

IN THE MATTER OF PRIVATE FUEL STORAGE - JOHN LOUIS MATTHEWS

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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In the Matter of ) Docket No. 72-22  
                          ) ASLBP No. 97-732-02-ISFSI  
PRIVATE FUEL STORAGE )  
L.L.C. )  
(Private Fuel Storage ) DEPOSITION OF:  
Facility) JOHN LOUIS MATTHEWS

The deposition of JOHN LOUIS MATTHEWS, a witness in the above-entitled cause, taken before LANETTE SHINDORLING, Registered Professional Reporter and Notary Public in and for the State of Utah, at the law offices of PARSONS, BSHLE & LATIMER, 201 South Main, Suite 1800, Salt Lake City, Utah, on the 27th day of May, 1996, commencing at 9:00 a.m.

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14 WITNESS PAGE  
15 JOHN LOUIS MATTHEWS  
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PROCEEDINGS  
JOHN LOUIS MATTHEWS,

called as a witness, for and on behalf of the Applicant, being first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. GAUKLER:

Q. Would you please state your full name for the record?

A. John Lewis Matthews.

Q. General Matthews, I'm going to be asking you some questions this morning. I'll try to make my questions as clear as possible.

A. Okay.

Q. If at any point you don't understand a question of mine will you please ask me to clarify it?

A. Sure.

Q. What is your present position and employer?

A. Well, I'm a military advisor to the Governor of Utah and I'm also a consultant to two defense contractors.

Q. So what portion of your time is allocated to being the military advisor to the Governor?

A. About 50 percent.

Q. Roughly 50 percent?

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1 A. Yes.  
2 Q. And the other 50 percent is the consulting for  
3 the two contractors?  
4 A. Yes. Less than that. I don't-- I'm semi  
5 retired, but I haven't been able to figure out just how  
6 to get it done yet. I'm not as smart as I should be.  
7 Q. So you end up doing more than you want to do  
8 sometimes?  
9 A. Yes, sometimes.  
10 Q. What's your responsibility as military advisor  
11 to the Governor?  
12 A. Well, primarily I deal with the relationship  
13 between the Governor's Office and the military  
14 activities in Utah and give him advice on potential  
15 impact of military activities, watch legislation.  
16 Obviously worry about BRAC and related issues.  
17 Q. What is BRAC?  
18 A. Base Realignment and Closure.  
19 Q. And the issue with respect to BRAC is what?  
20 A. Well, of course, the impact of closed  
21 facilities in any state, you know, has economic impact.  
22 So that's our primary concern.  
23 Q. How long have you been military advisor to the  
24 Governor?  
25 A. Since October of '94.

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Q. And what was your position prior to October

A. I was the Adjutant General of Utah which is Commander of the National Guard. I had that for 12 years.

Q. And what were your duties as Commander of the National Guard for Utah?

A. Well, commanding the National Guard. The National Guard in Utah has a variety of activities, both Army and Air National Guard, which includes attack helicopter troop, a special forces troop. It has engineers and artillery men. It has in the Air National Guard, air refuelers and the 299th Range Control Squadron which handles all of the air traffic over the Utah Test & Training Range. Electronic installation squadron, air combat support squadron and a large linguist unit.

Q. A large what unit?

A. Linguist.

Q. What were your responsibilities prior to becoming the General Commander of the Utah National Guard?

A. I commanded the Air National Guard.

Q. How long were you a Commander of the-- that was the Utah Air National Guard?

A. Yes.

Q. How long were you Commander for the Air National Guard?

A. For about three years.

Q. And what were your responsibilities or position prior to the Air National Guard?

A. Well, then I was a part-time guardsman and an educator.

Q. And you were an educator where?

A. At Timpview High School. I was the principal of Timpview High School and principal of Dixon Junior High School, both in Provo.

Q. How long were you in those positions?

A. I was an educator for about 17 years which included about, let's see, four years as a teacher and then the rest as an administrator.

Q. You say you were a part-time guardsman at that time?

A. Yes.

Q. And what did you do as a part-time guardsman?

A. Fly airplanes, have fun. I never could believe they paid us to do that.

Q. That means you loved it.

A. That's right.

Q. What type of airplanes did you fly as far as

the Air National Guard? You were a guardsman in the Air National Guard at that time?

A. Yes. I started out in F-86s and F-100s and then we went into transports, C-97, KC-97, C-124s, KC-135s. I also had a stint as an instructor for United Airlines, instructor pilot. And before that I was on active duty in the Air Force.

Q. How long were you on active duty in the Air Force?

A. About four years.

Q. And what did you do on active duty in the Air Force?

A. I was an instructor pilot.

Q. And what airplanes were you instructor pilot for?

A. I was in Basic Flight School, which was T-33s.

Q. T-33s?

A. Uh-huh (affirmative). Most of the airplanes I flew are now in the Air Force Museum. It's kind of sad.

Q. Technology marches on, right?

A. That's right. And so does my age.

Q. I know the feeling. And prior to being an instructor pilot with the Air Force, what did you do?

A. Well, of course I went through flight school myself and then prior to that I was in college, you

know, graduated from college. I went to BYU and had-- I was in the ROTC, and that's how I got my commission and majored in geology. Then I went on active duty after I graduated.

Q. And how long were you on active duty?

A. Four years, as I said.

Q. That's when you were the instructor pilot?

A. Yes. Then, of course, when I came back in 1979 I became full-time.

Q. As part of the Commander of the Air National Guard?

A. Yes. So from '79 to '94 I was full-time.

Q. Are you familiar with the Private Fuel Storage project?

A. Yes.

Q. And what's your familiarity?

A. Well, as the military advisor to the Governor I have been assigned as his advisor on that issue. So I work with Connie Nakahara and the Department of Environmental Quality on that issue.

Q. And what have you done on that issue so far?

A. Oh, read a lot of things and I've had, you know, some preliminary conversations with you and gone to a number of meetings. Basically just gotten educated and try to keep the Governor educated on how the whole

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Q. Are there airplanes involved other than the Apache helicopters?

A. Oh, yes, F-16s and F-18s.

Q. And that has been in recent years they have had that type of training exercise?

A. Yes.

Q. Any other training exercises that you are aware of that are conducted on Dugway?

A. Well, of course Dugway is under the Utah Test & Training Range so there's a lot of activities going on at the Utah Test & Training Range. But as far as Dugway itself is concerned, the only other exercise that I'm aware of were in the past where there was ranger training at Dugway, but that no longer occurs, as far as I know. Or if it does, it occurs on an irregular basis.

Q. The first category you referred to is artillery firing?

A. Yes.

Q. What type of artillery is fired, what type of shells, do you know?

A. Well, they've fired everything from 155 self-propelled to rockets. They've even fired the-- I'm trying to think of the name of the missile that the Army uses. I'll think of it in a minute, I'll give you the name in a minute, but I will. So it's a wide variety.

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1 Usually the heavier or longer range firing occurs to the west out near Granite Peak as the impact area. Granite Peak is on the west end of your map.

Q. So the impact area is Granite Peak, for the longer range, this would be for the longer range rockets and artillery?

A. Normally.

Q. Where do they fire from?

A. There's a number of firing points. The 155s commonly fire from an area between Ditto and English Village to the south of Stark Road and they fire to the southeast. And in addition, they have fired from-- if you look on your map and it says Michael Army Airfield, where the word "airfield" is located, they have fired from that area up north, northwest towards Wig Mountain. So those have been the two primary areas for regular artillery firing.

Q. So they fire away from English Village?

A. Yes. Their firing points are usually to the west of English Village north and south of Stark Road.

Q. Do you believe that the artillery firing of these rockets and 155s and other weapons would pose any hazard to the Private Fuel Storage facility?

A. I have no way of knowing that for sure. I know-- and it was ATAC, is what I was trying to remember

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1 that the Army uses. The only one that I would wonder about would be the firing northwest into the Wig Mountain area.

Q. Are you familiar with the safety procedures that are used by the Army when firing these weapons?

A. Yes.

Q. And what are those safety procedures?

A. Well, they have a process in which they calculate the target. Then they have to calculate the amount of explosives, the charge that they put with the artillery shell. And then they-- and they identify a safety zone around the outside of the impact area. And normally before they give a fire order they review the safety area to make sure that the impact is going to occur within the safety area, and hopefully it does. It doesn't always, but hopefully it does.

Q. Are you aware of whether there's ever been an artillery shell or other impacts off the Dugway training range?

A. Yes, I am.

Q. And what incident was that?

A. I know of at least one incident in which an impact occurred very near the Simpson Springs Campground.

Q. And where is that located?

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1 A. It is-- if you look at what is called Simpson Buttes and then go east from Simpson Buttes, Simpson Springs is just off Dugway to the east.

Q. So one shell landed there, that you're aware of?

A. Near Simpson springs. Actually, there was debris and some shrapnel that entered the campground, was my understanding.

Q. Are you aware of any other incident of any impact off the Dugway Proving Ground?

A. I am not.

Q. You referred to Apache helicopter training. Where does that take place?

A. Well, it takes place in a variety of areas in the west desert. Usually they try to-- on a yearly basis they adjust where they're going to train. But when they're in joint training, in the recent past they have operated in the impact area down near the Simpson Buttes. I have not seen the operations orders for the activity this year so I don't know exactly where they're planning to train and where they're planning to fire.

Q. You said the west desert area. That's off to the west of this map?

A. The west desert area, in my mind, includes Dugway and the Utah Test & Training area, basically. So

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1 it's a larger area than just Dugway.  
 2 Q. What direction do they fire? What weapons do  
 3 the Apache helicopters fire in their testing?  
 4 A. The aircraft is equipped with .30 millimeter  
 5 cannon, it has 2.75 rockets and it fires the Hellfire  
 6 missile.  
 7 Q. And do you know in what directions they fire  
 8 those weapons?  
 9 A. It would be hard for me to say-- to exclude  
 10 directions, but I would say to you that they fire-- they  
 11 often fire in the Lakeside range, which is in the north  
 12 area of the Utah Test & Training Range across I-80 to  
 13 the north, okay? In cases where they have been involved  
 14 in joint exercises they also have fired down in this  
 15 portion of Dugway, either up here or down here.  
 16 Q. You're pointing to the--  
 17 A. Cedar Mountains and the Simpson Buttes area.  
 18 Q. And do you know which direction they fire  
 19 from? Do they fire away from English Village?  
 20 A. Yes. They would normally fire to the  
 21 northwest if they were up here or to the south if they  
 22 were down here.  
 23 Q. So if they're in the Cedar Mountains area they  
 24 would fire to the northwest?  
 25 A. Yes.

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1 Q. And if they were down below Stark Road they  
 2 would fire to the south?  
 3 A. Uh-huh (affirmative).  
 4 Q. What are the range of the weapons that they  
 5 fire in terms of miles, do you know?  
 6 A. They don't deal in miles, they deal in  
 7 kilometers.  
 8 Q. In kilometers, then.  
 9 A. I'm not sure I can give you the maximum range  
 10 of the Hellfire, but I would think that it would be in  
 11 the range of three to four miles.  
 12 Q. And that would be the longest range of the  
 13 weapons they fire?  
 14 A. Yes. But I don't want my testimony to say  
 15 that is the maximum range because I don't know that.  
 16 Q. But the Hellfire would be the one with the  
 17 longest range?  
 18 A. It would be, yes.  
 19 Q. Going back to we were talking about the  
 20 artillery firing that the Army does in terms of 155 and  
 21 rockets. What would be the range of those weapons, the  
 22 shells that they fire?  
 23 A. The rockets, you know, they can go 20 miles.  
 24 In fact, the 155 can reach out and touch you at about 15  
 25 miles.

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1 Q. Do you see any hazard posed to the Private  
 2 Fuel Storage facility from the helicopter training  
 3 activities conducted at Dugway?  
 4 A. If there were a hazard it would be as a result  
 5 of an inaccurate firing.  
 6 Q. Are you aware of any inaccurate firings with  
 7 respect to the helicopter training at Dugway?  
 8 A. I'm not aware of any specific incidents of  
 9 either Hellfires or rockets that have impacted other  
 10 than in the impact areas. However, I don't know of all  
 11 their activities, but I'm not aware of any specific  
 12 accidents.  
 13 Q. You referred to training exercises in recent  
 14 years of the Air Force and Army conducted at Dugway.  
 15 A. Uh-huh (affirmative).  
 16 Q. Where are those training exercises conducted,  
 17 do you know?  
 18 A. They vary from year-to-year. You know, what  
 19 they-- if you're trying to train, for instance,  
 20 artillery men, if you send them to the same firing point  
 21 each time there isn't much training that goes on. So  
 22 you move around and give them challenges. And also in  
 23 artillery training, one of the issues is a rapid move,  
 24 setup and fire. So you want to be in a position where  
 25 you have them setting up, firing, now they're in danger,

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1 now they pack up and move and they rapidly set up and  
 2 fire again. So basically, you know, it can be a number  
 3 of different locations within the exercise period and  
 4 over the areas that I have described. Usually they  
 5 don't try to go outside the areas that have been  
 6 identified as suitable impact areas by Dugway.  
 7 Q. And the suitable impact areas, again, are the  
 8 ones by Granite Mountain?  
 9 A. Yes. That's one. There's some down south, as  
 10 I say, by Simpson Buttes and there's others up north by  
 11 Wig Mountain.  
 12 Q. So all these training exercises fire towards  
 13 one of the impact areas?  
 14 A. Yes.  
 15 Q. Are you aware of any others they fire?  
 16 A. No, I'm not aware of any others. However, I  
 17 wouldn't exclude others, I'm just am not aware of them.  
 18 Q. What type of weapons are fired in these joint  
 19 exercises?  
 20 A. Well, there's bombs, rockets, basic artillery,  
 21 Hellfire missiles, cannons from both fixed wing aircraft  
 22 and helicopters. So there's quite a variety of weapons.  
 23 Q. What type of bombs are used, do you know?  
 24 A. Normally they use the practice bombs, but not  
 25 always.

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Q. But practice bomb you mean what?

A. Well, they have a small charge. You can tell where the bomb hit, but you don't blow a lot of stuff up.

Q. So basically it's an inert bomb with a small charge to identify where the bomb hits?

A. Right.

Q. That poses no hazard?

A. No. And I say that's not exclusively the case, but in many cases it is.

Q. And when they do use light bombs, do you know what type of bombs they use?

A. I'm not sure I could answer that.

Q. But again, the bombs would have one of these impact areas we've described?

A. Uh-huh (affirmative). They would be, yeah, in all likelihood. Of course, they bomb other areas, as you know, in the Utah Test & Training Range.

Q. Right. We'll get to that.

A. So you have these fighters coming in and participating in this and also doing some additional training while they're at it.

Q. At the Utah Test & Training Range up to the north?

A. Yes.

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Q. Do you see these joint exercises posing any hazard to the Private Fuel Storage facility?

A. Only if there were stray weapons.

Q. Are you aware of any impact outside of the impact areas with respect to these exercises?

A. I've described one to you.

Q. That's the one that was down by Simpson Butte?

A. Yes.

Q. Again, I take it on these joint exercises, they follow the same procedures that you talked about before in terms of safety procedures?

A. Oh, yes, always.

Q. Always?

A. Uh-huh, absolutely.

Q. Are you familiar with activities regarding Michael Army Airfield?

A. Yes.

Q. And what's your knowledge with respect to activities at Michael Army Airfield? What happens there?

A. Well, one of the things that happens is that it's used as a recovery base for aircraft on the Utah Test & Training Range that have hung weapons. It is used as an aircraft delivery base, large aircraft sometimes land there with cargo. In some of these

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exercises it's actually used as an airfield for deployed military units that come out. Last year, for instance, I believe an Air National Guard unit from Niagara Falls, New York deployed to Dugway and operated out of Michaels with F-16s, and helicopters use it sometimes as a deployment situation.

Q. Do you know approximately how many flights go out of Michaels Army Airfield?

A. I think it's very irregular. I wouldn't have a number for you. I mean, I don't think there's a consistent number that you could project.

Q. You met with a Dr. Marvin Resnikoff, an expert for the State with respect to this proceeding. Do you recall that?

A. Marvin--

Q. Resnikoff.

A. Resnikoff. And he is what?

Q. An expert for the State of Utah with respect to this proceeding. Do you recall meeting with him?

A. I probably did. I was in a meeting with a lot of people. I don't think I was at one with him by himself.

Q. Do you remember providing any information to anybody regarding flights in and out of Dugway, Michael Army Airfield at Dugway?

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A. I think I provided basically the same information I provided to you.

Q. Just as you've told me now?

A. Yes.

Q. Do you believe that flights in and out of Dugway, Michael Army Airfield at Dugway would pose any hazard to the Private Fuel Storage facility?

A. Landing and taking off from Dugway, I would be surprised if it caused any hazard. I would think that any hazard would be from overflight rather than specific landing or takeoffs.

Q. Have you done any evaluation of the potential hazard of overflights?

A. Have I done an evaluation?

Q. Yes.

A. No.

Q. You referred to Michael Army Airfield being the place where planes on the Utah Test & Training Range land with hung bombs?

A. They could land.

Q. Could land with hung bombs?

A. Yeah.

Q. Do you know how often that occurs?

A. I think there's something-- I think that's already been gathered, hasn't it, in FEMA information?

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1 I would just as soon refer to that. I don't have it in  
2 front of me. I'm sure it's more accurate than what I  
3 can give you.

4 Q. Do you see the landing at Michael Army  
5 Airfield of planes with hung bombs posing any hazard to  
6 the Private Fuel Storage facility?

7 A. It depends on the flight path coming in. I  
8 don't know what the-- the landing at Michael in and of  
9 itself certainly wouldn't, in my opinion, pose any  
10 hazard.

11 Q. Do you know the flight path they take?

12 A. No. And I wouldn't know that, you know, based  
13 on where the problem occurred.

14 Q. Excuse me? Say that again.

15 A. Based on where the problem occurred. You  
16 know, if they had a-- where the hung ordnance occurred,  
17 where they were at the time, where they had to return to  
18 get to their destination.

19 Q. So you would need to know where the problem  
20 occurred to determine how they would get back to their  
21 destination?

22 A. Yes, I would think so. Because the air  
23 traffic people would probably make a decision as to how  
24 they go based on where they are. They have certain  
25 corridors based on where they are and try to follow

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1 those.

2 Q. I'm going to show you a map of the Utah Test &  
3 Training Range. That has been marked as Deposition  
4 Exhibit 3 to Bronson Hawley's deposition so we won't  
5 mark it again. On the map you'll see there's three  
6 areas outlined in blue, basically in the western part of  
7 Utah. The bottom area outlined in blue that includes  
8 Granite Peak, that's the Dugway Proving Ground, correct?

9 A. Right.

10 Q. And then right above it there's another area  
11 outlined in blue, and that's the south range of the Utah  
12 Test & Training Range?

13 A. Uh-huh (affirmative).

14 Q. And then north of I-80 there is another area  
15 outlined in blue, and that's the north range of the Utah  
16 Test & Training Range?

17 A. Yes.

18 Q. First of all, where do the training exercises  
19 take place on the south Utah Test & Training Range?

20 A. Are you talking about-- which training  
21 exercise?

22 Q. That would involve hung bombs. Do you know?

23 A. Well, you're looking at the ground  
24 representation of Dugway and Utah Test & Training Range.  
25 Utah Test & Training Range is an air operation. Air

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1 operations fly throughout this area.

2 Q. And by "this area"?

3 A. They release-- well, it's the exterior outline  
4 in blue that you have here on the map.

5 Q. You say blue and I think it's probably green.

6 A. Whatever. Aircraft operate in this total  
7 area. They release ordnance in the areas that are  
8 described, that you have just described where they can  
9 impact the ground with their ordnance and carry their  
10 ordnance throughout this total area. They just can't  
11 release it except in those specific areas.

12 Q. Isn't it true that if they're flying to the  
13 areas where they're going to release the ordnance, the  
14 weapon systems are not armed?

15 A. Hopefully. That's the plan.

16 Q. That's your understanding of what the standard  
17 procedures are?

18 A. That's right. That would be an SOP for the  
19 pilot.

20 Q. Standard Operating procedure?

21 A. Yes.

22 Q. And that they would only arm their systems  
23 when they got to the area where they were going to  
24 release the bombs, correct?

25 A. Uh-huh (affirmative).

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1 Q. And you wouldn't know that you had a hung bomb  
2 until you tried to release the bomb; isn't that correct?

3 A. Yes. But if you're making the case, then you  
4 have to recognize that there is such a thing as human  
5 error and in the case of human error sometimes switches  
6 are switched when they're not supposed to be switched.  
7 So I would suggest that your observation is correct  
8 provided that the pilot operates in accordance with the  
9 standard operating procedures.

10 Q. Are you aware of any instance where weapon  
11 systems have been armed prior to entry into the area  
12 where the weapons are to be released?

13 A. In the Air Force?

14 Q. In respect to the Utah Test & Training Range.

15 A. I have no information about that.

16 Q. Now, do you know where the hung bombs have  
17 been identified in the past?

18 A. I do not.

19 Q. Assuming that a hung bomb were identified over  
20 the Wildcat Mountain area, that's the area between the  
21 site for the south training range?

22 A. Uh-huh (affirmative).

23 Q. Do you know what route they would take to  
24 Michael Army Airfield?

25 A. I don't. Because normally it would depend

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Q. What on what activities are going on on the range at this time. So the air traffic control organization which has responsibility for the aircraft has to maneuver him safely to a point where he can land at Dugway.

Q. Are there standard operating procedures for maneuvering him safely to that route?

A. Yes. The preferred route would be a predetermined corridor.

Q. And the corridor would be one to remain over the Utah Test & Training Range at Dugway Proving Ground?

A. Yes, that's correct.

Q. It would also be one to avoid any population areas or where people are--

A. Yes, that's also correct.

Q. Do you know what happens to hung bombs once the plane has landed at Michael Army Airfield?

A. They normally-- they have an organization at Dugway which has some capability to deal with that incident. If they can't deal with it, then they contact Bill and Hill provides people who come out and take care of the situation.

Q. Do you see any hazard to the Private Fuel Storage facility from the disposal of hung bombs?

A. At Michael?

Q. At Michael Army Airfield.

A. No.

Q. Are you familiar with chemical munitions that may be at Dugway Proving Ground?

A. I'm going to ask you to restate that question because I think there's some they're not familiar with, so I'm certainly not familiar with them.

Q. Would you describe for me what your familiarity is with respect to chemical munitions on Dugway Proving Ground.

A. I know that, one, they do testing of systems which have the capability of destroying chemical munitions, and they do those in specific facilities. And I know also that they have on previous occasions discovered weapons that were-- have been there for some period of time that were not previously identified.

Q. Now, when we talk about chemical munitions, what's the definition of a chemical munition?

A. Well, my understanding of chemical-- I guess it depends on who is defining it, but I think the military definition of chemical munitions includes GB, VX and mustard, basically. So it's usually one of those three.

Q. And you also would have to have an explosive to disperse the GB, VX or mustard, correct?

A. Normally. Although there are munitions which are described as bulk containers, which they have containers which I assume they use to charge weapons with.

Q. Now, isn't it true that with the chemical Test Ban Treaty that the U.S. no longer manufactures or deploys chemical munitions?

A. You're asking me to say whether the United States is doing that?

Q. Yes.

A. And I'm going to say you need somebody smarter than me to give you that answer.

Q. What's your understanding?

A. But you are correct about the Test Ban Treaty.

Q. What's your understanding of the Test Ban Treaty in terms of chemical munitions?

A. That we're not to produce them and that we also are in the process of destroying them.

Q. Do you know of any storage of chemical munitions that takes place at Dugway Proving Ground?

A. Small amounts. Because one of their missions is chemical defense and, therefore, what they have to do is test clothing and other items to determine whether or not they are effective against those weapons. The only way you can do that, you know, is to use some of the

material on those items.

Q. So they do testing of defensive weapons--

A. Well, yes.

Q. -- with respect to using the chemical agent in testing?

A. Right.

Q. Do you know where chemical munitions or chemical agent are stored at Dugway?

A. I'm not sure I know. I don't think I can say that I know where they're stored. I know where they do some of the testing, but I'm not comfortable in saying I know where they're stored.

Q. Are you familiar with Igloo G?

A. No. I have an idea where it is, but I don't think I'm prepared to testify.

Q. Do you believe that the storage of chemical munitions or chemical agent at Dugway poses a hazard to the Private Fuel Storage facility?

A. I would hope not. The release of those-- you know, there's-- when you get into that kind of stuff you get into, you know, computer models of what happens if the stuff get loose at this location, how far it would go, what's the prevailing wind, all those kinds of things. And I don't have any way of knowing that for sure because I don't know the exact amount they have

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1 there and I don't know what the computer models would  
2 indicate as it relates to that particular location.  
3 Q. Has the State undertaken an evaluation of the  
4 potential impacts of a potential release of chemical  
5 agent on, say, citizens at English Village or any other  
6 citizens of the State of Utah?  
7 A. I think I'm not knowledgeable enough to say.  
8 I'm sure they have, but I don't know that for a fact.  
9 Q. You're not aware of any yourself?  
10 A. No.  
11 Q. You said you're aware of the facilities where  
12 they test the chemical agent?  
13 A. Yeah, at least two locations.  
14 Q. Where do they test chemical agent, then, as  
15 far as you're aware?  
16 A. There's a location at Ditto, the Ditto area,  
17 and of course there's another location at the Karr area.  
18 And other than those areas, I believe that the testing  
19 is all simulated.  
20 Q. By simulated you mean what?  
21 A. Nonlethal. Materials which tend to give the  
22 same characteristics as the agent itself.  
23 Q. So they use that outside to test?  
24 A. Yes. They're not allowed to do outside  
25 testing of lethal agents.

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1 Q. So what they use is a simulant that's  
2 nontoxic?  
3 A. That's right.  
4 Q. That has the same characteristics in terms  
5 of--  
6 A. Yes, for whatever they're testing for.  
7 Q. -- for whatever they're testing for. Do you  
8 know of any safety procedures they take involving the  
9 testing of chemical agent?  
10 A. I don't think I could relate their specific  
11 safety procedures. I know that they have extensive  
12 safety procedures, but I'm not an expert on those  
13 procedures.  
14 Q. You've been briefed on them by the people at  
15 Dugway, correct?  
16 A. In general terms, yes.  
17 Q. In general terms?  
18 A. Yes. I visited their facilities so I have  
19 some idea of how they operate, but--  
20 Q. Do you believe that the operation of these  
21 facilities pose any significant hazard to the Private  
22 Fuel Storage facility?  
23 A. I don't believe so, no.  
24 Q. What's your understanding of testing with  
25 respect to biological agents at Dugway Proving Ground?

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1 A. What's my understanding?  
2 Q. Yes.  
3 A. I'm not sure what you mean.  
4 Q. What do you know about testing of biological  
5 agents at Dugway Proving Ground?  
6 A. Well, I'm familiar with their facility, I'm  
7 familiar with the tests that are going on at the  
8 facility because we get a report on those quarterly.  
9 Basically that's it.  
10 Q. Where does biological testing take place at  
11 Dugway?  
12 A. Out here in the Baker area.  
13 Q. Is that the Life Sciences Test Facility?  
14 A. Yes, that's right.  
15 Q. Are you aware of any testing that takes place  
16 outside the Life Science Test Facility?  
17 A. Oh, yes, there's testing that goes on in the--  
18 on Dugway itself, but once again, it's with simulants.  
19 Q. So, again, they use a stimulant--  
20 A. A simulant.  
21 Q. Which is nontoxic?  
22 A. That's right.  
23 Q. So all the toxic testing takes place in the  
24 Life Science Test Facility?  
25 A. Uh-huh (affirmative).

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1 Q. Are you aware of the safety procedures that  
2 they use in the Life Sciences Test Facility?  
3 A. I'm aware in general terms.  
4 Q. And what procedures are those?  
5 A. Well, they have specific areas within the Life  
6 Science facility for a certain biological level of  
7 testing, level 2, level 3. Level 3 is the maximum that  
8 they're allowed to use at the Baker Lab-- it isn't Baker  
9 Lab anymore, it's the Life Sciences facility. And so  
10 they have to operate very specifically within those  
11 parameters. When they prepare a test they go through a  
12 preparation in which they review it with everybody who  
13 is involved and make sure that they don't have any  
14 problems with the test before they do it. And beyond  
15 that, I don't know what the details are.  
16 Q. Do they have a negative pressure on the  
17 building?  
18 A. Oh, yes. All those, yes.  
19 Q. And by that negative pressure means that the  
20 airflow is towards the area they're doing the testing?  
21 A. The area of maximum area of level testing,  
22 that's right.  
23 Q. To include the agent being outside the  
24 building?  
25 A. Sure.



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1 Q. And you said you were Chairman of the  
2 Technical Review Committee?

3 A. Uh-huh (affirmative).

4 Q. And what's the purpose of the Technical Review  
5 Committee?

6 A. Sometime back when this lab was proposed it  
7 was proposed to be at level BL-4. There was  
8 considerable concern about having a BL-4 lab in the  
9 state and so the Army modified their plan finally and  
10 suggested that they would build a BL-3 lab. There was  
11 still some concern that maybe the Army would build-- say  
12 it would build a BL-3 and really build a BL-4. And so  
13 an agreement was reached in which a citizens group was  
14 allowed to be privy to what they were doing to ensure  
15 that it was, in fact, a BL-3 lab. So basically that's  
16 the antithesis of the Technical Review Committee.

17 Q. And that was the origin of the Technical  
18 Review Committee?

19 A. Uh-huh (affirmative).

20 Q. And now you continue to review the operations  
21 there to ensure that they are BL-3?

22 A. Yes. Basically, you know, they give us a  
23 report on their testing. We have people on the  
24 committee who are highly qualified in that area, I am  
25 certainly not one of them, and if they have concerns

1 about the testing then that's raised at the time the  
2 proposed testing list is presented to us.

3 Q. And do you believe that the testing of  
4 biological agent at the Life Science Test Facility poses  
5 any hazard to the Private Fuel Storage facility?

6 A. I would hope not. I don't see any reason why  
7 it would.

8 Q. Are you aware of the transportation of  
9 chemical or biological agent to and from Dugway?

10 A. I'm aware that such a thing occurs, yes.

11 Q. And what's the basis of your knowledge?

12 A. Well, it's kind of hard to test if you don't  
13 get the stuff there to test. That's one of those easy  
14 questions. That's one of the easy ones you gave me.

15 Q. But they have certain agents from before at  
16 Dugway from previous activities, correct?

17 A. Yes, they do.

18 Q. But do you review the specific transportation  
19 plans that--

20 A. Do you know, we normally do not get involved  
21 in the transportation. That's under the Department of  
22 Transportation in the state and I don't really get  
23 directly involved other than occasionally there is the  
24 transport of chemical agent from TOCDF, Tooele Chemical  
25 Demilitary Facility, to Dugway for the purpose of tests

1 and we do get information on that in my role as Citizens  
2 Advisory Commission for TOCDF.

3 Q. And do you know what route that transportation  
4 takes?

5 A. It varies. I mean, it depends on what they're  
6 transporting and where they take it, but they usually--  
7 in these cases-- and remember, these are only in a small  
8 percentage of the cases, there's a lot of cases and  
9 things I don't know about that go to Dugway, but once  
10 they transport they make a decision on the route.

11 Q. What routes are you aware that they've taken?

12 A. Well, I know that they have transported  
13 material down through Skull Valley Road to Dugway. I  
14 know that they have transported from TOCDF south to  
15 Vernon and then over Lookout Pass to Dugway. I'm not  
16 aware of transportation over Johnson's Pass, but I don't  
17 know for sure.

18 Q. What transportation are you aware of down  
19 Skull Valley Road?

20 A. Well, that's a primary road for transporting--  
21 if you're going to take a truck of any size, that would  
22 be the preferred route for Dugway because of the problem  
23 of curves, etc., on Johnson's Pass.

Q. But what transportation of chemical agent are  
you specifically aware of down Skull Valley Road?

1 A. Chemical agent?

2 Q. Yes.

3 A. I'm not sure that I'm aware of any chemical  
4 agent.

5 Q. Going down Skull Valley Road?

6 A. Yes. There could be biological agents, but  
7 I'm not sure the makeup.

8 Q. You had referred to, I thought, the  
9 transportation from TOCDF to Dugway. Do you know if any  
10 of that transportation has gone down Skull Valley Road  
11 of chemical agent?

12 A. Oh, no, I doubt if that would be--

13 Q. That would not go down Skull Valley Road?

14 A. No. They would have to go all the way up to  
15 Tooele and back down Skull Valley that way.

16 Q. So from TOCDF, that would go through Lookout  
17 Pass and through Skull--

18 A. Probably. But as I say, they determine that  
19 on an individual basis.

20 Q. Do you know whether the transportation of  
21 chemical agent or biological agent to and from Dugway  
22 would pose a hazard to the Private Fuel Storage  
23 facility?

24 A. I do not know that.

25 Q. You mentioned at one point earlier this

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A. A lot of them.

Q. What were the nature of those training missions?

A. Well, some were fighter missions, some were refueling missions, some were helicopter missions. So probably all three.

Q. What were the fighter missions that you flew? Can you describe them to me generally?

A. Okay. Well, let's see. Let me give you an example of a fighter mission. You go out, you take off, you climb out, you go hit the tanker which is located on the range, fill up with fuel, attack the target complex at Wildcat. You may go back up and refuel again with the tanker, depending on how long a mission you want to fly. You may go into maneuver areas where you do air-to-air activity, in which you use air-to-air tactics with other aircraft. Sometimes there are aircraft there that are designed to be aggressors and you're designed to attack them. You're vectored there by the air traffic control people, vectored to the enemy, and then you go through your maneuvers for air-to-air activities.

You may fire air-to-ground at Eagle Range which is up here in the north area-- as you look at the north area here, the jog, if you look directly north of Grassy Mountains, in this area right here is Eagle

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1 Range, and they have a scoring facility and tower and  
2 you come in and attack a ground target and they can  
3 score your accuracy and then return to base.

Q. What type of planes have you flown on these training missions?

A. I started out in old airplanes, F-86s, and ended up flying a F-16 training mission most recently.

Q. How many F-16 training missions did you fly?

A. Not very many, just a couple of those.

Q. And--

A. I have to tell you, off the record, that what amazed me was how similar the F-16 handles to an old F-86. It's got a lot more power and it can do a lot more vertically to get out of trouble, but as far as handling characteristics, very similar. I was amazed. But who cares. On we go.

Q. Did you fly missions to the south part of the Utah Test & Training Range?

A. Yes, usually. The missions I flew came down and entered near the Delta area, came in south of the area range.

Q. So you took off from Hill Air Force Base?

A. Yes. Went south over Salt Lake and then down and then entered the range approximately in this area, which I guess I'm pointing to an area near what would be

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1 described as Sevier Lake and it's not identified on this  
2 map. And Delta is not identified on this map, but it's  
3 right here. Here's Fillmore. So if you come south from  
4 Rockwell, a little bit southwest to where you see all of  
5 those roads kind of intersecting?

Q. Yes.

A. That's Delta. Then we come in near what is-- those little lakes out there is a complex which used to be called Sevier.

Q. And those lakes are between Cricket Mountains and Granite Peak, somewhere in between?

A. Yes.

Q. Those flights would take off from Hill Air Force Base and come over Salt Lake City?

A. Yes, in those particular cases. Although they come both ways. They go directly out west from Hill into the range and south into the range.

Q. And when they came down south they would come down over this place between Rockwell and Fillmore?

A. Delta.

Q. Delta?

A. Yes.

Q. And then you would swing around?

A. And into the range here.

Q. Around Notch Peak and Hollow Peak?

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A. Yes, probably.

Q. And then you would come up and fly up to Wildcat Mountain?

A. Yeah. It depends on what you're doing.

Q. You fly then into the Test and Training Range?

A. Yes. You enter the range and then you have all kinds of maneuverability. You can get down on the deck or whatever you need to do, depending on what the mission profile is.

Q. What were the last training missions that you flew, when were they flown?

A. In the '90s, probably '92. They won't let me fly anymore. I'm too old.

Q. You would love to fly some more, right?

A. Yes, I would love to. Talk is cheap.

Q. Do you know what route they use today to fly to the Utah Test & Training Range? Do they use the same route or do they use a different route?

A. I don't believe I can tell you with absolute accuracy what they use. I'm sure that they use that, among other routes. I know that they go west into the range. I believe, but I do not know, that they also come south through Skull Valley as another route, but I'm not an expert on that particular aspect and I think you need to be sure that you know that.

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1 Q. Where is Hill Air Force Base? It's located up  
2 here by Ogden?

3 A. Right there, yes. You can sit out here and  
4 watch them going directly across the lake into the  
5 range.

6 Q. Into the north area, north range?

7 A. And also you can hear them coming across Salt  
8 Lake southbound. Some of them you'll see go across the  
9 lake and then turn south.

10 Q. And south--

11 A. In this area. So they would come through the  
12 Skull Valley area.

13 Q. Do you know where they fly in Skull Valley?

14 A. I do not. And I don't know what altitude they  
15 fly. I know one thing, I know that in helicoptering  
16 back and forth to Dugway coming across Skull Valley we  
17 often would encounter fighters at low level proceeding  
18 northbound.

19 Q. Where at, approximately?

20 A. We would come across near perhaps just a  
21 little south of Johnson's Pass and then proceed  
22 directly-- you can see the roads. And this would be  
23 English Village right about here. And we would  
24 encounter northbound-- mostly northbound traffic at low  
25 level. There was southbound traffic, but helicopters

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1 are always down fairly low. So that was our major  
2 concern with that corridor.

3 Q. What kind of northbound traffic did you  
4 encounter?

5 A. Primarily fighters.

6 Q. Do you know where they were headed?

7 A. No.

8 Q. Do you know whether they still fly that route  
9 today?

10 A. Well, I know that helicopters still watch for  
11 them and work with Clover Control to try to maintain  
12 separation. Clover Control is the 299th Squadron.

13 Q. You said you commanded a group responsible for  
14 air traffic control?

15 A. That's the 299.

16 Q. Would you describe for me what you did as head  
17 of that group?

18 A. Well, what any commander does, you know. It's  
19 keep me out of trouble type thing. Actually, I visited  
20 their operations on a number of occasions. Whenever  
21 there was an accident on the range they called me. I  
22 spent time working on issues of manpower related to the  
23 number of operations they were dealing with. I also was  
24 involved in their issues related to the equipment that  
25 they used to operate on the range and the facilities

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1 that they had available to them because they had to have  
2 gap filler radars at various locations so they could  
3 have better coverage of the range. They needed sites  
4 where they could provide adequate communications. You  
5 know, there were blank areas in the range that they  
6 needed better communications for so we worked on things  
7 like that. Their personnel requirements were based on  
8 the sorty rate at the range and so we had to review  
9 their personnel requirements.

10 Q. So you provided support for the air traffic  
11 control?

12 A. Yes.

13 Q. But you weren't actually commanding--

14 A. I wasn't the commander of the unit, but the  
15 commander of the unit reported to me.

16 Q. You provided support for the air traffic  
17 control?

18 A. Uh-huh (affirmative). So I was fairly  
19 familiar with what they were doing. I spent quite a bit  
20 of time up there.

21 Q. When was this, what period of time?

22 A. Well, it ended in '94, October of '94.

23 Q. Have you continued to have any contacts or be  
24 familiar with that since then?

25 A. I contact them on certain issues. If I have a

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1 question about the range, they're probably my source for  
2 information because I know them and I know who to talk  
3 to up there and I know what they do so I can find out  
4 what I need to.

5 Q. I would like to have marked as Exhibit 2 a  
6 document which is a RAI response to 8.2 regarding  
7 hanging bombs?

8 (Exhibit 2 marked for identification.)

9 Q. (BY MR. GAUKLER) Showing you a document which  
10 is a historic response to a question that the NRC had  
11 concerning hanging bombs and flights with respect to the  
12 UTTR, have you seen this before?

13 A. I am trying to think whether I did or not. I  
14 may have. I think I have seen this.

15 Q. Seen this. What are you referring to when you  
16 say "this"?

17 A. Standard incident departure routes and this  
18 map. Yes, I think I have seen this map. Well, I'm not  
19 absolutely certain.

20 Q. Reviewing response (a), okay, it says that the  
21 number of sorties flown, based upon statistics received  
22 from the Air Force, the number of sorties flown with  
23 respect to the UTTR for fiscal year 1998, October 1,  
24 1997 through September 30, 1998, total 8,711?

25 A. Yes.

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Q. Does that sound like a correct number to you?

A. What, the 8,000?

Q. Yes.

A. I have no reason to dispute it. I don't know. It sounds low, but historically low. That doesn't mean it isn't correct.

Q. You say historically low in that you recall higher numbers in the past?

A. Yes.

Q. Do you have any idea what the number of sorties are planned for the future?

A. I have no idea and I think that's a function of budgets and-- well, basically it's budgets, period. That's what defines that. Let me just clarify by saying that the range itself has-- you know, the Department of Defense has, as a result of the McNamara who kids of the past, has gotten itself into a situation where every time you want to use somebody else's location or equipment you have to pay for it, you have to transfer money from your budget to their budget. This has affected for a number of years sorties on the range because if the range is owned by one entity and another entity wants to use it, they have to transfer money to use it or they can't use it. So it can sit there and they can't get on it and they need to train, but they

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1 don't have money in their budget to transfer.

2 It's my understanding that in the very recent  
3 past that situation has changed somewhat insofar as  
4 control of the range is concerned. And I don't know  
5 what effect that will have on the sortie rate, but I  
6 think there are other things that affect the sortie rate.  
7 One is the activities that we're involved in worldwide  
8 which take units away from training and put them in  
9 operational activities, and the second thing is the  
10 down-sizing, or to use the politically correct term, the  
11 right-sizing of the military.

12 Q. So it reduces the number of planes flying?

13 A. Yes. So I think that you may have a better  
14 feel for sortie rate if you use several years rather than  
15 one year.

16 Q. Do you know the sortie rate for previous years?

17 A. My recollection, and you know, it's my  
18 recollection, okay? Is that the sortie rate has been up  
19 in the neighborhood of 14,000 per year.

20 Q. What years were those, do you recall?

21 A. Well, I would say that would have been at  
22 least two to three years ago.

23 Q. And the basis for those numbers were what?

24 A. The basis for the numbers?

25 Q. The 14,000.

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A. What do you mean, the basis?

2 Q. What was the source of those numbers?

3 A. Well, that would be the 299th unit that has to  
4 deal with them. See, we manned that on the basis of the  
5 sortie rates. So we were always fighting for manning.

6 Q. Do you know what percentage of the sorties  
7 carry live ordnance?

8 A. You have here in this document 15 percent. I  
9 have no way to know whether that's true or not true. I  
10 have no reason to doubt it, I just don't know. I do  
11 know that a lot of missions there do not carry ordnance.  
12 So, you know, that's all I know.

13 Q. Let's focus on the south Utah Test & Training  
14 Range for a second. What type of training activities  
15 take place on the south Utah Test & Training Range?

16 A. Cruise missile testing, air-to-air combat  
17 training, low level tactics. Let me clarify that. What  
18 I'm talking about is if you're going to attack a target,  
19 one of the things you have to do is decide what is the  
20 best way to attack the target and protect yourself  
21 against air-to-air retaliation. Sometimes the best way  
22 to attack the target is through masking, which is to  
23 stay low and hidden. So in the helicopter business they  
4 call it nap of the earth, where they stay way down in  
the trees and pop up and fire and drop back down again.

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1 In the case of fighters, sometimes you mask yourself  
2 with a mountain range or something else and pull up over  
3 the range and attack the target.

4 Q. So to test fire you try to mask by staying  
5 near the mountain range?

6 A. Yes. So it's low altitude tactics to avoid  
7 detection and impact from air-to-air. So there's  
8 obviously some of that done. That doesn't mean they're  
9 going to drop ordnance, that means they're just  
10 practicing tactics.

11 Q. Where do they drop ordnance or fire?

12 A. The only place they can drop ordnance is on  
13 the locations that you have outlined here in the ground  
14 controlled portion of the Utah Test & Training Range,  
15 and they are limited in that area to specific targeting  
16 sites.

17 Q. And the map shows the targeting sites?

18 A. Yes. I think that's what the little round  
19 zeros with the X's in them are. So they can't drop--  
20 let me rephrase that. They're not supposed to drop  
21 outside those areas. And obviously it's not a happy day  
22 if they come back to the base having done so.

23 Q. Are you aware of ordnance being dropped  
24 outside the designated impact area?

25 A. I am not. I am not. If there has been, I'm

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1 not sure I would know about it. So I would have known  
2 about it probably in the past if it had occurred because  
3 the 299th would have reported it to me, but that would  
4 have been prior to October of '94.

5 Q. So you didn't know of any prior to October of  
6 '94?

7 A. I don't recall any.

8 Q. What type of ordnance do they fire in the  
9 south UTR, do you know?

10 A. On Wildcat? They drop bombs, they use  
11 air-to-ground weapon systems, which include-- it  
12 includes-- I'm trying to think of the right word for the  
13 weapon systems. Some of them are what we call dumb  
14 bombs and some are called smart bombs.

15 Q. Do they use Maverick air-to-ground missiles?

16 A. Yes, they do. And they may or may not have  
17 live heads on them. I would think in most cases they do  
18 not.

19 Q. Do you know what the range is of the Maverick  
20 air-to-ground system?

21 A. No. I don't think I-- I mean, it isn't a  
22 long range because you're-- you know, but I can't give  
23 you the range.

24 Q. Do you know what size bombs they drop when  
25 they do use live ordnance?

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1 A. There's several sizes. I think they vary all  
2 the way from 2,000 pounds down to 500 pounders.

3 Q. So 2,000 pounds would be the largest that  
4 you're aware of?

5 A. Yes. I think that most of the activity is  
6 with the smaller bomb.

7 Q. The smaller?

8 A. Yes.

9 Q. Do you know what the extent of a blast pattern  
10 would be from, say, a 2,000 bomb?

11 A. I do not. No, I'm not an expert. I can tell  
12 you what it looks like, but that's probably irrelevant.

13 Q. Do you know if there's manuals that tell you  
14 what the blast pattern is for different bombs?

15 A. Oh, absolutely. You can find that  
16 information, I'm sure.

17 Q. What procedures are in place with respect to  
18 ensuring the safety of these training exercises that  
19 occur?

20 A. Well, they have a lot of SOP's. They have a  
21 specific planning process that they go through in which  
22 they plan the sorty in advance, they go through the  
23 potential areas for possible risk, they try to identify  
24 how they're going to ameliorate that risk and then they  
25 attempt to implement what they have agreed to in the

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1 preflight planning.

2 Q. Do you know of any other area in the south  
3 Utah Test & Training Range other than Wildcat Mountain  
4 where they use light ordnance?

5 A. There's another complex called Kitty Cat and I  
6 can't tell you whether they can use live ordnance at  
7 Kitty Cat or not.

8 Q. Where is that in relation to Wildcat?

9 A. It's not far from Wildcat, but I'm not sure I  
10 can pick it out on this map. But I'm sure you can get  
11 that information.

12 Q. Do you know what direction they fire live  
13 ordnance at Wildcat Mountain?

14 A. I don't know limitations on direction, but I  
15 would say that the majority of their sorties are north  
16 to south or south to north. I can't tell you for sure  
17 that that is an exclusive limitation.

18 Q. Do you see the training exercises on the south  
19 Utah Test & Training Range posing any significant hazard  
20 to the Private Fuel Storage facility?

21 A. Well, I think there is some risk. I can't  
22 quantify the risk. It may be very small, it may be  
23 nonexistent, it may be-- I can't think that it's large,  
24 but I don't think I'm an expert enough to quantify it.  
25 I think there is the possibility of overflights with

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1 aircraft which have live ordnance on board and I think  
2 whenever you're under the path, the flight path of such  
3 an aircraft there is risk.

4 Q. Putting aside the overflights, okay, is there  
5 any risk from the actual activities once the plane  
6 reaches the--

7 A. Once it gets on Wildcat?

8 Q. Yes.

9 A. I would be very surprised if there was a risk.

10 Q. You mentioned that there's testing missions?

11 A. Uh-huh (affirmative).

12 Q. What testing missions are you aware of with  
13 respect to the Utah Test & Training Range?

14 A. Well, you know about the cruise missile  
15 testing, that's an ongoing process. The Utah Test &  
16 Training Range is well suited for cruise missile testing  
17 so it becomes a popular candidate. The range complexes  
18 in the southwest provide an opportunity for missiles to  
19 be launched even as far away as the Pacific Ocean and to  
20 come through the range complexes up into and terminate  
21 in the Utah Testing & Training Range. Air launch cruise  
22 missiles are sometimes launched in the range and then  
23 because of the width of the range it allows them to  
24 perform a number of maneuvers and test out the accuracy  
25 of their operations. So they test new weapon systems in

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1 the range, they also test existing weapon systems. You  
2 know, the Air Force has an ongoing program of testing  
3 the inventory as an aegis to be sure that its  
4 performance is still predictable. So that occurs on the  
5 range. Munitions testing occurs in the range and it's  
6 really based on the nation's research and development  
7 program and their acquisition program as to what is  
8 tested there.

9 Q. Do you see any of these test activities posing  
10 any potential significant hazard to the Private Fuel  
11 Storage area?

12 A. Well, there is some risk because they don't  
13 always do what they're supposed to do. Sometimes they  
14 go where they're not wanted and end up in the wrong  
15 place.

16 Q. Are you referring to any particular type of  
17 equipment?

18 A. Well, there's certainly been a number of  
19 cruise missile accidents on the range.

20 Q. Putting cruise missiles to one side, do you  
21 know of any other testing that could pose a potential  
22 hazard to the Private Fuel Storage facility that occurs  
23 on the Utah Test & Training Range?

24 A. No. But my knowledge is probably irrelevant  
25 because I don't have knowledge of classified testing

1 that goes on on the range and I have limited knowledge  
2 of other testing. I am quite familiar with the cruise  
3 missile testing because that's been a frequent ongoing  
4 program there.

5 Q. What knowledge do you have of the cruise  
6 missile testing program at the Utah Test & Training  
7 Range?

8 A. What knowledge do I have?

9 Q. Yes.

10 A. I'm not sure exactly how to answer.

11 Q. Let me break it down some. How often do they  
12 do cruise missile tests, do you know?

13 A. Well, it varies somewhat, but they are-- my  
14 experience tells me that they have been somewhat more  
15 frequent in the past than they are now, but they still--  
16 they still do a significant number of tests. If you  
17 look back, and say over a ten year period you've had  
18 approximately 13 accidents with cruise missiles, that  
19 gives you some idea of the amount of activity that's  
20 going on since you would expect the accident rate to be  
21 fairly low.

22 Q. Do you know how many tests took place over  
23 that ten-year period?

24 A. I do not. I'm speculating so I don't know.

25 Q. But you do know the accidents, though?

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1 A. Well, I know what information has been  
2 gathered on that.

3 Q. Where did these accidents take place, do you  
4 know?

5 A. Well, they're in a variety of locations on the  
6 range.

7 Q. Do you know of any accidents that took place  
8 off the Utah Test & Training Range or Dugway Proving  
9 Ground?

10 A. I'm not aware of any.

11 Q. Do you know of what safety procedures that the  
12 Air Force uses in testing cruise missiles?

13 A. Oh, well, they have a lot of safety  
14 procedures, but I don't know if I'm cognizant of all  
15 their safety procedures. But they have a number,  
16 including procedures for dealing with errant missiles.  
17 But sometimes they work, sometimes they don't. In the  
18 case that you're probably familiar with that impacted on  
19 the Japanese trailer out there, their safety procedures  
20 didn't work.

21 Q. I would like to have marked as Exhibit 3 an  
22 Accident Investigation Board Report which I believe is  
23 part of the--

24 A. Is that the one on that test?

25 Q. Yes.

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1 (Exhibit 3 marked for identification.)

2 Q. (BY MR. GAUKLER) Are you familiar with the  
3 document that I've handed you that's been marked as  
4 Exhibit 3?

5 A. Yes, I am.

6 Q. And what is that document?

7 A. Well, it's a summary of the accident  
8 investigation for the United States Air Force AAM-129  
9 advanced cruise missile and gives a serial number and  
10 date of 10 December 1997.

11 Q. And this is the accident you just referenced  
12 with respect to the Japanese?

13 A. Yes.

14 Q. Is this a complete copy of the report?

15 A. No.

16 Q. Do you have a complete copy of the report?

17 A. I do not.

18 Q. Is this the exact same copy that you have?

19 A. Yes, it is.

20 Q. And if you would just take a look at pages 2  
21 and 3 of the report.

22 A. 2 and 3?

23 Q. Yes. On page 3 it looks as if something may  
24 have gotten left out. Is that the same page 3 you have?

25 A. Well, it's kind of hard-- it's a little hard

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1 to read, but it appears to be the same page, yes.  
2 Q. Where did this accident, cruise missile  
3 accident occur? Can you point to one of the maps that  
4 we have given you of the Utah Test & Training Range map  
5 or the Dugway Proving Ground map?  
6 A. I'm not sure this map is going to do it for  
7 us.  
8 Q. Would the Dugway map do it for you?  
9 A. That might be better. I think the description  
10 here is probably as good as anything I can give you of  
11 where it occurred. Obviously it's in the Cedar  
12 Mountains, but I can't tell you exactly where.  
13 Q. And what's your understanding of what happened  
14 in this cruise missile accident?  
15 A. Well, they lost communication with the missile  
16 at the end of the-- after they had released their  
17 simulated weapon.  
18 Q. And what did the missile do?  
19 A. It just nosed over, a steep dive and crashed.  
20 Q. Is that what they're programmed to do, cruise  
21 missiles, assuming they don't receive a contrary  
22 communication?  
23 A. I can't-- you know, I don't know the answer to  
24 that question.  
25 Q. Now, you said it hit some Japanese laboratory

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1 research facilities?  
2 A. Well, it's the University of Tokyo that is  
3 collaborating with the University of Utah in doing  
4 cosmic ray research.  
5 Q. And do you know whether or not the missile was  
6 off course when it hit those facilities?  
7 A. One would hope so.  
8 Q. From the report are you aware--  
9 A. Otherwise the Japanese will be even more  
10 enamored with us than they already are.  
11 Q. Well, isn't it true that the report says that  
12 the facilities were in the test area unbeknownst to the  
13 people who were doing the test?  
14 A. Yes. I guess it's a question of, you know,  
15 who is the parties that don't know. Dugway obviously  
16 knew, but the Air Force may not have known. And I don't  
17 have any information on that. But you're right, it was  
18 surprising to the Air Force that they could impact a  
19 research van in the Utah Test & Training Range.  
20 Q. So the research van was actually in their  
21 designated test area, right?  
22 A. That's correct.  
23 Q. So the missile didn't go outside the  
24 designated test area, correct?  
25 A. No, that's correct.

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1 Q. Focusing on the north Utah Test & Training  
2 Range, do you foresee any activities in the north Utah  
3 Test & Training Range having any impact on the Private  
4 Fuel Storage facility?  
5 A. I'm not aware of any.  
6 Q. Do you foresee any activities in the north  
7 Utah Test & Training Range that might have impact on  
8 the Intermodal Transfer Point which would be along  
9 Interstate 80 about two miles west of Rowley Junction?  
10 A. The only impact that I could foresee would be  
11 the transportation of munitions which occurs on I-80  
12 from Hill Air Force Base and from Salt Lake Airport  
13 No. 2 to the area that is near the Eagle Range and is  
14 near the Lakeside Gunnery Range which is on the west end  
15 of-- excuse me, the east end of the ground owned  
16 property of the Utah Test & Training Range.  
17 The Air Force has a facility located on the  
18 ground at that location and when the helicopters fire on  
19 the Lakeside Gunnery Range they go over to that location  
20 to load their munitions and back and the munitions are  
21 transported from this location out I-80 and up the road  
22 to the Eagle Range.  
23 Q. And the road you're pointing out to that  
24 facility just goes off of I-80 north?  
25 A. Straight north, uh-huh.

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1 Q. Of the Cedar Mountains?  
2 A. Yes, east of the Cedar Mountains. Excuse me.  
3 North to the Cedar Mountains, you're correct.  
4 Q. So that's the only potential impact you see on  
5 the ITP would be the transportation of those munitions?  
6 A. Yes. You know, I don't know what other impact  
7 there would be, but that doesn't-- I mean, that's just  
8 all I know.  
9 Q. Do you have any idea of the likelihood of  
10 adverse impact from the transportation of those  
11 munitions?  
12 A. I don't have any information.  
13 Q. Are you aware of any incidence involving the  
14 transportation of those munitions?  
15 A. No, I'm not aware of that. There probably  
16 wouldn't be unless there was a major problem.  
17 Q. Are you familiar with airplane crashes that  
18 have occurred with respect to training and testing  
19 missions in the Utah Test & Training Range?  
20 A. I have the document that lists the aircraft  
21 accidents in the what, past ten years.  
22 Q. In the past ten years?  
23 A. Yes.  
24 Q. Do you know where those accidents have  
25 occurred?

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1 Q. And what potential hazards, if any, do you see  
2 from, say, the civilian users that go onto the range?

3 A. As far as the air carriers go, I see no  
4 potential hazards because there's a low probability of  
5 mid air collision. Other than hazard anywhere of an  
6 airliner dropping out of the sky, which you know what  
7 the potential of that is. There is a somewhat higher  
8 potential hazard from civilian pilots who are wandering  
9 across the range without clearance because of the  
10 possibility of mid air collisions. And that, whether or  
11 not that creates an increased hazard for the FPS  
12 facility, I have no way of knowing. I don't necessarily  
13 suggest that it does or it doesn't, I don't know.

14 Q. Do you know how often such an excursion  
15 occurs?

16 A. They occur more frequently than I would have  
17 suspected, but I can't tell you what the current rate of  
18 incursions is. Obviously that information is available.  
19 I was surprised at the number of people who wander  
20 across. Being a pilot myself, I can't believe people do  
21 that, but they do. And some of them are, obviously, not  
22 in total possession of all their faculties when they do.  
23 So that information is available. I'm sure you could  
24 get that if you wanted it.

25 Q. Will Air Force Base would keep records of

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1 that?

2 A. The 299th keeps records of that, yes. They  
3 have to try and get ahold of the guys and get them out  
4 of harm's way and stop the fighter-- try to stop the  
5 fighters from running into them. Invariably they come  
6 across at an altitude that is very dangerous, low  
7 altitude. So they're about to encounter a high-speed,  
8 low altitude surprise.

9 Q. Do you see takeoffs and landings at Salt Lake  
10 City Airport itself posing any hazard to the Private  
11 Fuel Storage facility?

12 A. I don't.

13 MR. GAUKLER: Let's take a break for a few  
14 minutes.

15 (Short recess.)

16 Q. (BY MR. GAUKLER) Let's go back on the record.  
17 General Matthews, just a couple more questions. You had  
18 referred to the excursion into the UTTR private civilian  
19 planes. Has there ever been an accident caused by the  
20 excursion of private civilian planes into the UTTR that  
21 you're aware of?

22 A. That's a good question. In my mind I vaguely  
23 remember something, but I can't verify it so I will have  
24 to say I don't know. But it is something that sticks in  
25 my mind, and it doesn't stick in my mind as a mid air.

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1 It sticks in my mind as a crash, but not a mid air.  
2 But, you know, don't hold me to that.

3 Q. The second thing, with respect to the cruise  
4 missile tests, are the cruise missiles armed or not  
5 armed when they do those cruise missile tests, do you  
6 know?

7 A. Well, armed or not armed. I guess what we  
8 could say for sure is they're not armed with full power  
9 weapons, yes. They may have practice weapons, but I'm  
10 sure they're not armed with really ones. I feel  
11 confident that is the case.

12 Q. So that would be something like the dummy  
13 bombs you talked about where they have some small  
14 munitions to show where they land?

15 A. Really all they have to know is whether they  
16 got it where they wanted to get it. They've got so much  
17 radar going on when they do the tests, they've got  
18 airplanes following them and radar tracking them and I  
19 would be surprised if they need even a practice warhead.

20 Q. And with respect to the dummy bombs or  
21 ordnance carried by these planes in the training  
22 missions on the Utah Test & Training Range, what weight  
23 are those dummy bombs, do you know?

24 A. I don't think I can answer that with accuracy.

25 Q. Are they less weight than the regular bombs?

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1 A. Oh, I think there's no question about that. I  
2 don't think you want one coming through your roof, but I  
3 don't know how much they weigh. I've been hit by a  
4 goose while I was flying and I can tell you that a goose  
5 can make a big hole in your airplane. So years ago they  
6 said that the wind screen on our aircraft was 400 foot  
7 pounds capability, which meant that you could hit a one  
8 pound object at 400 miles an hour and it would resist it  
9 or you could hit a 400 pound object at 1 mile an hour.  
10 So I think the impact would be impressive even if it  
11 were inert.

12 Q. But you don't know what size or weight they  
13 are?

14 A. No, I don't.

15 MR. GAUKLER: I have no further questions.

16 MR. NELSON: I don't have any questions.

17 MR. GAUKLER: Thank you very much, General  
18 Matthews.

19 (Whereupon, the taking of the deposition was  
20 concluded at 11:40 a.m.)

21 --ooOoo--  
22  
23  
24  
25