals have been identified as key contacts by the
> government of Japan:
>
> Ms. Setsuko Kawahara
> Director
> Humanitarian Assistance and Emergency Relief Division International
> Cooperation Bureau Ministry of Foreign Affairs
> Tel: + 81-3-5501-8359
> Email: setsuko.kawahara@mofa.go.jp
>
> Mr. Naoki Mitori
> Deputy Director
> Humanitarian Assistance and Emergency Relief Division International
> Cooperation Bureau Ministry of Foreign Affairs naoki.mitori@mofa.go.jp
> Tel: + 81-3-5501-8359
>
> Mr Yukio Yoshii
> Special Coordinator for Overseas Disaster Assistance Humanitarian
> Assistance and Emergency Relief Division International Cooperation
> Bureau MOFA, Japan yukio.yoshii@mofa.go.jp
> +81 3 5501 8359
>
> Best regards,
>
> Phil Gelman
> External Liaison Coordinator
> USAID Pacific Tsunami and Japan
> Earthquake Response Management Team
>
> -----Original Message-----
> From: kevinj@montanabentonite.com [mailto:kevinj@montanabentonite.com]
> Sent: Friday, March 18, 2011 11:09 AM
> To: Public Inquiries (LPA) (USAID)
> Subject: relief aid to Japan
>
> This form was filled out at:
> http://www.usaid.gov/public_inquiries.html
>
> User's name: Kevin Johnson
>
> Country: United States
> ---

> Contact? Please Contact Me
>
> We have extended an offer to the energy ministry of Japan of supply of
> our calcium bentonite to them for suppression of the radiation leakage
> and also for treatment of the surely-to-come radiation poisoning of
> their people. Please assist us in making this connection. Please contact
> me directly so that I may explain further and we can begin to figure out
> a supply process. Thank you- Kevin R. Johnson cell phone: (b)(6)
> I'll be at our mine working today. If I can't hear the ring because of
> the equipment, I'll get back to you shortly. Thank you.

From: OST01 HOC
Sent: Monday, March 21, 2011 3:50 AM
To: PMT02 Hoc; PMT11 Hoc; Hoc, PMT12
Subject: FW: 3/21 1600 hours SPEEDI - unzipped data
Attachments: FUKUSHIMA1 air concentrationüi17-18hüj.gif; FUKUSHIMA1 air concentrationüi16-17hüj.gif; FUKUSHIMA1 air concentrationüi18-19hüj.gif; FUKUSHIMA1 air doseüi17-18hüj.gif; FUKUSHIMA1 air doseüi18-19hüj.gif; FUKUSHIMA1 air doseüi16-17hüj.gif; FUKUSHIMA1 wind(16hüj.gif

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Monday, March 21, 2011 3:50 AM
To: HOO Hoc; LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: 3/21 1600 hours SPEEDI - unzipped data

From: JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]
Sent: Monday, March 21, 2011 3:47:59 AM
(b)(6)

Subject: RE: 3/21 1600 hours SPEEDI - unzipped data Auto forwarded by a Rule

Most recent data as of 1600 hours 3/21.

SBU
This email is UNCLASSIFIED

-----Original Message-----
From: nustec [mailto:spd01@nustec.or.jp]
Sent: Monday, March 21, 2011 4:28 PM
(b)(6)

+22/47

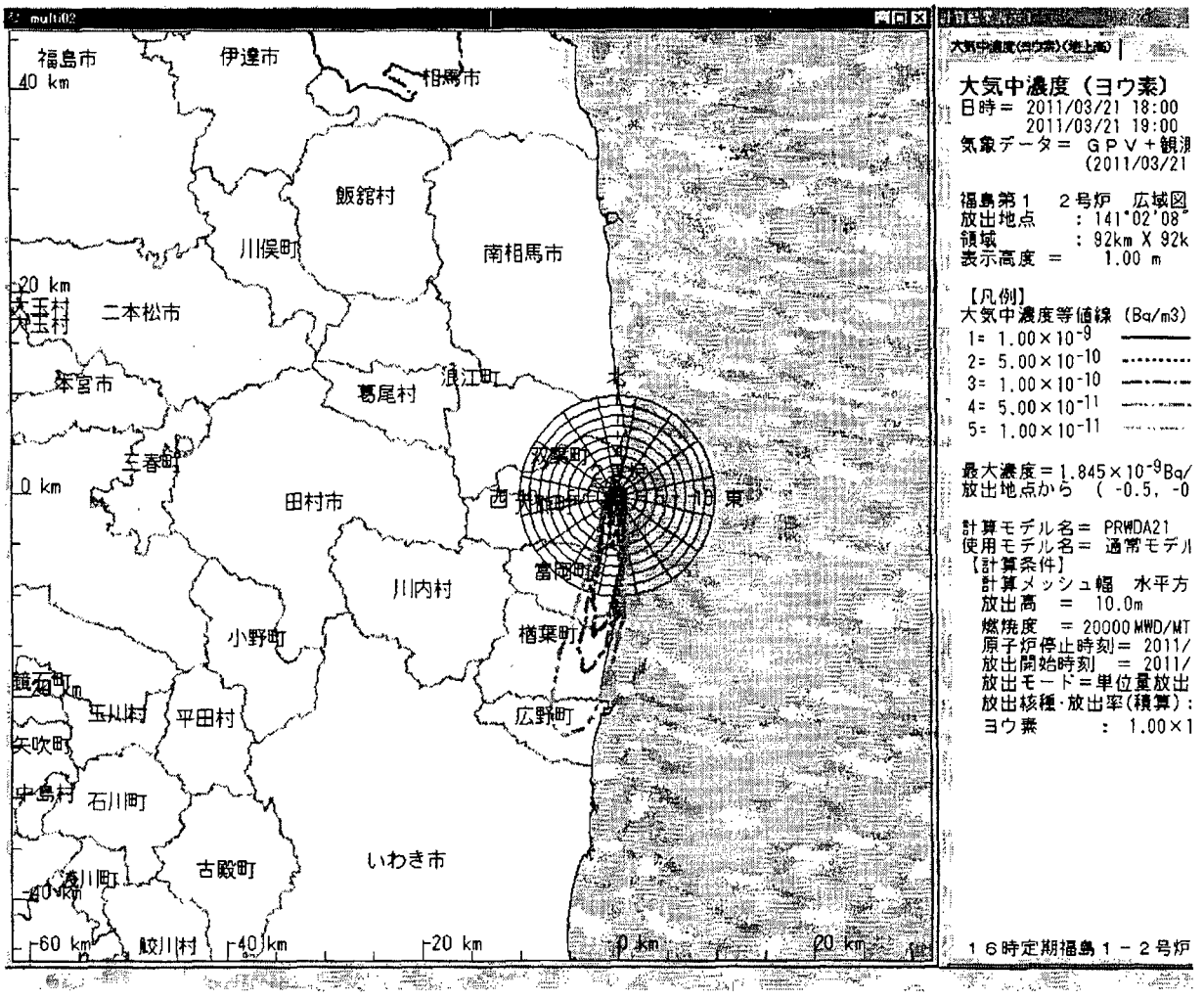
(b)(6)

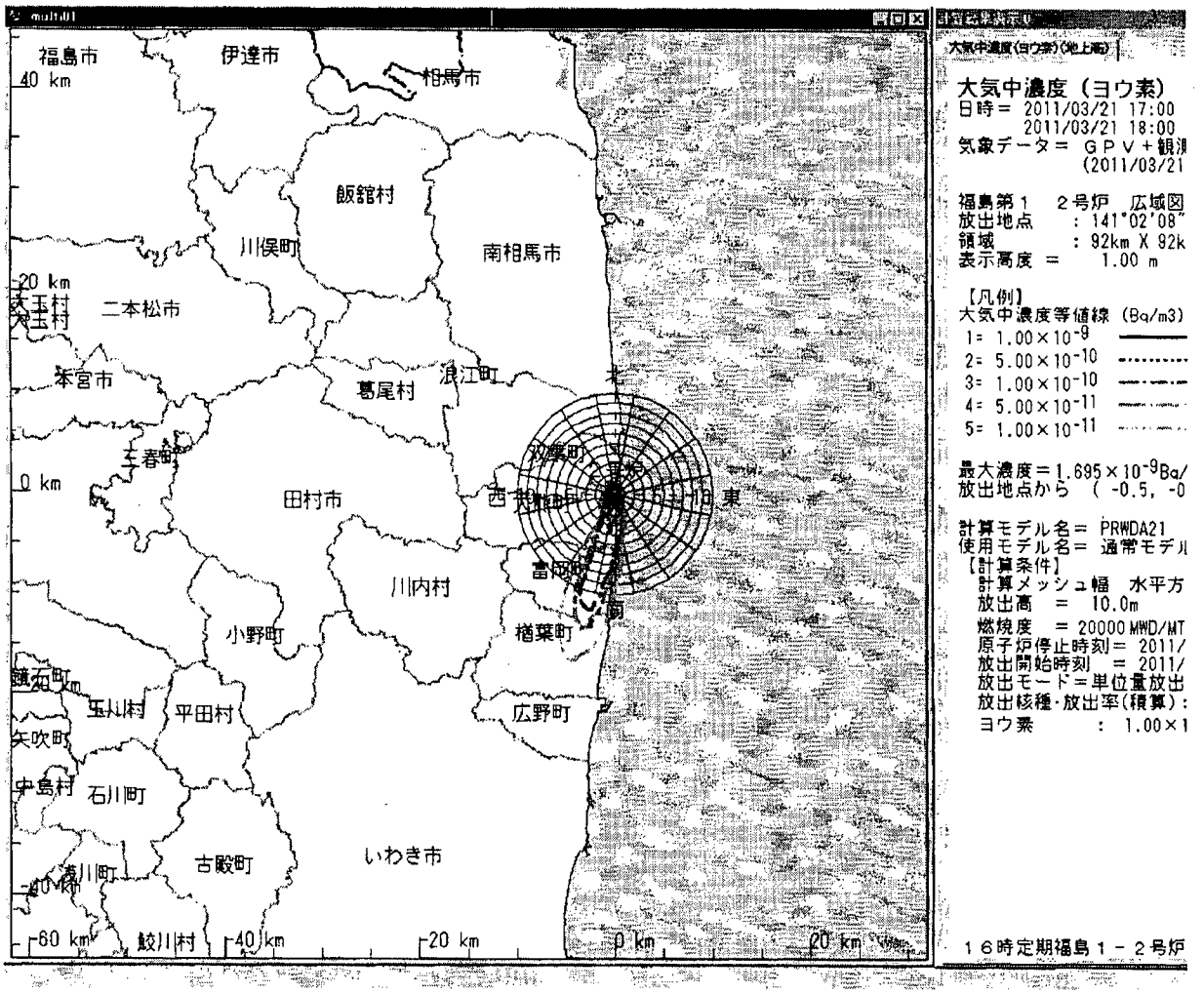
Subject: 3/21　16時SPEEDI単位量放出図形イメージの送付

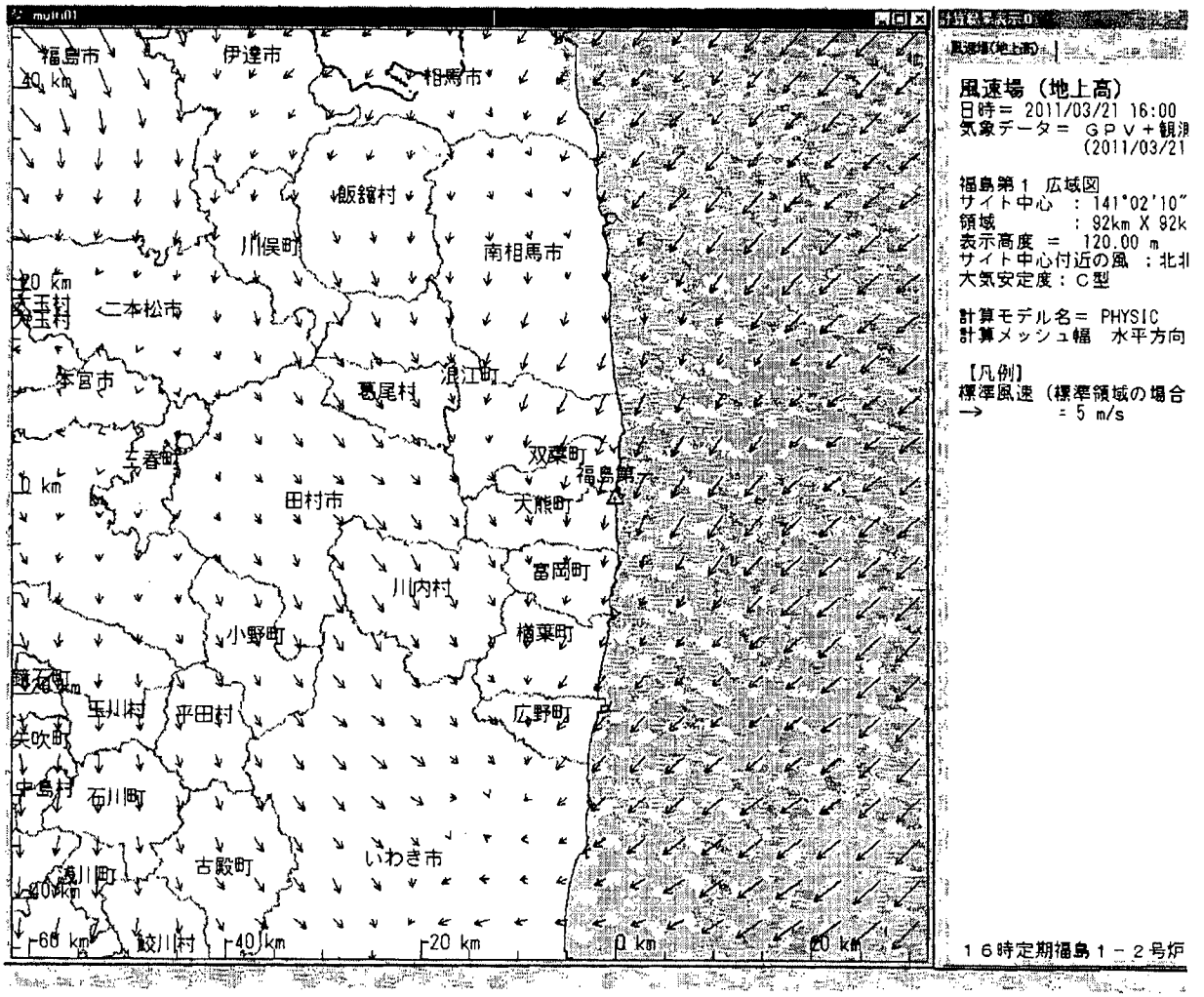
関係者各位

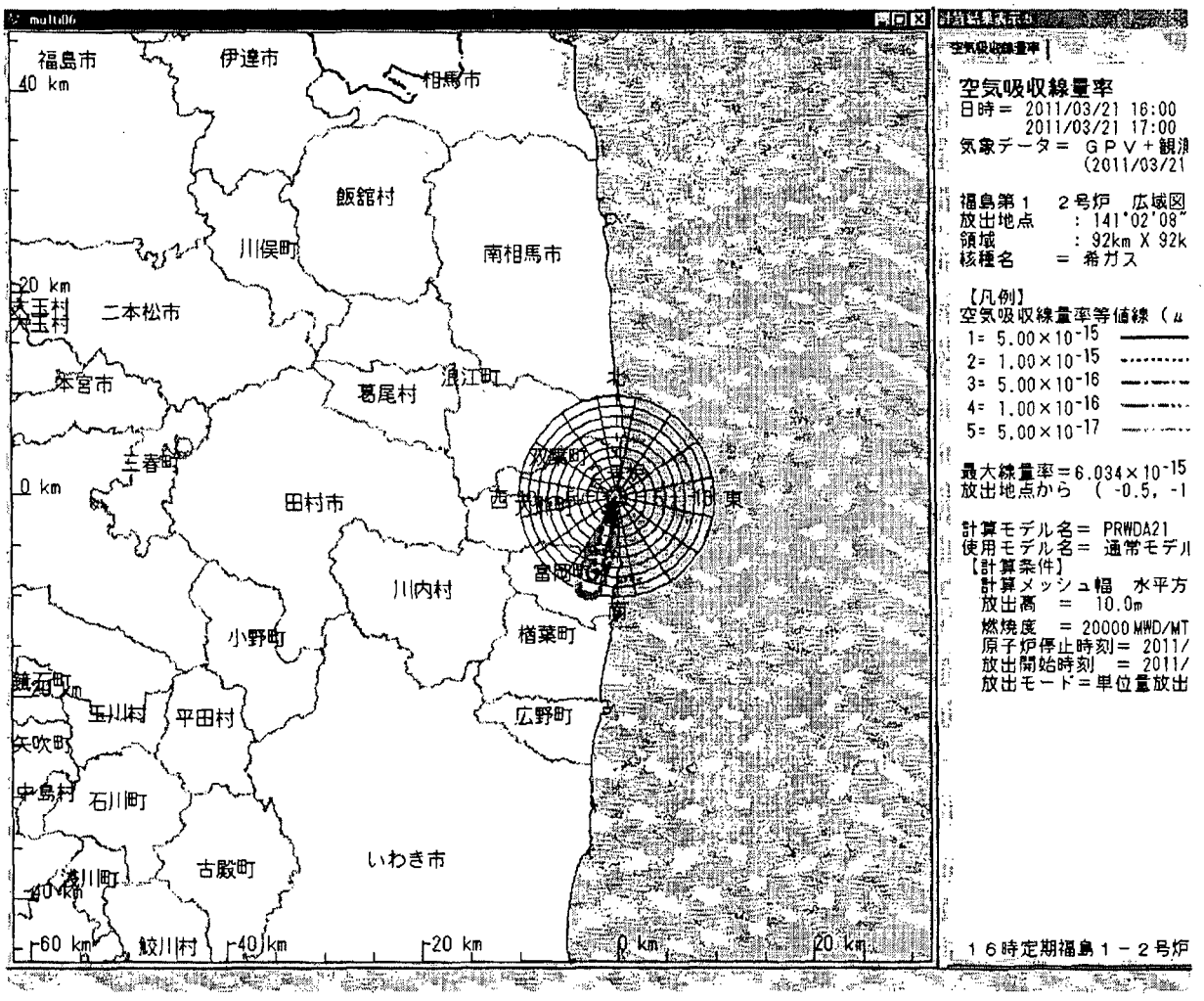
お世話になっております。
原子力安全技術センター　SPEEDI担当です。
３／２１　１６時のSPEEDI単位量放出図形のイメージデータを送付致します。
ご確認のほど、よろしくお願い致します。

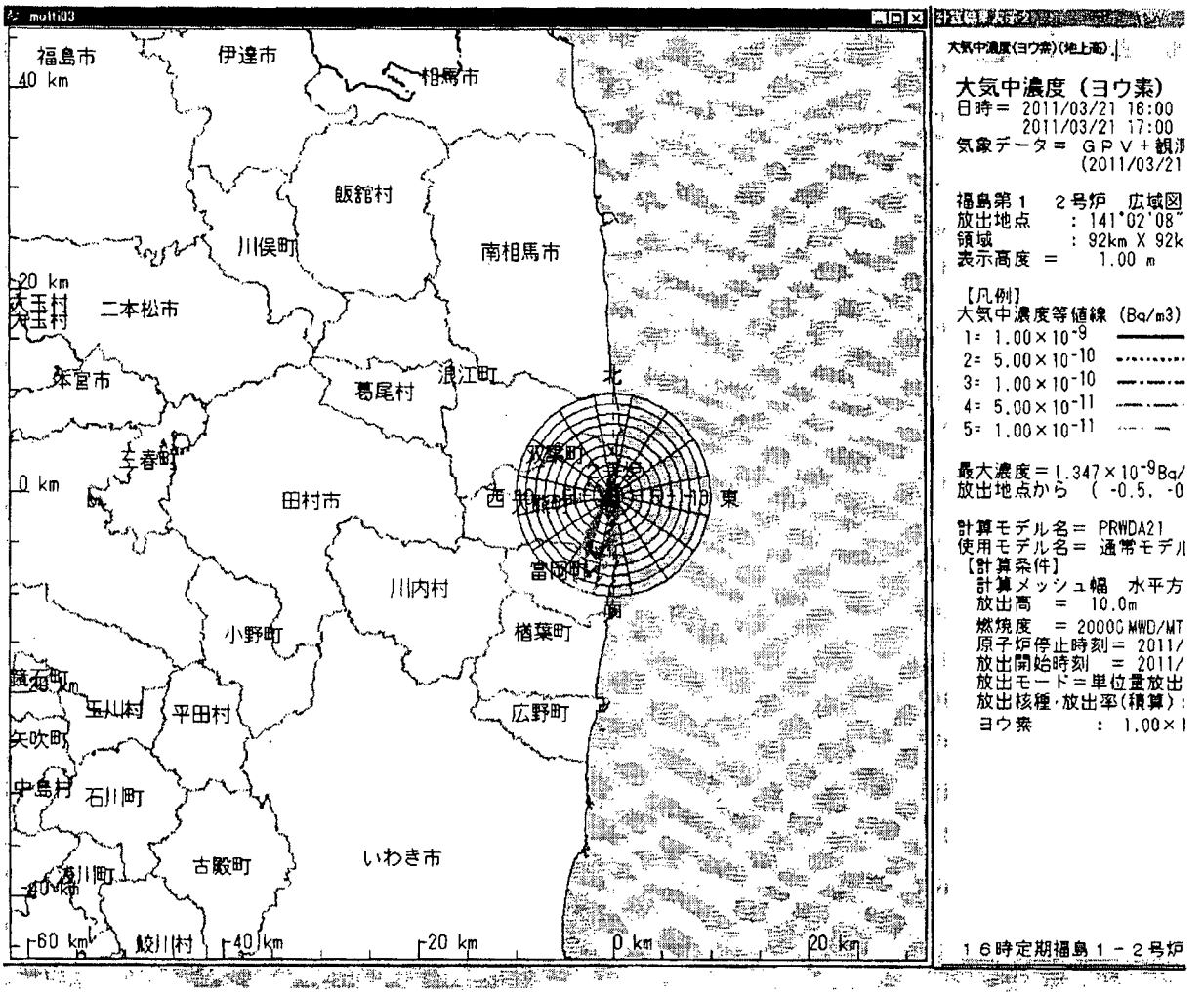
Please find attached 16:00[21-Mar] SPEEDI Data
NUSTEC

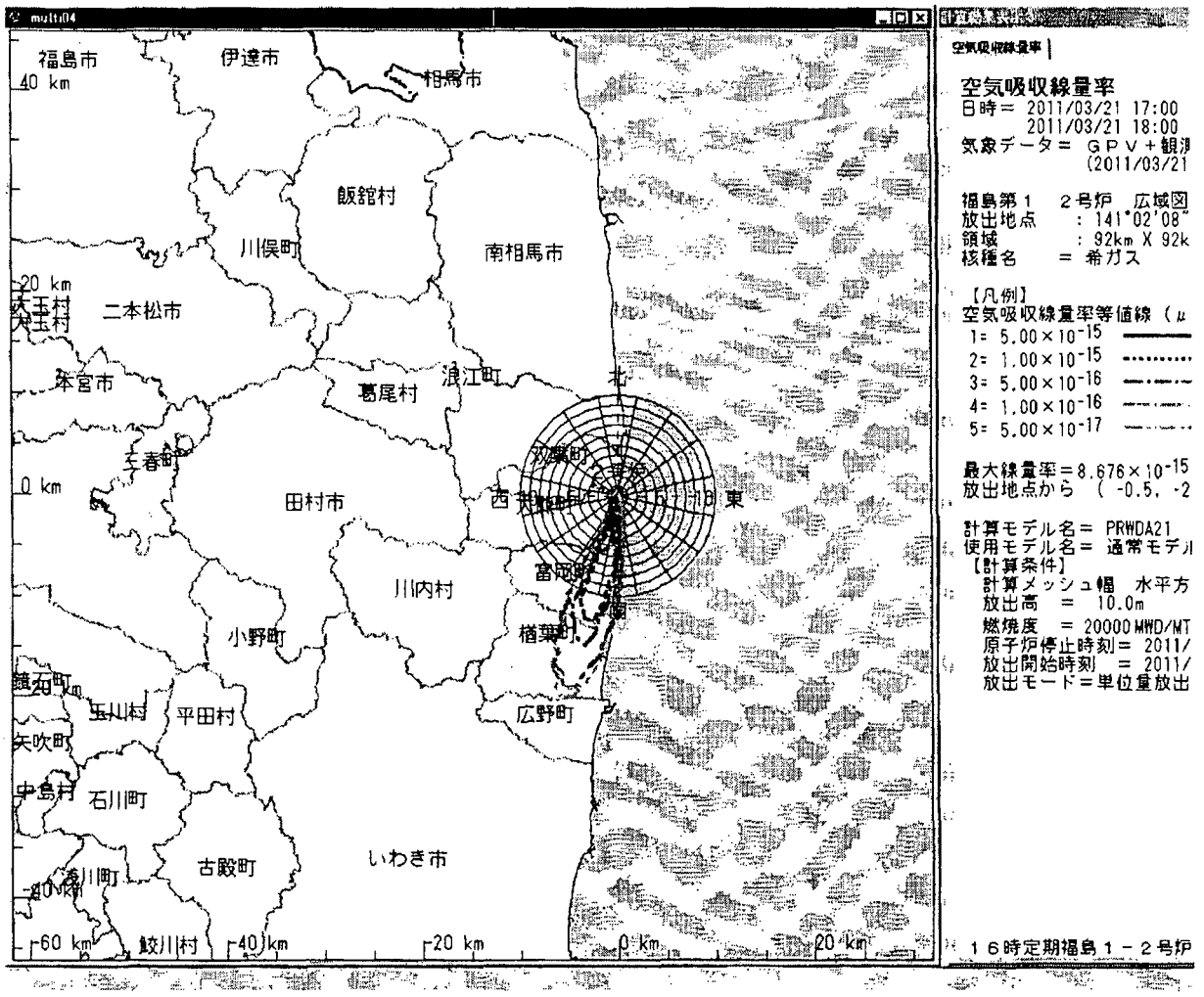

福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
三春町
田村市
川内村
富岡町
楢葉町
小野町
広野町
玉川村
平田村
矢吹町
石川町
古殿町
いわき市
鮫川村
大気中濃度（ヨウ素）
日時＝ 2011/03/21 18:00
2011/03/21 19:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.845×10-9Bq/
放出地点から (-0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：　1.00×1
１６時定期福島１－２号炉

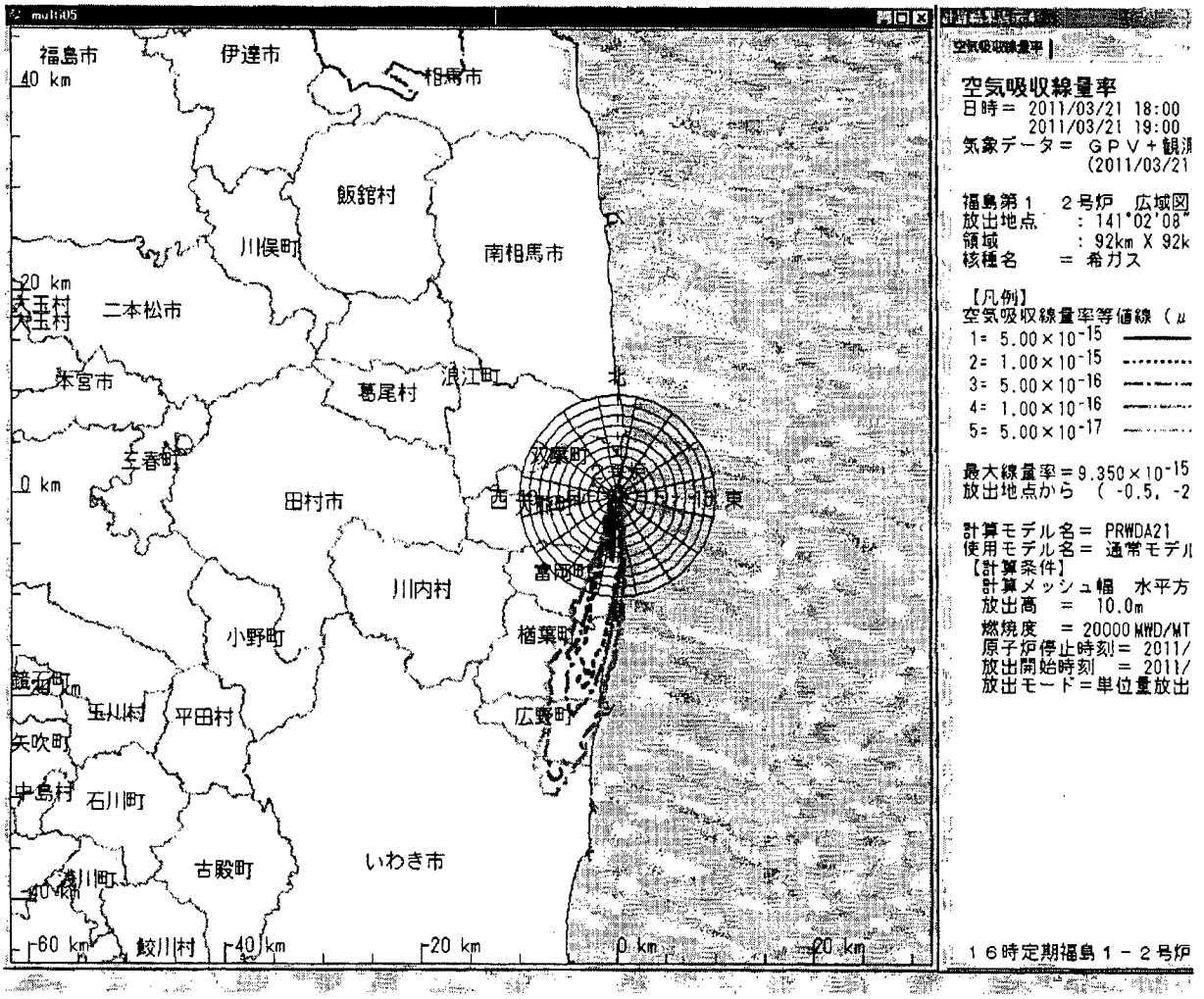

福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
0 km
田村市
川内村
小野町
楢葉町
広野町
平田村
玉川村
矢吹町
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度（ヨウ素）
日時＝ 2011/03/21 17:00
2011/03/21 18:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.695×10-9Bq/
放出地点から (-0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：　1.00×1
１６時定期福島１－２号炉


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
福島第一
大熊町
田村市
富岡町
川内村
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
鮫川村
風速場（地上高）
日時＝ 2011/03/21 16:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１ 広域図
サイト中心 ： 141°02'10"
領域 ： 92km X 92k
表示高度 ＝ 120.00 m
サイト中心付近の風 ：北北
大気安定度：Ｃ型
計算モデル名＝ PHYSIC
計算メッシュ幅 水平方向
【凡例】
標準風速（標準領域の場合
→ ＝ 5 m/s
１６時定期福島１－２号炉


福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
三春町
0 km
田村市
西
東
北
南
川内村
楢葉町
小野町
広野町
平田村
玉川村
矢吹町
中島村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
日時＝ 2011/03/21 16:00
2011/03/21 17:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 5.00×10-15
2= 1.00×10-15
3= 5.00×10-16
4= 1.00×10-16
5= 5.00×10-17
最大線量率＝6.034×10-15
放出地点から（-0.5, -1
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１６時定期福島１－２号炉


multi03
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
北
双葉町
0 km
田村市
西
東
富岡町
川内村
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
中島村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度(ヨウ素)(地上高)
大気中濃度（ヨウ素）
日時＝ 2011/03/21 16:00
2011/03/21 17:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１ ２号炉 広域図
放出地点 ：141°02'08"
領域 ：92km X 92k
表示高度 ＝ 1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.347×10-9Bq/
放出地点から (-0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅 水平方
放出高 ＝ 10.0m
燃焼度 ＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻 ＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素 ： 1.00×1
１６時定期福島１－２号炉


multi04
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
大玉村
本宮市
葛尾村
浪江町
0 km
田村市
川内村
小野町
楢葉町
広野町
平田村
玉川村
矢吹町
中島村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
空気吸収線量率
日時＝ 2011/03/21 17:00
2011/03/21 18:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝希ガス
【凡例】
空気吸収線量率等値線（μ
1= 5.00×10-15
2= 1.00×10-15
3= 5.00×10-16
4= 1.00×10-16
5= 5.00×10-17
最大線量率＝8.676×10-15
放出地点から（-0.5, -2
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１６時定期福島１－２号炉


multi05
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
北
0 km
田村市
川内村
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
空気吸収線量率
日時＝ 2011/03/21 18:00
2011/03/21 19:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１ ２号炉 広域図
放出地点 ： 141°02'08"
領域 ： 92km X 92k
核種名 ＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 5.00×10-15
2= 1.00×10-15
3= 5.00×10-16
4= 1.00×10-16
5= 5.00×10-17
最大線量率＝9.350×10-15
放出地点から （ -0.5, -2
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅 水平方
放出高 ＝ 10.0m
燃焼度 ＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻 ＝ 2011/
放出モード＝単位量放出
１６時定期福島１－２号炉

From: OST01 HOC
Sent: Monday, March 21, 2011 5:33 AM
To: PMT02 Hoc; PMT11 Hoc; Hoc, PMT12
Subject: FW: 3/21 1800 hours SPEEDI unzipped data
Attachments: FUKUSHIMA1 wind(18hüj.gif; FUKUSHIMA1 air doseüi19-20hüj.gif; FUKUSHIMA1 air doseüi18-19hüj.gif; FUKUSHIMA1 air doseüi20-21hüj.gif; FUKUSHIMA1 air concentrationüi18-19hüj.gif; FUKUSHIMA1 air concentrationüi19-20hüj.gif; FUKUSHIMA1 air concentrationüi20-21hüj.gif

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Monday, March 21, 2011 5:33 AM
To: HOO Hoc; LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: 3/21 1800 hours SPEEDI unzipped data

From: JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]
Sent: Monday, March 21, 2011 5:31:44 AM
To: (b)(6)
(b)(6)

Subject: RE: 3/21 1800 hours SPEEDI unzipped data Auto forwarded by a Rule

FYI - most recent (unzipped) data.

This email is UNCLASSIFIED

-----Original Message-----
From: nustec [mailto:spd01@nustec.or.jp]
Sent: Monday, March 21, 2011 6:26 PM
To: (b)(6)
(b)(6)

1+1+46

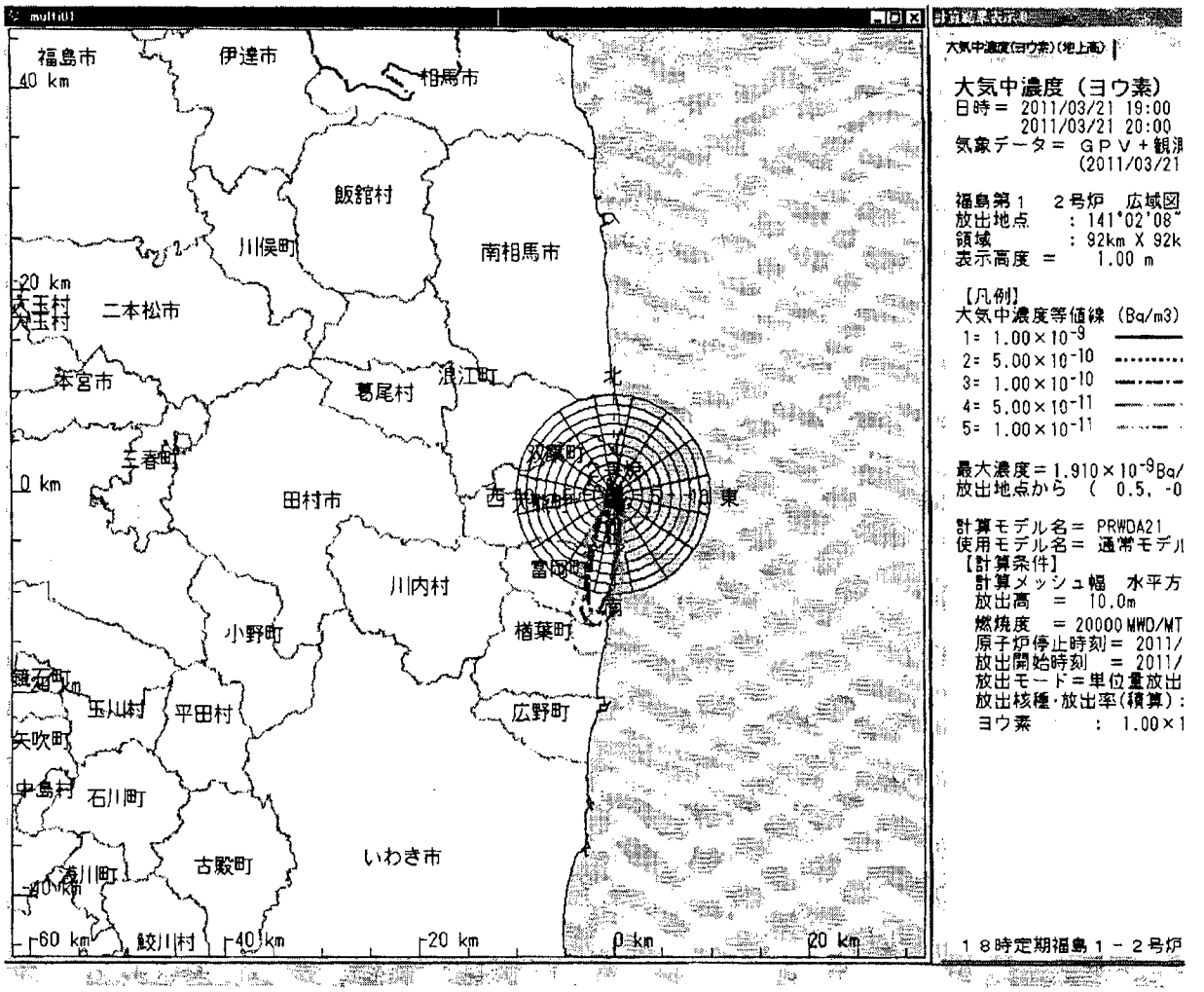
(b)(6)

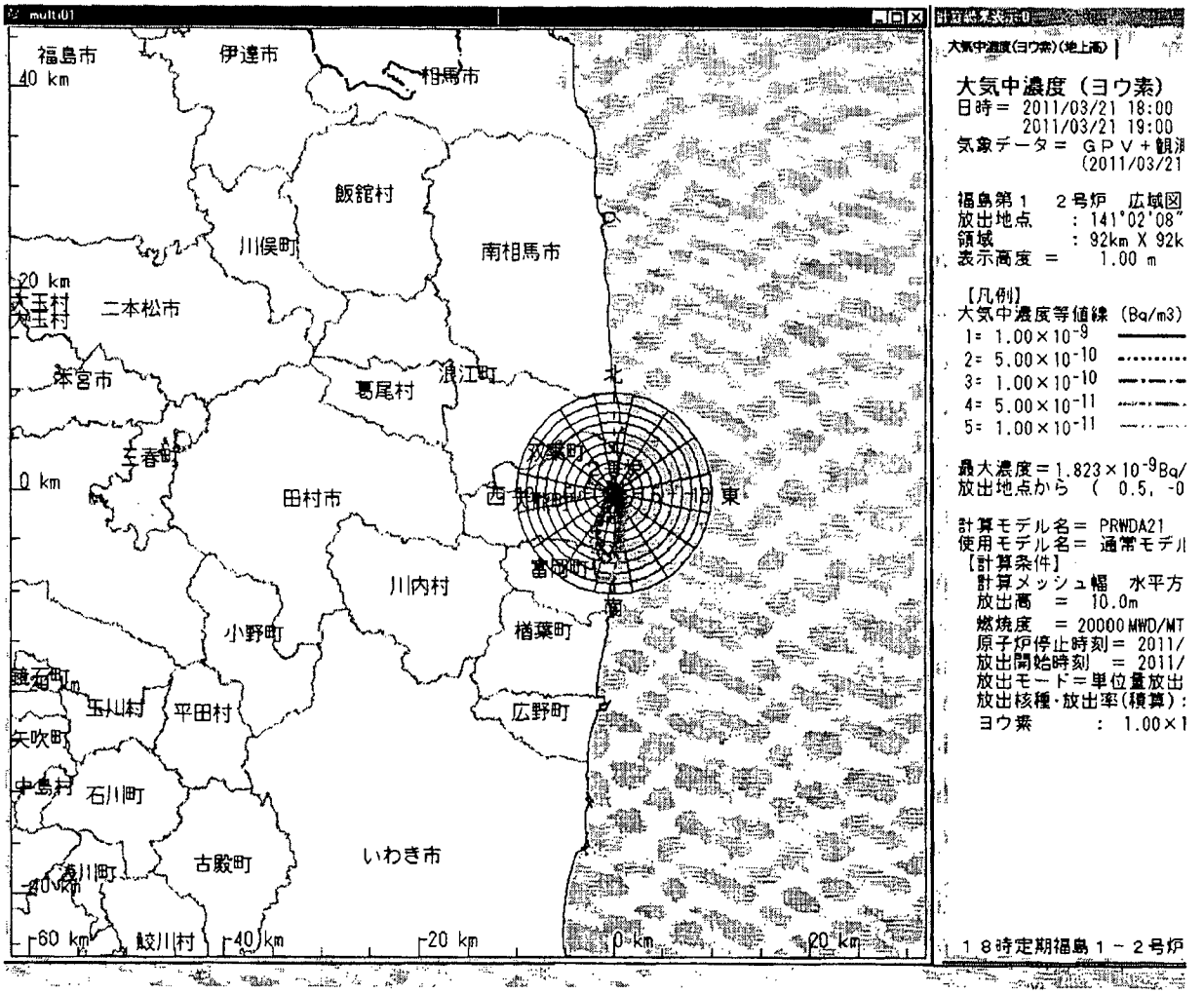
Subject: 3/21　18時SPEEDI単位量放出図形イメージの送付

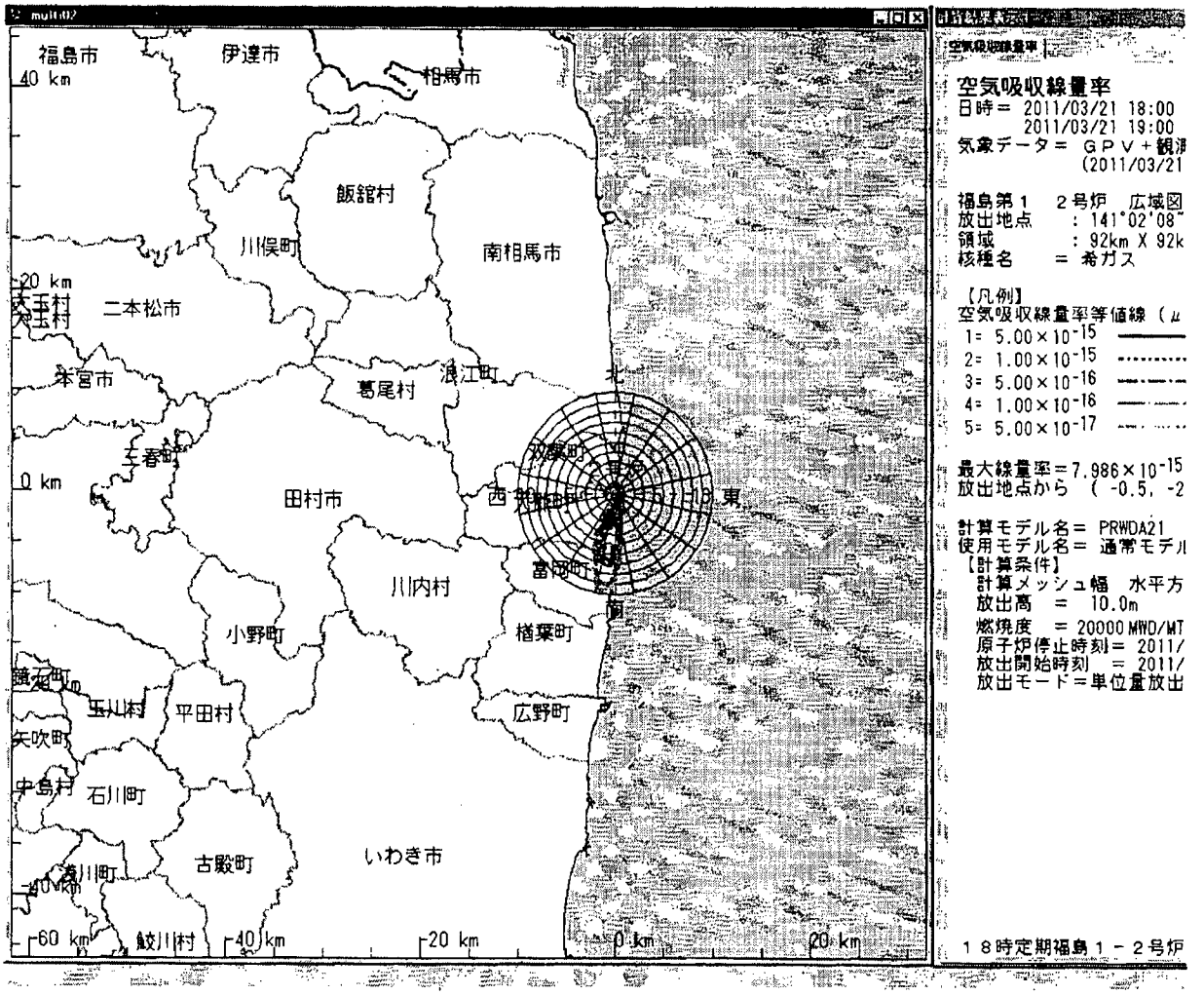
関係者各位

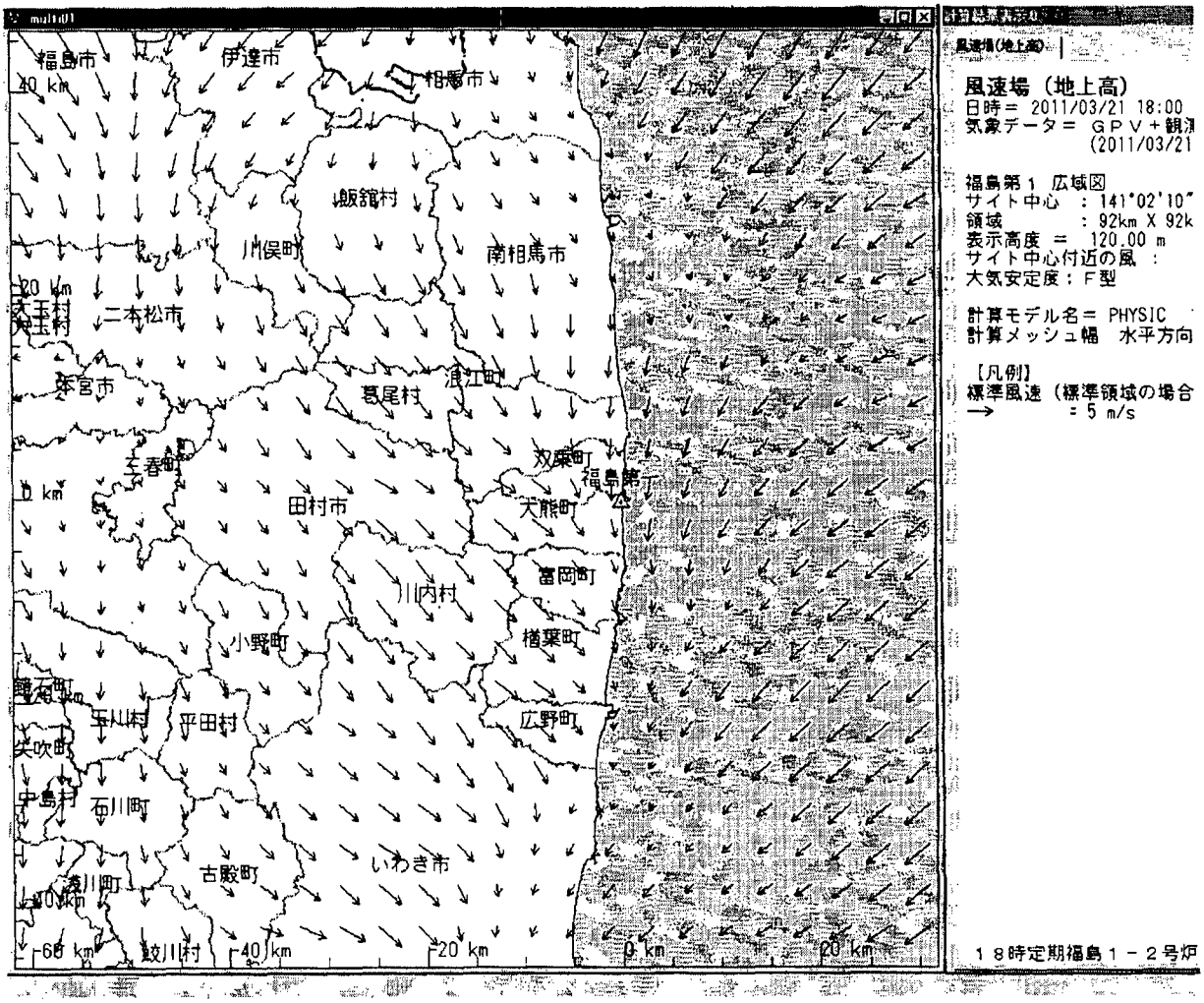
お世話になっております。
原子力安全技術センター　SPEEDI担当です。
３／２１　１８時のSPEEDI単位量放出図形のイメージデータを送付致します。
ご確認のほど、よろしくお願い致します。

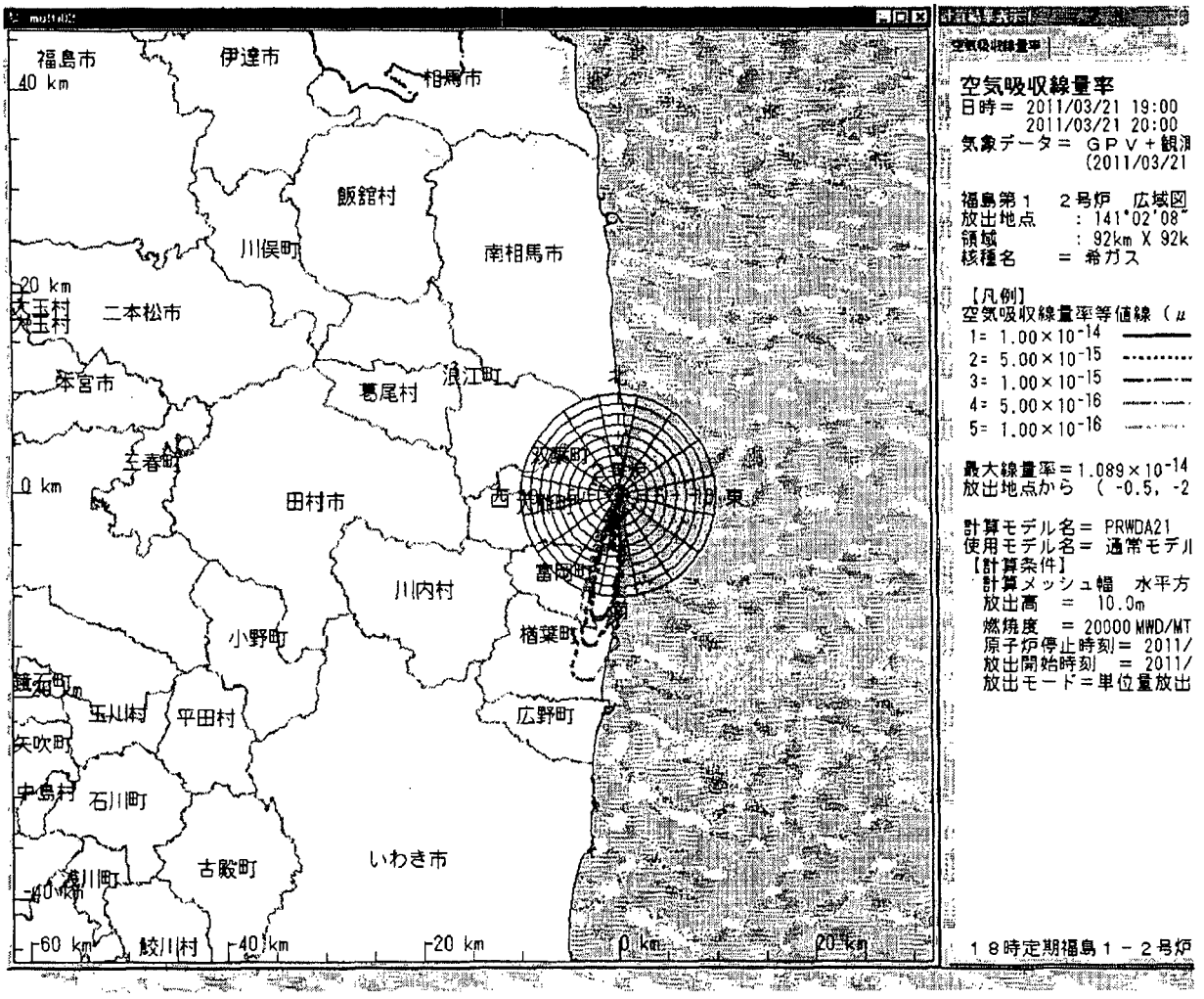
Please find attached 18:00[21-Mar] SPEEDI Data
NUSTEC

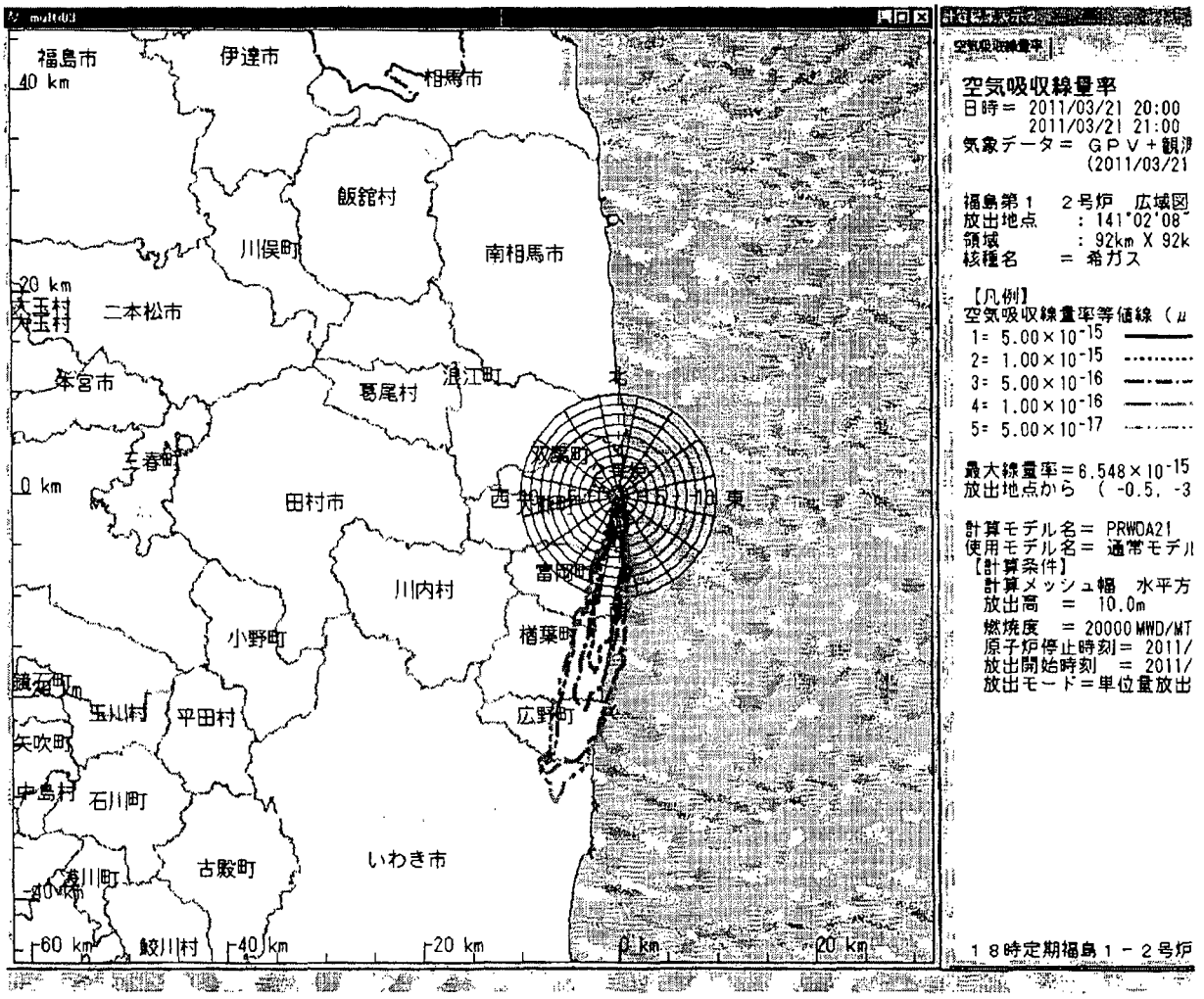

福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
北
双葉町
0 km
三春町
田村市
西
東
富岡町
川内村
小野町
楢葉町
鏡石町
玉川村
平田村
広野町
矢吹町
中島村
石川町
古殿町
いわき市
40 km
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度（ヨウ素）
日時＝ 2011/03/21 19:00
2011/03/21 20:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.910×10-9Bq/
放出地点から （ 0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：　1.00×1
１８時定期福島１－２号炉

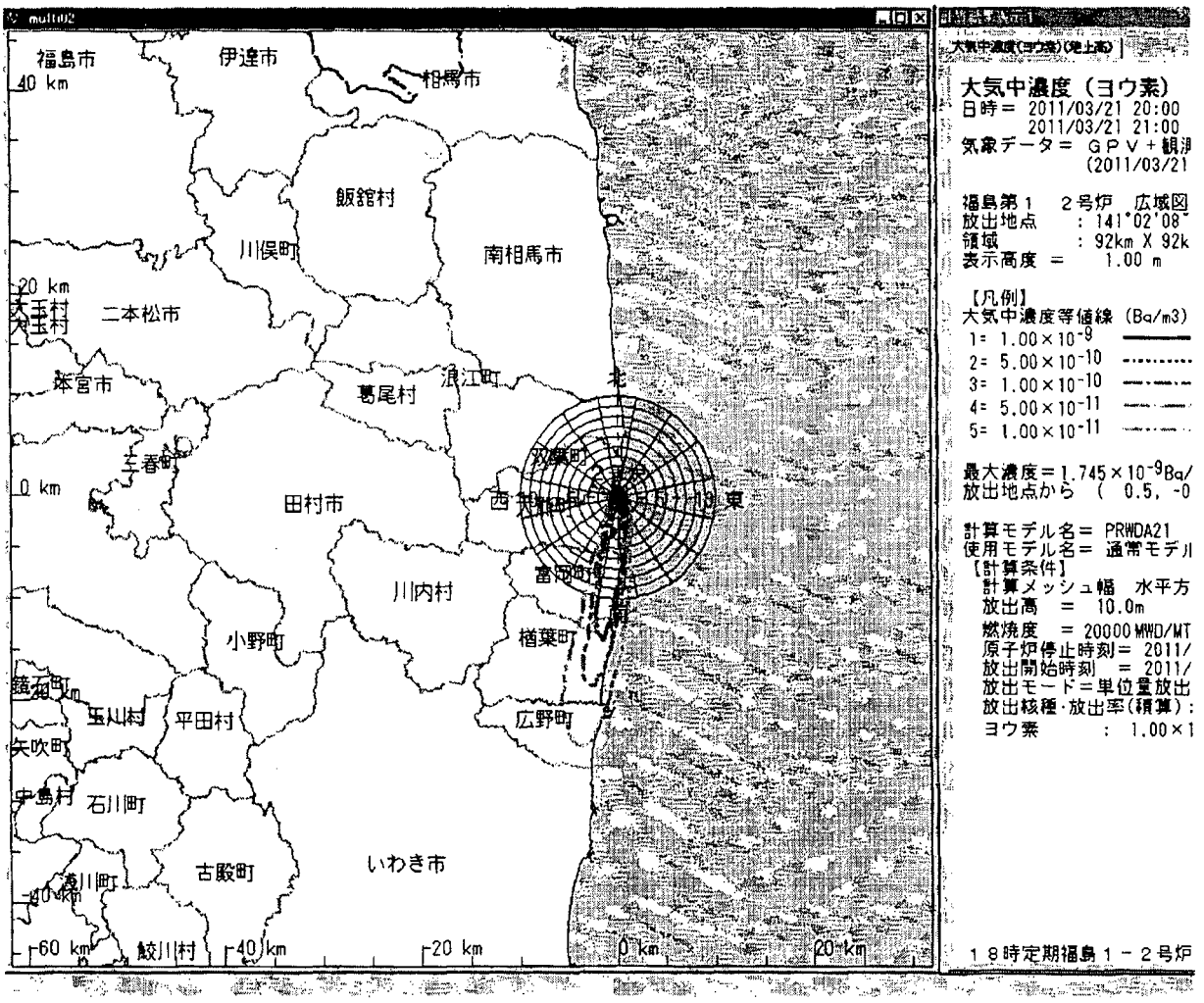

multi01
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
北
双葉町
0 km
田村市
西
東
富岡町
川内村
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
中島村
石川町
古殿町
いわき市
20 km
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度(ヨウ素)(地上高)
大気中濃度（ヨウ素）
日時＝ 2011/03/21 18:00
2011/03/21 19:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線（Bq/m3）
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.823×10-9Bq/
放出地点から（ 0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：　1.00×1
１８時定期福島１－２号炉


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
田村市
川内村
富岡町
小野町
楢葉町
広野町
玉川村
平田村
石川町
古殿町
いわき市
鮫川村
40 km
20 km
0 km
60 km
北
東
空気吸収線量率
日時＝ 2011/03/21 18:00
2011/03/21 19:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝希ガス
【凡例】
空気吸収線量率等値線（μ
1= 5.00×10-15
2= 1.00×10-15
3= 5.00×10-16
4= 1.00×10-16
5= 5.00×10-17
最大線量率＝7.986×10-15
放出地点から（-0.5, -2
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１８時定期福島１－２号炉


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
葛尾村
浪江町
双葉町
福島第一
田村市
大熊町
富岡町
川内村
小野町
楢葉町
広野町
玉川村
平田村
石川町
古殿町
いわき市
鮫川村
風速場（地上高）
日時＝ 2011/03/21 18:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１ 広域図
サイト中心 ：141°02'10"
領域 ：92km X 92k
表示高度 ＝ 120.00 m
サイト中心付近の風 ：
大気安定度：Ｆ型
計算モデル名＝ PHYSIC
計算メッシュ幅 水平方向
【凡例】
標準風速（標準領域の場合
→ ：5 m/s
１８時定期福島１－２号炉


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
大玉村
本宮市
葛尾村
浪江町
双葉町
三春町
田村市
西
東
富岡町
川内村
楢葉町
小野町
鏡石町
玉川村
平田村
広野町
矢吹町
中島村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
日時＝ 2011/03/21 19:00
2011/03/21 20:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-14
2= 5.00×10-15
3= 1.00×10-15
4= 5.00×10-16
5= 1.00×10-16
最大線量率＝1.089×10-14
放出地点から（ -0.5, -2
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１８時定期福島１－２号炉


福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
0 km
田村市
西
東
富岡町
川内村
楢葉町
小野町
広野町
平田村
玉川村
矢吹町
石川町
古殿町
いわき市
20 km
60 km
鮫川村
40 km
20 km
0 km
20 km
空気吸収線量率
日時＝ 2011/03/21 20:00
2011/03/21 21:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝希ガス
【凡例】
空気吸収線量率等値線（μ
1= 5.00×10-15
2= 1.00×10-15
3= 5.00×10-16
4= 1.00×10-16
5= 5.00×10-17
最大線量率＝6.548×10-15
放出地点から（-0.5, -3
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１８時定期福島１－２号炉


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
田村市
川内村
楢葉町
小野町
平田村
広野町
石川町
古殿町
いわき市
鮫川村
大気中濃度（ヨウ素）
日時＝ 2011/03/21 20:00
2011/03/21 21:00
気象データ＝ ＧＰＶ＋観測
(2011/03/21
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-8
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.745×10-9Bq/
放出地点から （ 0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：　1.00×1
１８時定期福島１－２号炉

From: Kerben, Valerie
Sent: Monday, March 21, 2011 3:02 PM
To: LIA02 Hoc; LIA03 Hoc
Cc: Stewart, Sharon; Ross-Lee, MaryJane; Pretzello, Andrew
Subject: Staff for Japan
Attachments: Doc6.doc

Nancy,
Here is the information you requested. I am having my staff complete the forms for USAID and I will have the memo ready for DOS- Embassy no later than tomorrow morning for the new staff traveling to Japan.

Thank you for the information! Feel free to contact me if you need additional information.

Valerie B. Kerben
Chief, Personnel Security Branch
Division of Facilities and Security
U.S. Nuclear Regulatory Commission
(office#) 301-492-3527
(fax #) 301-492-3442

xtt/49

Mike Scott (Acting) Deputy Director, Division of Systems Analysis, RES Leaves 3/22	(b)(6)	Michael.Scott@nrc.gov Picked up dosimeter at OPS Center	"L"				
Alan Blamey, RII Chief of Construction Project Branch Leaves 3/22		Alan.Blamey@nrc.gov	"L"			)	
Jack Giessner, RIII Branch Chief Division of Reactor Projects Leaves 3/24		John.Giessner@nrc.gov	"L"				
Rob Taylor SG Tube Integrity and Chemical Engineering Branch, NRR Leaves 3/24		Robert.Taylor@nrc.gov Picked up dosimeter and KI at OPS Center	"Q"				
Todd Jackson Commercial and R&D Branch, DNMS, RI Leaves 3/23		Todd.Jackson@nrc.gov Had dosimeter from the region.	"L"				
Marie Miller Chief, Material Security and Industrial Branch, RI Leaves 3/24		Marie.Miller@nrc.gov Had dosimeter from the region.	"L"				
Syed Ali Senior Level Advisor, Div of Engineering, RES Leaves 3/24		Syed.Ali@nrc.gov	"Q"				
Abdul Sheikh, NRR Leaves 3/24		Abdul.Sheikh@nrc.gov	"L"				
Ralph Way, Sr Level Advisor, Division of Security Operations, NSIR Leaves 3/24	(b)(6)	Ralph.Way@nrc.gov	"Q"				

	(bb)						
Jack Ramsey, Senior Level Advisor, OIP Leaves 3/24		Jack.Ramsey@nrc.gov	"Q"				

From: OST01 HOC
Sent: Monday, March 21, 2011 3:50 PM
To: RST01 Hoc
Cc: OST02 HOC; OST01 HOC
Subject: Info. on Rick Jervey (Volunteer for RST Communicator Position)

Please add Rick Jervey to your list of staff for the RST Communicator position next week. He has several years of nuclear power plant experience and was a former plant STA who played various roles in emergency response. His office number is 301-251-7404 and his cell number is (b)(6) He is shadowing the RST Communicators for approx. one hour this afternoon.

Tony McMurtray
EST Coordinator

+++/50

From: LIA02 Hoc
Sent: Tuesday, March 22, 2011 5:11 AM
To: Smith, Brooke; Foggie, Kirk
Cc: LIA03 Hoc
Subject: FW: Please contact Brooke and Kirk

FYI

From: Farr, David M (WANO) [mailto:FarrDM@INPO.org]
Sent: Tuesday, March 22, 2011 5:10 AM
To: LIA02 Hoc
Cc: Hochevar, Albert R. (INPO); Spinnato, Roger E (WANO); Doane, Margaret
Subject: RE: Please contact Brooke and Kirk

Danielle:

Thank you. I will forward the contact information to Mr. Hochevar.

His (Hochevar's) contact information follows:

Mobile: (b)(6)
E-mail: HochevarAR@INPO.org
Tokyo: +81 (3) 3480-4876 (This is a WANO – Tokyo center number)

Mr. Hochevar departs Atlanta around noon (EDT) today (Tuesday). He will land in Japan around 3pm (JST) 5am (EDT) on Wednesday at Narita.

Best regards,
David Farr

From: LIA02 Hoc [mailto:LIA02.Hoc@nrc.gov]
Sent: Monday, March 21, 2011 9:34 PM
To: Farr, David M (WANO)
Cc: Smith, Brooke; Foggie, Kirk
Subject: RE: Please contact Brooke and Kirk

Mr. Farr,
Please inform Mr. Hochebar that he can contact, by email or phone, Brooke Smith (b)(6) and Kirk Foggie (b)(6) (b)(6), on the ground in Japan for coordination and background. Can you confirm when Mr. Hochebar will be landing in Japan? Any insights you have about his goals would also be helpful.
Best regards,
Danielle

From: Doane, Margaret
Sent: Monday, March 21, 2011 7:18 PM
To: Foggie, Kirk; Smith, Brooke

+++|51

Cc: Casto, Chuck; Dorman, Dan; websterwe@inpo.org; farrdm@inpo.org; Borchardt, Bill; Mamish, Nader; LIA02 Hoc; LIA03 Hoc
Subject: Please contact Brooke and Kirk
Importance: High

Brooke and Kirk,
Mr. Al Hochebar from US INPO will be coming to Japan tomorrow. His role will be to screen and prioritize requests and organize the US industry response to events in Japan. The US industry effort may be critical to getting useful information to Tepco on continuing events, so I'd treat this with urgency.

He would like to work with Chuck, Dan and the team to get contacts, access and insights to expedite the US industry response. At the same time, he may need additional meetings with other gov't/industry groups such as JAEA and other power companies, like Japan Atomic Power. I'll leave it to you guys on the ground.

I think the Economic Counselor at the Embassy Tokyo or other staff may be able to help understand how to embed US industry (not a contractor) in a US Gov't effort. Clearances may be an issue to resolve, if he attends your meetings.

Mr. David Farr at INPO is handling the effort from the US. I've copied him on this note. I've also copied the LT, if you need their assistance.

Always thinking of you guys,
Margie

From: Smith, Brooke
Sent: Tuesday, March 22, 2011 2:48 AM
To: LIA03 Hoc
Subject: Re: Please contact Brooke and Kirk

Thanks Mugeh!

Sent from an NRC Blackberry.
Brooke G. Smith
(b)(6)

From: LIA03 Hoc
To: Smith, Brooke; LIA02 Hoc
Cc: Foggie, Kirk
Sent: Tue Mar 22 02:47:51 2011
Subject: RE: Please contact Brooke and Kirk

No, sorry. Danielle sent the email at 9:34 p.m. our time and it is 2:45 a.m. our time, and we still don't have a response yet.

My guess is that we have to wait a few more hours.

Mugeh

From: Smith, Brooke
Sent: Tuesday, March 22, 2011 2:16 AM
To: LIA02 Hoc; LIA03 Hoc
Cc: Foggie, Kirk
Subject: Re: Please contact Brooke and Kirk

Have we heard back when INPO will be in Tokyo?

Sent from an NRC Blackberry.
Brooke G. Smith
(b)(6)

From: LIA02 Hoc
To: farrdm@inpo.org <farrdm@inpo.org>
Cc: Smith, Brooke; Foggie, Kirk
Sent: Mon Mar 21 21:34:22 2011
Subject: RE: Please contact Brooke and Kirk

Mr. Farr,
Please inform Mr. Hochebar that he can contact, by email or phone, Brooke Smith (b)(6) and Kirk Foggie (b)(6) (b)(6) on the ground in Japan for coordination and background. Can you confirm when Mr. Hochebar will be landing in Japan? Any insights you have about his goals would also be helpful.
Best regards,

++ | 52.

Danielle

From: Doane, Margaret
Sent: Monday, March 21, 2011 7:18 PM
To: Foggle, Kirk; Smith, Brooke
Cc: Casto, Chuck; Dorman, Dan; websterwe@inpo.org; farrdm@inpo.org; Borchardt, Bill; Mamish, Nader; LIA02 Hoc; LIA03 Hoc
Subject: Please contact Brooke and Kirk
Importance: High

Brooke and Kirk,
Mr. Al Hochebar from US INPO will be coming to Japan tomorrow. His role will be to screen and prioritize requests and organize the US industry response to events in Japan. The US industry effort may be critical to getting useful information to Tepco on continuing events, so I'd treat this with urgency.

He would like to work with Chuck, Dan and the team to get contacts, access and insights to expedite the US industry response. At the same time, he may need additional meetings with other gov't/industry groups such as JAEA and other power companies, like Japan Atomic Power. I'll leave it to you guys on the ground.

I think the Economic Counselor at the Embassy Tokyo or other staff may be able to help understand how to embed US industry (not a contractor) in a US Gov't effort. Clearances may be an issue to resolve, if he attends your meetings.

Mr. David Farr at INPO is handling the effort from the US. I've copied him on this note. I've also copied the LT, if you need their assistance.

Always thinking of you guys,
Margie

From: OST01 HOC
Sent: Tuesday, March 22, 2011 12:06 AM
To: PMT02 Hoc; PMT11 Hoc; Hoc, PMT12
Subject: FW: 3/22, 12:00 SPEEDI Data
Attachments: FUKUSHIMA1 air concentrationüi14-15hüj.gif; FUKUSHIMA1 air doseüi12-13hüj.gif; FUKUSHIMA1 air doseüi13-14hüj.gif; FUKUSHIMA1 air doseüi14-15hüj.gif; FUKUSHIMA1 wind(12hüj.gif; FUKUSHIMA1 air concentrationüi12-13hüj.gif; FUKUSHIMA1 air concentrationüi13-14hüj.gif

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Tuesday, March 22, 2011 12:06 AM
To: HOO Hoc; LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: 3/22, 12:00 SPEEDI Data

From: JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]
Sent: Tuesday, March 22, 2011 12:04:26 AM
To: (b)(6)
(b)(6)

Subject: 3/22, 12:00 SPEEDI Data
Auto forwarded by a Rule

Attached please find 3/22, 12:00 SPEEDI Data.

SBU
This email is UNCLASSIFIED

omi Walcott
rgency Action Officer
Emergency Command Center
bassy Tokyo

Message-----

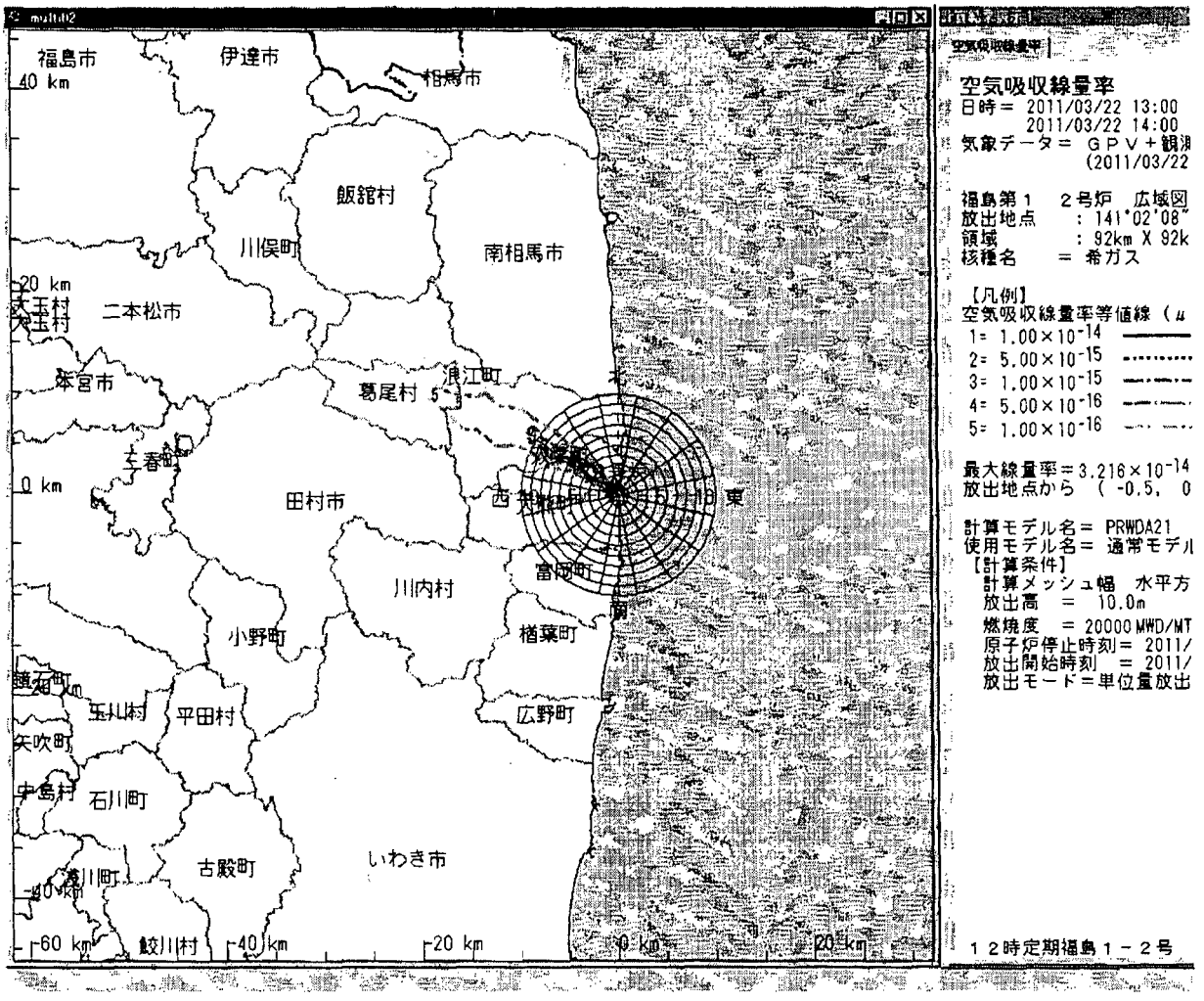
xtt 53

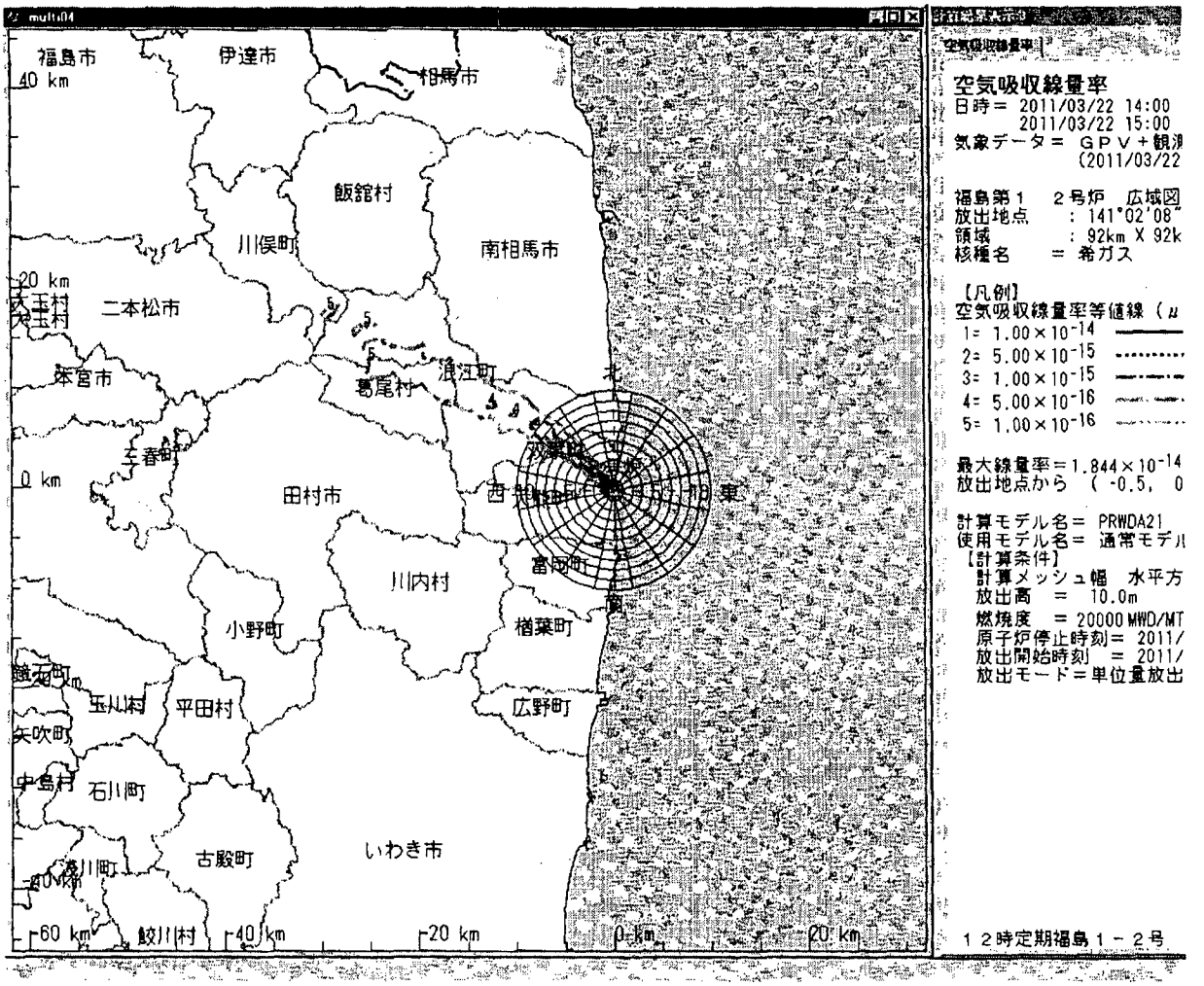
From: nustec [mailto:spd01@nustec.or.jp]
Sent: Tuesday, March 22, 2011 12:30 PM
To: (b)(6)
(b)(6)
Subject: 3/22　12時SPEEDI単位量放出図形イメージの送付

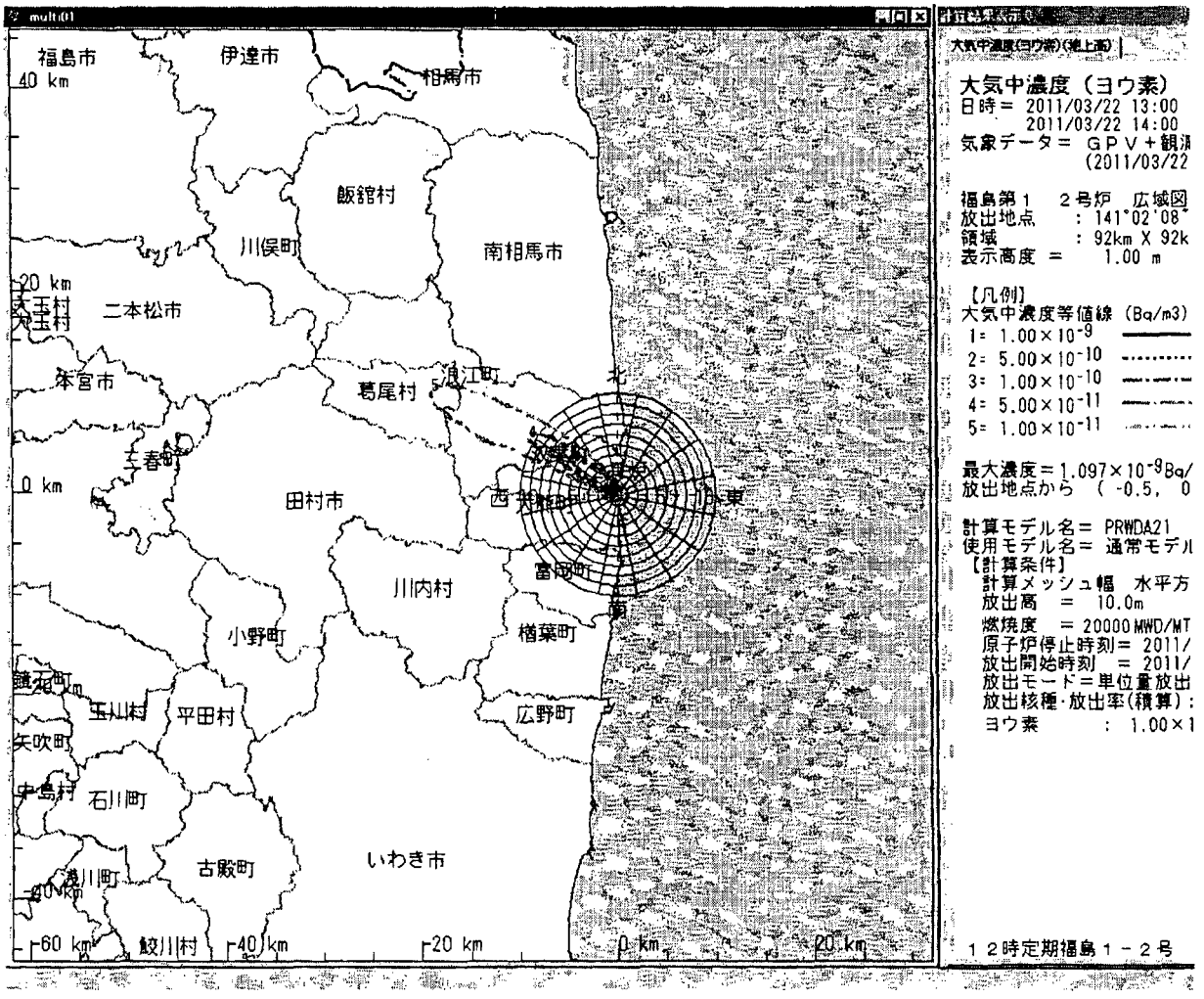
関係者各位

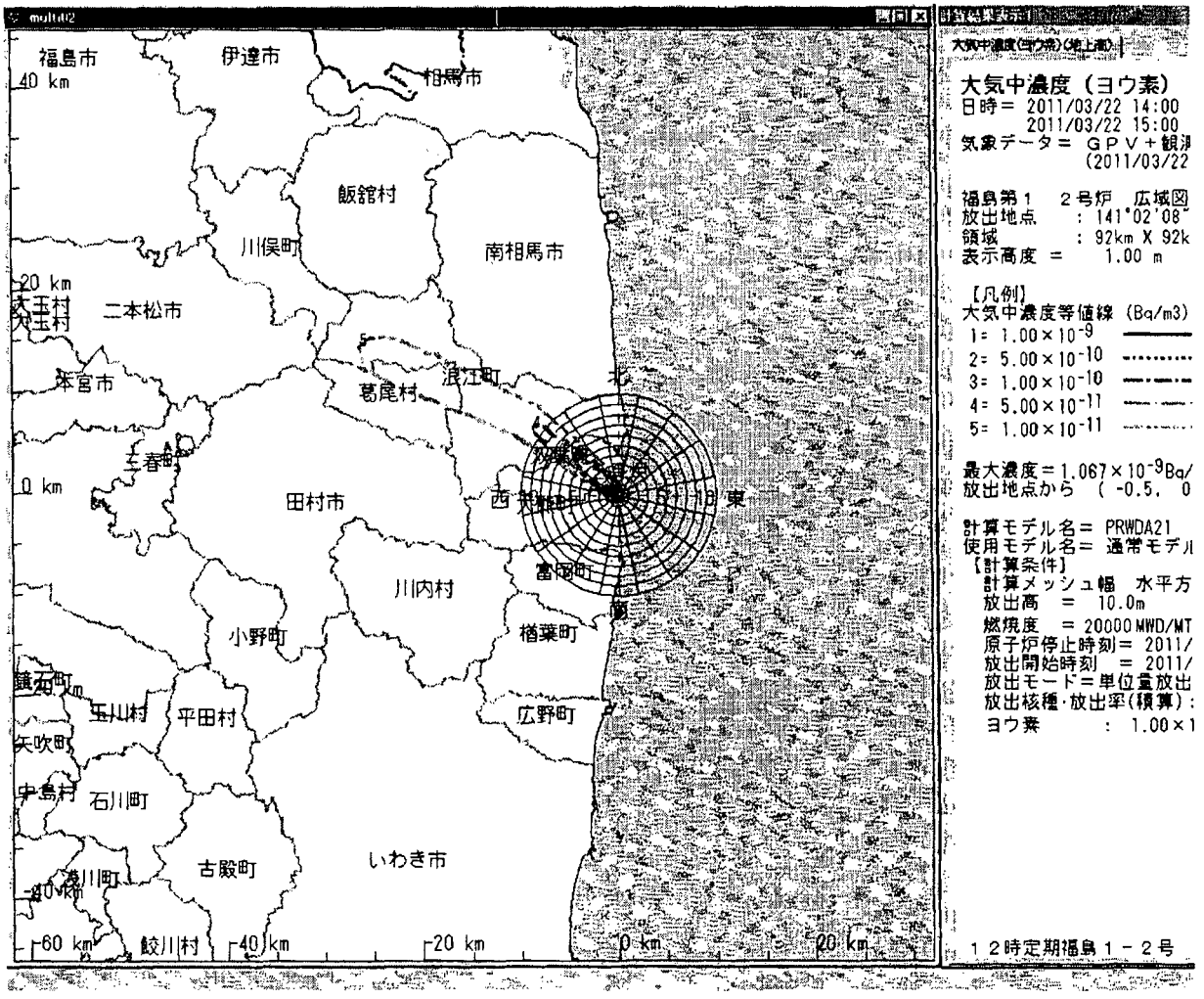
お世話になっております。
原子力安全技術センター　SPEEDI担当です。
３／２２　１２時のSPEEDI単位量放出図形のイメージデータを送付致します。
ご確認のほど、よろしくお願い致します。

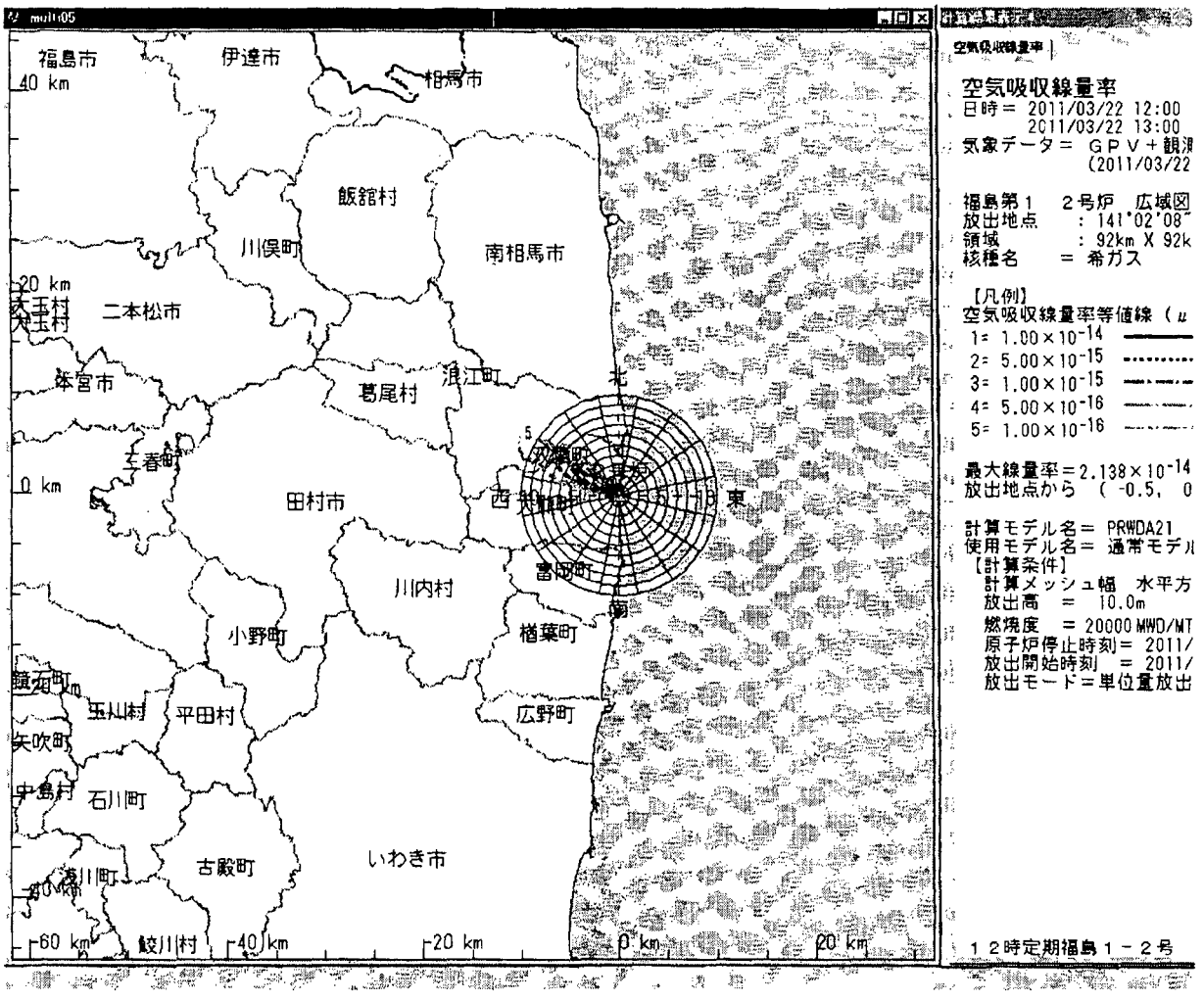
Please find attached 12:00[22-Mar] SPEEDI Data
NUSTEC

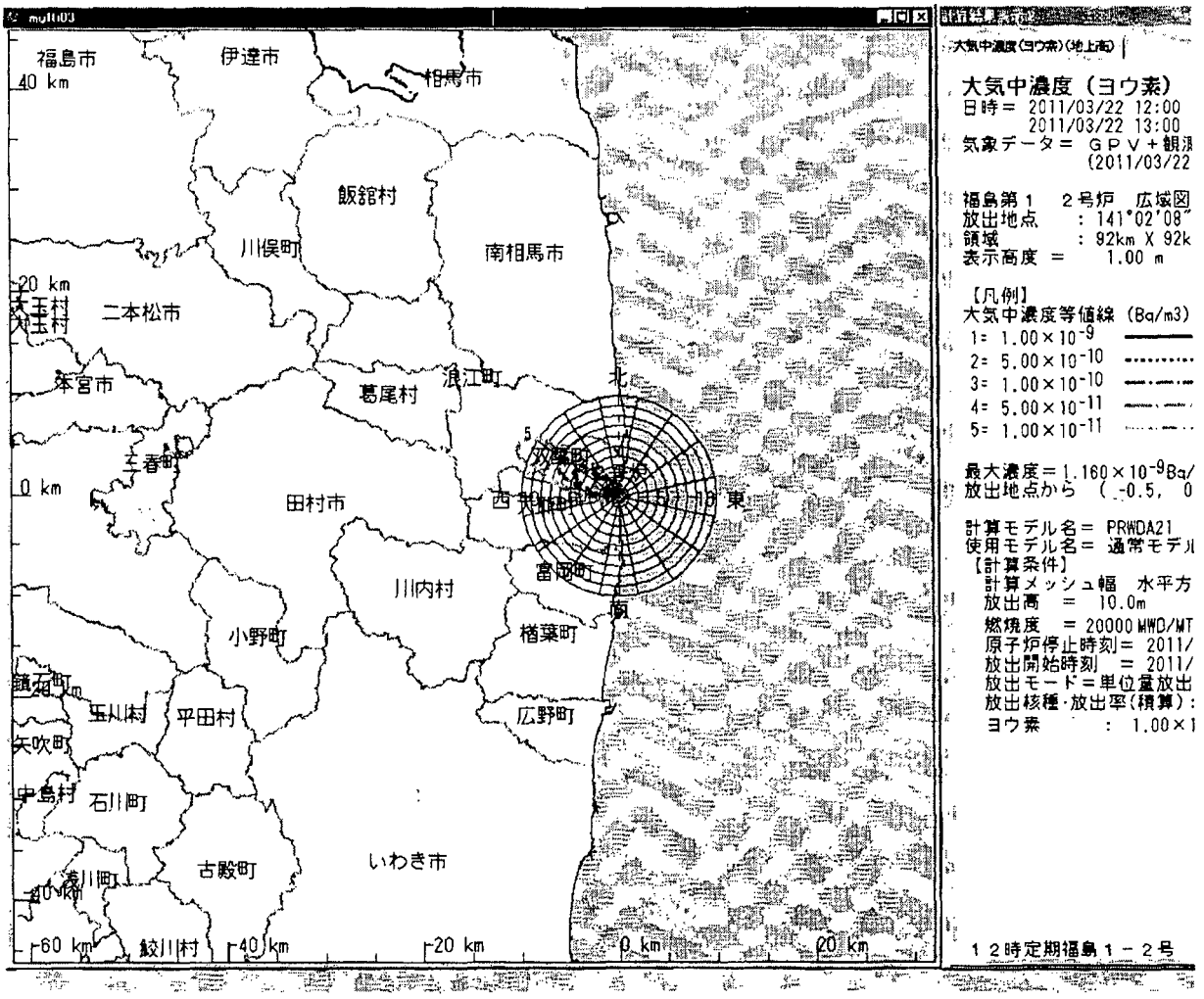

福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
田村市
川内村
富岡町
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
鮫川村
空気吸収線量率
日時＝ 2011/03/22 13:00
2011/03/22 14:00
気象データ＝ ＧＰＶ＋観測
(2011/03/22
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-14
2= 5.00×10-15
3= 1.00×10-15
4= 5.00×10-16
5= 1.00×10-16
最大線量率＝3.216×10-14
放出地点から（ -0.5, 0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１２時定期福島１－２号

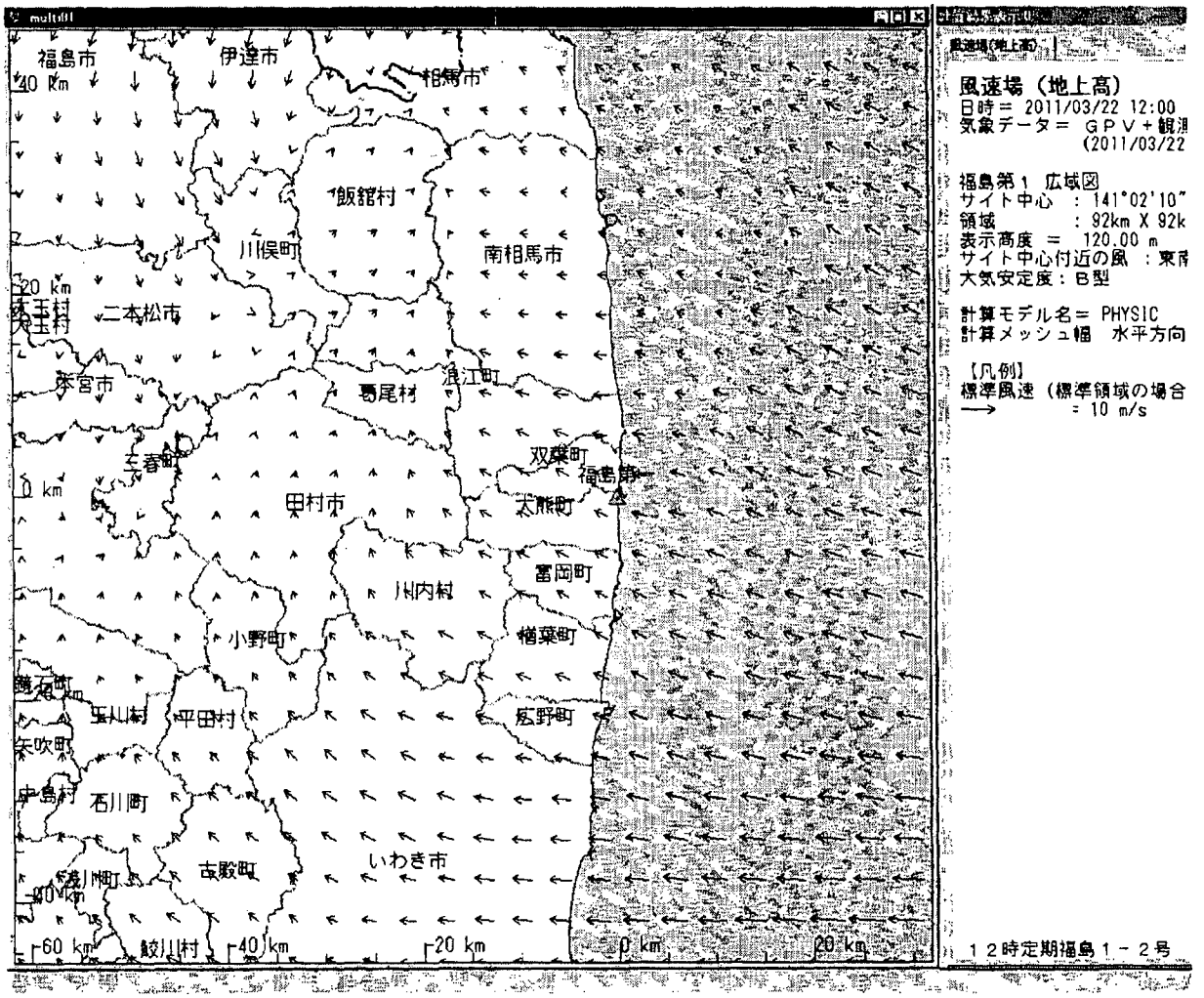

multi04
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
0 km
田村市
川内村
富岡町
小野町
楢葉町
広野町
玉川村
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
空気吸収線量率
日時＝ 2011/03/22 14:00
2011/03/22 15:00
気象データ＝ ＧＰＶ＋観測
(2011/03/22
福島第１ ２号炉 広域図
放出地点 ： 141°02'08"
領域 ： 92km X 92k
核種名 ＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-14
2= 5.00×10-15
3= 1.00×10-15
4= 5.00×10-16
5= 1.00×10-16
最大線量率＝1.844×10-14
放出地点から (-0.5, 0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅 水平方
放出高 ＝ 10.0m
燃焼度 ＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻 ＝ 2011/
放出モード＝単位量放出
１２時定期福島１－２号


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
田村市
川内村
小野町
楢葉町
広野町
平田村
石川町
古殿町
いわき市
玉川村
矢吹町
鮫川村
40 km
20 km
0 km
60 km
大気中濃度（ヨウ素）
日時＝ 2011/03/22 13:00
2011/03/22 14:00
気象データ＝ ＧＰＶ＋観測
(2011/03/22
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線（Bq/m3）
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.097×10-9Bq/
放出地点から（-0.5, 0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：1.00×1
１２時定期福島１－２号


multi02
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
北
0 km
田村市
西
東
富岡町
川内村
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
中島村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度（ヨウ素）
日時＝ 2011/03/22 14:00
2011/03/22 15:00
気象データ＝ ＧＰＶ＋観測
(2011/03/22
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.067×10-9Bq/
放出地点から (-0.5, 0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：　1.00×1
１２時定期福島１－２号


multi05
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
二本松市
本宮市
葛尾村
浪江町
0 km
田村市
川内村
小野町
楢葉町
広野町
玉川村
平田村
石川町
古殿町
いわき市
60 km
40 km
20 km
0 km
20 km
空気吸収線量率
日時＝ 2011/03/22 12:00
2011/03/22 13:00
気象データ＝ ＧＰＶ＋観測
(2011/03/22
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-14
2= 5.00×10-15
3= 1.00×10-15
4= 5.00×10-16
5= 1.00×10-16
最大線量率＝2.138×10-14
放出地点から（ -0.5, 0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１２時定期福島１－２号


福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
北
0 km
田村市
西
東
富岡町
川内村
小野町
楢葉町
広野町
平田村
玉川村
矢吹町
中島村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度(ヨウ素)(地上面)
大気中濃度（ヨウ素）
日時＝ 2011/03/22 12:00
2011/03/22 13:00
気象データ＝ ＧＰＶ＋観測
(2011/03/22
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線（Bq/m3）
1= 1.00×10-9
2= 5.00×10-10
3= 1.00×10-10
4= 5.00×10-11
5= 1.00×10-11
最大濃度＝1.160×10-9Bq/
放出地点から（-0.5, 0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：1.00×1
１２時定期福島１－２号


multifil
福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
田村市
富岡町
川内村
楢葉町
小野町
玉川村
平田村
広野町
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
風速場（地上高）
日時＝ 2011/03/22 12:00
気象データ＝ ＧＰＶ＋観測
(2011/03/22
福島第１ 広域図
サイト中心 ： 141°02'10"
領域 ： 92km X 92k
表示高度 ＝ 120.00 m
サイト中心付近の風 ：東南
大気安定度：Ｂ型
計算モデル名＝ PHYSIC
計算メッシュ幅 水平方向
【凡例】
標準風速（標準領域の場合
⟶ ＝ 10 m/s
１２時定期福島１－２号

From: LIA11 Hoc
Sent: Tuesday, March 22, 2011 11:00 AM
To: LIA02 Hoc; LIA03 Hoc
Subject: FW: TA for Michael Scott
Attachments: Scott-TA Amendment 1-Japan-March 2011.pdf

From: RMTPACTSU_ELNRC [mailto:RMTPACTSU_ELNRC@ofda.gov]
Sent: Tuesday, March 22, 2011 10:58 AM
To: LIA11 Hoc
Subject: FW: TA for Michael Scott

FYI

From: RMTPACTSU_AC
Sent: Tuesday, March 22, 2011 10:35 AM
To: RMTPACTSU_ELNRC
Subject: FW: TA for Michael Scott

FYI. Katie Johnson is calling Mike to close the loop on this.

Surin McKenna
Admin Coordinator
Pacific Tsunami and Japan Earthquake Response Management Team
USAID/DCHA/OFDA
Rmtpactsu_ac@ofda.gov
202-712-0031

From: Friedman, Ara
Sent: Tuesday, March 22, 2011 10:30 AM
To: RMTPACTSU_AC
Cc: travel; USAID@MANASSASTRAVEL.COM
Subject: TA for Michael Scott

Hi Surin,

Please see attached for approved TA for Michael Scott leaving for Japan today. Manassas Travel will issue his ticket shortly. Please let us know if you have any questions. Thanks!

Ara Friedman
Program Support Specialist
USAID/Office of Foreign Disaster Assistance
529 14th Street NW, Suite 700
Washington, D.C. 20045
(202) 661-9308
(b)(6) (bb)

777 | 54

E2 Travel Authorization

22 Mar 2011 @ 09:32:43

PRIVACY ACT NOTICE: The following information is provided to comply with the Privacy Act of 1974(P.S. 93-579). The information requested on the form is required under the provisions of 5 U.S.C. Chapter 57(as amended), Executive Orders 11609 of July 22, 1971, and 1102 of March 27, 1962, for the purpose of facilitating authorization action and the request for advance of funds for travel and other expenses to be incurred under administrative. The information contained in this form will be used by the Federal agency officers and employees who have a need for such information in the performance of their duties. Information will be transferred to appropriate Federal, State, local, or foreign agencies when relevant to civil, criminal or regulatory investigations, or prosecutions. Failure to provide the information required will result in delay or suspension of the processing of this form.

Authorization Information

Document Number	Trip Status	Authorization Id	Type of Authorization
9911A1808	Open Voucher	2849781-1	Trip-by-Trip Authorization

Traveler	Official Duty Station	Title	Travel Charge Card Holder
MIKE SCOTT	WASHINGTON, DC		No

Mailing Address	Office Phone	Home Phone
(b)(6)	202-712-0039	N/A

Type of Travel	Travel Purpose	Estimated Dates of Travel
Temporary Duty	Invitational Travel: Serve on Pacific Tsunami DART	2011-03-22 thru 2011-04-14

Authorized Itinerary

Cabin Class Business

Arrive	Depart	Time	Location	Car	Hotel	Mode	Notes
2011-03-22	2011-03-22	N/A	WASHINGTON, DC	NONE	No	CP	
2011-03-23	2011-04-14	N/A	TOKYO CITY, JPN	NONE	No	CP	Temporary Duty, LDG $231, M & IE $209
2011-04-14	2011-04-14	N/A	WASHINGTON, DC	NONE	No	NONE	

PA-C = Government auto available and committed
PA-NA = Government auto not available
PA-NC = Government auto available and not committed

Authorization Expense Totals

Transport	Lodging	Meals & Incidentals	Car Rental	Local Transport	POV	Misc	Grand Total
8,500.00	5,082.00	4,911.50	0.00	0.00	0.00	546.50	19,040.00

Authorization Accounting Information

Accounting String	Object Code	CBA Amount	Travel Charge Card Amount	Traveler Amount	Auth Amount

Accounting String	Object Code	CBA Amount	Travel Charge Card Amount	Traveler Amount	Auth Amount
Segment Names: BBFY/EBFY/Fund/Treasury Symbol/Operating Unit/Program Area/Distribution Code/Program Element/Program Sub-Element/Team/Division/Benefiting Geo Area/Operating Unit Defined/Sub-Object Code/Program Target/Post Code/Bureau Code/Accounting Template/Commitment Document Type/Commitment Document No/Commitment Line No/Bilateral Obl Doc Type/Bilateral Obl Doc No/Bilateral Obl Line No					
2011/NA/FD-X11/72X1035/DCHA/OFDA/A22/488-W/A089/NA/NA/488/NA/2100801/NA/799/NA/2011 DCHA PROGRAM FUNDS/TQ/00011TQ005271/1/NA/NA/NA		0.00	0.00	19040.00	19040.00
		0.00	0.00	19040.00	19040.00

Authorization Expense Summary

Location	Expense Category	Expense Type	Amount	Expense Reimbursement Type
TOKYO CITY, JPN	Lodging	Lodging	5,082.00	Perdiem
TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	4,911.50	Perdiem
TOKYO CITY, JPN	Misc	Other Reimbursable Expenses Incurred	546.50	Perdiem
TOKYO CITY, JPN	Transport	Airfare	8,500.00	Perdiem

Authorization Expense Lines

Line #	Date	Location	Expense Category	Expense Type	Claim Amt	Expense Reimbursement Type	Reason
1	2011-03-22	TOKYO CITY, JPN	Transport	Airfare	8,500.00	Perdiem	
2	2011-03-22	TOKYO CITY, JPN	Misc	Voucher Transaction Fee	14.00	Perdiem	VTF
3	2011-03-22	TOKYO CITY, JPN	Misc	TMC Fee	31.95	Perdiem	
4	2011-03-22	TOKYO CITY, JPN	Misc	Other Reimbursable Expenses Incurred	500.55	Perdiem	All authorized expenses incurred on trip
5	2011-03-23	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
6	2011-03-23	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	156.75	Perdiem	
7	2011-03-24	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
8	2011-03-24	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
9	2011-03-25	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
10	2011-03-25	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
11	2011-03-26	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
12	2011-03-26	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	

Line #	Date	Location	Expense Category	Expense Type	Claim Amt	Expense Reimbursement Type	Reason
13	2011-03-27	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
14	2011-03-27	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
15	2011-03-28	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
16	2011-03-28	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
17	2011-03-29	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
18	2011-03-29	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
19	2011-03-30	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
20	2011-03-30	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
21	2011-03-31	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
22	2011-03-31	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
23	2011-04-01	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
24	2011-04-01	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
25	2011-04-02	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
26	2011-04-02	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
27	2011-04-03	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
28	2011-04-03	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
29	2011-04-04	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
30	2011-04-04	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
31	2011-04-05	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
32	2011-04-05	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
33	2011-04-06	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
34	2011-04-06	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
35	2011-04-07	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
36	2011-04-07	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
37	2011-04-08	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
38	2011-04-08	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
39	2011-04-09	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
40	2011-04-09	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
41	2011-04-10	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
42	2011-04-10	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
43	2011-04-11	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
44	2011-04-11	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
45	2011-04-12	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
46	2011-04-12	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	

Line #	Date	Location	Expense Category	Expense Type	Claim Amt	Expense Reimbursement Type	Reason
47	2011-04-13	TOKYO CITY, JPN	Lodging	Lodging	231.00	Perdiem	
48	2011-04-13	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	209.00	Perdiem	
49	2011-04-14	TOKYO CITY, JPN	Meals & Incidentals	Meals Perdiem	365.75	Perdiem	

Authorization Remarks

Remark Details

Authorization Remarks - Trip ID: 2849781

Arranger - LISA M SCHAEFER March 21, 2011 at 02:49 PM

Purpose: INVITATIONAL TRAVEL: Serve on Pacific Tsunami DART

A Lodging Plus per diem is authorized at the maximum daily rates. Lodging receipts are required. On the first and last days of travel, 75 percent of M and IE is authorized.

The following expenses are authorized: bottled water, business calls/internet, airport tax, ticket purchase, military transport, hotel tax, excess baggage, ATM/Travelers Check fees, most cost effective transportation - metro, shuttle, taxi, etc., in-country/regional travel, aircraft charter, hotel business center, and visa fees.

Traveler is authorized up to two checked bags, not to exceed airline weight allowance per bag. Charges levied by carriers on the first and/or second bag (within the airline weight limits) are allowable, excluding any charges levied as a result of excess weight. Receipts are required for any baggage payments.

Please charge airfare to the centrally-funded USAID/W travel Card.

Travel on military transport is Authorized -Air, Water and Ground-. On base billeting is authorized. Purchase of BX/PX, fuel and commissary privileges are authorized.

Remark Details

Business class for the inbound flight to Tokyo is authorized. Travel is over 14 hours and the traveler has to work the next day. Please see authorizing memo attached.

Administrative approval is given for authorized expenses incurred prior to this authorization.

A travel voucher must be submitted within 5 business days following completion of travel.

Receipts are required for all other expenses in excess of $75.00.

Manassas Travel fees are authorized.

Arranger - LISA M SCHAEFER March 21, 2011 at 03:32 PM

Travel on a non contract carrier to Tokyo, Japan is approved. A non contract fare offers a lower fare. The traveler will be joining the DART in Japan for emergency response activities and the non-contract flight allowed him to reach the disaster site earlier and is the most cost effective route. Based on the information provided above, DCHA/OFDA has concluded that the use of a non-contract carrier flight is more conducive to fulfilling this trips purpose. In this regard, this traveler may use American Airlines for one leg of this trip. Diane Carter (M/AS/TT) has determined that the non-contract carrier flight is practical for the Government. This is not a request for an exception to Fly America requirements. Fly America will take precedence in the use of contract carrier flights.

E2 Solutions - E2 Solutions March 21, 2011 at 03:35 PM

System Generated Remark: Justification Code submitted by LISA M SCHAEFER for MIKE SCOTT - Justification for CABINCLASS - Business class: Travel in excess of 14 hours - TDY (B06)

Approver - LISA M SCHAEFER March 21, 2011 at 03:43 PM

Remark Details

The TQ number in Phoenix is 00011TQ005271.

Authorization Remarks - Trip ID: 2849781-1

Arranger - LISA M SCHAEFER March 21, 2011 at 04:47 PM

TA 00011TQ005271 is hereby amended to show a change in itinerary. The non-contract flight was unavailable so the traveler will be traveling on the contract carrier.

An additional $4,000 is needed to cover the additional costs of the flight.

All other conditions remain the same.

Approver - ARA R FRIEDMAN March 22, 2011 at 08:22 AM

The TQ number in Phoenix remains 00011TQ005271 with one amendment.

Authorization History

Date	Action
21MAR11 Mon 02:49PM	Status now New Authorization
21MAR11 Mon 02:49PM	Created by LISA M SCHAEFER for MIKE SCOTT
21MAR11 Mon 02:49PM	Arranger LISA M SCHAEFER updated the cabin class to Business Class
21MAR11 Mon 02:50PM	Booked Airfare/Common Carrier rate $0.00 changed to $8000.00 by SCHAEFER, LISA M for SCOTT, MIKE
21MAR11 Mon 03:33PM	Booked Airfare/Common Carrier rate $8000.00 changed to $4500.00 by SCHAEFER, LISA M for SCOTT, MIKE
21MAR11 Mon 03:35PM	Justification Code submitted by LISA M SCHAEFER for MIKE SCOTT - Justification for CABINCLASS - Business class: Travel in excess of 14 hours - TDY (B06)
21MAR11 Mon 03:35PM	Submitted to DCHA-OFDA-PS-LEVEL 1 approver CHAN, CAROL by LISA M SCHAEFER for MIKE SCOTT
21MAR11 Mon 03:35PM	Reservation is optional, LISA M SCHAEFER for MIKE SCOTT sent to approver with no Reservation.
21MAR11 Mon 03:35PM	Status changed to: Pending Authorization Approval

Date	Action
21MAR11 Mon 03:35PM	SCHAEFER, LISA M unlocked document: No approver specified.
21MAR11 Mon 03:39PM	BUCKLEY, SARAH D locked document for Approval.
21MAR11 Mon 03:41PM	Approver BUCKLEY, SARAH D concurred with justifications
21MAR11 Mon 03:41PM	Approved By DCHA-OFDA-PS-LEVEL 1 Approver BUCKLEY, SARAH D
21MAR11 Mon 03:41PM	Submitted to DCHA-OFDA-TRAVEL SPECIALIST by the System
21MAR11 Mon 03:41PM	SCHAEFER, LISA M locked document for Approval.
21MAR11 Mon 03:43PM	Approver SCHAEFER, LISA M concurred with justifications
21MAR11 Mon 03:43PM	Approved By DCHA-OFDA-TRAVEL SPECIALIST Approver SCHAEFER, LISA M
21MAR11 Mon 03:43PM	Submitted to M-MS-TRAVEL AND TRANSPORTATION DIVISION by the System
21MAR11 Mon 03:47PM	JOHNSON, GWENDOLYN locked document for Approval.
21MAR11 Mon 03:50PM	Approver JOHNSON, GWENDOLYN concurred with justifications
21MAR11 Mon 03:50PM	Approving Official GWENDOLYN JOHNSON authorized per diem at TOKYO CITY, JPN
21MAR11 Mon 03:50PM	Status changed to: Open Voucher
21MAR11 Mon 03:50PM	Approved By M-MS-TRAVEL AND TRANSPORTATION DIVISION Approver JOHNSON, GWENDOLYN
21MAR11 Mon 03:50PM	Agency successfully notified of event: TripAuthorizationApproved for trip 2849781
21MAR11 Mon 03:50PM	Obligation status changed to: Pending Obligation
21MAR11 Mon 03:50PM	Obligation status changed to: Obligation Accepted
21MAR11 Mon 03:51PM	MIKE SCOTT sent email request to USAID@MANASSASTRAVEL.COM. A copy of the email can be found with attached documents.
21MAR11 Mon 03:51PM	Approval Data Sent to Travel Agent via Email
21MAR11 Mon 04:45PM	Amended to 2849781-1 by LISA M SCHAEFER for MIKE SCOTT
21MAR11 Mon 04:45PM	Status changed to: New Authorization
21MAR11 Mon 04:45PM	Booked Airfare/Common Carrier rate $4500.00 changed to $8500.00 by SCHAEFER, LISA M for SCOTT, MIKE
21MAR11 Mon 04:49PM	Submitted to DCHA-OFDA-PS-LEVEL 1 approver CHAN, CAROL by LISA M SCHAEFER for MIKE SCOTT
21MAR11 Mon 04:49PM	Reservation is optional, LISA M SCHAEFER for MIKE SCOTT sent to approver with no Reservation.
21MAR11 Mon 04:49PM	Status changed to: Pending Authorization Approval
21MAR11 Mon 04:49PM	SCHAEFER, LISA M unlocked document: No approver specified.
21MAR11 Mon 04:59PM	BUCKLEY, SARAH D locked document for Approval.
21MAR11 Mon 05:00PM	Approver BUCKLEY, SARAH D concurred with justifications
21MAR11 Mon 05:00PM	Approved By DCHA-OFDA-PS-LEVEL 1 Approver BUCKLEY, SARAH D

Date	Action
21MAR11 Mon 05:00PM	Submitted to DCHA-OFDA-TRAVEL SPECIALIST by the System
22MAR11 Tue 08:21AM	FRIEDMAN, ARA R locked document for Approval.
22MAR11 Tue 08:22AM	Approver FRIEDMAN, ARA R concurred with justifications
22MAR11 Tue 08:22AM	Approved By DCHA-OFDA-TRAVEL SPECIALIST Approver FRIEDMAN, ARA R
22MAR11 Tue 08:22AM	Submitted to M-MS-TRAVEL AND TRANSPORTATION DIVISION by the System
22MAR11 Tue 09:03AM	JOHNSON, GWENDOLYN locked document for Approval.
22MAR11 Tue 09:23AM	Approver JOHNSON, GWENDOLYN concurred with justifications
22MAR11 Tue 09:23AM	Approving Official GWENDOLYN JOHNSON authorized per diem at TOKYO CITY, JPN
22MAR11 Tue 09:23AM	Status changed to: Open Voucher
22MAR11 Tue 09:23AM	Approved By M-MS-TRAVEL AND TRANSPORTATION DIVISION Approver JOHNSON, GWENDOLYN
22MAR11 Tue 09:23AM	Agency successfully notified of event: TripAuthorizationApproved for trip 2849781-1
22MAR11 Tue 09:23AM	Obligation status changed to: Pending Obligation
22MAR11 Tue 09:23AM	Obligation status changed to: Obligation Accepted
22MAR11 Tue 09:26AM	MIKE SCOTT sent email request to USAID@MANASSASTRAVEL.COM. A copy of the email can be found with attached documents.
22MAR11 Tue 09:26AM	Approval Data Sent to Travel Agent via Email

Audit/Approver Information

Action	Official	Date / Time
Approved [DCHA-OFDA-PS-LEVEL 1]	BUCK1771[BUCKLEY,SARAH]	2011-03-21
Approved [DCHA-OFDA-TRAVEL SPECIALI]	FRIE9308[FRIEDMAN,ARA]	2011-03-22
Approved [M-MS-TRAVEL AND TRANSPORT]	JOHN0664[JOHNSON,GWENDOLYN]	2011-03-22

From: LIA02 Hoc
Sent: Wednesday, March 23, 2011 10:57 PM
To: LIA02 Hoc; LIA03 Hoc; Fragoyannis, Nancy; Doane, Margaret; Mamish, Nader; Abrams, Charlotte; Wittick, Brian; Afshar-Tous, Mugeh; 'ShafferMR@state.gov'; Bloom, Steven; Schwartzman, Jennifer; Tobin, Jennifer; Mayros, Lauren; Jones, Andrea; English, Lance; Smiroldo, Elizabeth; Young, Francis; Henderson, Karen; Ramsey, Jack; Shepherd, Jill; Baker, Stephen; Emche, Danielle; Stahl, Eric
Subject: TRANSITION REPORT 3/23 - 2300

TRANSITION REPORT FOR MARCH 23, 2011 – 2300

Lauren transitioning to Mugeh

UPDATES DURING THIS SHIFT

- **NISA Request for U.S. Emergency Response Information.** NISA emailed Brooke and asked her to provide them with Emergency Response info. Brooke emailed us to ask for the NUREG for this. Specifically, NISA wants info on U.S. policy for returning a population after evacuation due to a radiological event. Technical staff in the Ops Center said that this information is provided through the EPA. We provided her with 2 documents: 1) federal register notice referencing the Protective Action Guides used to evacuate/re-enter after a radiological event and 2) the EPA's MANUAL OF PROTECTIVE ACTION GUIDES AND PROTECTIVE ACTIONS FOR NUCLEAR INCIDENTS. Action: We are still trying to track down NUREG07278. Try to get a hold of this document and send it along to Brooke.

- Elizabeth had inquired during a previous shift about getting access to a DSN line. We were informed tonight that this was way too expensive to get. Instead, there is an email hanging up in the LIA02 cube from James Dodmead on how to contact a DSN operator when we need to use this type of line.

- **Open ET action items.** Tasks #2310 and 2314 on the Task Tracker have been assigned to the international liaison. Both are follow-ups to a call Chuck Casto had with the ET this morning regarding a meeting Chuck attended at the Japanese Cabinet. We contacted Rick Devercelly, who was on the night shift today, to see if he had the answers. He didn't, so he said he'd contact Chuck as soon as it became a reasonable hour. Action: Expect an email from Chuck. If you do not hear from him, please followup. Then close out the actions in the Task Tracker.

- **NRC Travelers Return Checklist.** Completed a draft of the checklist and sent it to Michele Evans. Document is located on LIA02 desktop. **No further action until Michele responds.**

- **Japan Relief Team.**
  - **Departures:** Michael Scott and Alan Blamey have arrived in Tokyo. Ralph Way, Syed Ali, Abdul Sheikh, and Rob Taylor have picked up their Blackberries and laptops (if applicable). Ralph is carrying Blackberries for Marie Miller and Jack Giessner. Rob Taylor is carrying the calling cards for the team. None of the travelers plan to come into the office tomorrow.
  - **Giessner laptop.** Action: See if either Danielle or Eric are willing to bring Jack Giessner his laptop. Currently, it is in the cabinet above LIA02. If not, let Jack know that he will have to share someone else's laptop.
  - **Change of OIP plans:** Danielle Emche will be departing for Japan on Saturday, 3/26. Eric Stahl will be departing on Monday, 3/28. Jack Ramsey will not be going to Japan. We have provided this information

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to USAID and to the IT personnel in the Ops Center so that travel arrangements, Blackberries, etc. can be arranged. Neither Danielle nor Eric plan to take NRC laptops.

- **Daily calls with UK/France/Canada.** We participated on the 0930 daily call with the RST and the 1400 call with the PMT. 0930 – the UK referenced a presentation by one of their chief scientists. They subsequently sent everyone a copy, which we sent to the RST. 1400 – discussion focused on source term data and radiation monitoring. Countries compared drinking water guidelines for I-131. US and UK are very similar, Canada's is substantially lower. We were advised to keep the data Canada provided us yesterday from the Australians as a close hold. Canada will be sharing source term data with us and France (have already shared with UK). Germany and UK have shared source term data bilaterally and a comparison indicates they are similar. We reiterated our commitment to provide US data once we reach agreement within the federal family.

- **Request for meteorological data.** PMT sent a request for us to pass to the Japan Embassy Task Force regarding a need for specific meteorological data. We forwarded the request to the Task Force and received a reply from a Mona Camacho indicating she was passing it to the appropriate people. Action: If you receive a reply, please send to PMT and walk a hard copy back to the meteorologists.

FUTURE ACTIONS/OPEN ITEMS

- **Chairman's Call with NISA** – The Chairman will have a call with NISA on Friday. We do not yet have a time. Danielle will get confirmation on Thursday, 3/24. The interpreter on duty needs to be aware that they will be sitting in on this call, probably in the Chairman's office. Action: Follow-up with Danielle on time of call and location and ensure an interpreter is present for the call.

- **Japan Relief Team.**
  - LIA03 sent an email to LiasonJapan (original team) asking for them to email back their dosimetry numbers. The initial team sent over was in such a rush that the Headquarters Radiation Safety Officer, John O'Donnell, never recorded which dosimeter was assigned to which staff member. If dosimeter numbers (on the back) are received directly to the international liaison desks they should be forwarded to John O'Donnell and entered into a word document on LIA03. The RSO has also asked original team members to indicate whether they intend to stay in Japan past the end of the month. If they do, then they will need to have their dosimeters replaced, as the ones they have now are only for use until the end of the month. If an original team member indicates that they intend to stay past the end of the month, we need to inform the RSO and ensure that an outgoing team member bring that person a replacement dosimeter.
  - Dosimeter Distribution – John O'Donnell stopped by on Wednesday afternoon and informed us that the dosimeters should be handed out in numerical order from now on. Also, either Danielle or Eric need to bring the control dosimeter with them when they leave. Whomever take the control dosimeter needs to call John and have him explain how to use it, but in short, the control dosimeter will measure occupational exposure versus environmental exposure. Therefore, the control dosimeter should stay safe in a desk at the Embassy and the last person back from Japan should bring it back with them.
  - Possible extension of travel orders: We have contacted the Japan Team to find out if any members of the original team plan to remain in Japan beyond March 31. Information is needed because travelers may require supplemental travel orders. We've asked them to reply to LIA02 and LIA03 with this information. Please inform Mary Matheson if you get any affirmative replies to this inquiry.
  - Cris Brown has advised that, rather than asking the relief team to carry additional satellite phones to Japan, the current team should turn ownership of the two satellite phones already over there to a new member of the relief team. The travelers have been advised to work with the current team to determine who should take ownership, then provide that name to Cris Brown and LIA02/LIA03. Action: When name is provided, ensure that Cris Brown has it.

- **Jim Trapp/Tony Ulses Travel.** Mary Carter will have to make Jim and Tony's travel reservations back home since they do not have travel authorizations through USAID. Kirk already emailed Mary and NRC liaisons at USAID. Action: Waiting for passport info, date of birth, full name (as it appears on passport), passport expiration dates and type of passport from Jim. Provide to Mary Carter when received. Will need to provide travel information to Jim and Tony once their reservations are made. Please keep NRC liaisons at USAID on CC.

- **Japan Lessons Learned.** ET inquired about OIP plans (existing or future) to rehire Bruce Mallet. They want him to work on Japan lessons learned. Danielle inquired with Jack. Report to the ET as soon as we get an answer (specifically Marty Virgilio).

- **Request from U.S. Forces Japan.** LT Director received a request for specific reactor information from USFJ in preparation for some bilateral meetings they are having tomorrow. International liaisons gave NRC team in Japan a heads up that the request had come in. LT Director replied to the request indicating that we have a team in Japan and that, rather than duplicate the requests the USG is making of the Japanese, it would be more efficient for USFJ to coordinate with us. LIA02 and 03 were provided as email addresses for USFJ to communicate with. You may receive a request for information from USFJ that you would then coordinate with our team in Japan.

- **Request from IAEA.** Mike Modro of the IAEA reached out to Jen Schwartzman seeking NRC assistance with source term-related analysis. In particular, they are looking for severe accident management procedures for BWRs. Jen passed the request to the PMT to see what assistance we can provide, and provided Mike with a copy of NUREG-1465, "Accident Source Terms for Light-Water Power Plants," in the meantime. Jen set up a phone call for Mike with Don Cool for 9 AM EDT Thursday. Jen will sit in.

- **IAEA Coordination.** The ET had tasked us with understanding the role of the IAEA's Incident and Emergency Centre (IEC) and what the extent of their role is if Japan does not make a formal request to them under the Assistance Convention. We suggested that the IEC serve as a clearinghouse, keeping track of all requests for assistance from Japan, all offers to assist from other countries, who has provided what, and whether it satisfies the requests. Mark Shaffer met with Elena Buglova, Acting Director of the IEC, at approximately 0600 EDT. He provided a write-up of that meeting (in LIA02 and 03 email inboxes) to Margie. Subsequently, Ms. Buglova wrote to thank Mark for the meeting and she posted the current spreadsheet of what IAEA is tracking on ENAC (hard copy on LIA02 desk). Update: Ms. Buglova has asked the U.S. to update its entries on the spreadsheet. Jen sent the request to Margie for her views. There is still an open task on the task tracker, but we have tried to manage expectations about the extent to which NRC can "complete a task" on this subject. We have told the LT Director that OIP will keep the ET informed of developments on this issue. Action: We need to talk to Margie about how she'd like us to proceed with responding to IAEA's request. Continue to follow this and expect questions from ET and LT Director.

- **International requests for information.**
  AIT/TECRO (Taiwan) has requested a briefing on the 50-mile evacuation zone and the plume modeling. Danielle Emche is handling this request. Plans to meet with AIT/TECRO on Thursday.

- **Translators.** The translators are working very hard but we are starting to notice duplication of efforts. This is largely due to shift changes here and in the technical teams that results in a lack of knowledge/awareness that previous versions of a document (especially monitoring data) were already translated. The result is that multiple translators are working on the same document or working to translate an entire document when a previous version was already provided to the appropriate team and only the numbers have been updated. Also, translators are often working for a long time on a document which has subsequently been published in English. Action 1: Please monitor NISA's English language site and ENAC and make sure that you inform the translators when a document is posted in English, so that if they are working on it they can stop and move on to something else. Action 2: Please ensure that the PMT and RST are keeping the translated data we provide them, in particular if a document can serve as a "key" to interpreting future data.

- **Daily calls with UK/France/Canada.** Calls will take place tomorrow, 3/22, at 0930 with RST and at 1500 with PMT to discuss reactor-related and radiation-related information, respectively, with regulatory representatives from these three countries. Everyone should call into the HOO to be connected.

- **Daily NRC Japan Team – RST/PMT Call.** Next call scheduled for 0300. RST and PMT have been notified of the call and international liaison should plan on participating (Brooke and Kirk don't necessarily participate). All parties should call into **301-816-5120** and use pass-code (b)(6)

- **21:30 Interagency Call.** Contact the DOS Task Force to find out when next call is. Thursday's (3/24) call has been cancelled. NRC Japan updated on Fukushima. The temp in units 1 and 3 spent fuel pools is still elevated. Japan is still trying to convert from using sea water to fresh water. Japan has asked the US to help in this effort. #2 is in the best shape. #3 and 4 are still being sprayed with water. The US pumping system is on its way to Fukushima. The KMax aircraft is on its way to Japan. KI is being distributed to Americans only if they call or email the embassy asking for it.

DAILY ACTIONS/REMINDERS

- International updates must now be sent to LIA07 (to be put in the HOO Status Update) before the end of every shift as well as posted on the LT status board (different than the LT Log).
- 11 PM – 7 AM shift is responsible for the summary call with Kirk and Brooke, scheduled daily at 0500 EST unless rescheduled, and subsequent write-up of one-pager for Margie. Margie reminds us that the write-up should not contain technical details, which are already captured in other reports, and should be marked "Official Use Only – Foreign Government Information."
- The 11pm-7am shift is responsible for sending all emails from the previous day to the FOIA email address (FOIA Response.hoc@nrc.gov).
- Kirk and Brooke requested that the international team to sit in on calls with the ET and Chuck to take notes and provide a short summary of what was discussed via email.
- Prior to any international call you set up, please make sure you contact the HOOs to let them know that you are going to have the international call.
- Reminder to Keep Mark Shaffer in-the-loop at shaffermr@state.gov, regardless of time of day, regardless of whether he is in the office or asleep. Especially cc Mark on all communication to IAEA.

From: LIA08 Hoc
Sent: Wednesday, March 23, 2011 8:15 PM
To: HOO Hoc; RST01 Hoc; PMT01 Hoc; Hoc, PMT12; LIA06 Hoc
Subject: updated Reoccuring Daily Calls list
Attachments: Reoccurring Daily Calls Rev 6.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Attached is Revision 6 of the subject document. We added the 1230 NTAG (nuclear technical advisory group) call and the 1100 Technical Coordination with Industry Consortium call.

Please let me know if this document needs any additions or corrections.

Jeff Temple
Liaison Team

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Reoccurring Daily Calls

-Time (EDT)	Description	Lead Team	Action/Purpose of the Call
0300	RST/PMT call with Japan Team	LT Arranged by the HOOs (b)(6)	Daily update for Site Team and HQ (convenient time for the Site Team)
0600	Status update & 2 pager/Sit Rep *(BRIEFING ONLY-not a call)*	EBT	EBT developed agency briefing documents
0600	Pumping Rig discussions w/INPO& Bechtel	RST ** (arranged by HOO's) (b)(6)	Discussions regarding the pumping project
0715	Chairman's brief	ET (arranged by HOOs)	Update chairman and staff during turnover
0730	TAs & CAs briefing	ET ** (arranged by HOO's) (b)(6)	ET Director lead -briefed Commission TAs and ODs
0800	Deputy Secretaries	ET	White House lead (***-Chairman participates***) -Interagency discussion
0900	INPO call with RST	RST	Share technical information
0930	UK/Canada/France Call	RST ** (arranged by HOO's) (b)(6)	Information Exchange. Focused on Operational issues *(PMT call @ 1400 for Dose issues)*
1000	Call w/Industry (daily)	ET ** (arranged by HOO's)	ET led -Discussions with Industry
1100	ESF8-(Public Health & Medical Services)	LT (Conference number provided by HHS	HHS Secretarys Operations Center lead -Interagency discussion
1100	Technical Coordination with Industry Consortium	RST Arranged by HOOs (b)(6)	Technical discussion
1230	NTAG teleconference (chaired by NSS)		Nuclear Technical Advisory Group –email sent out daily with phone # and pass code
1400	UK/Canada/France Call	PMT ** (arranged by HOO's) (b)(6)	PMT led *(RST led call @ 0930 for Operational issues)* -Information sharing on current and projected dose
1400	USAID	LT/OCA	USAID lead -Interagency discussion
1400	NARAC	PMT ** (arranged by HOO's)	DOE lead -Interagency discussion of dose models

Reoccurring Daily Calls

1500	Congressional call	OCA & NRC *Go-To Team* *(Leeds, M.Johnson, Sherron, B.Boger, etc)* (b)(6)	OCA lead -Audience is Congressional staff who have or are near a plant; Oversight committees; House &Senate leadership
1515	Chairman's brief	ET Arranged by HOOs	
1700	HHS call with 50 states and federal partners	LT/State Liaison	Meeting occurs each Tuesday and Thursday evening, as organized by HHS (N.Natarajan). HHS provides bridge line day of call
1800	Status update & 2 pager/Sit Rep *(BRIEFING ONLY-not a call)*	EBT	EBT developed agency briefing documents
2000	TAs & CAs briefing	ET ** (arranged by HOO's)	ET Director lead -briefed Commission TAs and ODs
2130	DOS	LT ** (arranged by HOO's)	DOS lead -Interagency discussion
2200	Chairman's brief by email	ET	Update chairman using one-pager

From: PMT03 Hoc
Sent: Wednesday, March 23, 2011 11:03 AM
To: Hoc, PMT12
Subject: FW: EPA Request for Measurements from US Plants

For our action. We have received data from a number of plants within the past 24 hours. They are on the PMTR Chronology Board.

John Wray

From: LIA01 Hoc
Sent: Wednesday, March 23, 2011 11:01 AM
To: PMT01 Hoc; PMT02 Hoc; PMT03 Hoc
Subject: EPA Request for Measurements from US Plants

Lee Veal with the EPA is requesting information regarding any measurements at US NPPs associated with incident in Japan. She is asking for someone who can provide detailed information and explanation. Her phone numbers are: Office: 202-250-8901 Cell: (b)(6)

++/57

From: OST01 HOC
Sent: Wednesday, March 23, 2011 8:14 AM
To: RST01 Hoc
Cc: FOIA Response.hoc Resource; Jackson, Karen
Subject: FW: Re-establish reactor cooling when offsite AC power is available - Do not rush to inject water quickly - Japan Mitigation Strategy

For your consideration.

From: OST02 HOC
Sent: Wednesday, March 23, 2011 7:54 AM
To: OST01 HOC
Subject: FW: Re-establish reactor cooling when offsite AC power is available - Do not rush to inject water quickly - Japan Mitigation Strategy

From: Jackson, Karen
Sent: Wednesday, March 23, 2011 7:38 AM
To: ET02 Hoc; OST02 HOC
Subject: FW: Re-establish reactor cooling when offsite AC power is available - Do not rush to inject water quickly - Japan Mitigation Strategy

Does anyone know if someone followed up with this gentleman? Thanks.

...karen jackson
Emergency Response Coordinator
DPR/NSIR/USNRC
Office: 301-415-6398
Cell: (b)(6)
MS: T-4L7
e-mail: karen.jackson@nrc.gov

From: Lu, Shanlai
Sent: Thursday, March 17, 2011 4:08 PM
To: Operations Center Bulletin
Subject: Re-establish reactor cooling when offsite AC power is available - Do not rush to inject water quickly - Japan Mitigation Strategy

Dear Sir,

As a senior reactor system engineer, I hope that I can contribute to providing information to our team in Japan. The following is what I thought based on information collected at this point. If you think it is applicable, please forward it to our NRC team in Japan.

With offsite AC power becoming available in the near future, there may be an urge for the plant operator to start the cooling immediately. A sudden injection of large amount of cold water into reactors with a molten core will cause devastating explosion and hydrogen fire because of violent steaming and Zr-water reaction. At this stage, any further explosion or fire will cause further damage on the reactor vessel and containment, and, more release of radiation. We need to minimize the risk of having this situation. Therefore, my recommendation is the following,

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Once the AC power is available, pump the cold water into the reactor in a pulsing mode.

1. First pulse – 50 to 100 gallons. Then, stop the pump, wait to see the steam coming out from the containment and watch the vessel internal pressure for 20 minutes or more if instrumentation is still available. By then, these water should have been vaporized and hydrogen will be generated.
2. After 20 minutes, start another pulse of injection, repeat step one.
3. Repeat these steps for 4 hours.
4. Then, shorten the 20 minutes wait time to 10 minutes for another 3 hours.
5. Then, evaluate the situation and make the decision regarding continuous injection of water into the reactor.

Shanlai Lu
NRC/NRO/DSRA/SRSB

From: OST01 HOC
Sent: Wednesday, March 23, 2011 11:15 AM
To: Milligan, Patricia
Cc: LIA06 Hoc; FOIA Response.hoc Resource
Subject: FW: Question and comment

Trish,

Can you get back in touch with Mr. Medalia and see if we can support his question.

Tony McMurtray – EST Coordinator

From: LIA06 Hoc
Sent: Wednesday, March 23, 2011 10:40 AM
To: OST01 HOC; LIA08 Hoc
Subject: FW: Question and comment

Tony.. can you assign this task (see request below from CRS).. seems that PMT is the right team.. not sure if it is something Op Center should be handling.. but wanted to forward on for a decision.

Thanks.. Mike

From: Rivers, Joseph
To: Tschiltz, Michael
Sent: Wed Mar 23 10:33:56 2011
Subject: Fw: Question and comment

Sent from NRC Blackberry
Joe Rivers
Senior Level Advisor on Security
NSIR/DSP
US NRC
(b)(6)

From: Jonathan Medalia <JMEDALIA@crs.loc.gov>
To: Rivers, Joseph
Sent: Tue Mar 22 17:13:32 2011
Subject: Question and comment

Joe,

Question: In my report on radiation aspects of the Japanese nuclear accident, there is a section on health effects of radiation, where another analyst and I bring in the concept of dose and list the effects of various doses. I saw the

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number of disintegrations/sec/m^3 in the EPA/DOE statement of March 18, but I can't convert Bq to dose. I'd like to make the point that the dose measured at Charlottesville, VA (or elsewhere in the US) is infinitesimal, but can't do that without a dose rate, e.g., in nanosieverts/hour. Can you point me to someone who can provide a dose rate?

Comment: In the introduction to the report, I point out that there are widespread fears about the health effects of current and possible future releases. These fears, and public concern about radiation in general, have attracted a huge share of the world's attention to the Japanese disasters even though the number of casualties resulting from this accident is a tiny fraction of those resulting from the earthquake and tsunami. Today's NYTimes (p. 6) mentioned that NRC is considering a 90-day study of the significance of the Japanese "events" for US reactors. You've probably thought of this, but it would be helpful for the report to contrast {the disparity in attention paid to the nuclear accident vs. the tsunami} to {the disparity in casualties of the two events}, as yet another object lesson in how the public reacts to radiation, and implications for NRC.

Best,
Jon

From: OST01 HOC
Sent: Wednesday, March 23, 2011 8:23 AM
To: LIA06 Hoc; LIA01 Hoc; LIA11 Hoc; PMT03 Hoc
Subject: FW: 23MAR11 NTAG TELECONFERENCE Agenda

Please make sure appropriate personnel are on this call today at 12:30 pm.

Tony McMurtray
EST Coordinator

From: HOO Hoc
Sent: Wednesday, March 23, 2011 7:47 AM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: 23MAR11 NTAG TELECONFERENCE Agenda

FYI

From: (b)(6) b)(6)
Sent: Wednesday, March 23, 2011 7:19 AM
To: (b)(6)
(b)(6)

444/60

From:	LIA02 Hoc
Sent:	Thursday, March 24, 2011 2:45 PM
To:	LIA02 Hoc; Doane, Margaret; Mamish, Nader; Abrams, Charlotte; Wittick, Brian; Afshar-Tous, Mugeh; 'ShafferMR@state.gov'; Bloom, Steven; Schwartzman, Jennifer; Tobin, Jennifer; Mayros, Lauren; Jones, Andrea; English, Lance; Smiroldo, Elizabeth; Young, Francis; Henderson, Karen; Ramsey, Jack; Shepherd, Jill; Baker, Stephen; Emche, Danielle; Fragoyannis, Nancy; LIA03 Hoc; Stahl, Eric
Subject:	TRANSITION REPORT 3/24 - 1500

TRANSITION REPORT FOR MARCH 24, 2011 – 0700

Lance and Steve turnover to Janice and Jenny

UPDATES DURING THIS SHIFT

- **Daily NRC Japan Team – RST/PMT Call.** Tony Nakanishi called the RST Team (Jack Foster had called PMT earlier). Tony has been contacted by a NISA person who was a previous Assignee at NRC: Mr. Yuki who had worked with Sam Lee and PT Kuo when he was here. Mr. Yuki is usually working in the Product Safety Division but has been brought in to assist with the reactor issue. He has had a frank conversation with and provided Tony some information which is much more than what NISA provided the NRC Japan Team during the previous 10 days. Mr. Yuki cannot openly and directly engage with the NRC team. He and Mr. Nay (equivalent to a DEDO at NISA) don't see eye-to-eye. The NRC Japan Team will ask Mr. Nay to allow Mr. Yuki to come to the Embassy since he has been at NRC before.

- **Open ET action items.** Tasks #2310 and 2314 on the Task Tracker have been assigned to the international liaison. Both are follow-ups to a call Chuck Casto had with the ET this morning regarding a meeting Chuck attended at the Japanese Cabinet. We contacted Rick Devercelly, who was on the night shift today, to see if he had the answers. He didn't, so he said he'd contact Chuck as soon as it became a reasonable hour. **Action:** Followed up with an email to Chuck on 3/24 at 12:00. If you do not hear from him, please follow-up. Followed up with another email to Chuck at 9:40 and still did not here back from him. Continue to followup and then close out the actions in the Task Tracker.

- **Japan Relief Team.**
  - **Giessner laptop.** Currently, the laptop is in the cabinet above LIA02. Emailed Danielle and Eric to see if either one of them is willing to take the Giessner laptop with them. Danielle is unable to take as she is taking one for her own use. **Action:** Eric and Danielle are not able to carry laptop over, sent email to Jack letting him know that he will have to share someone else's laptop or take one of the ones already there.
  - **Change of OIP plans:** Danielle Emche will be departing for Japan on Saturday, 3/26. Eric Stahl will be departing on Monday, 3/28. Jack Ramsey will not be going to Japan. We have provided this information to USAID and to the IT personnel in the Ops Center so that travel arrangements, dosimetry and Blackberries, etc. have been arranged.
  - **No need for extension of travel orders beyond 3/31/2011:** Brooke Smith is the last person from the original team leaving Japan on March 31, 2011.

- **Daily calls with UK/France/Canada.** 0930 daily call with the RST and the 1400 call with the PMT.

- **Request for meteorological data.** PMT sent a request for us to pass to the Japan Embassy Task Force regarding a need for specific meteorological data. We forwarded the request to the Task Force and received a reply from a Mona Camacho indicating she was passing it to the appropriate people. Naomi Walcott of Japan Embassy

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replied wanting to know the specific website PMT found the original data. PMT responded with the website in an email. **Action:** If you receive further communication, please ensure PMT is cc on the email and walk a hard copy back to the meteorologists.

FUTURE ACTIONS/OPEN ITEMS

- **NISA Request for U.S. Emergency Response Information.** NISA emailed Brooke and asked her to provide them with Emergency Response info. Brooke emailed us to ask for the NUREG for this. Specifically, NISA wants info on U.S. policy for returning a population after evacuation due to a radiological event. Technical staff in the Ops Center said that this information is provided through the EPA. Lauren provided her with 2 documents: 1) federal register notice referencing the Protective Action Guides used to evacuate/re-enter after a radiological event and 2) the EPA's MANUAL OF PROTECTIVE ACTION GUIDES AND PROTECTIVE ACTIONS FOR NUCLEAR INCIDENTS. **Action:** We are still trying to track down NUREG07278 as written in the previous transition report. Try to get a hold of this document and send it along to Brooke. We forwarded NUREG-1228 to Brook as their coordinator is not familiar with five digit NUREG #s. Followed up with FEMA Liaison Officer, he is waiting for information from his HQ staff.

- **NISA Request for Information on Long-Term Decommissioning for Damaged Reactors.** Request came from Mike Scott looking for response for Sunday call. RST informed us that RES is looking into this. Task Tracker 2536. **Action:** Follow-up to get information to Mike Scott.

- **Chairman's Call with NISA** – The Chairman will have a call with NISA on at 5:30 p.m. EST on Thursday, March 24, 2011. The interpreter on duty needs to be aware that they will be sitting in on this call, probably in the Chairman's office. **Action:** Follow-up with Danielle location and ensure an interpreter is present for the call.

- **Japan Relief Team.**
  - **Departures:** Michael Scott and Alan Blamey have arrived in Tokyo. Ralph Way, Syed Ali, Abdul Sheikh, and Rob Taylor have picked up their Blackberries and laptops (if applicable). Ralph is carrying Blackberries for Marie Miller and Jack Giessner. Rob Taylor is carrying the calling cards for the team. None of the travelers plan to come into the office on 3/24/11.
  - **Dosimetry:** LIA03 sent an email to LiasonJapan (original team) asking for them to email back their dosimetry numbers. The initial team sent over was in such a rush that the Headquarters Radiation Safety Officer, John O'Donnell, never recorded which dosimeter was assigned to which staff member. If dosimeter numbers (on the back) are received directly to the international liaison desks they should be forwarded to John O'Donnell and entered into a word document on LIA03. The RSO has also asked original team members to indicate whether they intend to stay in Japan past the end of the month. If an original team member indicates that they intend to stay past the end of the month, we need to inform the RSO and ensure that an outgoing team member bring that person a replacement dosimeter. Brooke Smith is the last person from the original team leaving Japan on 3/31/2011.
  - **Dosimeter Distribution** – John O'Donnell stopped by on Wednesday afternoon and informed us that the dosimeters should be handed out in numerical order from now on. Also, either Danielle or Eric need to bring the *control dosimeter* with them when they leave. Whomever take the control dosimeter needs to call John and have him explain how to use it, but in short, the control dosimeter will measure occupational exposure versus environmental exposure. Therefore, the control dosimeter should stay safe in a desk at the Embassy and the last person back from Japan should bring it back with them. Danielle has the control dosimeter and discussed with John O'Donnell about how to use.
  - Cris Brown has advised that, rather than asking the relief team to carry additional satellite phones to Japan, the current team should turn ownership of the two satellite phones already over there to a new member of the relief team. The travelers have been advised to work with the current team to determine who should take ownership, then provide that name to Cris Brown and LIA02/LIA03. Action: When name is provided, ensure that Cris Brown has it.

- **NRC Travelers Return Checklist.** Completed a draft of the checklist and sent it to Michele Evans. Document is located on LIA02 desktop. **No further action required until Michele responds.**

- **Jim Trapp/Tony Ulses Travel.** Mary Carter will have to make Jim and Tony's travel reservations back home since they do not have travel authorizations through USAID. Kirk already emailed Mary and NRC liaisons at USAID. Jim provided his information to Mary directly. LIA 03 forwarded Tony's information to Mary. **Action:** Check with Mary to ensure Jim and Tony have their flight information and NRC liaisons at USAID are on CC. Received emails from USAID about Jim and Tony's flight information and others and forwarded to Mary Carter. **No further action.**

- **Japan Lessons Learned.** ET inquired about OIP plans (existing or future) to rehire Bruce Mallet. They want him to work on Japan lessons learned. Danielle inquired with Jack. **Action:** Report to the ET as soon as we get an answer (specifically Marty Virgilio). Contacted Mary Muessle and she said things are just about complete.

- **Request from U.S. Forces Japan.** LT Director received a request for specific reactor information from USFJ in preparation for some bilateral meetings they are having tomorrow. International liaisons gave NRC team in Japan a heads up that the request had come in. LT Director replied to the request indicating that we have a team in Japan and that, rather than duplicate the requests the USG is making of the Japanese, it would be more efficient for USFJ to coordinate with us. LIA02 and 03 were provided as email addresses for USFJ to communicate with. **Action:** You may receive a request for information from USFJ that you would then coordinate with our team in Japan.

- **Request from IAEA.** Mike Modro of the IAEA reached out to Jen Schwartzman seeking NRC assistance with source term-related analysis. In particular, they are looking for severe accident management procedures for BWRs. Jen passed the request to the PMT to see what assistance we can provide, and provided Mike with a copy of NUREG-1465, "Accident Source Terms for Light-Water Power Plants," in the meantime. Jen set up a phone call for Mike with Don Cool for 9 AM EDT Thursday. **Action:** Jen will sit in.

- **IAEA Coordination.** The ET had tasked us with understanding the role of the IAEA's Incident and Emergency Centre (IEC) and what the extent of their role is if Japan does not make a formal request to them under the Assistance Convention. We suggested that the IEC serve as a clearinghouse, keeping track of all requests for assistance from Japan, all offers to assist from other countries, who has provided what, and whether it satisfies the requests. Mark Shaffer met with Elena Buglova, Acting Director of the IEC, at approximately 0600 EDT. He provided a write-up of that meeting (in LIA02 and 03 email inboxes) to Margie. Subsequently, Ms. Buglova wrote to thank Mark for the meeting and she posted the current spreadsheet of what IAEA is tracking on ENAC (hard copy on LIA02 desk). Update: Ms. Buglova has asked the U.S. to update its entries on the spreadsheet. Jen sent the request to Margie for her views. There is still an open task on the task tracker, but we have tried to manage expectations about the extent to which NRC can "complete a task" on this subject. We have told the LT Director that OIP will keep the ET informed of developments on this issue. **Action:** We need to talk to Margie about how she'd like us to proceed with responding to IAEA's request. Continue to follow this and expect questions from ET and LT Director.

- **International requests for information.**
  AIT/TECRO (Taiwan) has requested a briefing on the 50-mile evacuation zone and the plume modeling. Danielle Emche is handling this request. **Action:** Danielle plans to meet with AIT/TECRO on Thursday.

- **Translators.** The translators are working very hard but we are starting to notice duplication of efforts. This is largely due to shift changes here and in the technical teams that results in a lack of knowledge/awareness that previous versions of a document (especially monitoring data) were already translated. The result is that multiple translators are working on the same document or working to translate an entire document when a previous version was already provided to the appropriate team and only the numbers have been updated. Also, translators are often working for a long time on a document which has subsequently been published in

English. **Action 1:** Please monitor NISA's English language site and ENAC and make sure that you inform the translators when a document is posted in English, so that if they are working on it they can stop and move on to something else. **Action 2:** Please ensure that the PMT and RST are keeping the translated data we provide them, in particular if a document can serve as a "key" to interpreting future data.

- **Daily calls with UK/France/Canada.** Calls will take place tomorrow, 3/22, at 0930 with RST and at 1500 with PMT to discuss reactor-related and radiation-related information, respectively, with regulatory representatives from these three countries. Everyone should call into the HOO to be connected.

- **Daily NRC Japan Team – RST/PMT Call.** Next call scheduled for 0300. RST and PMT have been notified of the call and international liaison should plan on participating (Brooke and Kirk don't necessarily participate). All parties should call into **301-816-5120** and use pass-code (b)(6)

- **21:30 Interagency Call.** Contact the DOS Task Force to find out when next call is. Thursday's (3/24) call has been cancelled. NRC Japan updated on Fukushima. The temp in units 1 and 3 spent fuel pools is still elevated. Japan is still trying to convert from using sea water to fresh water. Japan has asked the US to help in this effort. #2 is in the best shape. #3 and 4 are still being sprayed with water. The US pumping system is on its way to Fukushima. The KMax aircraft is on its way to Japan. KI is being distributed to Americans only if they call or email the embassy asking for it.

DAILY ACTIONS/REMINDERS

- International updates must now be sent to LIA07 (to be put in the HOO Status Update) before the end of every shift as well as posted on the LT status board (different than the LT Log).
- 11 PM – 7 AM shift is responsible for the summary call with Kirk and Brooke, scheduled daily at 0500 EST unless rescheduled, and subsequent write-up of one-pager for Margie. Margie reminds us that the write-up should not contain technical details, which are already captured in other reports, and should be marked "Official Use Only – Foreign Government Information."
- The 11pm-7am shift is responsible for sending all emails from the previous day to the FOIA email address (FOIA Response.hoc@nrc.gov).
- Kirk and Brooke requested that the international team to sit in on calls with the ET and Chuck to take notes and provide a short summary of what was discussed via email.
- Prior to any international call you set up, please make sure you contact the HOOs to let them know that you are going to have the international call.
- Reminder to Keep Mark Shaffer in-the-loop at shaffermr@state.gov, regardless of time of day, regardless of whether he is in the office or asleep. Especially cc Mark on all communication to IAEA.

~~OFFICIAL USE ONLY~~

From: Carter, Mary
Sent: Thursday, March 24, 2011 8:42 AM
To: LIA02 Hoc; LIA03 Hoc; Trapp, James; Liaison Japan
Subject: Jim Trapps tickets

Jim Trapps ticket was issued this morning. I'll let you know when Tony Ulses' ticket is issued.

Mary

Friday March 25, 2011
Continental Airlines Flight Number: 8
Class of Service: Coach Class S
Depart: TOKYO/NARITA 4:45 Pm March 25, 2011
Arrive: NEWARK,NJ 4:20 Pm March 25, 2011
Total Flight Time: 12 Hours 35 Minutes Non-Stop
Equipment: 777
Meal Service: Dinner
Status: Confirmed Confirmation Number: DL4WLM
Reserved Seat: TRAPP/JAMES MARR 37L
DEP-TERMINAL 1 ARR-TERMINAL C
WINDOW SEAT CONFIRMED
Thursday August 25, 2011
Other Service
Aug 25, 2011 - Aug 25, 2011
INFO/FARE USD848.20 GOVT
Name Invoice / Ticket / Date Base Tax1 Tax2 Tax3 Total
TRAPP JAMES MARR (b)(6) 24MAR11 635.00 148.00YQ 16.30US 48.90XT 848.20
Trip Fee 31.49
Trip Fee 22.00

Mary Faith Carter
Office of International Programs
U. S. Nuclear Regulatory Commission
e-mail:mary.carter@nrc.gov
ph:301-415-2331
fax:301-415-2395

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fyi

This email is UNCLASSIFIED

on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

Lynda Hinds
Staff Assistant to Ambassador John V. Roos U.S. Embassy
1-10-5 Akasaka, Minato-ku
Tokyo 107-8420
Tel. (03) 3224- 5370

Twitter.com/AmbassadorRoos

-----Original Message-----
From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]
Sent: Thursday, March 24, 2011 4:51 PM
To: (b)(6)
Cc: (b)(6)
(b)(6)
Subject: Radiation data by MEXT

Dear Mr. Cherry,

Please see attached the document.

Sincerely yours,
Eiko SENAMI

Eiko SENAMI (Ms.)
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology - Japan

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プレス発表資料

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月24日16時00分現在
文　部　科　学　省

1. 文部科学省が集計した結果 注)太下線データが今回追加分

＊1 GM(ガイガー=ミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時)(記載のない限り屋外)	天候	実施者
測定エリア【1】（約60Km北西）	3月24日7時45分	3.4 ＊2	降雨無し	文部科学省
測定エリア【15】（約35Km西）	3月24日13時58分	2.2 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【15】（約35Km西）	3月24日12時58分	2.5 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【15】（約35Km西）	3月24日11時58分	2.8 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【15】（約35Km西）	3月24日10時58分	2.0 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【31】（約30Km西北西）	3月24日11時08分	25.0 ＊2	降雨無し	文部科学省
測定エリア【32】（約30Km北西）	3月24日11時20分	65.0 ＊2	降雨無し	文部科学省
測定エリア【33】（約30Km北西）	3月24日11時32分	30.0 ＊2	降雨無し	文部科学省
測定エリア【34】（約30Km北西）	3月24日11時00分	14.0 ＊2	降雨無し	文部科学省
測定エリア【35】（約35Km北西）	3月24日10時35分	2.5 ＊2	降雨無し	文部科学省
測定エリア【36】（約40Km北西）	3月24日13時13分	10.0 ＊2	降雨無し	文部科学省
測定エリア【71】（約25Km南）	3月24日9時27分	5.6 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【72】（約30Km南）	3月24日10時05分	3.7 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【73】（約35Km南）	3月24日10時34分	2.0 ＊2	降雨無し	警察(NBC対策部隊)

＊1 GM(ガイガー=ミューラー計測管)における値
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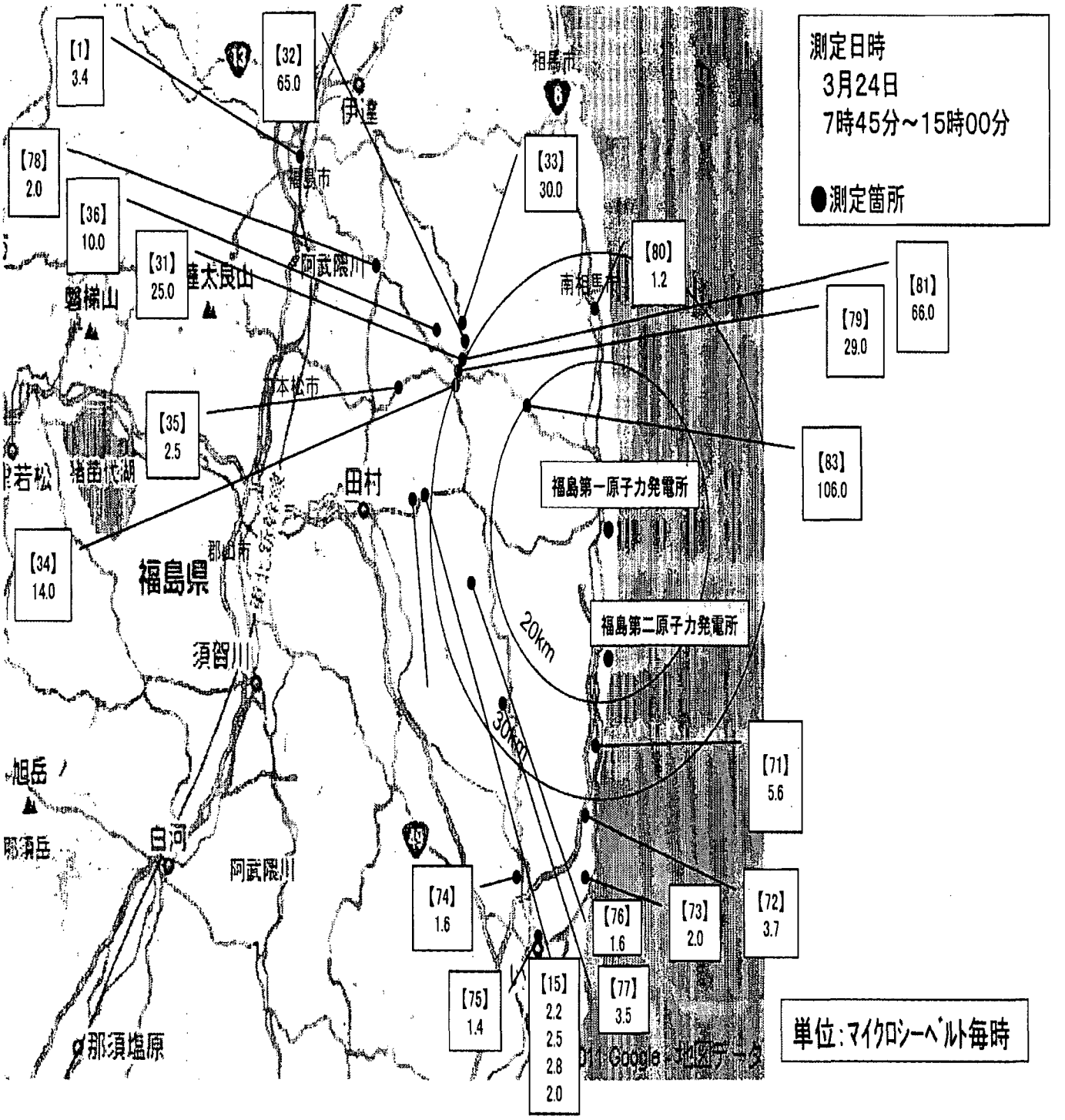
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定エリア【74】 (約35Km南)	3月24日11時08分	1.6 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【75】 (約45Km南)	3月24日8時16分	1.4 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【76】 (約25Km南西)	3月24日12時28分	1.6 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【77】 (約25Km南西)	3月24日12時08分	3.5 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【78】 (約45Km北西)	3月24日8時23分	2.0 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【79】 (約30Km北西)	3月24日9時31分	29.0 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【80】 (約25Km北)	3月24日11時53分	1.2 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【81】 (約25Km北)	3月24日9時17分	66.0 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【83】 (約25Km北)	3月24日9時46分	106.0 ＊2	降雨無し	警察(NBC対策部隊)

2. 防衛省の測定については準備中

福島第一原子力発電所周辺のモニタリング結果



From: OST01 HOC
Sent: Friday, March 25, 2011 1:38 AM
To: RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc
Cc: FOIA Response.hoc Resource
Subject: FW: Radiation data by MEXT
Attachments: 20110325_12.pdf; 20110325_13.pdf; 20110325_14.pdf; 20110325_15.pdf; 20110325_16.pdf; 20110325_17.pdf

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Friday, March 25, 2011 1:36 AM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Radiation data by MEXT

From: JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]
Sent: Friday, March 25, 2011 1:34:29 AM
To: (b)(6)

(b)(6)

Subject: FW: Radiation data by MEXT
Auto forwarded by a Rule

Jennifer Clever
Japan Emergency Command Center
U.S. Embassy, Tokyo

SBU
This email is UNCLASSIFIED-----Original Message-----
From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]
Sent: Friday, March 25, 2011 2:34 PM

+++ 164

To: (b)(6)
Cc: (b)(6)
(b)(6)

Subject: Radiation data by MEXT

Dear Mr. Cherry,

Please see attached the document.

Sincerely yours,
Eiko SENAMI

Eiko SENAMI (Ms.)
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology - Japan

プレス発表資料

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月25日13時00分現在
文　部　科　学　省

1. 文部科学省が集計した結果

＊1 GM(ガイガーミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定エリア【2】（約55Km北西）	3月25日10時01分	5.4 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【3】（約45Km北西）	3月25日10時38分	7.0 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【4】（約50Km北西）	3月25日9時33分	2.3 ＊2	降雨無し	文部科学省
測定エリア【5】（約45Km北）	3月25日11時18分	2.7 ＊2	降雨無し	文部科学省
測定エリア【10】（約40Km北西）	3月25日9時55分	2.0 ＊2	降雨無し	文部科学省
測定エリア【11】（約40Km北西）	3月25日10時06分	2.8 ＊2	降雨無し	文部科学省
測定エリア【12】（約40Km西）	3月25日11時29分	0.5 ＊2	降雨無し	文部科学省
測定エリア【13】（約40Km西）	3月25日11時46分	0.8 ＊2	降雨無し	文部科学省
測定エリア【14】（約35Km西）	3月25日11時56分	0.9 ＊2	降雨無し	文部科学省
測定エリア【20】（約45Km北西）	3月25日10時31分	1.4 ＊2	降雨無し	文部科学省
測定エリア【21】(約30Km西北西)	3月25日10時57分	7.4 ＊2	降雨無し	文部科学省
測定エリア【22】(約30Km西北西)	3月25日10時50分	1.0 ＊2	降雨無し	文部科学省
測定エリア【23】(約30Km西北西)	3月25日10時40分	1.8 ＊2	降雨無し	文部科学省

＊1 GM(ガイガー=ミューラー計測管)における値
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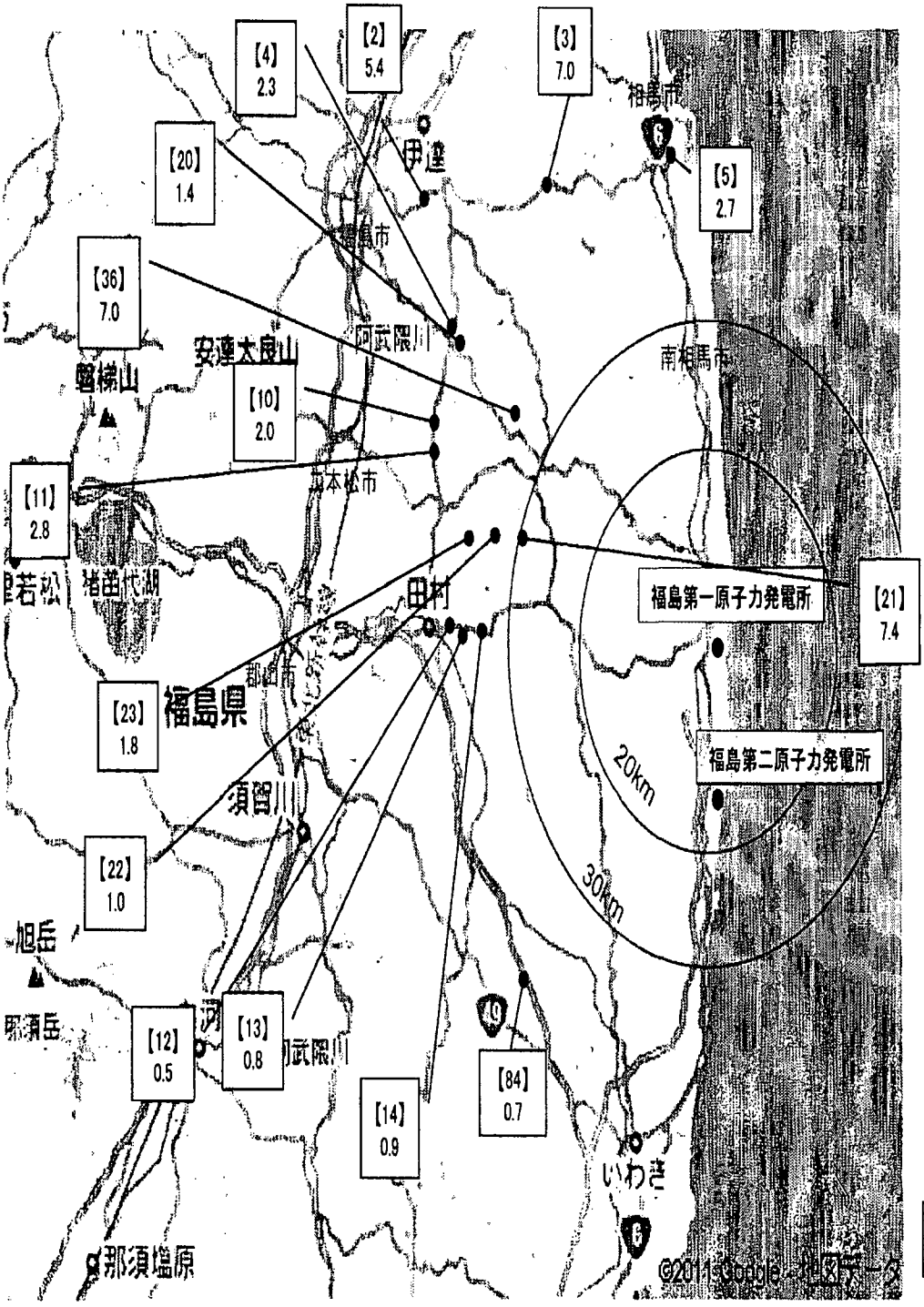
測定エリア【36】（約40Km北西）	3月25日11時00分	7.0＊2	降雨無し	日本原子力研究開発機構
測定エリア【84】（約40km南西）	3月28日10時40分	0.7＊2	降雨無し	日本原子力研究開発機構

2. 防衛省の測定については準備中

福島第一原子力発電所周辺のモニタリング結果



測定日時
3月25日
9時33分～11時56分

●測定箇所

単位：マイクロシーベルト毎時

茨城県におけるモニタリング状況(1／1)

文部科学省

H23.3.25 13:00

μSv/h(マイクロシーベルト毎時)

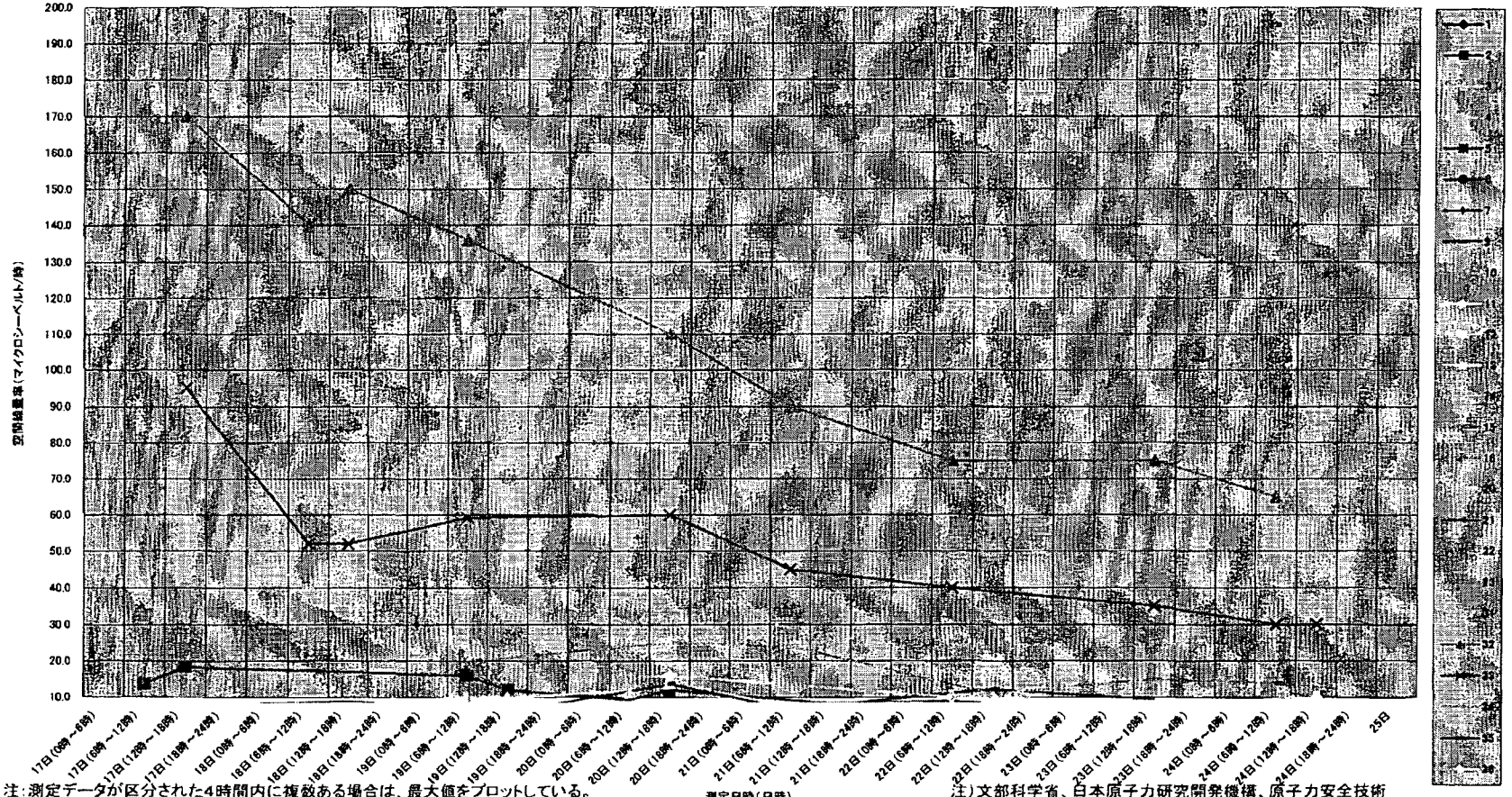
日時	日本原子力研究開発機構 原子力科学研究所 (茨城県東海村)	日本原子力研究開発機構 核燃料サイクル工学研究所 (茨城県東海村)	東京大学弥生 (茨城県東海村)
3月24日			
0:00	2.39	1.50	2.17
1:00	2.39	1.50	2.19
2:00	2.37	1.50	1.98
3:00	2.37	1.50	2.05
4:00	2.37	1.50	2.16
5:00	2.36	1.50	2.03
6:00	2.34	1.40	2.07
7:00	2.34	1.40	2.01
8:00	2.33	1.40	2.03
9:00	2.31	1.40	2.07
10:00	2.29	1.40	2.09
11:00	2.27	1.40	1.97
12:00	2.27	1.40	2.05
13:00	2.26	1.40	2.12
14:00	2.25	1.40	1.92
15:00	2.24	1.40	1.95
16:00	2.23	1.40	1.96
17:00	2.23	1.40	2.14
18:00	2.22	1.40	1.95
19:00	2.22	1.40	1.86
20:00	2.22	1.40	1.93
21:00	2.21	1.40	1.90
22:00	2.20	1.40	2.04
23:00	2.20	1.40	1.93
3月25日			
0:00	2.20	1.40	1.93
1:00	2.19	1.40	1.88
2:00	2.18	1.30	1.73
3:00	2.18	1.30	1.89
4:00	2.18	1.30	1.97
5:00	2.17	1.30	1.81
6:00	2.17	1.30	1.91
7:00	2.16	1.30	1.92
8:00	2.15	1.30	1.86
9:00	2.14	1.30	1.87
10:00	2.13	1.30	
11:00	2.12	1.30	
12:00	2.11	1.30	

※3月24日以降は、1時間毎とした。なお、日本原子力研究開発機構原子力科学研究所及び日本原子力研究開発機構核燃料サイクル工学研究所のデータは、それぞれ以下のホームページでも掲載されている。

日本原子力研究開発機構原子力科学研究所
http://erms.jaea.go.jp/Chart.htm

日本原子力研究開発機構核燃料サイクル工学研究所
http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl_10mStPo01.html

福島第一原子力発電所の20Km以遠のモニタリング結果の推移



注：測定データが区分された4時間内に複数ある場合は、最大値をプロットしている。
注：本グラフでは、10マイクロシーベルト/時以上のデータのみ表示している。

注）文部科学省、日本原子力研究開発機構、原子力安全技術センターによる測定結果を記載

環境放射能水準調査結果(上水(蛇口))
(3月24日採取)

H23.3.25 13:00 (Bq/kg)

	都道府県名	上水(蛇口)		
		I－131	放射性セシウム (Cs－134,Cs－137)	備考
1	北海道(札幌市)	不検出	不検出	
2	青森県(青森市)	不検出	不検出	
3	岩手県(盛岡市)	1.5 (指標を超えていない)	不検出	
4	宮城県	-	-	震災被害によって計測不能
5	秋田県(秋田市)	1.2 (指標を超えていない)	不検出	
6	山形県(山形市)	1.5	0.43	
7	福島県	-	-	県が独自に調査・公表している(福島県災害対策本部HPの「原子力災害情報(県内各地方環境放射能測定値(飲料水)について」を参照: http://www.pref.fukushima.jp/j/index.htm)
8	茨城県(ひたちなか市)	2.2 (指標を超えていない)	1.1 (指標を超えていない)	
9	栃木県(宇都宮市)	110 (指標を超えていない)	9.3 (指標を超えていない)	
10	群馬県(前橋市)	8.0 (指標を超えていない)	0.55 (指標を超えていない)	
11	埼玉県(さいたま市)	18 (指標を超えていない)	0.82 (指標を超えていない)	
12	千葉県(市原市)	13 (指標を超えていない)	不検出	
13	東京都(新宿区)	26 (指標を超えていない)	2.4 (指標を超えていない)	
14	神奈川県(茅ヶ崎市)	1.0 (指標を超えていない)	不検出	
15	新潟県(新潟市)	7.5 (指標を超えていない)	不検出	
16	富山県(射水市)	不検出	不検出	
17	石川県(金沢市)	不検出	不検出	
18	福井県(福井市)	不検出	不検出	
19	山梨県(甲府市)	0.22 (指標を超えていない)	不検出	
20	長野県(長野市)	不検出	不検出	
21	岐阜県(各務原市)	-	-	機器調整中
22	静岡県(静岡市)	不検出	不検出	
23	愛知県(名古屋市)	不検出	不検出	
24	三重県(四日市市)	不検出	不検出	
25	滋賀県(大津市)	不検出	不検出	
26	京都府(京都市)	不検出	不検出	
27	大阪府(大阪市)	不検出	不検出	
28	兵庫県(神戸市)	不検出	不検出	
29	奈良県(奈良市)	不検出	不検出	
30	和歌山県(和歌山市)	不検出	不検出	
31	鳥取県(東伯郡)	不検出	不検出	
32	島根県(松江市)	不検出	不検出	
33	岡山県(岡山市)	不検出	不検出	
34	広島県(広島市)	不検出	不検出	
35	山口県(宇部市)	不検出	不検出	
36	徳島県(徳島市)	不検出	不検出	
37	香川県(高松市)	不検出	不検出	
38	愛媛県(八幡浜市)	不検出	不検出	
39	高知県(高知市)	不検出	不検出	
40	福岡県(太宰府市)	不検出	不検出	
41	佐賀県(佐賀市)	不検出	不検出	
42	長崎県(大村市)	不検出	不検出	
43	熊本県(宇土市)	不検出	不検出	
44	大分県(大分市)	-	-	機器調整中
45	宮崎県(宮崎市)	不検出	不検出	
46	鹿児島県(鹿児島市)	不検出	不検出	
47	沖縄県(那覇市)	不検出	不検出	

*本データは、1Bq/Lを1Bq/kgとみなす
*文部科学省が各都道府県等からの報告に基づき作成
*「原子力施設等の防災対策について(原子力安全委員会)」飲食物の摂取制限に関する指標 (飲料水) 放射性ヨウ素－131:300 Bq/kg以上、放射性セシウム:200Bq/kg以上

環境放射能水準調査結果

H23.3.25 13:00

（μSv/h(マイクロシーベルト毎時)）

	都道府県名	3月24日															過去の平常値の範囲
		9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	
1	北海道(札幌市)	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.02～0.105
2	青森県(青森市)	0.022	0.022	0.022	0.023	0.023	0.024	0.024	0.024	0.024	0.025	0.023	0.023	0.023	0.023	0.023	0.017～0.102
3	岩手県(盛岡市)	0.031	0.031	0.030	0.031	0.031	0.032	0.033	0.034	0.033	0.031	0.031	0.030	0.031	0.031	0.030	0.014～0.084
4	宮城県(仙台市)																0.0176～0.0513
5	秋田県(秋田市)	0.035	0.035	0.041	0.048	0.049	0.042	0.036	0.035	0.034	0.034	0.034	0.034	0.034	0.034	0.035	0.022～0.086
6	山形県(山形市)	0.083	0.082	0.082	0.082	0.082	0.083	0.083	0.082	0.082	0.081	0.081	0.081	0.082	0.082	0.082	0.025～0.082
7	福島県(双葉郡)																0.037～0.071
8	茨城県(水戸市)	0.304	0.303	0.302	0.301	0.300	0.299	0.298	0.297	0.298	0.297	0.296	0.295	0.295	0.294	0.293	0.036～0.056
9	栃木県(宇都宮市)	0.134	0.134	0.133	0.132	0.131	0.131	0.131	0.130	0.130	0.130	0.130	0.129	0.129	0.129	0.129	0.030～0.087
10	群馬県(前橋市)	0.091	0.090	0.089	0.088	0.088	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.086	0.087	0.017～0.045
11	埼玉県(さいたま市)	0.117	0.116	0.116	0.115	0.115	0.115	0.114	0.113	0.113	0.114	0.113	0.113	0.113	0.114	0.113	0.031～0.060
12	千葉県(市原市)	0.097	0.096	0.096	0.095	0.095	0.095	0.095	0.096	0.096	0.096	0.095	0.094	0.095	0.094	0.095	0.022～0.044
13	東京都(新宿区)	0.138	0.138	0.138	0.138	0.137	0.136	0.136	0.136	0.135	0.134	0.134	0.134	0.135	0.135	0.134	0.028～0.079
14	神奈川県(茅ヶ崎市)	0.093	0.093	0.092	0.092	0.092	0.092	0.091	0.092	0.091	0.092	0.091	0.092	0.091	0.092	0.091	0.035～0.069
15	新潟県(新潟市)	0.047	0.047	0.047	0.049	0.050	0.048	0.047	0.046	0.046	0.047	0.049	0.053	0.061	0.054	0.049	0.031～0.153
16	富山県(射水市)	0.050	0.049	0.048	0.048	0.048	0.052	0.056	0.054	0.052	0.050	0.048	0.051	0.050	0.050	0.050	0.029～0.147
17	石川県(金沢市)	0.048	0.047	0.047	0.047	0.051	0.054	0.057	0.053	0.052	0.049	0.049	0.052	0.050	0.050	0.051	0.0291～0.1275
18	福井県(福井市)	0.048	0.045	0.048	0.052	0.054	0.055	0.056	0.049	0.049	0.052	0.049	0.052	0.051	0.054	0.051	0.032～0.097
19	山梨県(甲府市)	0.045	0.045	0.045	0.045	0.045	0.045	0.046	0.046	0.045	0.046	0.046	0.046	0.048	0.046	0.048	0.040～0.064
20	長野県(長野市)	0.053	0.052	0.052	0.051	0.051	0.051	0.051	0.050	0.051	0.051	0.051	0.050	0.051	0.052	0.051	0.0299～0.0974
21	岐阜県(各務原市)	0.062	0.062	0.061	0.061	0.061	0.061	0.062	0.062	0.063	0.064	0.064	0.061	0.060	0.061	0.060	0.057～0.110
22	静岡県(静岡市)	0.047	0.047	0.047	0.047	0.048	0.049	0.049	0.048	0.047	0.047	0.048	0.047	0.047	0.046	0.046	0.0281～0.0765
23	愛知県(名古屋市)	0.040	0.040	0.040	0.039	0.039	0.039	0.040	0.040	0.040	0.039	0.039	0.040	0.039	0.039	0.040	0.035～0.074
24	三重県(四日市市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.047	0.048	0.048	0.046	0.046	0.0416～0.0789
25	滋賀県(大津市)	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.035	0.034	0.034	0.033	0.033	0.033	0.033	0.034	0.031～0.061
26	京都府(京都市)	0.039	0.038	0.038	0.038	0.038	0.038	0.038	0.039	0.039	0.038	0.038	0.038	0.038	0.038	0.038	0.033～0.087
27	大阪府(大阪市)	0.043	0.043	0.043	0.042	0.043	0.043	0.042	0.043	0.043	0.043	0.043	0.043	0.042	0.042	0.042	0.042～0.061
28	兵庫県(神戸市)	0.037	0.037	0.037	0.037	-0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.036	0.035～0.076
29	奈良県(奈良市)	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.048	0.048	0.048	0.046～0.08
30	和歌山県(和歌山市)	0.032	0.032	0.032	0.031	0.031	0.031	0.031	0.032	0.032	0.032	0.032	0.032	0.031	0.032	0.032	0.031～0.056
31	鳥取県(東伯郡)	0.063	0.063	0.064	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.036～0.11
32	島根県(松江市)	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.037	0.033～0.079
33	岡山県(岡山市)	0.049	0.048	0.049	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.049	0.043～0.104
34	広島県(広島市)	0.049	0.048	0.048	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.048	0.049	0.035～0.069
35	山口県(山口市)	0.094	0.092	0.090	0.090	0.090	0.090	0.090	0.091	0.090	0.091	0.091	0.092	0.092	0.093	0.093	0.084～0.128
36	徳島県(徳島市)	0.038	0.037	0.038	0.037	0.037	0.037	0.038	0.038	0.037	0.037	0.038	0.038	0.037	0.038	0.038	0.037～0.067
37	香川県(高松市)	0.053	0.052	0.052	0.052	0.055	0.054	0.055	0.054	0.059	0.061	0.065	0.068	0.063	0.064	0.069	0.051～0.077
38	愛媛県(松山市)	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.049	0.049	0.050	0.045～0.074
39	高知県(高知市)	0.026	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.026	0.026	0.023～0.076
40	福岡県(太宰府市)	0.037	0.037	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.034～0.079
41	佐賀県(佐賀市)	0.040	0.041	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.037～0.086
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.027～0.069
43	熊本県(宇土市)	0.029	0.028	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.021～0.067
44	大分県(大分市)	0.050	0.050	0.050	0.050	0.049	0.050	0.049	0.050	0.049	0.050	0.050	0.049	0.050	0.050	0.050	0.048～0.085
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.027	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.027	0.027	0.027	0.027	0.0243～0.0664
46	鹿児島県(鹿児島市)	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.035	0.035	0.035	0.035	0.0306～0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.022	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133～0.0575

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、
宮城県原子力安全対策室HP(http://www.pref.miyagi.jp/gentai/Press/PressH230315.html)で公開

*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月25日13:00現在)」参照。

*空欄は機器点検等のための欠測等

*本データは、1μGy/h(マイクログレイ毎時)=1μSv/h(マイクロシーベルト毎時)と換算して算出

*文部科学省が各都道府県等からの報告に基づき作成

環境放射能水準調査結果

H23.3.25 13:00

（μSv/h(マイクロシーベルト毎時)）

	都道府県名	3月25日									
		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	過去の平常値の範囲
1	北海道(札幌市)	0.028	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.028	0.02~0.105
2	青森県(青森市)	0.023	0.023	0.023	0.023	0.024	0.027	0.025	0.024	0.023	0.017~0.102
3	岩手県(盛岡市)	0.030	0.030	0.031	0.030	0.031	0.031	0.031	0.031	0.031	0.014~0.084
4	宮城県(仙台市)										0.0176~0.0513
5	秋田県(秋田市)	0.035	0.036	0.036	0.036	0.036	0.036	0.036	0.035	0.035	0.022~0.086
6	山形県(山形市)	0.082	0.082	0.082	0.082	0.082	0.081	0.081	0.080	0.079	0.025~0.082
7	福島県(双葉郡)										0.037~0.071
8	茨城県(水戸市)	0.292	0.292	0.291	0.291	0.289	0.288	0.288	0.287	0.285	0.036~0.056
9	栃木県(宇都宮市)	0.128	0.128	0.128	0.128	0.128	0.128	0.127	0.127	0.126	0.030~0.067
10	群馬県(前橋市)	0.087	0.087	0.087	0.086	0.087	0.086	0.085	0.085	0.085	0.017~0.045
11	埼玉県(さいたま市)	0.114	0.113	0.113	0.113	0.113	0.113	0.113	0.112	0.111	0.031~0.060
12	千葉県(市原市)	0.094	0.094	0.094	0.094	0.094	0.093	0.093	0.092	0.091	0.022~0.044
13	東京都(新宿区)	0.134	0.134	0.134	0.133	0.132	0.132	0.132	0.132	0.132	0.028~0.079
14	神奈川県(茅ヶ崎市)	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.090	0.089	0.035~0.069
15	新潟県(新潟市)	0.054	0.062	0.055	0.051	0.059	0.063	0.051	0.046	0.049	0.031~0.153
16	富山県(射水市)	0.050	0.049	0.048	0.048	0.048	0.049	0.049	0.049	0.048	0.029~0.147
17	石川県(金沢市)	0.052	0.049	0.048	0.046	0.047	0.047	0.047	0.048	0.048	0.0291~0.1275
18	福井県(福井市)	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.032~0.097
19	山梨県(甲府市)	0.046	0.046	0.047	0.047	0.047	0.046	0.047	0.047	0.046	0.040~0.064
20	長野県(長野市)	0.051	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.0299~0.0974
21	岐阜県(各務原市)	0.061	0.061	0.062	0.062	0.063	0.063	0.063	0.063	0.063	0.057~0.110
22	静岡県(静岡市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0281~0.0765
23	愛知県(名古屋市)	0.039	0.040	0.040	0.040	0.041	0.041	0.042	0.043	0.042	0.035~0.074
24	三重県(四日市市)	0.046	0.046	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.0416~0.0789
25	滋賀県(大津市)	0.034	0.034	0.034	0.034	0.034	0.034	0.036	0.036	0.035	0.031~0.061
26	京都府(京都市)	0.038	0.039	0.039	0.039	0.040	0.040	0.041	0.040	0.039	0.033~0.087
27	大阪府(大阪市)	0.042	0.043	0.043	0.043	0.043	0.043	0.044	0.044	0.044	0.042~0.061
28	兵庫県(神戸市)	0.037	0.037	0.037	0.037	0.037	0.038	0.037	0.037	0.037	0.035~0.076
29	奈良県(奈良市)	0.048	0.048	0.048	0.049	0.049	0.049	0.049	0.049	0.048	0.046~0.08
30	和歌山県(和歌山市)	0.032	0.032	0.033	0.033	0.034	0.034	0.034	0.033	0.033	0.031~0.056
31	鳥取県(東伯郡)	0.063	0.064	0.064	0.064	0.064	0.064	0.063	0.063	0.063	0.036~0.11
32	島根県(松江市)	0.038	0.037	0.038	0.038	0.037	0.038	0.041	0.043	0.047	0.033~0.079
33	岡山県(岡山市)	0.050	0.049	0.050	0.050	0.051	0.051	0.051	0.052	0.051	0.043~0.104
34	広島県(広島市)	0.049	0.050	0.050	0.050	0.051	0.051	0.051	0.052	0.056	0.035~0.069
35	山口県(山口市)	0.094	0.095	0.095	0.096	0.097	0.098	0.106	0.102	0.095	0.084~0.128
36	徳島県(徳島市)	0.038	0.038	0.039	0.039	0.039	0.039	0.039	0.040	0.039	0.037~0.067
37	香川県(高松市)	0.072	0.072	0.068	0.073	0.070	0.071	0.067	0.057	0.056	0.051~0.077
38	愛媛県(松山市)	0.049	0.050	0.050	0.050	0.050	0.049	0.049	0.049	0.048	0.045~0.074
39	高知県(高知市)	0.026	0.027	0.027	0.028	0.028	0.028	0.028	0.028	0.028	0.023~0.076
40	福岡県(太宰府市)	0.037	0.038	0.037	0.037	0.038	0.039	0.040	0.038	0.036	0.034~0.079
41	佐賀県(佐賀市)	0.041	0.041	0.041	0.041	0.043	0.045	0.044	0.041	0.040	0.037~0.086
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.030	0.030	0.029	0.029	0.027~0.069
43	熊本県(宇土市)	0.028	0.028	0.028	0.028	0.028	0.029	0.029	0.027	0.027	0.021~0.067
44	大分県(大分市)	0.050	0.051	0.051	0.051	0.050	0.050	0.050	0.050	0.050	0.048~0.085
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.027	0.027	0.027	0.026	0.026	0.027	0.0243~0.0664
46	鹿児島県(鹿児島市)	0.035	0.035	0.036	0.036	0.036	0.036	0.036	0.035	0.035	0.0306~0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133~0.0575

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、
宮城県原子力安全対策室HP(http://www.pref.miyagi.jp/gentai/Press/PressH230315.html)で公開
*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月25日13:00現在)」参照。
*空欄は機器点検等のための欠測等
*本データは、1μGy/h(マイクログレイ毎時)=1μSv/h(マイクロシーベルト毎時)と換算して算出
*文部科学省が各都道府県等からの報告に基づき作成

From: OST01 HOC
Sent: Friday, March 25, 2011 5:30 AM
To: RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc
Cc: FOIA Response.hoc Resource
Subject: FW: Radiation data by MEXT
Attachments: 20110324_15.pdf; 20110324_16.pdf

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Friday, March 25, 2011 5:29 AM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Radiation data by MEXT

From: JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]
Sent: Friday, March 25, 2011 5:27:38 AM
To (b)(6)
(b)(6)

Subject: FW: Radiation data by MEXT
Auto forwarded by a Rule

fyi

This email is UNCLASSIFIED

on behalf of the Japan Emergency Command Center, +81-3-3224- 5533

Lynda Hinds
Staff Assistant to Ambassador John V. Roos U.S. Embassy
1-10-5 Akasaka, Minato-ku
Tokyo 107-8420
Tel. (03) 3224- 5370

Twitter.com/AmbassadorRoos

+++165

-----Original Message-----
From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]
Sent: Thursday, March 24, 2011 4:51 PM
To: Cherry, Ronald C
Cc: Duncan, Aleshia D; Uchida, Koichi; akasaka@mext.go.jp; senami@mext.go.jp; cmht@nnsa.doe.gov;

(b)(6)

Subject: Radiation data by MEXT

Dear Mr. Cherry,

Please see attached the document.

Sincerely yours,
Eiko SENAMI

Eiko SENAMI (Ms.)
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology - Japan

プレス発表資料

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月24日16時00分現在
文　部　科　学　省

1. 文部科学省が集計した結果 注)太下線データが今回追加分

＊1 GM(ガイガー=ミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

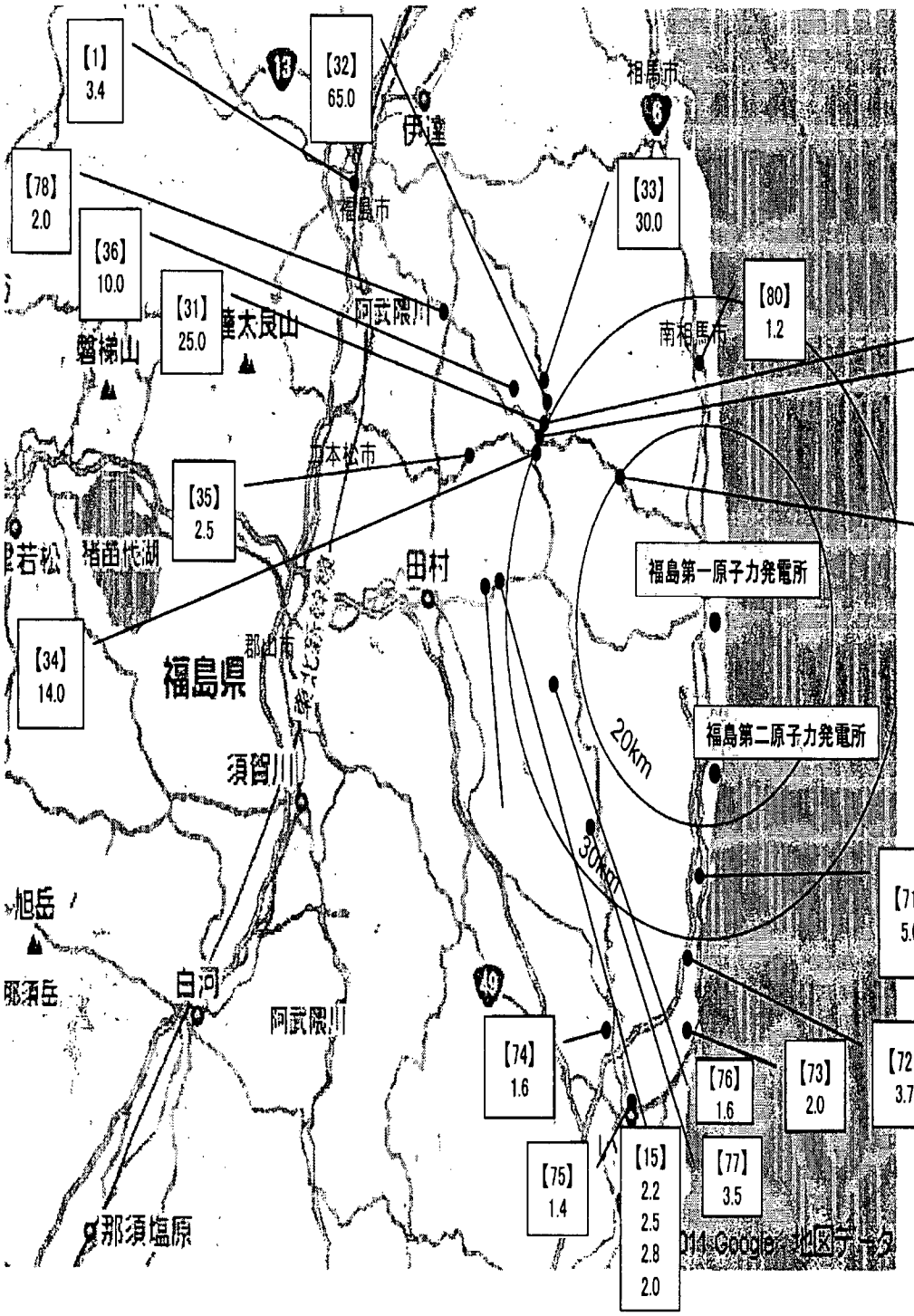
場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト/時)(記載のない限り屋外)	天候	実施者
測定エリア【1】（約60Km北西）	3月24日7時45分	3.4 *2	降雨無し	文部科学省
測定エリア【15】（約35Km西）	3月24日13時58分	2.2 *2	降雨無し	日本原子力研究開発機構
測定エリア【15】（約35Km西）	3月24日12時58分	2.5 *2	降雨無し	日本原子力研究開発機構
測定エリア【15】（約35Km西）	3月24日11時58分	2.8 *2	降雨無し	日本原子力研究開発機構
測定エリア【15】（約35Km西）	3月24日10時58分	2.0 *2	降雨無し	日本原子力研究開発機構
測定エリア【31】(約30Km西北西)	3月24日11時08分	25.0 *2	降雨無し	文部科学省
測定エリア【32】（約30Km北西）	3月24日11時20分	65.0 *2	降雨無し	文部科学省
測定エリア【33】（約30Km北西）	3月24日11時32分	30.0 *2	降雨無し	文部科学省
測定エリア【34】（約30Km北西）	3月24日11時00分	14.0 *2	降雨無し	文部科学省
測定エリア【35】（約35Km北西）	3月24日10時35分	2.5 *2	降雨無し	文部科学省
測定エリア【36】（約40Km北西）	3月24日13時13分	10.0 *2	降雨無し	文部科学省
測定エリア【71】（約25Km南）	3月24日9時27分	5.6 *2	降雨無し	警察(NBC対策部隊)
測定エリア【72】（約30Km南）	3月24日10時05分	3.7 *2	降雨無し	警察(NBC対策部隊)
測定エリア【73】（約35Km南）	3月24日10時34分	2.0 *2	降雨無し	警察(NBC対策部隊)

＊1 GM(ガイガー=ミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定エリア【74】 (約35Km南)	3月24日11時08分	1.6 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【75】 (約45Km南)	3月24日8時16分	1.4 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【76】 (約25Km南西)	3月24日12時28分	1.6 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【77】 (約25Km南西)	3月24日12時08分	3.5 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【78】 (約45Km北西)	3月24日8時23分	2.0 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【79】 (約30Km北西)	3月24日9時31分	29.0 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【80】 (約25Km北)	3月24日11時53分	1.2 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【81】 (約25Km北)	3月24日9時17分	66.0 ＊2	降雨無し	警察(NBC対策部隊)
測定エリア【83】 (約25Km北)	3月24日9時46分	106.0 ＊2	降雨無し	警察(NBC対策部隊)

2. 防衛省の測定については準備中

福島第一原子力発電所周辺のモニタリング結果



From: Blamey, Alan
Sent: Friday, March 25, 2011 10:53 AM
To: Milligan, Patricia; Hoc, PMT12; PMT09 Hoc
Subject: RE: Q about shelf-life for KI Tablets - Can you find your document summarizing shelf-life extension for KI

Thanks Patricia and Kathy. I will forward this information to the CDC representative in the Embassy.

From: Milligan, Patricia
Sent: Friday, March 25, 2011 10:02 AM
To: Hoc, PMT12; Blamey, Alan; PMT09 Hoc
Subject: Re: Q about shelf-life for KI Tablets - Can you find your document summarizing shelf-life extension for KI

You are correct
Sent from my NRC Blackberry
Patricia A Milligan, CHP RPh
(b)(6)

From: Hoc, PMT12
To: Blamey, Alan; Milligan, Patricia; PMT09 Hoc
Sent: Fri Mar 25 09:48:19 2011
Subject: RE: Q about shelf-life for KI Tablets - Can you find your document summarizing shelf-life extension for KI

Hi Alan. Kathy from the PMT here. It is my understanding that liquid KI is generally not extended, not because of the expiration of the KI part, but because the liquid it is suspended in does expire. There is plenty of data available about the extension of tablet KI (this can be used forever and ever). Trish...if you have anything else, please respond. Thanks.

From: Blamey, Alan
Sent: Friday, March 25, 2011 9:42 AM
To: Milligan, Patricia; PMT09 Hoc; Hoc, PMT12
Subject: RE: Q about shelf-life for KI Tablets - Can you find your document summarizing shelf-life extension for KI

Thanks Patricia. Based on the discussion that I have had with CDC I believe that they are offering Liquid KI. Do we have any studies that discuss and provide information on shelf life extensions for the liquid KI? If we do not have this information do you know who would have this type of information?

I will be in all night so give me call when you get a chance. The Japan Team number is +1 03 3224 5066. Also if I am not in the team room you can reach my cell phone at +(b)(6)

From: Milligan, Patricia
Sent: Friday, March 25, 2011 8:41 AM
To: PMT09 Hoc; Hoc, PMT12
Cc: Blamey, Alan
Subject: RE: Q about shelf-life for KI Tablets - Can you find your document summarizing shelf-life extension for KI

From: PMT09 Hoc
Sent: Thursday, March 24, 2011 10:07 PM

+++|166

To: Milligan, Patricia; Hoc, PMT12
Cc: Blamey, Alan
Subject: Q about shelf-life for KI Tablets - Can you find your document summarizing shelf-life extension for KI
Importance: High

Trish-

Alan Blamey from the Japan team called the PMT tonight and asked about the statement that you previous had (I believe you had worked with Ambex) on the extension of the shelf-life for KI.

Can you find that documentation and either provide it to Alan or summarize it in a statement for him to use in his future discussions, should the issue come up? He is working with CDC and accessing their strategic stockpile of KI and it would be good to have that in their back pocket should the KI go to the Japanese.

Thanks
Cyndi Jones
PMT

From:	LIA03 Hoc
Sent:	Friday, March 25, 2011 10:57 PM
To:	LIA02 Hoc
Cc:	Doane, Margaret; Mamish, Nader; Abrams, Charlotte; Wittick, Brian; Afshar-Tous, Mugeh; 'ShafferMR@state.gov'; Bloom, Steven; Schwartzman, Jennifer; Tobin, Jennifer; Mayros, Lauren; Jones, Andrea; English, Lance; Smiroldo, Elizabeth; Young, Francis; Henderson, Karen; Ramsey, Jack; Shepherd, Jill; Baker, Stephen; Emche, Danielle; Fragoyannis, Nancy; LIA03 Hoc; Stahl, Eric; LIA02 Hoc; LIA07 Hoc; LIA06 Hoc; LIA08 Hoc
Subject:	TRANSITION REPORT FOR MARCH 25, 2011 - 2300

TRANSITION REPORT FOR MARCH 25, 2011 – 2300

Janice and Jenny to Elizabeth

UPDATES DURING THIS SHIFT

- **Daily calls with UK/France/Canada.** 0930 daily call with the RST and the 1400 call with the PMT. Call will not occur over the weekend and maybe compressed to only have the 9:30 with both RST and PMT together. **The new number to call into for the RST call is** (b)(6) **and the pin is** (b)(6)
- **Chairman's Call with NISA** – The Chairman had a call with NISA on at 5:30 p.m. EST on Thursday, March 24, 2011. The interpreter on duty sat in on this call in the Chairman's office. The call went well and the Chairman offered further assistance to NISA if/when requested. No further action. The interpreter (Yokoyama) wrote up his notes, but has advised against sharing them since all of the participants of the call did not agree to sharing the information that was discussed. **No further action.**
- **2130 Daily DOS Interagency** call (Note: call was cancelled on 3/25).
- **Coordination of IAEA and U.S. Efforts.** It appears that DoD (Navy) is taking a logistical leadership role in coordinating efforts for the U.S. government. This information will need to be coordinated with both the IAEA international coordinating team as well as the INPO representative. NRC is interested in knowing what other countries are providing in support to Japan. Email was sent to NRC IAEA Attache' and NRC IAEA desk officer to pursue a path forward. **Action:** Attache' and desk officer will report if they need any further from the LT, ET may inquire about path forward. During the 0700-1500 shift, no one contacted us.
- **Sanitary wipes now available. Action:** Please wipe the keyboards, mice and phones before you leave.
- **Mailbox size increase requests.** Contacted CSC via email during the 3/25, 2300-0700 shift to request increases in the size of the email boxes for the next team of NRC travelers. Size limits for all Japan Team members have been increased to 2GB. **No further action.**
- **Mark Shaffer Question.** Received a request from Mark Shaffer asking that we send him information on three issues from the latest Situation Report. 1) The set of recommendations pertaining to severe accident management strategies that was provided to the NRC team in Japan, 2) The NARAC results, when they become available today, and 3) The exposure data the PMT is providing to NARAC. Received answer from RST for question 1 and forwarded it to Mark. PMT sent Mark answers #2 and #3 with a cc to both LIA02 and LIA03. **No further action.**
- **New Traveler.** New traveler is Elmo Collins. Sent him checklist and requested that he get dosimetry and KI from his RSO. USAID contacting his secretary to get information for his travel. Put in request for Elmo to be added to Liaison Japan. Confirmed that Elmo, Eric and Danielle have been added to Liaison Japan distribution. **No further action.**
- **Assistance to Navy (Pacific Command).** Vince Holahan will be performing a coordinating role with Admiral Willard in Honolulu, HI. Jim Dyer and Mary Matheson are putting his travel through. **Action:** Vince will need to be added to the Japan traveler list and the Liaison Japan distribution list once his travel information is known.

444/67

- **Consideration of J-village Relocation.** J-village in Fukushima prefecture is ~20km from the NPP. It appears that a lot of the work on the ground is being staged there so C. Casto suggested that the Japan team move their headquarters to J-village, he will be onsite at J-Village 3/27 to check it out. There is a hotel and restaurant on-site (previously this site was used as a training center for the Japan national soccer team). This information was provided to the ET, the translator has bookmarked the Japanese language websites that have the information in case we get further questions on the site. TEPCO, NISA, MoD and Special Defense Forces are stationed at J-village. It is the 1st level of information and is unfiltered and is where workers go for decontamination after working their shifts. **Action:** If Kirk provides more information about J-Village before Chuck's visit there, that information should be provided to the ET.

FUTURE ACTIONS/OPEN ITEMS

- **Request for meteorological data.** PMT sent a request for us to pass to the Japan Embassy Task Force regarding a need for specific meteorological data. We forwarded the request to the Task Force and received a reply from a Mona Camacho indicating she was passing it to the appropriate people. Naomi Walcott of Japan Embassy replied wanting to know the specific website PMT found the original data. PMT responded with the website in an email. **Action:** If you receive further communication, please ensure PMT is cc on the email and walk a hard copy back to the meteorologists.
- **Japan Relief Team.**
  - **Dosimetry:** LIA03 sent an email to LiasonJapan (original team) asking for them to email back their dosimetry numbers. The initial team sent over was in such a rush that the Headquarters Radiation Safety Officer, John O'Donnell, never recorded which dosimeter was assigned to which staff member. If dosimeter numbers (on the back) are received directly to the international liaison desks they should be forwarded to John O'Donnell and entered into a word document on LIA03. The RSO has also asked original team members to indicate whether they intend to stay in Japan past the end of the month. If an original team member indicates that they intend to stay past the end of the month, we need to inform the RSO and ensure that an outgoing team member bring that person a replacement dosimeter. Brooke Smith is the last person from the original team leaving Japan on 3/31/2011.
  - Cris Brown has advised that, rather than asking the relief team to carry additional satellite phones to Japan, the current team should turn ownership of the two satellite phones already over there to a new member of the relief team. The travelers have been advised to work with the current team to determine who should take ownership, then provide that name to Cris Brown and LIA02/LIA03. Action: When name is provided, ensure that Cris Brown has it.
- **NRC Travelers Return Checklist.** Completed a draft of the checklist and sent it to Michele Evans. Document is located on LIA02 desktop. **No further action required until Michele responds.**
- **Japan Lessons Learned.** ET inquired about OIP plans (existing or future) to rehire Bruce Mallet. They want him to work on Japan lessons learned. Danielle inquired with Jack. Contacted Mary Muessle and she said that Mr. Mallet will not be able to participate in this matter due to his industry involvement. Information communicated to Marty. **No further action.**
- **Request from U.S. Forces Japan.** LT Director received a request for specific reactor information from USFJ in preparation for some bilateral. International liaisons gave NRC team in Japan a heads up that the request had come in. LT Director replied to the request indicating that we have a team in Japan and that, rather than duplicate the requests the USG is making of the Japanese, it would be more efficient for USFJ to coordinate with us. LIA02 and 03 were provided as email addresses for USFJ to communicate with. **Action:** You may receive a request for information from USFJ that you would then coordinate with our team in Japan.
- **IAEA Coordination.** The ET had tasked us with understanding the role of the IAEA's Incident and Emergency Centre (IEC) and what the extent of their role is if Japan does not make a formal request to them under the Assistance Convention. We suggested that the IEC serve as a clearinghouse, keeping track of all requests for assistance from Japan, all offers to assist from other countries, who has provided what, and whether it satisfies the requests. Mark Shaffer met with Elena Buglova, Acting Director of the IEC, at approximately 0600 EDT. He provided a write-up of that meeting (in LIA02 and

03 email inboxes) to Margie. Subsequently, Ms. Buglova wrote to thank Mark for the meeting and she posted the current spreadsheet of what IAEA is tracking on ENAC (hard copy on LIA02 desk). Update: Ms. Buglova has asked the U.S. to update its entries on the spreadsheet. Jen sent the request to Margie for her views. There is still an open task on the task tracker, but we have tried to manage expectations about the extent to which NRC can "complete a task" on this subject. We have told the LT Director that OIP will keep the ET informed of developments on this issue. **Action:** We need to talk to Margie about how she'd like us to proceed with responding to IAEA's request. Continue to follow this and expect questions from ET and LT Director.

- **Translators.** The translators are working very hard but we are starting to notice duplication of efforts. This is largely due to shift changes here and in the technical teams that results in a lack of knowledge/awareness that previous versions of a document (especially monitoring data) were already translated. The result is that multiple translators are working on the same document or working to translate an entire document when a previous version was already provided to the appropriate team and only the numbers have been updated. Also, translators are often working for a long time on a document which has subsequently been published in English. **Action 1:** Please monitor NISA's English language site and ENAC and make sure that you inform the translators when a document is posted in English, so that if they are working on it they can stop and move on to something else. **Action 2:** Please ensure that the PMT and RST are keeping the translated data we provide them, in particular if a document can serve as a "key" to interpreting future data. **Action 3:** Make sure that the translated documents are marked appropriately (OUO- Sensitive Foreign Government Information).
- **Daily calls with UK/France/Canada.** Calls will take place tomorrow, 3/22, at 0930 with RST and at 1500 with PMT to discuss reactor-related and radiation-related information, respectively, with regulatory representatives from these three countries. Everyone should call into the HOO to be connected. Call will not occur over the weekend and maybe compressed to only have the 9:30 with both RST and PMT together. **The new number to call into for the RST call is** (b)(6) **and the pin is** (b)(6)
- **Daily NRC Japan Team – RST/PMT Call.** Next call scheduled for 0300. RST and PMT have been notified of the call and international liaison should plan on participating (Brooke and Kirk don't necessarily participate). All parties should call into **301-816-5120** and use pass-code (b)(6)
- **21:30 Interagency Call.**

DAILY ACTIONS/REMINDERS

- International updates must now be sent to LIA07 (to be put in the HOO Status Update) before the end of every shift as well as posted on the LT status board (different than the LT Log).
- 11 PM – 7 AM shift is responsible for the summary call with Kirk and Brooke, scheduled daily at 0500 EST unless rescheduled, and subsequent write-up of one-pager for Margie. Margie reminds us that the write-up should not contain technical details, which are already captured in other reports, and should be marked "Official Use Only – Foreign Government Information."
- The 11pm-7am shift is responsible for sending all emails from the previous day to the FOIA email address (FOIA Response.hoc@nrc.gov).
- Kirk and Brooke requested that the international team to sit in on calls with the ET and Chuck to take notes and provide a short summary of what was discussed via email.
- Prior to any international call you set up, please make sure you contact the HOOs to let them know that you are going to have the international call.
- Reminder to Keep Mark Shaffer in-the-loop at shaffermr@state.gov, regardless of time of day, regardless of whether he is in the office or asleep. Especially cc Mark on all communication to IAEA.

From: Jones, Andrea
Sent: Friday, March 25, 2011 2:45 PM
To: LIA02 Hoc; LIA03 Hoc
Subject: Steve, are you coming to the office today

I wanted to know if you saved packages in a specific folder so that I can start forwarding to Margie for her review. She will look at them this weekend.

From: LIA02 Hoc
Sent: Friday, March 25, 2011 2:07 PM
To: LIA03 Hoc
Cc: Doane, Margaret; Mamish, Nader; Abrams, Charlotte; Wittick, Brian; Afshar-Tous, Mugeh; 'ShafferMR@state.gov'; Bloom, Steven; Schwartzman, Jennifer; Tobin, Jennifer; Mayros, Lauren; Jones, Andrea; English, Lance; Smiroldo, Elizabeth; Young, Francis; Henderson, Karen; Ramsey, Jack; Shepherd, Jill; Baker, Stephen; Emche, Danielle; Fragoyannis, Nancy; LIA03 Hoc; Stahl, Eric; LIA02 Hoc; LIA07 Hoc; LIA06 Hoc; LIA08 Hoc
Subject: TRANSITION REPORT 3/25, 1500

TRANSITION REPORT FOR MARCH 25, 2011 – 1500

Steve and Lance to Janice and Jenny

UPDATES DURING THIS SHIFT

- **Open ET action items.** Tasks #2310 and 2314 on the Task Tracker have been assigned to the international liaison. Both are follow-ups to a call Chuck Casto had with the ET this morning regarding a meeting Chuck attended at the Japanese Cabinet. We contacted Rick Devercelly, who was on the night shift today, to see if he had the answers. He didn't, so he said he'd contact Chuck as soon as it became a reasonable hour. Followed up with an email to Chuck on 3/24 at 12:00. Despite several calls from us, he has not yet called back about this issue. Continue to follow-up and then close out the actions in the Task Tracker. Received mail from LIA08 at 11:10 which contained the meeting minutes from Chuck.
- **Daily calls with UK/France/Canada.** 0930 daily call with the RST and the 1400 call with the PMT. Call will not occur over the weekend and maybe compressed to only have the 9:30 with both RST and PMT together. **The new number to call into for the RST call is** (b)(6) **and the pin is** (b)(6)
- **State Liaison Request.** The State Liaison desk requested a talking point on how the NRC came up with the PAR, if there was consultation with Japan before the PAR was made (to compare with the NRC/State interactions on determining PARs). Draft talking point sent to OIP Management, waiting for final version to send to LIA04 (State Liaison). Did not receive this talking point during the 2300-0700 shift. Once received, transmit the OIP talking point to State Liaison once (Margie had some thoughts on feeding it back through OPA). Per Jack Ramsey and as discussed with the LT Director, OIP will not be developing a talking point.
- **Chairman's Call with NISA** – The Chairman had a call with NISA on at 5:30 p.m. EST on Thursday, March 24, 2011. The interpreter on duty sat in on this call in the Chairman's office. The call went well and the Chairman offered further assistance to NISA if/when requested. No further action. **Action:** The interpreter (Yokoyama) is going to write up his notes, forward to Danielle.
- **2130 Daily DOS Interagency** call (Note: call was cancelled on 3/24).
- **Coordination of IAEA and U.S. Efforts.** It appears that DoD (Navy) is taking a logistical leadership role in coordinating efforts for the U.S. government. This information will need to be coordinated with both the IAEA international coordinating team as well as the INPO representative. NRC is interested in knowing what other countries are providing in support to Japan. Email was sent to NRC IAEA Attache' and NRC IAEA desk officer to pursue a path forward. **Action:** Attache' and desk officer will report if

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they need any further from the LT, ET may inquire about path forward. During the 2300-0700 shift, no one contacted us.

- **Sanitary wipes now available. Action:** Please wipe the keyboards, mice and phones before you leave.
- **Chairman's call with Ambassador Fujisaki scheduled at 1100 on 3/25/11.** Pulled together talking points with Kirk Foggie. LT Director decided to put together a more comprehensive briefing package, using the Situation Report and other data. The report on the Chairman's previous call with the Ambassador was used to determine possible questions he might receive. No further action required.
- **Congressional inquiry.** Received email at 4:58 am forwarded from LT Director containing 4 questions from Brian Sheron, which he received from Congress. The first two questions were answered. The fourth is outside our purview. Brooke was uncomfortable answering the third question because it was speculative. In any case, she may send further information when more time is available. Follow up with LT director to determine if it is necessary to follow through with question 3. Forwarded the answer at 13:13 to questions 1 thru 3 to Bob Nelson who will answer question 4 and then coordinate all of the responses with OPA. Forwarded all 4 answers at 13:56 to Brian Sheron.
- **Mailbox size increase requests.** Contacted CSC via email during the 3/25, 2300-0700 shift to request increases in the size of the email boxes for the next team of NRC travelers. **Action:** Follow up to ensure that CSC has responded to the message and informed us of how to proceed. Received email from ET02 with ticket numbers for this at 11:08.
- **International requests for information.**
  AIT/TECRO (Taiwan) has requested a briefing on the 50-mile evacuation zone and the plume modeling. Danielle Emche met with AIT/TECRO 3/24 and they requested the same information that the NRC has been sharing with France, UK and Canada on the daily calls with the PMT. PMT will contact Danielle to provide the call-in information to AIT/TECRO contact.
- **Mark Shaffer Question.** Received a request from Mark Shaffer asking that we send him information on three issues from the latest Situation Report. 1) The set of recommendations pertaining to severe accident management strategies that was provided to the NRC team in Japan, 2) The NARAC results, when they become available today, and 3) The exposure data the PMT is providing to NARAC. Received answer from RST for question 1 and forwarded it to Mark. **Action:** Still waiting for answer from PMT on questions 2 and 3. Follow up with PMT, sent them the request for information at 08:54.
- **New Traveler.** New traveler is Elmo Collins. Sent him checklist and requested that he get dosimetry and KI from his RSO. USAID contacting his secretary to get information for his travel. Put in request for Elmo to be added to Liaison Japan.

FUTURE ACTIONS/OPEN ITEMS

- **NISA Request for U.S. Emergency Response Information.** NISA emailed Brooke and asked her to provide them with Emergency Response info. Brooke emailed us to ask for the NUREG for this. Specifically, NISA wants info on U.S. policy for returning a population after evacuation due to a radiological event. Technical staff in the Ops Center said that this information is provided through the EPA. Lauren provided her with 2 documents: 1) federal register notice referencing the Protective Action Guides used to evacuate/re-enter after a radiological event and 2) the EPA's MANUAL OF PROTECTIVE ACTION GUIDES AND PROTECTIVE ACTIONS FOR NUCLEAR INCIDENTS. We are still trying to track down NUREG07278 as written in the previous transition report. Try to get a hold of this document and send it along to Brooke. We forwarded NUREG0728 to Brook as the LT Coordinator is not familiar with five digit NUREG #s. Followed up with FEMA Liaison contact, he provided information that had been approved by his legal staff. Forwarded answer to Brooke and Kirk, **no further action.**
- **NISA Request for Information on Long-Term Decommissioning for Damaged Reactors.** Request came from Mike Scott looking for response for Sunday call. RST informed us that RES is looking into this. Task Tracker 2536. RST is coordinating with RES, FSME and PMT to provide some short-term answers and to determine how long-term actions will be coordinated. Follow-up (3/25 0700 shift) to check with RST that a short-term response gets sent to Dan Dorman (and Mike Scott). Received responses from Jim Andersen and forward to Mike Scott at 12:26.

- **Request for meteorological data.** PMT sent a request for us to pass to the Japan Embassy Task Force regarding a need for specific meteorological data. We forwarded the request to the Task Force and received a reply from a Mona Camacho indicating she was passing it to the appropriate people. Naomi Walcott of Japan Embassy replied wanting to know the specific website PMT found the original data. PMT responded with the website in an email. **Action:** If you receive further communication, please ensure PMT is cc on the email and walk a hard copy back to the meteorologists.
- **Japan Relief Team.**
  - **Change of OIP plans:** Danielle Emche will be departing for Japan on Saturday, 3/26. Eric Stahl will be departing on Monday, 3/28. Jack Ramsey will not be going to Japan. We have provided this information to USAID and to the IT personnel in the Ops Center so that travel arrangements, dosimetry and Blackberries, etc. have been arranged.
  - **No need for extension of travel orders beyond 3/31/2011:** Brooke Smith is the last person from the original team leaving Japan on March 31, 2011.
  - **Departures:** Michael Scott and Alan Blamey have arrived in Tokyo. Ralph Way, Syed Ali, Abdul Sheikh, and Rob Taylor have picked up their Blackberries and laptops (if applicable). Ralph is carrying Blackberries for Marie Miller and Jack Giessner. Rob Taylor is carrying the calling cards for the team. None of the travelers plan to come into the office on 3/24/11. All flight information has been updated in the Japan Traveler information sheet.
  - **Dosimetry:** LIA03 sent an email to LiasonJapan (original team) asking for them to email back their dosimetry numbers. The initial team sent over was in such a rush that the Headquarters Radiation Safety Officer, John O'Donnell, never recorded which dosimeter was assigned to which staff member. If dosimeter numbers (on the back) are received directly to the international liaison desks they should be forwarded to John O'Donnell and entered into a word document on LIA03. The RSO has also asked original team members to indicate whether they intend to stay in Japan past the end of the month. If an original team member indicates that they intend to stay past the end of the month, we need to inform the RSO and ensure that an outgoing team member bring that person a replacement dosimeter. Brooke Smith is the last person from the original team leaving Japan on 3/31/2011.
  - **Dosimeter Distribution** – John O'Donnell stopped by on Wednesday afternoon and informed us that the dosimeters should be handed out in numerical order from now on. Whomever take the control dosimeter needs to call John and have him explain how to use it, but in short, the control dosimeter will measure occupational exposure versus environmental exposure. Therefore, the control dosimeter should stay safe in a desk at the Embassy and the last person back from Japan should bring it back with them. Danielle has the control dosimeter and discussed with John O'Donnell about how to use.
  - Cris Brown has advised that, rather than asking the relief team to carry additional satellite phones to Japan, the current team should turn ownership of the two satellite phones already over there to a new member of the relief team. The travelers have been advised to work with the current team to determine who should take ownership, then provide that name to Cris Brown and LIA02/LIA03. Action: When name is provided, ensure that Cris Brown has it.
- **NRC Travelers Return Checklist.** Completed a draft of the checklist and sent it to Michele Evans. Document is located on LIA02 desktop. **No further action required until Michele responds.**
- **Jim Trapp/Tony Ulses Travel.** Mary Carter will have to make Jim and Tony's travel reservations back home since they do not have travel authorizations through USAID. Kirk already emailed Mary and NRC liaisons at USAID. Jim provided his information to Mary directly. LIA 03 forwarded Tony's information to Mary. Received emails from USAID about Jim and Tony's flight information and others and forwarded to Mary Carter. **No further action.**
- **Japan Lessons Learned.** ET inquired about OIP plans (existing or future) to rehire Bruce Mallet. They want him to work on Japan lessons learned. Danielle inquired with Jack. **Action:** Report to the ET as soon as we get an answer (specifically Marty Virgilio). Contacted Mary Muessle and she said things are just about complete.
- **Request from U.S. Forces Japan.** LT Director received a request for specific reactor information from USFJ in preparation for some bilateral meetings they are having tomorrow. International liaisons gave NRC team in Japan a heads up that the request had come in. LT Director replied to the request

indicating that we have a team in Japan and that, rather than duplicate the requests the USG is making of the Japanese, it would be more efficient for USFJ to coordinate with us. LIA02 and 03 were provided as email addresses for USFJ to communicate with. **Action:** You may receive a request for information from USFJ that you would then coordinate with our team in Japan.

- **Request from IAEA.** Mike Modro of the IAEA reached out to Jen Schwartzman seeking NRC assistance with source term-related analysis. In particular, they are looking for severe accident management procedures for BWRs. Jen passed the request to the PMT to see what assistance we can provide, and provided Mike with a copy of NUREG-1465, "Accident Source Terms for Light-Water Power Plants," in the meantime. Jen set up a phone call for Mike with Don Cool for 9 AM EDT Thursday. Jen sat in on the call and indicated that another call with the RST is necessary to resolve the item, Jen is setting this up with NRR. **No further action.**
- **IAEA Coordination**. The ET had tasked us with understanding the role of the IAEA's Incident and Emergency Centre (IEC) and what the extent of their role is if Japan does not make a formal request to them under the Assistance Convention. We suggested that the IEC serve as a clearinghouse, keeping track of all requests for assistance from Japan, all offers to assist from other countries, who has provided what, and whether it satisfies the requests. Mark Shaffer met with Elena Buglova, Acting Director of the IEC, at approximately 0600 EDT. He provided a write-up of that meeting (in LIA02 and 03 email inboxes) to Margie. Subsequently, Ms. Buglova wrote to thank Mark for the meeting and she posted the current spreadsheet of what IAEA is tracking on ENAC (hard copy on LIA02 desk). Update: Ms. Buglova has asked the U.S. to update its entries on the spreadsheet. Jen sent the request to Margie for her views. There is still an open task on the task tracker, but we have tried to manage expectations about the extent to which NRC can "complete a task" on this subject. We have told the LT Director that OIP will keep the ET informed of developments on this issue. **Action:** We need to talk to Margie about how she'd like us to proceed with responding to IAEA's request. Continue to follow this and expect questions from ET and LT Director.
- **Translators.** The translators are working very hard but we are starting to notice duplication of efforts. This is largely due to shift changes here and in the technical teams that results in a lack of knowledge/awareness that previous versions of a document (especially monitoring data) were already translated. The result is that multiple translators are working on the same document or working to translate an entire document when a previous version was already provided to the appropriate team and only the numbers have been updated. Also, translators are often working for a long time on a document which has subsequently been published in English. **Action 1:** Please monitor NISA's English language site and ENAC and make sure that you inform the translators when a document is posted in English, so that if they are working on it they can stop and move on to something else. **Action 2:** Please ensure that the PMT and RST are keeping the translated data we provide them, in particular if a document can serve as a "key" to interpreting future data. **Action 3:** Make sure that the translated documents are marked appropriately (OUO- Sensitive Foreign Government Information).
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- **21:30 Interagency Call.** Contact the DOS Task Force (during 3/25 0700 shift) to find out when next call is. Thursday's (3/24) call was cancelled.

DAILY ACTIONS/REMINDERS

- International updates must now be sent to LIA07 (to be put in the HOO Status Update) before the end of every shift as well as posted on the LT status board (different than the LT Log).
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- Prior to any international call you set up, please make sure you contact the HOOs to let them know that you are going to have the international call.
- Reminder to Keep Mark Shaffer in-the-loop at shaffermr@state.gov, regardless of time of day, regardless of whether he is in the office or asleep. Especially cc Mark on all communication to IAEA.

~~OFFICIAL USE ONLY~~

From: OST01 HOC
Sent: Friday, March 25, 2011 12:39 AM
To: RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc; Hoc, PMT12
Cc: FOIA Response.hoc Resource
Subject: FW: F1 plant parameters on Marc 25
Attachments: FukushimaF1 parameters March 25 0610.docx

From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Friday, March 25, 2011 12:34 AM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: F1 plant parameters on Marc 25

From: JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]
Sent: Friday, March 25, 2011 12:33:31 AM
To: (b)(6)

(b)(6)

Subject: FW: F1 plant parameters on Marc 25
Auto forwarded by a Rule

Jennifer Clever
Japan Emergency Command Center
U.S. Embassy, Tokyo

SBU
This email is UNCLASSIFIED.

From: Uchida, Koichi
Sent: Friday, March 25, 2011 1:26 PM

To: Cherry, Ronald C; 'NITOPS'; JapanEmbassy, TaskForce
Cc: 'Alan Remick'; 'Aleshia Duncan'; Duncan, Aleshia D; 'James Trapp'; 'James Trapp (BB)'; Mears, Jeremy M; Morales, Russell A; 'Tony Ulses'; 'OConnor, Rod'; Bryan, William; 'Williams, Melvin'; 'Hurlbut, Brandon'; 'Anderson, Margot'; 'Mueller, Stephanie'; 'LaVera, Damien'; 'Damian Peko'; 'Reynolds, Tom'; 'Hunsaker, Christopher'; 'Koontz, Thomas'; 'Leistikow, Dan'; Zubarev, Jill E; Cherry, Ronald C; 'Chris.Miller@nrc.gov'; Sano, Mikako
Subject: F1 plant parameters on Marc 25

Plant parameters of Fukushima -1 as of 06:10 on March 25 is attached.

http://www.meti.go.jp/press/20110325005/20110325005-3.pdf

Uchida
DOE Tokyo

This email is UNCLASSIFIED.

Fukushima Dai-ichi (F-1) Major Plant Parameters

(As of 06:10, March 25)

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Conditions of water injection	Sea water injection through water supply line flow rate : **113 liters /min** (March 24.21:45)	Sea water injection through fire extinguish line flow rate : **Down scale (around 10 m^3/h)** (March 24, 21:45)	Sea water injection through fire extinguish line Flow rate: **malfunctioned** (March 24, 18:00)	-	-	-
Reactor Water level (Distance from the top of fuel)	A area: **minus 1700 mm** B area: **Minus 1650 mm** (March 25, 06:00)	A area: **minus 1100 mm** (March 25. 06:00)	A area: **minus 1900 mm** B area: **minus 2300 mm** (March 25, 06:10)	-	**2443mm** (March 25, 06:00)	**2363mm** (March 25, 06:00)
Reactor pressure	**0.365 MPag** (A) **0.351 MPag** (B) (March 25, 06:00)	**Minus 0.020 MPag** (A) **Minus 0.020 MPag** (B) (March 25, 06:00)	**0.038 MPag** (A) **Minus 0.097 MPag** (C) (March 25, 06:10)	-	**0.00 7 MPa g** (March 25, 06:00)	**0.008 MPa g** (March 25, 06:00)
Reactor water temperature	-	-	-	-	**65.8 C** (March 25, 06:00)	**50.2 C** (March 25, 06:00)
Pressure Vessel Temperature	Supply water nozzle: **204.5 C** Bottom of Pressure Vessel: **157.5 C** (March 25, 06:00))	Supply water nozzle: **105 C** Bottom of Pressure Vessel: **105 C** (March 25, 06:00)	Supply water nozzle: **42.8 C** Bottom of Pressure Vessel: **111.6 C** (March 25, 06:10)	No fuels in the pressure vessel	Under observation by the reactor water temperature	Under observation by the reactor water temperature
D/W, S/C pressure S/C water temperature	**D/W:0.310MPa abs S/W:0.305 MPa abs** (March 25, 06:00)	**D/W: 0.12MPa abs S/W: Down scale** (March 25, 06:00)	**D/W: 0.1074MPa abs S/W: 0.1937MPa abs** (March 25, 06:10)	-	-	-
CAMS	**D/W: 4.00*10^1 Sv/h S/C:2.51*10^1 Sv/h** (March 25, 06:00)	**D/W:4.59*10^1 Sv/h S/C: 1.54*10^0 Sv/h** (March 25, 06:00)	**D/W:5.10*10^1 Sv/h S/C: 1.50*10^0 Sv/h** (March 25, 06:10)	-	-	-
D/W design						

utilization pressure	0.384 MPag (0.485 Pa abs)	0.384 MPag (0.485 Pa abs)	0.384 MPag (0.485 Pa abs)			
D/W maximum utilization pressure	0.427 MPag (0.528MPa abs)	0.427 MPag (0.528MPa abs)	0.427 MPag (0.528MPa abs)			
SNF pool water temperature	-	**28C** (under investigation on the decrease) (Mar 25, 06:00)	-	**Incorrect indication** (Mar24, 11:00)	**49.3 C** (Mar 25,06:00)	**20.5 C** (Mar 25,06:00)
Power	Receiving external power (P/C 2D)		Receiving external power (P/C 4D)		Receiving external power	

From: OST01 HOC
Sent: Friday, March 25, 2011 8:12 AM
To: RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc
Cc: FOIA Response.hoc Resource
Subject: FW: Radiation data by MEXT
Attachments: 20110324_15.pdf; 20110324_16.pdf

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Friday, March 25, 2011 8:12 AM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Radiation data by MEXT

From: NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]
Sent: Friday, March 25, 2011 8:11:48 AM
To: CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc; Hoc, PMT12
Cc: NITOPS
Subject: FW: Radiation data by MEXT
Auto forwarded by a Rule

Nuclear Incident Team (NIT)
Office of Emergency Response (NA-42)
National Nuclear Security Administration U.S. Department of Energy nitops@nnsa.doe.gov nit@doe.sgov.gov 202-586-8100

-----Original Message-----
From: JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]
Sent: Friday, March 25, 2011 5:28 AM
To (b)(6)
(b)(6)
Subject: FW: Radiation data by MEXT

++ 170

From: OST01 HOC
Sent: Friday, March 25, 2011 7:57 AM
To: RST01 Hoc; PMT02 Hoc; PMT01 Hoc; PMT11 Hoc
Cc: FOIA Response.hoc Resource
Subject: FW: Radiation data by MEXT
Attachments: 20110325_12.pdf; 20110325_13.pdf; 20110325_14.pdf; 20110325_15.pdf; 20110325_16.pdf; 20110325_17.pdf

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Friday, March 25, 2011 7:56 AM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Radiation data by MEXT

From: NITOPS[SMTP:NITOPS@NNSA.DOE.GOV]
Sent: Friday, March 25, 2011 7:56:02 AM
To: CMHT; HOO Hoc; NARAC; PMT01 Hoc; PMT02 Hoc; Hoc, PMT12
Cc: NITOPS
Subject: FW: Radiation data by MEXT
Auto forwarded by a Rule

Nuclear Incident Team (NIT)
Office of Emergency Response (NA-42)
National Nuclear Security Administration U.S. Department of Energy nitops@nnsa.doe.gov nit@doe.sgov.gov 202-586-8100

-----Original Message-----
From: JapanEmbassy, TaskForce [mailto:JapanEmbassyTaskForce@state.gov]
Sent: Friday, March 25, 2011 1:34 AM
To: (b)(6)
(b)(6)

xtt/71

Subject: FW: Radiation data by MEXT

Jennifer Clever
Japan Emergency Command Center
U.S. Embassy, Tokyo

SBU
This email is UNCLASSIFIED-----Original Message-----
From: saigai03@mext.go.jp [mailto:saigai03@mext.go.jp]
Sent: Friday, March 25, 2011 2:34 PM
To: (b)(6)
Cc: (b)(6)
(b)(6)
Subject: Radiation data by MEXT

Dear Mr. Cherry,

Please see attached the document.

Sincerely yours,
Eiko SENAMI

Eiko SENAMI (Ms.)
Office of International Relations, Nuclear Safety Division, Ministry of Education, Culture, Sports, Science and Technology - Japan

プレス発表資料

福島第一原子力発電所の20Km以遠のモニタリング結果について

平成23年3月25日13時00分現在
文　部　科　学　省

1. 文部科学省が集計した結果

＊1 GM(ガイガー=ミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

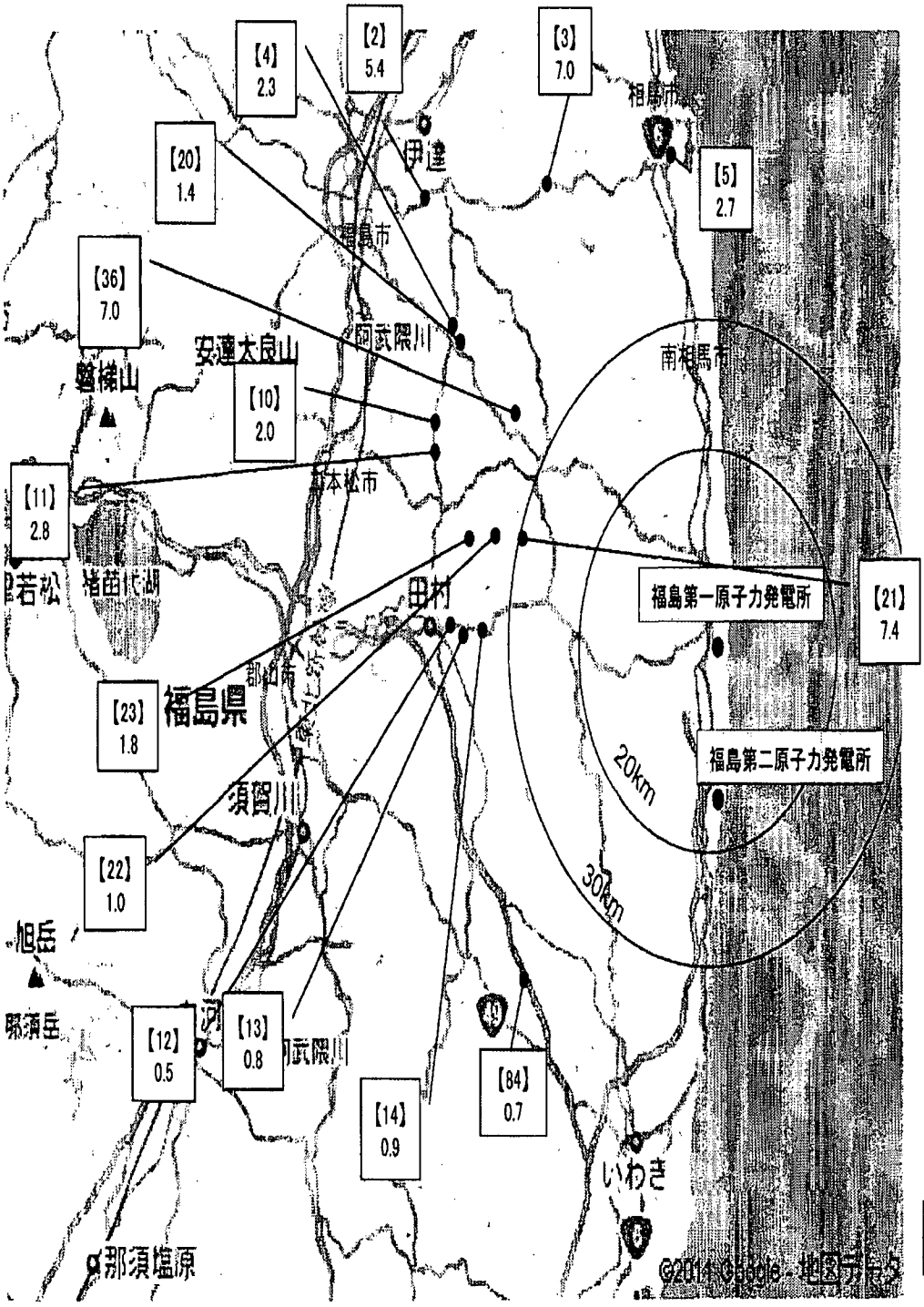
場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定エリア【2】（約55Km北西）	3月25日10時01分	5.4 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【3】（約45Km北西）	3月25日10時38分	7.0 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【4】（約50Km北西）	3月25日9時33分	2.3 ＊2	降雨無し	文部科学省
測定エリア【5】（約45Km北）	3月25日11時18分	2.7 ＊2	降雨無し	文部科学省
測定エリア【10】（約40Km北西）	3月25日9時55分	2.0 ＊2	降雨無し	文部科学省
測定エリア【11】（約40Km北西）	3月25日10時06分	2.8 ＊2	降雨無し	文部科学省
測定エリア【12】（約40Km西）	3月25日11時29分	0.5 ＊2	降雨無し	文部科学省
測定エリア【13】（約40Km西）	3月25日11時46分	0.8 ＊2	降雨無し	文部科学省
測定エリア【14】（約35Km西）	3月25日11時56分	0.9 ＊2	降雨無し	文部科学省
測定エリア【20】（約45Km北西）	3月25日10時31分	1.4 ＊2	降雨無し	文部科学省
測定エリア【21】（約30Km西北西）	3月25日10時57分	7.4 ＊2	降雨無し	文部科学省
測定エリア【22】（約30Km西北西）	3月25日10時50分	1.0 ＊2	降雨無し	文部科学省
測定エリア【23】（約30Km西北西）	3月25日10時40分	1.8 ＊2	降雨無し	文部科学省

＊1 GM(ガイガー=ミューラー計測管)における値
＊2 電離箱における値
＊3 NaI(ヨウ化ナトリウム)シンチレータにおける値

場所(福島第1発電所からの距離)	測定日時	数値(マイクロシーベルト／時) (記載のない限り屋外)	天候	実施者
測定エリア【36】（約40Km北西）	3月25日11時00分	7.0 ＊2	降雨無し	日本原子力研究開発機構
測定エリア【84】（約40km南西）	3月28日10時40分	0.7 ＊2	降雨無し	日本原子力研究開発機構

2. 防衛省の測定については準備中

福島第一原子力発電所周辺のモニタリング結果



測定日時
3月25日
9時33分～11時56分

●測定箇所

単位：マイクロシーベルト毎時

茨城県におけるモニタリング状況(1／1)

文部科学省

H23.3.25 13:00

μSv/h(マイクロシーベルト毎時)

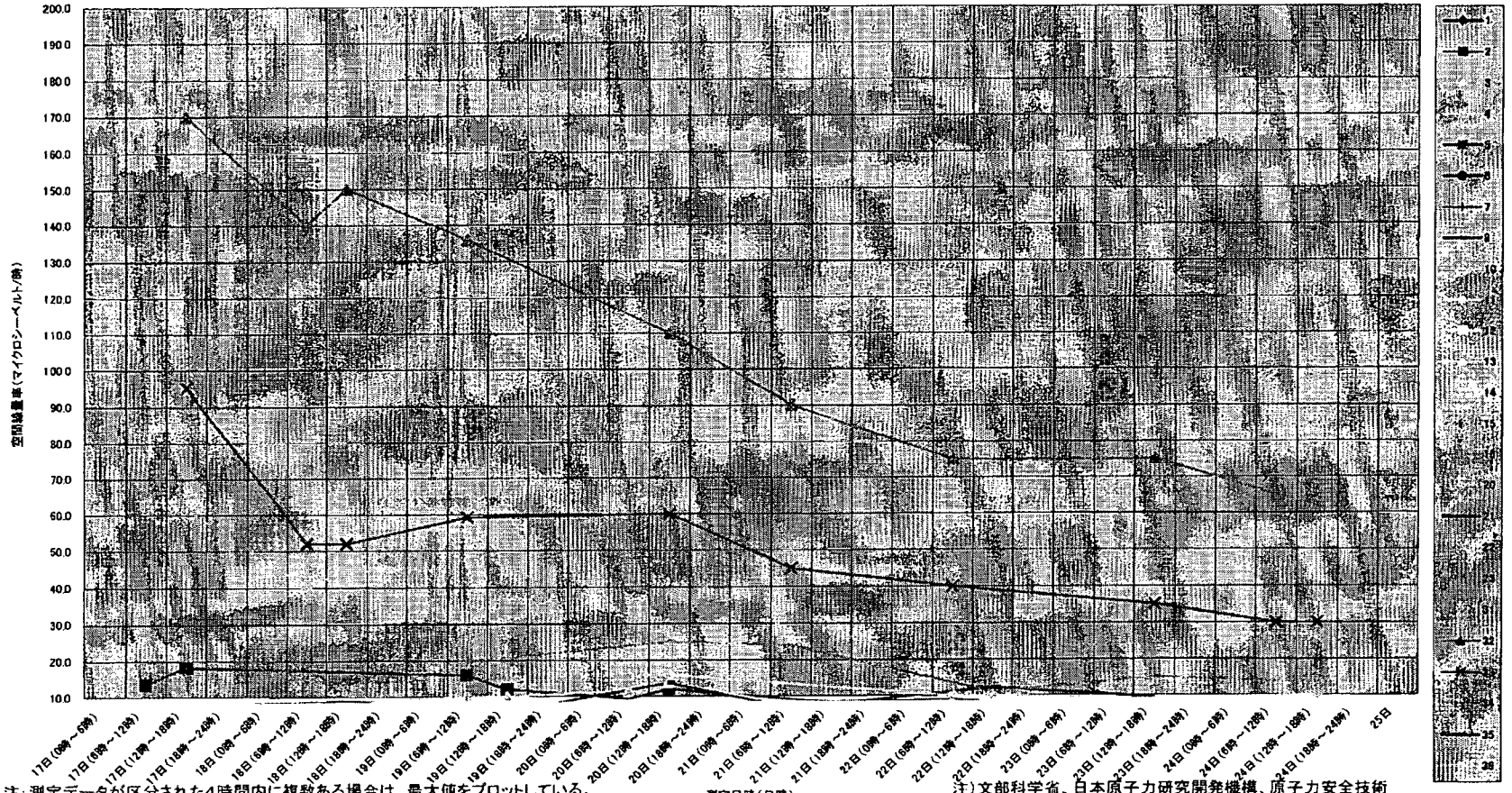
日時	日本原子力研究開発機構 原子力科学研究所 (茨城県東海村)	日本原子力研究開発機構 核燃料サイクル工学研究所 (茨城県東海村)	東京大学弥生 (茨城県東海村)
3月24日			
0:00	2.39	1.50	2.17
1:00	2.39	1.50	2.19
2:00	2.37	1.50	1.98
3:00	2.37	1.50	2.05
4:00	2.37	1.50	2.16
5:00	2.36	1.50	2.03
6:00	2.34	1.40	2.07
7:00	2.34	1.40	2.01
8:00	2.33	1.40	2.03
9:00	2.31	1.40	2.07
10:00	2.29	1.40	2.09
11:00	2.27	1.40	1.97
12:00	2.27	1.40	2.05
13:00	2.26	1.40	2.12
14:00	2.25	1.40	1.92
15:00	2.24	1.40	1.95
16:00	2.23	1.40	1.96
17:00	2.23	1.40	2.14
18:00	2.22	1.40	1.95
19:00	2.22	1.40	1.86
20:00	2.22	1.40	1.93
21:00	2.21	1.40	1.90
22:00	2.20	1.40	2.04
23:00	2.20	1.40	1.93
3月25日			
0:00	2.20	1.40	1.93
1:00	2.19	1.40	1.88
2:00	2.18	1.30	1.73
3:00	2.18	1.30	1.89
4:00	2.18	1.30	1.97
5:00	2.17	1.30	1.81
6:00	2.17	1.30	1.91
7:00	2.16	1.30	1.92
8:00	2.15	1.30	1.86
9:00	2.14	1.30	1.87
10:00	2.13	1.30	
11:00	2.12	1.30	
12:00	2.11	1.30	

※3月24日以降は、1時間毎とした。なお、日本原子力研究開発機構原子力科学研究所及び日本原子力研究開発機構核燃料サイクル工学研究所のデータは、それぞれ以下のホームページでも掲載されている。

日本原子力研究開発機構原子力科学研究所
http://erms.jaea.go.jp/Chart.htm

日本原子力研究開発機構核燃料サイクル工学研究所
http://www.jaea.go.jp/04/ztokai/kankyo/realtime/tbl_10mStPo01.html

福島第一原子力発電所の20Km以遠のモニタリング結果の推移



注：測定データが区分された4時間内に複数ある場合は、最大値をプロットしている。
注：本グラフでは、10マイクロシーベルト/時以上のデータのみ表示している。

注）文部科学省、日本原子力研究開発機構、原子力安全技術センターによる測定結果を記載

環境放射能水準調査結果(上水(蛇口))
(3月24日採取)

H23.3.25 13:00 (Bq/kg)

	都道府県名	上水(蛇口)			
		I−131	放射性セシウム (Cs−134,Cs−137)		備考
1	北海道(札幌市)	不検出	不検出		
2	青森県(青森市)	不検出	不検出		
3	岩手県(盛岡市)	1.5 (指標を超えていない)	不検出		
4	宮城県	-	-		震災被害によって計測不能
5	秋田県(秋田市)	1.2 (指標を超えていない)	不検出		
6	山形県(山形市)	1.5	0.43		
7	福島県	-	-		県が独自に調査・公表している(福島県災害対策本部HPの「原子力災害情報(県内各地方環境放射能測定値(飲料水)について」を参照: http://www.pref.fukushima.jp/j/index.htm)
8	茨城県(ひたちなか市)	2.2 (指標を超えていない)	1.1	(指標を超えていない)	
9	栃木県(宇都宮市)	110 (指標を超えていない)	9.3	(指標を超えていない)	
10	群馬県(前橋市)	8.0 (指標を超えていない)	0.55	(指標を超えていない)	
11	埼玉県(さいたま市)	18 (指標を超えていない)	0.82	(指標を超えていない)	
12	千葉県(市原市)	13 (指標を超えていない)	不検出		
13	東京都(新宿区)	26 (指標を超えていない)	2.4	(指標を超えていない)	
14	神奈川県(茅ヶ崎市)	1.0 (指標を超えていない)	不検出		
15	新潟県(新潟市)	7.5 (指標を超えていない)	不検出		
16	富山県(射水市)	不検出	不検出		
17	石川県(金沢市)	不検出	不検出		
18	福井県(福井市)	不検出	不検出		
19	山梨県(甲府市)	0.22 (指標を超えていない)	不検出		
20	長野県(長野市)	不検出	不検出		
21	岐阜県(各務原市)	-	-		機器調整中
22	静岡県(静岡市)	不検出	不検出		
23	愛知県(名古屋市)	不検出	不検出		
24	三重県(四日市市)	不検出	不検出		
25	滋賀県(大津市)	不検出	不検出		
26	京都府(京都市)	不検出	不検出		
27	大阪府(大阪市)	不検出	不検出		
28	兵庫県(神戸市)	不検出	不検出		
29	奈良県(奈良市)	不検出	不検出		
30	和歌山県(和歌山市)	不検出	不検出		
31	鳥取県(東伯郡)	不検出	不検出		
32	島根県(松江市)	不検出	不検出		
33	岡山県(岡山市)	不検出	不検出		
34	広島県(広島市)	不検出	不検出		
35	山口県(宇部市)	不検出	不検出		
36	徳島県(徳島市)	不検出	不検出		
37	香川県(高松市)	不検出	不検出		
38	愛媛県(八幡浜市)	不検出	不検出		
39	高知県(高知市)	不検出	不検出		
40	福岡県(太宰府市)	不検出	不検出		
41	佐賀県(佐賀市)	不検出	不検出		
42	長崎県(大村市)	不検出	不検出		
43	熊本県(宇土市)	不検出	不検出		
44	大分県(大分市)	-	-		機器調整中
45	宮崎県(宮崎市)	不検出	不検出		
46	鹿児島県(鹿児島市)	不検出	不検出		
47	沖縄県(那覇市)	不検出	不検出		

*本データは、1Bq/Lを1Bq/kgとみなす
*文部科学省が各都道府県等からの報告に基づき作成
*「原子力施設等の防災対策について(原子力安全委員会)」飲食物の摂取制限に関する指標 (飲料水) 放射性ヨウ素−131:300Bq/kg以上、放射性セシウム:200Bq/kg以上

環境放射能水準調査結果

H23.3.25 13:00

(μSv/h(マイクロシーベルト毎時))

	都道府県名	3月24日															過去の平常値の範囲
		9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	
1	北海道(札幌市)	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.028	0.029	0.028	0.02~0.105
2	青森県(青森市)	0.022	0.022	0.022	0.023	0.023	0.024	0.024	0.024	0.024	0.025	0.023	0.023	0.023	0.023	0.023	0.017~0.102
3	岩手県(盛岡市)	0.031	0.031	0.030	0.031	0.031	0.032	0.033	0.034	0.033	0.031	0.031	0.030	0.031	0.031	0.030	0.014~0.084
4	宮城県(仙台市)																0.0176~0.0513
5	秋田県(秋田市)	0.035	0.035	0.041	0.048	0.049	0.042	0.036	0.035	0.034	0.034	0.034	0.034	0.034	0.034	0.035	0.022~0.086
6	山形県(山形市)	0.083	0.082	0.082	0.082	0.082	0.083	0.083	0.082	0.082	0.081	0.081	0.081	0.082	0.082	0.082	0.025~0.082
7	福島県(双葉郡)																0.037~0.071
8	茨城県(水戸市)	0.304	0.303	0.302	0.301	0.300	0.299	0.298	0.297	0.298	0.297	0.296	0.295	0.295	0.294	0.293	0.036~0.056
9	栃木県(宇都宮市)	0.134	0.134	0.133	0.132	0.131	0.131	0.131	0.130	0.130	0.130	0.130	0.129	0.129	0.129	0.129	0.030~0.067
10	群馬県(前橋市)	0.091	0.090	0.089	0.088	0.088	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.087	0.086	0.087	0.017~0.045
11	埼玉県(さいたま市)	0.117	0.116	0.116	0.115	0.115	0.115	0.114	0.113	0.113	0.114	0.113	0.113	0.113	0.114	0.113	0.031~0.060
12	千葉県(市原市)	0.097	0.096	0.096	0.095	0.095	0.095	0.095	0.096	0.096	0.096	0.095	0.094	0.095	0.094	0.095	0.022~0.044
13	東京都(新宿区)	0.138	0.138	0.138	0.138	0.137	0.136	0.136	0.136	0.135	0.134	0.134	0.134	0.135	0.135	0.134	0.028~0.079
14	神奈川県(茅ヶ崎市)	0.093	0.093	0.092	0.092	0.092	0.092	0.091	0.092	0.091	0.092	0.091	0.092	0.091	0.092	0.091	0.035~0.069
15	新潟県(新潟市)	0.047	0.047	0.047	0.049	0.050	0.048	0.047	0.046	0.046	0.047	0.049	0.053	0.061	0.054	0.049	0.031~0.153
16	富山県(射水市)	0.050	0.049	0.048	0.048	0.048	0.052	0.056	0.054	0.052	0.050	0.048	0.051	0.050	0.050	0.050	0.029~0.147
17	石川県(金沢市)	0.048	0.047	0.047	0.047	0.051	0.054	0.057	0.053	0.052	0.049	0.049	0.052	0.050	0.050	0.051	0.0291~0.1275
18	福井県(福井市)	0.046	0.045	0.048	0.052	0.054	0.055	0.056	0.049	0.049	0.052	0.049	0.052	0.051	0.054	0.051	0.032~0.097
19	山梨県(甲府市)	0.045	0.045	0.045	0.045	0.045	0.045	0.046	0.046	0.045	0.046	0.046	0.046	0.046	0.046	0.046	0.040~0.064
20	長野県(長野市)	0.053	0.052	0.052	0.051	0.051	0.051	0.051	0.050	0.051	0.051	0.051	0.050	0.051	0.052	0.051	0.0299~0.0974
21	岐阜県(各務原市)	0.062	0.062	0.061	0.061	0.061	0.061	0.062	0.062	0.063	0.064	0.064	0.061	0.060	0.061	0.060	0.057~0.110
22	静岡県(静岡市)	0.047	0.047	0.047	0.047	0.048	0.049	0.049	0.048	0.047	0.047	0.048	0.047	0.047	0.046	0.048	0.0281~0.0765
23	愛知県(名古屋市)	0.040	0.040	0.040	0.039	0.039	0.039	0.040	0.040	0.040	0.039	0.039	0.040	0.039	0.039	0.040	0.035~0.074
24	三重県(四日市市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.047	0.046	0.048	0.046	0.048	0.0416~0.0789
25	滋賀県(大津市)	0.033	0.033	0.033	0.033	0.033	0.033	0.033	0.035	0.034	0.034	0.033	0.033	0.033	0.033	0.034	0.031~0.061
26	京都府(京都市)	0.039	0.038	0.038	0.038	0.038	0.038	0.038	0.039	0.039	0.038	0.038	0.038	0.038	0.038	0.038	0.033~0.087
27	大阪府(大阪市)	0.043	0.043	0.043	0.042	0.043	0.043	0.042	0.043	0.043	0.043	0.043	0.043	0.042	0.042	0.042	0.042~0.081
28	兵庫県(神戸市)	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.036	0.035~0.076
29	奈良県(奈良市)	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.048	0.048	0.048	0.048	0.046~0.08
30	和歌山県(和歌山市)	0.032	0.032	0.032	0.031	0.031	0.031	0.031	0.032	0.032	0.032	0.032	0.032	0.031	0.032	0.032	0.031~0.056
31	鳥取県(東伯郡)	0.063	0.063	0.064	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.063	0.036~0.11
32	島根県(松江市)	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.037	0.033~0.079
33	岡山県(岡山市)	0.049	0.048	0.049	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.048	0.049	0.043~0.104
34	広島県(広島市)	0.049	0.048	0.048	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.047	0.047	0.047	0.048	0.049	0.035~0.089
35	山口県(山口市)	0.094	0.092	0.090	0.090	0.090	0.090	0.090	0.091	0.090	0.091	0.091	0.092	0.092	0.093	0.093	0.084~0.128
36	徳島県(徳島市)	0.038	0.037	0.038	0.037	0.037	0.037	0.038	0.038	0.037	0.037	0.038	0.038	0.037	0.038	0.038	0.037~0.067
37	香川県(高松市)	0.053	0.052	0.052	0.052	0.055	0.054	0.055	0.054	0.059	0.061	0.066	0.068	0.063	0.064	0.069	0.051~0.077
38	愛媛県(松山市)	0.048	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.047	0.048	0.048	0.049	0.049	0.050	0.045~0.074
39	高知県(高知市)	0.026	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.026	0.026	0.023~0.076
40	福岡県(太宰府市)	0.037	0.037	0.037	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.037	0.037	0.034~0.079
41	佐賀県(佐賀市)	0.040	0.041	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.037~0.086
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.027~0.089
43	熊本県(宇土市)	0.029	0.028	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.027	0.028	0.028	0.021~0.067
44	大分県(大分市)	0.050	0.050	0.050	0.050	0.049	0.050	0.049	0.050	0.049	0.050	0.050	0.049	0.050	0.050	0.050	0.048~0.085
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.027	0.026	0.026	0.026	0.026	0.026	0.026	0.026	0.027	0.027	0.027	0.027	0.0243~0.0864
46	鹿児島県(鹿児島市)	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.034	0.035	0.035	0.035	0.035	0.0306~0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.022	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133~0.0575

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、
宮城県原子力安全対策室HP(http://www.pref.miyagi.jp/gentai/Press/PressH230315.html)で公開
*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月25日13:00現在)」参照。
*空欄は機器点検等のための欠測等
*本データは、1μGy/h(マイクログレイ毎時)=1μSv/h(マイクロシーベルト毎時)と換算して算出
*文部科学省が各都道府県等からの報告に基づき作成

環境放射能水準調査結果

H23.3.25 13:00　　（μSv/h(マイクロシーベルト毎時)）

	都道府県名	3月25日									
		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	過去の平常値の範囲
1	北海道(札幌市)	0.028	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.028	0.02～0.105
2	青森県(青森市)	0.023	0.023	0.023	0.023	0.024	0.027	0.025	0.024	0.023	0.017～0.102
3	岩手県(盛岡市)	0.030	0.030	0.031	0.030	0.031	0.031	0.031	0.031	0.031	0.014～0.084
4	宮城県(仙台市)										0.0176～0.0513
5	秋田県(秋田市)	0.035	0.036	0.036	0.036	0.036	0.036	0.036	0.035	0.035	0.022～0.086
6	山形県(山形市)	0.082	0.082	0.082	0.082	0.082	0.081	0.081	0.080	0.079	0.025～0.082
7	福島県(双葉郡)										0.037～0.071
8	茨城県(水戸市)	0.292	0.292	0.291	0.291	0.289	0.288	0.288	0.287	0.285	0.036～0.056
9	栃木県(宇都宮市)	0.128	0.128	0.128	0.128	0.128	0.128	0.127	0.127	0.126	0.030～0.067
10	群馬県(前橋市)	0.087	0.087	0.087	0.086	0.087	0.086	0.085	0.085	0.085	0.017～0.045
11	埼玉県(さいたま市)	0.114	0.113	0.113	0.113	0.113	0.113	0.113	0.112	0.111	0.031～0.060
12	千葉県(市原市)	0.094	0.094	0.094	0.094	0.094	0.093	0.093	0.092	0.091	0.022～0.044
13	東京都(新宿区)	0.134	0.134	0.134	0.133	0.132	0.132	0.132	0.132	0.132	0.028～0.079
14	神奈川県(茅ヶ崎市)	0.091	0.091	0.091	0.091	0.091	0.091	0.091	0.090	0.089	0.035～0.069
15	新潟県(新潟市)	0.054	0.062	0.055	0.051	0.059	0.063	0.051	0.046	0.049	0.031～0.153
16	富山県(射水市)	0.050	0.049	0.048	0.048	0.048	0.049	0.049	0.049	0.048	0.028～0.147
17	石川県(金沢市)	0.052	0.049	0.048	0.046	0.047	0.047	0.047	0.048	0.048	0.0291～0.1275
18	福井県(福井市)	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.032～0.097
19	山梨県(甲府市)	0.046	0.046	0.047	0.047	0.047	0.046	0.047	0.047	0.048	0.040～0.064
20	長野県(長野市)	0.051	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.052	0.0299～0.0974
21	岐阜県(各務原市)	0.061	0.061	0.062	0.062	0.063	0.063	0.063	0.063	0.063	0.057～0.110
22	静岡県(静岡市)	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.0281～0.0765
23	愛知県(名古屋市)	0.039	0.040	0.040	0.040	0.041	0.041	0.042	0.043	0.042	0.035～0.074
24	三重県(四日市市)	0.046	0.046	0.047	0.046	0.046	0.046	0.046	0.046	0.046	0.0416～0.0789
25	滋賀県(大津市)	0.034	0.034	0.034	0.034	0.034	0.034	0.036	0.036	0.035	0.031～0.061
26	京都府(京都市)	0.038	0.039	0.039	0.039	0.040	0.040	0.041	0.040	0.039	0.033～0.087
27	大阪府(大阪市)	0.042	0.043	0.043	0.043	0.043	0.043	0.044	0.044	0.044	0.042～0.061
28	兵庫県(神戸市)	0.037	0.037	0.037	0.037	0.037	0.038	0.037	0.037	0.037	0.035～0.076
29	奈良県(奈良市)	0.048	0.048	0.048	0.049	0.049	0.049	0.049	0.049	0.048	0.046～0.08
30	和歌山県(和歌山市)	0.032	0.032	0.033	0.033	0.034	0.034	0.034	0.033	0.033	0.031～0.056
31	鳥取県(東伯郡)	0.063	0.064	0.064	0.064	0.064	0.064	0.063	0.063	0.063	0.036～0.11
32	島根県(松江市)	0.038	0.037	0.038	0.038	0.037	0.038	0.041	0.043	0.047	0.033～0.079
33	岡山県(岡山市)	0.050	0.049	0.050	0.050	0.051	0.051	0.051	0.052	0.051	0.043～0.104
34	広島県(広島市)	0.049	0.050	0.050	0.050	0.051	0.051	0.051	0.052	0.056	0.035～0.069
35	山口県(山口市)	0.094	0.095	0.095	0.096	0.097	0.098	0.106	0.102	0.095	0.084～0.128
36	徳島県(徳島市)	0.038	0.038	0.039	0.039	0.039	0.039	0.039	0.040	0.039	0.037～0.067
37	香川県(高松市)	0.072	0.072	0.068	0.073	0.070	0.071	0.067	0.057	0.056	0.051～0.077
38	愛媛県(松山市)	0.049	0.050	0.050	0.050	0.050	0.049	0.049	0.049	0.048	0.045～0.074
39	高知県(高知市)	0.026	0.027	0.027	0.028	0.028	0.028	0.028	0.028	0.028	0.023～0.076
40	福岡県(太宰府市)	0.037	0.038	0.037	0.037	0.038	0.039	0.040	0.038	0.036	0.034～0.079
41	佐賀県(佐賀市)	0.041	0.041	0.041	0.041	0.043	0.045	0.044	0.041	0.040	0.037～0.086
42	長崎県(大村市)	0.029	0.029	0.029	0.029	0.029	0.030	0.030	0.029	0.029	0.027～0.069
43	熊本県(宇土市)	0.028	0.028	0.028	0.028	0.028	0.029	0.029	0.027	0.027	0.021～0.067
44	大分県(大分市)	0.050	0.051	0.051	0.051	0.050	0.050	0.050	0.050	0.050	0.048～0.085
45	宮崎県(宮崎市)	0.027	0.027	0.027	0.027	0.027	0.027	0.026	0.026	0.027	0.0243～0.0664
46	鹿児島県(鹿児島市)	0.035	0.035	0.036	0.036	0.038	0.038	0.036	0.035	0.035	0.0306～0.0943
47	沖縄県(うるま市)	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.0133～0.0575

*宮城県では、測定実施場所が倒壊の危険性があるため測定不能。宮城県内のモニタリング結果は、
宮城県原子力安全対策室HP(http://www.pref.miyagi.jp/gentai/Press/PressH230315.html)で公開
*福島県では、モニタリングポスト周辺の空間線量が高いことから測定が困難であるが、その分のデータはモニタリングカーを用いて測定。
別資料の「福島第一原子力発電所の20km以遠のモニタリング結果について(3月25日13:00現在)」参照。
*空欄は機器点検等のための欠測等
*本データは、1μGy/h(マイクログレイ毎時)=1μSv/h(マイクロシーベルト毎時)と換算して算出
*文部科学省が各都道府県等からの報告に基づき作成

From: OST01 HOC
Sent: Friday, March 25, 2011 10:25 AM
To: PMT01 Hoc; PMT02 Hoc
Cc: FOIA Response.hoc Resource
Subject: FW: Fukushima Daiichi 1 weather forecast

-----Original Message-----
From: HOO Hoc
Sent: Friday, March 25, 2011 10:25 AM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Fukushima Daiichi 1 weather forecast

-----Original Message-----
From: Hanson, Christopher M Capt USAF PACAF 374 OSS/OSW [mailto:(b)(6)
Sent: Friday, March 25, 2011 10:19 AM
To: Vogt, Phil; nitops@nnsa.doe.gov; CMHT@nnsa.doe.gov; HOO Hoc; PMT02 Hoc; PMT01 Hoc; na30ecc@nr.doe.gov; McMichael, Lukas C CIV SEA 08 NR; alan.remick@nnsa.doe.gov; Guss, Paul P. CTR
Cc: narac@llnl.gov
Subject: RE: Fukushima Daiichi 1 weather forecast

Gentlemen,

Do you have a meteorologist on your staff or is the synopsis just generated by what you see on the model output?

Very Respectfully,
-CH

Christopher Hanson, Capt, USAF
Joint METOC Officer
Joint Support Force - Japan
DSN: 315-225-9005
NIPR: (b)(6)

-----Original Message-----
From: Vogt, Phil [mailto:vogt4@llnl.gov]
Sent: Friday, March 25, 2011 10:02 PM
To: nitops@nnsa.doe.gov; CMHT@nnsa.doe.gov; hoo.hoc@nrc.gov; PMT02 Hoc; pmt01.hoc@nrc.gov; na30ecc@nr.doe.gov; 'McMichael, Lukas C CIV SEA 08 NR'; alan.remick@nnsa.doe.gov; Guss, Paul P. CTR; Hanson, Christopher M Capt USAF PACAF 374 OSS/OSW
Cc: narac@llnl.gov
Subject: Fukushima Daiichi 1 weather forecast

++++12

From: OST01 HOC
Sent: Friday, March 25, 2011 11:43 PM
To: Hoc, PMT12; PMT11 Hoc; PMT02 Hoc
Cc: FOIA Response.hoc Resource
Subject: FW: 3/26 12:00 SPEEDI Data
Attachments: FUKUSHIMA1 wind(12hüj.gif; FUKUSHIMA1 air concentrationüi12-13hüj.gif; FUKUSHIMA1 air concentrationüi13-14hüj.gif; FUKUSHIMA1 air concentrationüi14-15hüj.gif; FUKUSHIMA1 air doseüi12-13hüj.gif; FUKUSHIMA1 air doseüi13-14hüj.gif; FUKUSHIMA1 air doseüi14-15hüj.gif

-----Original Message-----
From: HOO Hoc [mailto:HOO.Hoc@nrc.gov]
Sent: Friday, March 25, 2011 11:42 PM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: 3/26 12:00 SPEEDI Data

From: JapanEmbassy, TaskForce[SMTP:JAPANEMBASSYTASKFORCE@STATE.GOV]
Sent: Friday, March 25, 2011 11:40:26 PM
To (b)(6)
(b)(6)
Subject: RE: 3/26 12:00 SPEEDI Data
Auto forwarded by a Rule

Please see 12:00 SPEEDI Data.

Jennifer Clever
Japan Emergency Command Center
U.S. Embassy, Tokyo

SBU
This email is UNCLASSIFIED-----Original Message-----
From: nustec [mailto:spd01@nustec.or.jp]

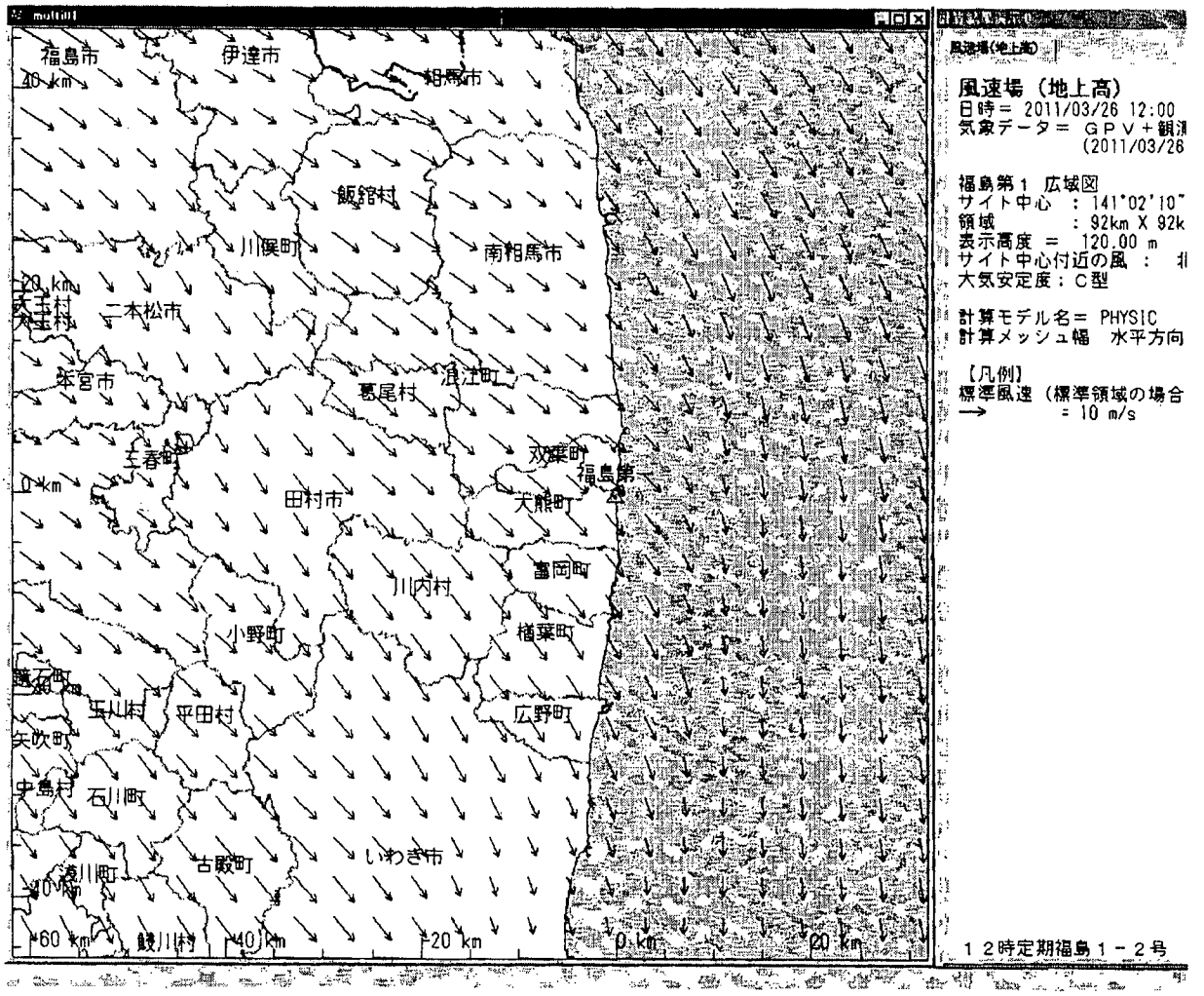
Sent: Saturday, March 26, 2011 12:35 PM
To: (b)(6)
(b)(6)

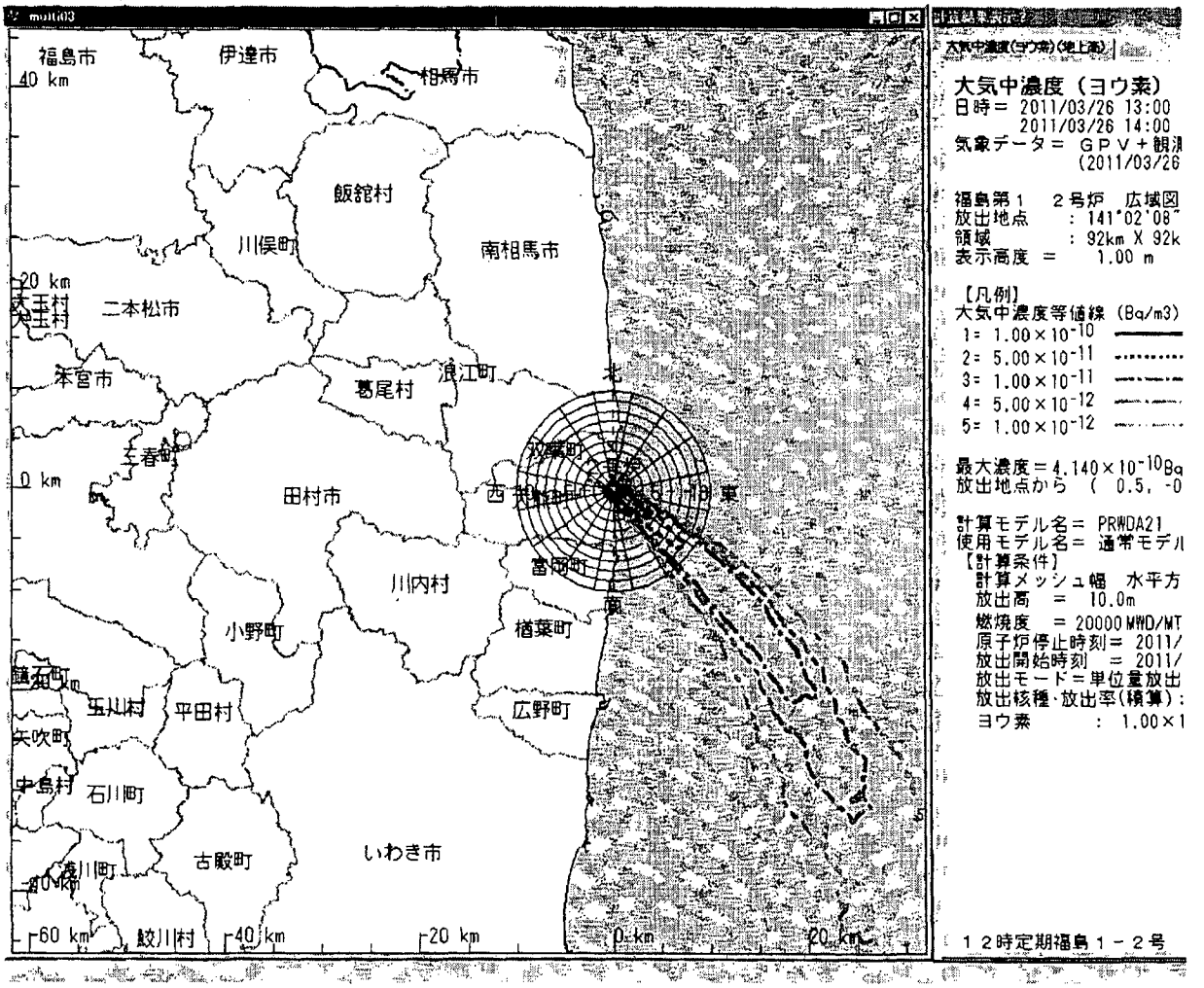
Subject: 3/26　12時SPEEDI単位量放出図形イメージの送付

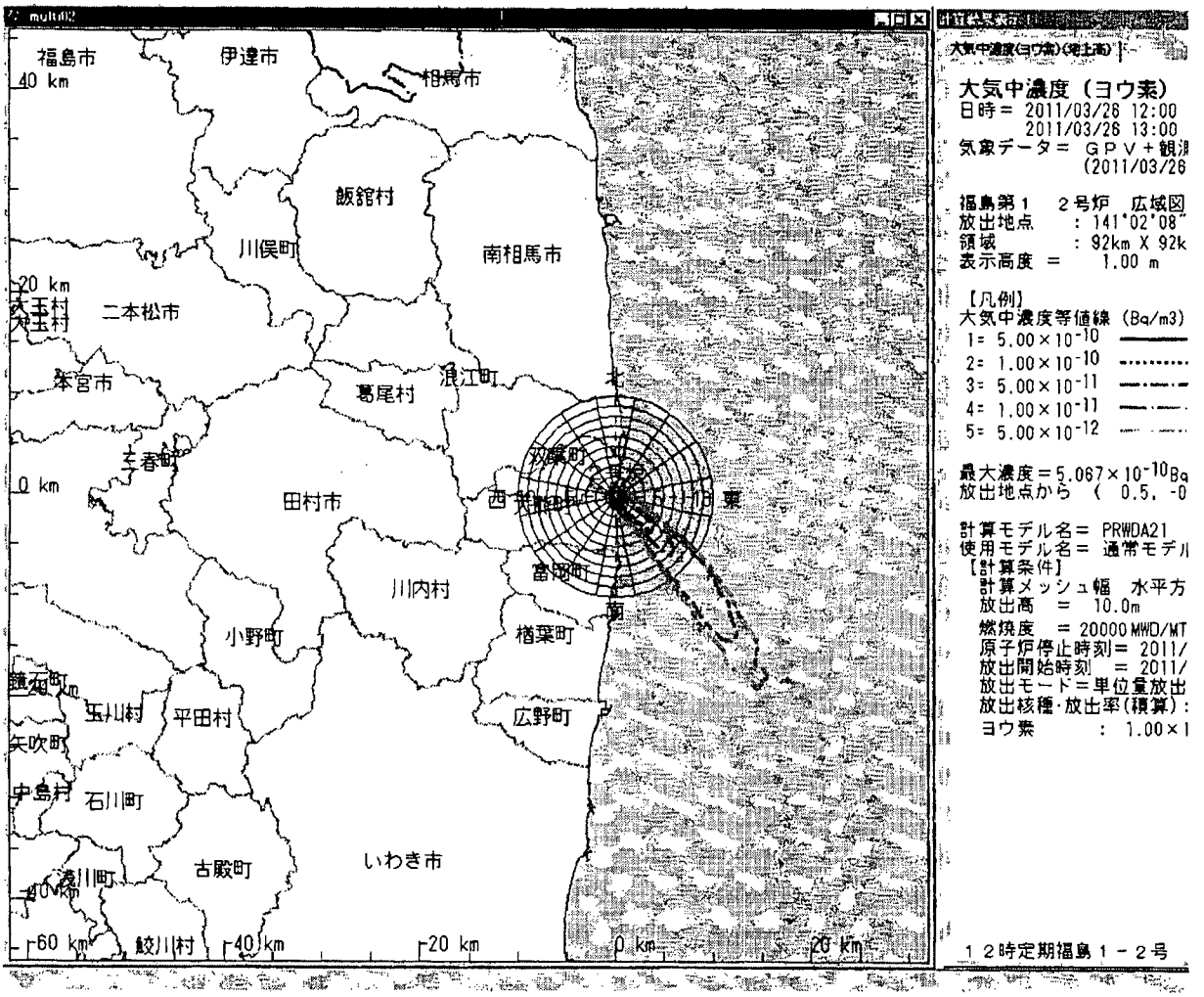
関係者各位

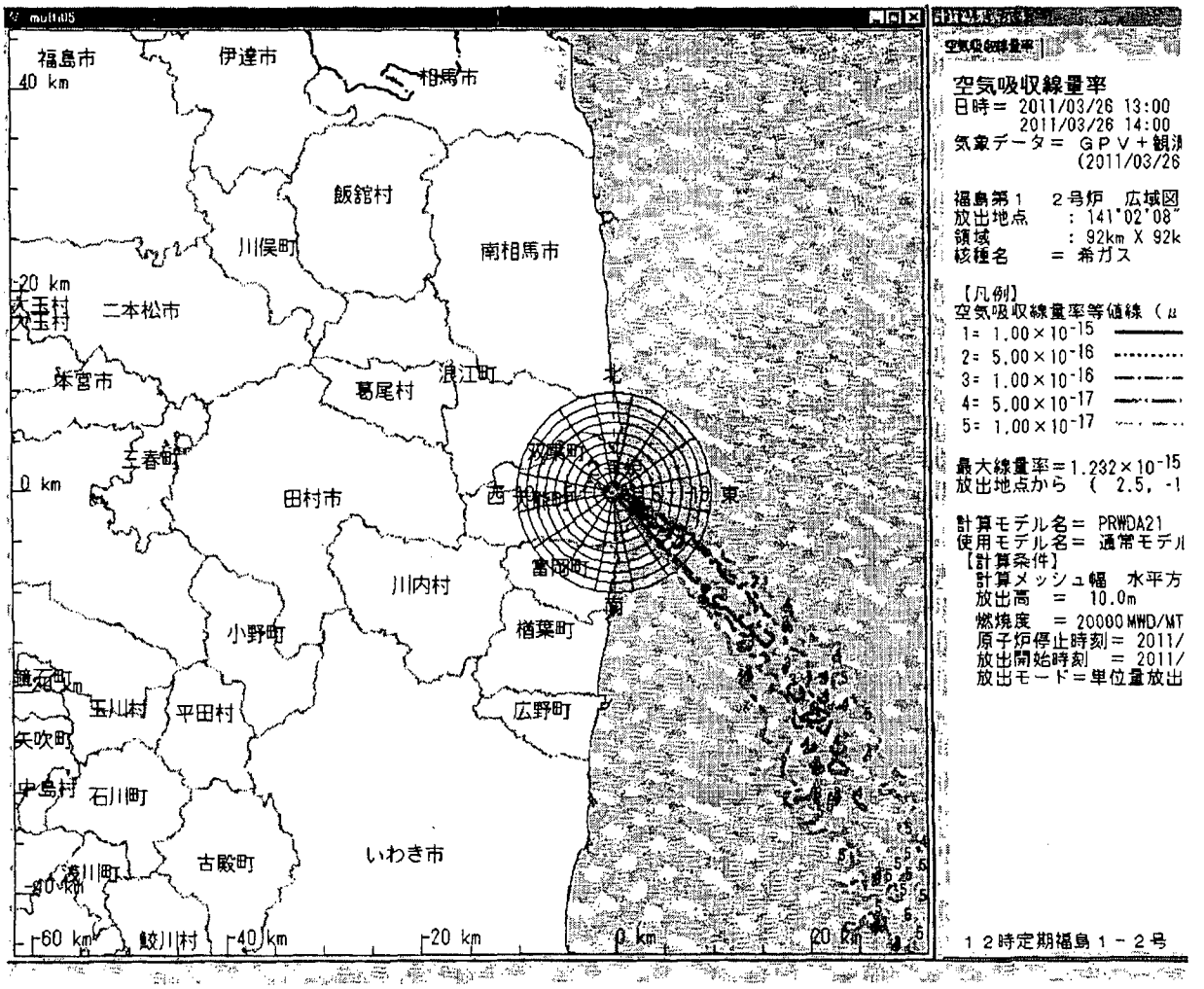
お世話になっております。
原子力安全技術センター　SPEEDI担当です。
3/26　12時のSPEEDI単位量放出図形のイメージデータを送付致します。
ご確認のほど、よろしくお願い致します。

Please find attached 12:00[26-Mar] SPEEDI Data
NUSTEC


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
福島第一
大熊町
田村市
富岡町
川内村
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
石川町
古殿町
いわき市
鮫川村
風速場（地上高）
日時＝ 2011/03/26 12:00
気象データ＝ ＧＰＶ＋観測
(2011/03/26
福島第１ 広域図
サイト中心 ：141°02'10"
領域 ：92km X 92k
表示高度 ＝ 120.00 m
サイト中心付近の風 ：
大気安定度：Ｃ型
計算モデル名＝ PHYSIC
計算メッシュ幅 水平方向
【凡例】
標準風速（標準領域の場合
→ ＝ 10 m/s
１２時定期福島１－２号


福島市
伊達市
相馬市
飯舘村
川俣町
南相馬市
二本松市
本宮市
葛尾村
浪江町
双葉町
大熊町
田村市
川内村
富岡町
小野町
楢葉町
広野町
玉川村
平田村
石川町
古殿町
いわき市
鮫川村
40 km
20 km
0 km
60 km
大気中濃度（ヨウ素）
日時＝ 2011/03/26 13:00
2011/03/26 14:00
気象データ＝ ＧＰＶ＋観測
(2011/03/26
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線 (Bq/m3)
1= 1.00×10-10
2= 5.00×10-11
3= 1.00×10-11
4= 5.00×10-12
5= 1.00×10-12
最大濃度＝4.140×10-10Bq
放出地点から （ 0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：　1.00×1
１２時定期福島１－２号


multi02
福島市
伊達市
相馬市
40 km
飯舘村
川俣町
南相馬市
20 km
大玉村
二本松市
本宮市
葛尾村
浪江町
0 km
田村市
双葉町
大熊町
富岡町
川内村
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
中島村
石川町
古殿町
いわき市
鮫川村
60 km
40 km
20 km
0 km
20 km
大気中濃度（ヨウ素）
日時＝ 2011/03/28 12:00
2011/03/28 13:00
気象データ＝ ＧＰＶ＋観測
(2011/03/28
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
大気中濃度等値線（Bq/m3）
1= 5.00×10-10
2= 1.00×10-10
3= 5.00×10-11
4= 1.00×10-11
5= 5.00×10-12
最大濃度＝5.067×10-10Bq
放出地点から （ 0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：1.00×1
１２時定期福島１－２号


福島市
伊達市
相馬市
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三春町
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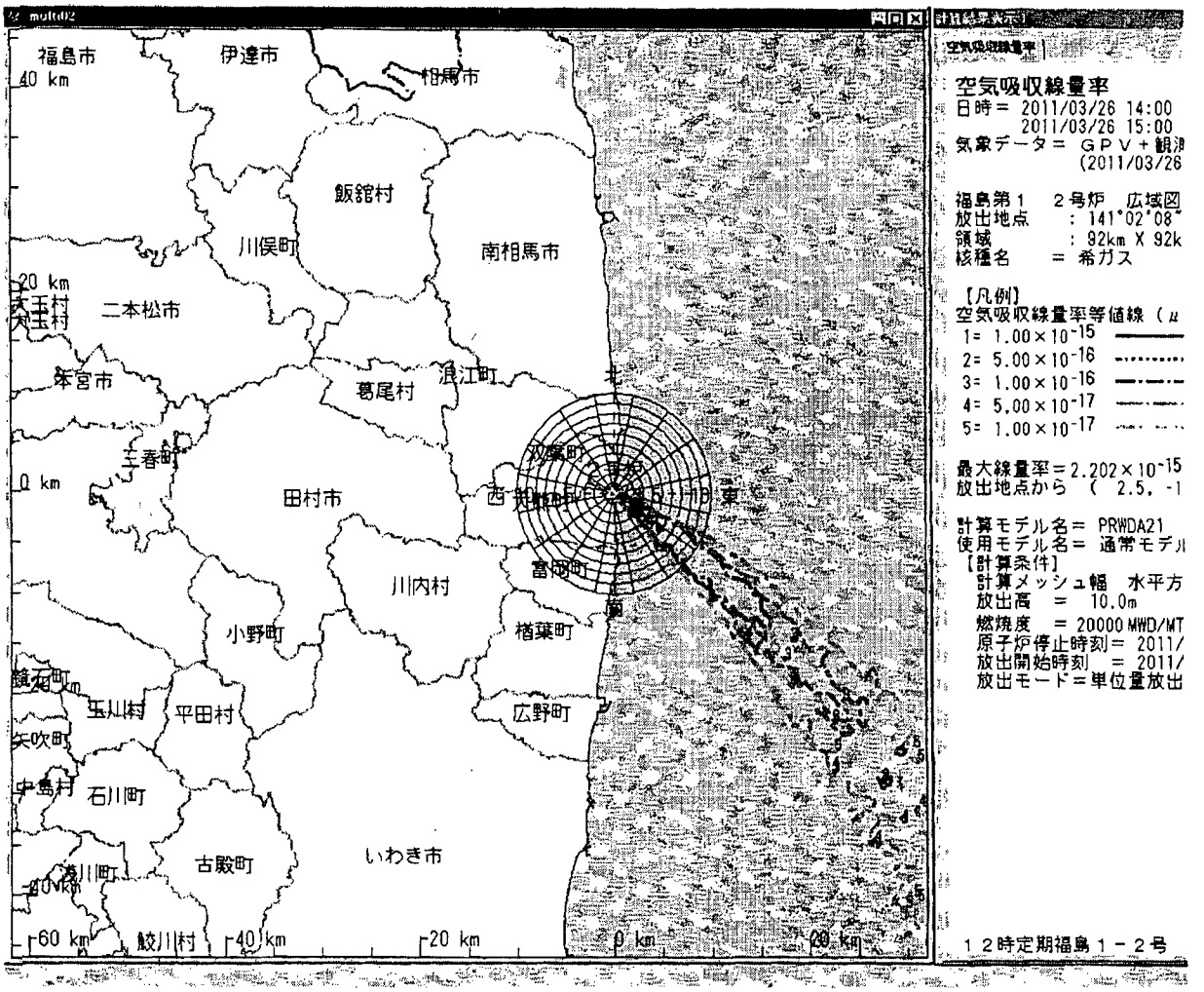
小野町
楢葉町
広野町
玉川村
平田村
矢吹町
中島村
石川町
古殿町
いわき市
浅川町
鮫川村
40 km
20 km
0 km
60 km
空気吸収線量率
日時＝ 2011/03/26 13:00
2011/03/26 14:00
気象データ＝ ＧＰＶ＋観測
(2011/03/26
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
核種名　＝希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-15
2= 5.00×10-16
3= 1.00×10-16
4= 5.00×10-17
5= 1.00×10-17
最大線量率＝1.232×10-15
放出地点から（ 2.5, -1
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 10.0m
燃焼度　＝ 20000MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１２時定期福島１－２号


福島市
伊達市
相馬市
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楢葉町
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平田村
石川町
古殿町
いわき市
鮫川村
北
東
空気吸収線量率
空気吸収線量率
日時＝ 2011/03/26 14:00
2011/03/26 15:00
気象データ＝ ＧＰＶ＋観測
(2011/03/26
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：82km X 92k
核種名　＝希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-15
2= 5.00×10-16
3= 1.00×10-16
4= 5.00×10-17
5= 1.00×10-17
最大線量率＝2.202×10-15
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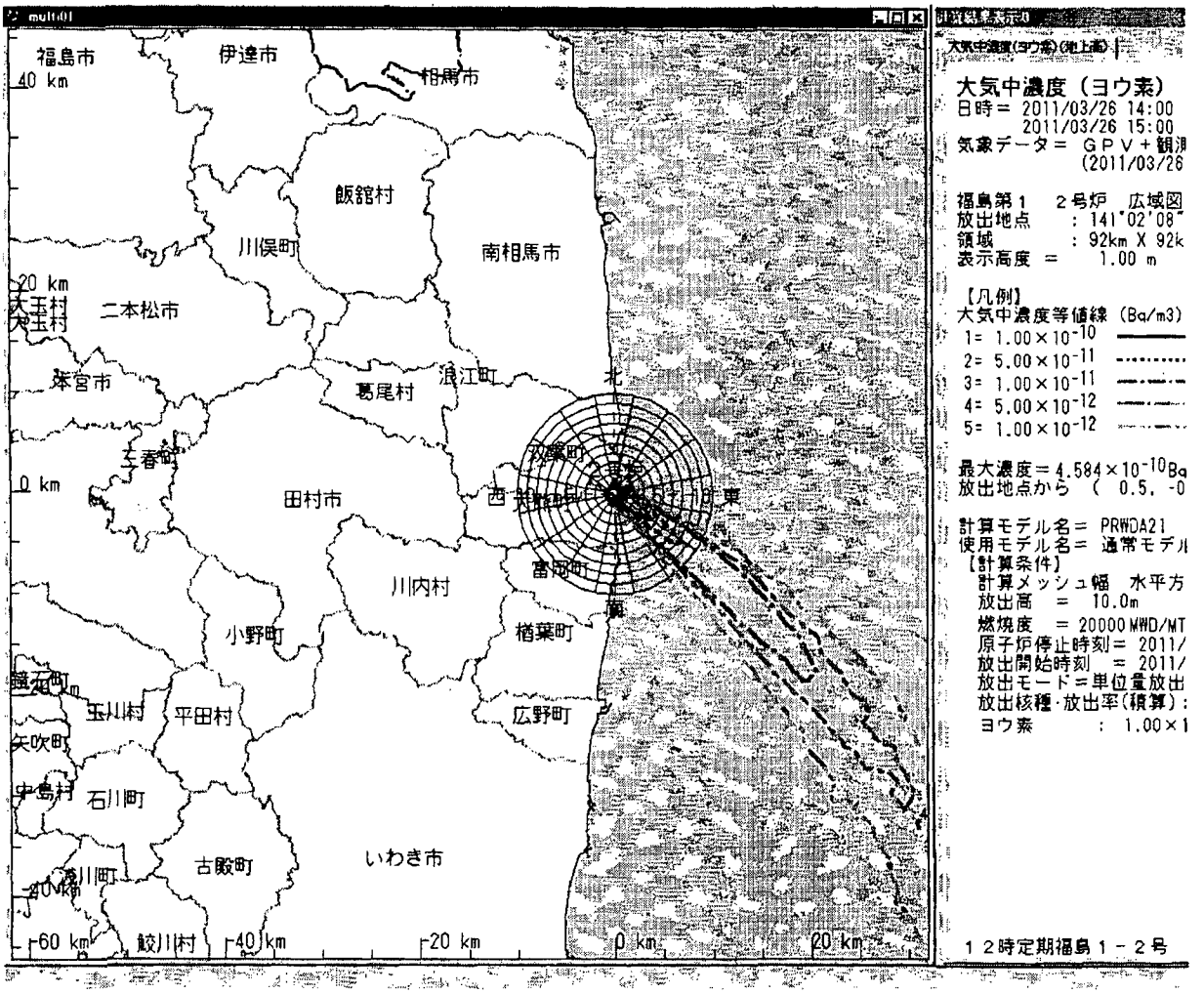
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝ 10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
１２時定期福島１－２号


福島市
伊達市
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小野町
楢葉町
広野町
玉川村
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石川町
古殿町
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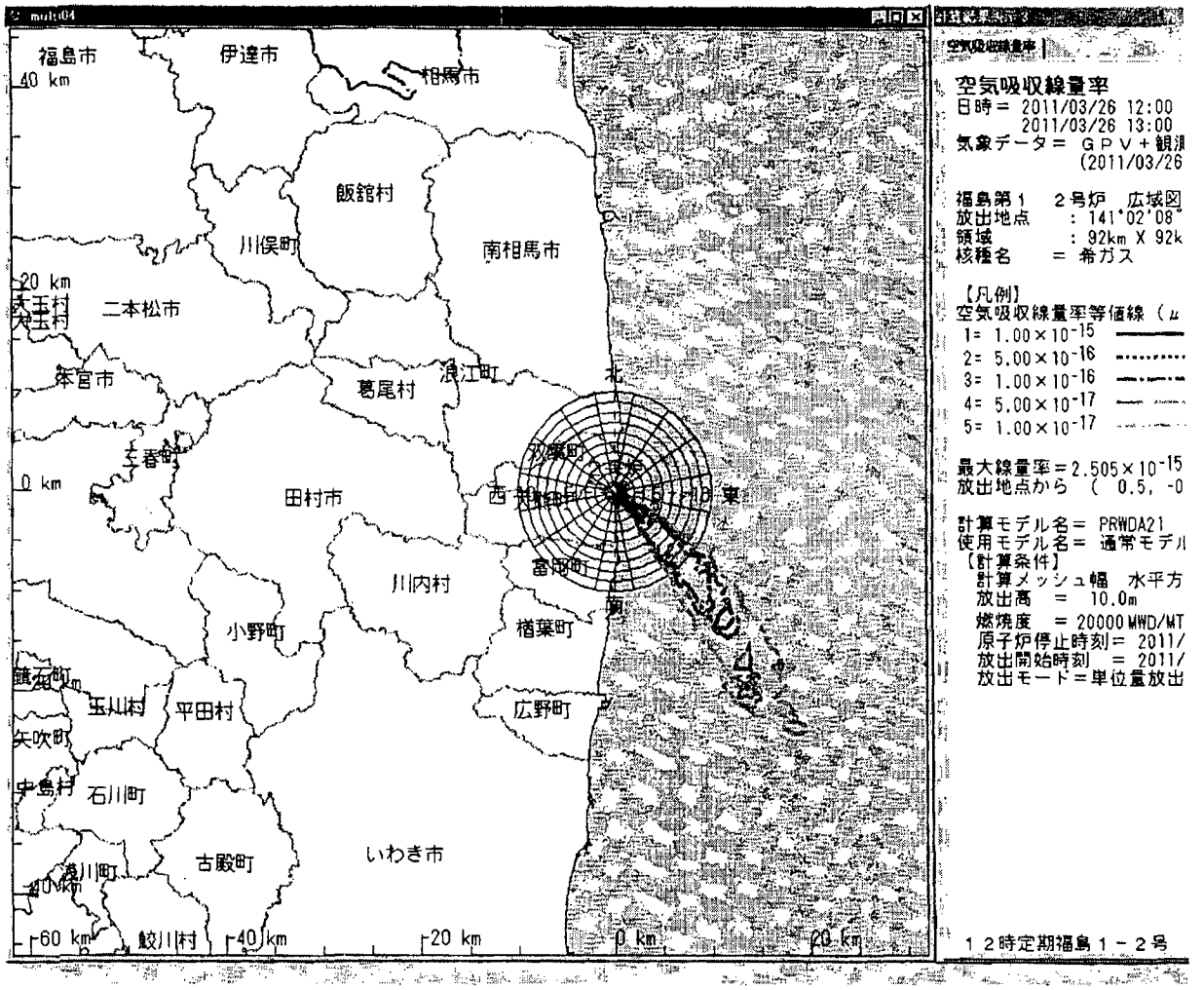
大気中濃度等値線 (Bq/m3)
1= 1.00×10-10
2= 5.00×10-11
3= 1.00×10-11
4= 5.00×10-12
5= 1.00×10-12
大気中濃度（ヨウ素）
日時＝ 2011/03/26 14:00
2011/03/26 15:00
気象データ＝ ＧＰＶ＋観測
(2011/03/26
福島第１　２号炉　広域図
放出地点　：141°02'08"
領域　：92km X 92k
表示高度 ＝　1.00 m
【凡例】
最大濃度＝4.584×10-10Bq
放出地点から（ 0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅　水平方
放出高　＝　10.0m
燃焼度　＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻　＝ 2011/
放出モード＝単位量放出
放出核種・放出率(積算)：
ヨウ素　：1.00×1
１２時定期福島１－２号


福島市
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大玉村
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平田村
矢吹町
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いわき市
古殿町
鮫川村
60 km
40 km
20 km
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20 km
空気吸収線量率
日時＝ 2011/03/26 12:00
2011/03/26 13:00
気象データ＝ ＧＰＶ＋観測
(2011/03/26
福島第１ ２号炉 広域図
放出地点 ： 141°02'08"
領域 ： 92km X 92k
核種名 ＝ 希ガス
【凡例】
空気吸収線量率等値線（μ
1= 1.00×10-15
2= 5.00×10-16
3= 1.00×10-16
4= 5.00×10-17
5= 1.00×10-17
最大線量率＝2.505×10-15
放出地点から （ 0.5, -0
計算モデル名＝ PRWDA21
使用モデル名＝ 通常モデル
【計算条件】
計算メッシュ幅 水平方
放出高 ＝ 10.0m
燃焼度 ＝ 20000 MWD/MT
原子炉停止時刻＝ 2011/
放出開始時刻 ＝ 2011/
放出モード＝単位量放出
１２時定期福島１－２号

From: LIA06 Hoc
Sent: Friday, March 25, 2011 6:38 AM
To: McGinty, Tim
Cc: LIA08 Hoc
Subject: FW: Emailing: boardfile.htm
Attachments: image001.png

Tim

Response to Questions 1 and 2.

Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: LIA02 Hoc
Sent: Friday, March 25, 2011 5:37 AM
To: LIA06 Hoc; LIA08 Hoc
Subject: FW: Emailing: boardfile.htm

Questions #1 and #2:

1.) Two workers were reported to have been hospitalized due to radiation exposure. Have there been any more workers hospitalized, and do we know how they were exposed?

2.) Three workers were reported to have received radiation burns to their feet by spending too much time walking in contaminated water. Do we have any more information on this?

The following information taken from the IAEA website and answers these two questions:

As per the IAEA, three workers at the Fukushima Daiichi nuclear power plant were exposed on 24 March to elevated levels of radiation. The IAEA has received additional information on the incident from the Japanese authorities.

The three were contracted workers laying cables in the turbine building of the Unit 3 reactor. Two of them were found to have radioactivity on their feet and legs.

These were washed in the attempt to remove radioactivity, but since there was a possibility of Beta-ray burning of the skin, the two were taken to the Fukushima University Hospital for examination and then transferred to Japan's National Institute of Radiological Sciences for further examination. They are expected to be monitored for around four days.

It is thought that the workers ignored their dosimeters' alarm believing it to be to be false and continued working with their feet in contaminated water.

The Nuclear and Industrial Safety Agency (NISA) of Japan instructed TEPCO to review the radiation control system immediately in order to avoid similar incidents in the future.

+++\74

As of 24 March, 19:30 Japan time, the number of workers at the Fukushima Daiichi nuclear power plant found to have received more than 100 millisieverts of radiation dose totalled 17 including the three contract workers. The remaining fourteen are TEPCO's employees.

From: Smith, Brooke
Sent: Friday, March 25, 2011 5:30 AM
To: LIA03 Hoc; Foggie, Kirk
Cc: LIA02 Hoc
Subject: Re: Emailing: boardfile.htm

Elizabeth - while we were talking, kirk forwarded to NISA. I'm looking for that update you.

Sent from an NRC Blackberry.
Brooke G. Smith
(b)(6)

From: LIA03 Hoc
To: Smith, Brooke; Foggie, Kirk
Cc: LIA02 Hoc
Sent: Fri Mar 25 05:04:28 2011
Subject: FW: Emailing: boardfile.htm

Hi, Brooke and Kirk,

The LT Director asked if there was any information available on the questions 1, 2 and 3, below (scroll down). These questions were generated during a Congressional call. Could you please see if anyone on the team can respond?

Thank you,
Elizabeth

From: LIA06 Hoc
Sent: Friday, March 25, 2011 4:58 AM
To: LIA03 Hoc
Subject: FW: Emailing: boardfile.htm

FYI.

Liaison Team Director
U.S. Nuclear Regulatory Commission
Operations Center

From: McGinty, Tim
Sent: Friday, March 25, 2011 2:18 AM
To: LIA06 Hoc; Nelson, Robert
Cc: LIA08 Hoc; PMT09 Hoc; McGinty, Tim; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; Giitter, Joseph; Westreich, Barry; Kobetz, Timothy; ET05 Hoc; Zimmerman, Jacob
Subject: FW: Emailing: boardfile.htm

Jake – for the call this evening with the in-country team, we discussed that the NRC-Japan team may be the best source of information to address questions 1 and 2 below, and may also have insights on question

3. Please see what insights we can get from the team so we can pass them along to the line organization (Nelson is the focal point for comms).

For Question 4, I think the best response would come from DIRS on day shift, regarding the information that is in the TI being developed.

Nelson – the midnight shift ET wanted to get this tasker out of the Operations Center and into the line organization. The Protective Measures Team has a number of other higher priorities that we want them to be able to focus on. Can you respond to this email accepting the tasking so I can get it out of the Ops Center task tracker? Thanks, Tim

From: McGinty, Tim
Sent: Friday, March 25, 2011 12:47 AM
To: McGinty, Tim
Subject: Emailing: boardfile.htm

From:	OST02 HOC
Sent:	Thursday, March 24, 2011 7:03 PM
To:	ET05 Hoc
Subject:	FW: Congressional call Today

From: HOO Hoc
Sent: Thursday, March 24, 2011 5:46 PM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Congressional call Today

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

From: Sheron, Brian
Sent: Thursday, March 24, 2011 3:40 PM
To: HOO Hoc
Subject: Congressional call Today

I received the following questions from congressional staff which I could not readily answer. Can you please ask the ET, RST and/or the PMT if they have any information that can address these questions?

3.) Two workers were reported to have been hospitalized due to radiation exposure. Have there been any more workers hospitalized, and do we know how they were exposed?

4.) Three workers were reported to have received radiation burns to their feet by spending too much time walking in contaminated water. Do we have any more information on this?

5.) It was reported that the Iodine levels in the Tokyo drinking water went down below allowable limits. Do we know what this is attributable to? Was it due to a shift in wind direction? Did the releases from the plant go down"?

6.) What action is the NRC taking regarding licensee plans to walk down their plants to confirm systems, procedures, etc., are in place to deal with natural phenomena? Are the resident inspectors going to accompany the licenses during the walkdowns?

Thanks.

From: LIA08 Hoc
Sent: Friday, March 25, 2011 12:18 PM
To: Ross-Lee, MaryJane
Cc: Sheron, Brian; LIA06 Hoc
Subject: RE: Emailing: boardfile.htm
Attachments: TI ML11077A0071.pdf; image001.png

MJ, There is no input from PMT and RST... what you have already sent to Brian is exactly what I have from our in-country team and the TI. I think we are done.

I have attached a copy of the TI that we issued yesterday, just in case Brian would like to have it handy.
Rani

From: Ross-Lee, MaryJane
Sent: Friday, March 25, 2011 11:57 AM
To: LIA08 Hoc
Subject: RE: Emailing: boardfile.htm

From: LIA08 Hoc
Sent: Friday, March 25, 2011 11:43 AM
To: Ross-Lee, MaryJane; McGinty, Tim; Nelson, Robert; LIA06 Hoc; Sheron, Brian
Cc: PMT09 Hoc; ET07 Hoc; RST01 Hoc; ET05 Hoc
Subject: RE: Emailing: boardfile.htm

We'll take the action and get input from PMT and RST.
Rani

From: Ross-Lee, MaryJane
Sent: Friday, March 25, 2011 9:59 AM
To: LIA08 Hoc; McGinty, Tim; Nelson, Robert; LIA06 Hoc; Sheron, Brian
Cc: PMT09 Hoc; ET07 Hoc; RST01 Hoc; ET05 Hoc
Subject: RE: Emailing: boardfile.htm

Ok, will Brian have what he needs for the 3:00 phone call? LT – can you compile results as we have them?

From: LIA08 Hoc
Sent: Friday, March 25, 2011 9:39 AM
To: McGinty, Tim; Nelson, Robert; LIA06 Hoc
Cc: PMT09 Hoc; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; ET05 Hoc
Subject: RE: Emailing: boardfile.htm

We are working it with our site team... they say they will not know until they can ask NISA (tomorrow).
Rani

From: McGinty, Tim
Sent: Friday, March 25, 2011 8:44 AM
To: Nelson, Robert; LIA06 Hoc

Cc: LIA08 Hoc; PMT09 Hoc; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; ET05 Hoc
Subject: Re: Emailing: boardfile.htm

Just #3 left. You'll have to ask PMT I guess.

Sent from my NRC blackberry
Tim McGinty
(b)(6)

From: Nelson, Robert
To: McGinty, Tim; LIA06 Hoc
Cc: LIA08 Hoc; PMT09 Hoc; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; Glitter, Joseph; Westreich, Barry; Kobetz, Timothy; ET05 Hoc; Zimmerman, Jacob
Sent: Fri Mar 25 08:10:19 2011
Subject: RE: Emailing: boardfile.htm

If the Ops Center provides the answers to 1 – 3 (my team has no way to interact with the NRC-Japan team), my comm. team can get the answer to Item 4 and prepare a consolidated response for OPA review.

NELSON

From: McGinty, Tim
Sent: Friday, March 25, 2011 2:18 AM
To: LIA06 Hoc; Nelson, Robert
Cc: LIA08 Hoc; PMT09 Hoc; McGinty, Tim; ET07 Hoc; RST01 Hoc; Ross-Lee, MaryJane; Glitter, Joseph; Westreich, Barry; Kobetz, Timothy; ET05 Hoc; Zimmerman, Jacob
Subject: FW: Emailing: boardfile.htm

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Subject:	FW: Congressional call Today

From: HOO Hoc
Sent: Thursday, March 24, 2011 5:46 PM
To: LIA07 Hoc; OST01 HOC; OST02 HOC; OST03 HOC
Subject: FW: Congressional call Today

Headquarters Operations Officer
U.S. Nuclear Regulatory Commission
Phone: 301-816-5100
Fax: 301-816-5151
email: hoo.hoc@nrc.gov
secure e-mail: hoo1@nrc.sgov.gov

From: Sheron, Brian
Sent: Thursday, March 24, 2011 3:40 PM
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Thanks.

TEMPORARY INSTRUCTION 2515/183

FOLLOWUP TO THE FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

CORNERSTONE: INITIATING EVENTS AND MITIGATING SYSTEMS

APPLICABILITY: This Temporary Instruction (TI) applies to all holders of operating licenses for nuclear power reactors, except plants which have permanently ceased operations.

2515/183-01 OBJECTIVES

The objective of this TI is to independently assess the adequacy of actions taken by licensees in response to the Fukushima Daiichi nuclear station fuel damage event. The inspection results from this TI will be used to evaluate the industry's readiness for a similar event and to aid in determining whether additional regulatory actions by the U.S. Nuclear Regulatory Commission are warranted. Therefore, the intent of this TI is to be a high-level look at the industry's preparedness for events that may exceed the design basis for a plant. If necessary, a more specific followup inspection will be performed at a later date.

2515/183-02 BACKGROUND

On March 11, 2011, the Tohoku-Taiheiyou-Oki Earthquake occurred near the east coast of Honshu, Japan. This magnitude 9.0 earthquake and the subsequent tsunami caused significant damage to at least four of the six units of the Fukushima Daiichi nuclear power station as the result of a sustained loss of both the offsite and on-site power systems. Efforts to restore power to emergency equipment have been hampered or impeded by damage to the surrounding areas due to the tsunami and earthquake. The following background information is current as of March 18, 2011.

Units 1 through 3, which had been operating at the time of the earthquake, scrammed automatically, inserting their neutron absorbing control rods to ensure immediate shutdown of the fission process. Following the loss of electric power to normal and emergency core cooling systems and the subsequent failure of back-up decay heat removal systems, water injection into the cores of all three reactors was compromised, and reactor water levels could not be maintained. Tokyo Electric Power Company (TEPCO), the operator of the plant, resorted to injecting sea water and boric acid into the reactor vessels of these three units, in an effort to cool the fuel and ensure the reactors remained shutdown. However, the fuel in the reactor cores became partially uncovered. Hydrogen gas built up in Units 1 and 3 as a result of exposed, overheated fuel reacting with water. Following gas venting from the primary containment to relieve

pressure, hydrogen explosions occurred in both units and damaged the secondary containments. It appears that primary containments for Units 1 and 3 remained functional, but the primary containment for Unit 2 may have been damaged. TEPCO cut a hole in the side of the Unit 2 secondary containment to prevent hydrogen buildup following a sustained period when there was no water injection into the core.

In addition, problems were encountered with monitoring and maintaining Units 3 and 4 spent fuel pool (SFP) water levels. Efforts continue to supply seawater to the SFPs for Units 1 through 4 using various methods. At this time, the integrity of the SFPs for Units 3 and 4 is unknown.

Fukushima Daiichi Units 4 through 6 were shutdown for refueling outages at the time of the earthquake. The fuel assemblies for Unit 4 had been offloaded from the reactor core to the SFP. The SFPs for Units 5 and 6 appear to be intact.

The damage to Fukushima Daiichi nuclear power station appears to have been caused by initiating events that may have exceeded the design basis for the facilities.

2515/183-03 INSPECTION REQUIREMENTS AND GUIDANCE

NRC inspection staff should assess the licensee's activities and actions to assess its readiness to respond to an event similar to the Fukushima Daiichi nuclear plant fuel damage event. These inspections should occur at the operating power reactor facilities. Licensee emergency preparedness will not be assessed by this TI.

This TI may be completed all at once or in phases as the licensee verifies its capability to respond to such an event. The inspector(s) should coordinate the inspection effort with the licensee in accordance with the licensee's verification schedule.

The events at the Fukushima Daiichi plant appear to be caused by factors directly impacting nuclear safety that may have exceeded the design basis for the facility. While details on the full extent of damage to these units remain unknown, the damage poses a significant challenge to the nuclear safety of these units. Immediate actions by the U.S. industry are appropriate to assess and take corrective actions to address potential vulnerabilities that would challenge response to events that are beyond site design bases.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:

a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested.

b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification.

c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).

d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.

e. Review any open corrective action documents to identify vulnerabilities that may not have yet been addressed.

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to TI 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22" as a guideline. It is not intended that TI 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:

a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.

b. Demonstrate through walkdowns that procedures for response to an SBO are executable.

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding" as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate

actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use IP 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections.

2515/183-04 REPORTING REQUIREMENTS

The inspection results, including both observations and findings, of this TI should be in a stand-alone report. NOTE: This TI will be updated with a template which will provide specific guidance on reporting and documenting observations and findings.

The inspection report containing the results should be forwarded to NRR/DIRS/IRIB, Attention: Tim Kobetz via e-mail at timothy.kobetz@nrc.gov. Mr. Kobetz can also be reached at (301) 415-1932. The inspection results from this TI will be used to evaluate industry's readiness for a similar event and to aid in determining whether additional NRC regulatory actions are warranted.

2515/183-05 COMPLETION SCHEDULE

This TI is to be initiated upon issuance. Inspection activities are to be completed by April 29, 2011 and the inspection report issued by May 13, 2011.

2515/183-06 EXPIRATION

The TI will expire on June 30, 2012.

2515/183-07 CONTACT

Any technical questions regarding this TI should be addressed to Tim Kobetz at 301-415-1932 or timothy.kobetz@nrc.gov.

2515/183-08 STATISTICAL DATA REPORTING

All direct inspection effort expended on this TI is to be charged to 2515/183 with an IPE code of TI. All indirect inspection effort expended on this TI for preparation and documentation should be attributed to activity codes TIP and TID respectively.

2515/183-9 RESOURCE ESTIMATE

The estimated average time to complete the TI inspection requirements is 40 hours per site. Where applicable, inspectors should credit the baseline inspection program for samples reviewed during this TI assessment.

2515/183-10 TRAINING

No additional training is required.

END

ATTACHMENT 1

Revision History for TI 2515/183
FOLLOWUP TO FUKUSHIMA DAIICHI NUCLEAR STATION FUEL DAMAGE EVENT

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number
N/A	ML11077A007 03/23/11	Researched commitments for 4 years and found none. This is a new document issued for inspections related to the industry response to the Fukushima Daiichi Nuclear Station Fuel Damage Event.	No	N/A	N/A