



Technical Specification Section 6.9.1.7 (Hope Creek)
Technical Specification Section 6.9.1.8 (Salem)

APR 30 2008

LR-N08-0096

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Hope Creek Generating Station
Facility Operating License No. NPF-57
NRC Docket No. 50-354

Salem Nuclear Generating Station, Unit Nos. 1 and 2
Facility Operating Licenses DPR-70 and DPR-75
NRC Docket Nos. 50-272 and 50-311

Subject: 2007 Radioactive Effluent Release Report

In accordance with Section 6.9.1.7 of Appendix A to the Operating License NPF-57 for Hope Creek Generating Station, and Section 6.9.1.8 of Appendix A to the Operating Licenses DPR-70 and DPR-75 for Salem Generating Station Unit Nos. 1 and 2, PSEG Nuclear hereby transmits one copy of the annual Radioactive Effluent Release Report. This report is RERR-30 for Hope Creek and RERR-56 for Salem Unit Nos. 1 and 2. This report summarizes liquid and gaseous releases and solid waste shipments from the Hope Creek Generating Station and the Salem Generating Station for the period of January 1, 2007, to December 31, 2007.

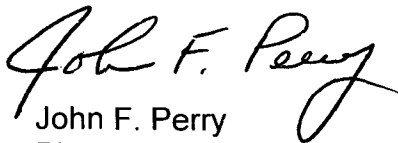
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Sincerely,



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Attachment - 2007 Radioactive Effluent Release Report

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2007 ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT
FOR
THE SALEM AND HOPE CREEK
GENERATING STATIONS

SGS RERR-56

DOCKET NO. 50-272

DOCKET NO. 50-311

OPERATING LICENSE NO. DPR-070

OPERATING LICENSE NO. DPR-075

HCGS RERR-30

DOCKET NO. 50-354

OPERATING LICENSE NO. NPF-057

April 2008

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SALEM AND HOPE CREEK GENERATING STATIONS

RADIOACTIVE EFFLUENT RELEASE REPORT: JANUARY - DECEMBER 2007

INTRODUCTION

This report, SGS-RERR-56/HCGS-RERR-30 summarizes information pertaining to the releases of radioactive materials in liquid, gaseous, and solid form from the Salem (SGS) and Hope Creek Generating (HCGS) Stations for the period January 1, 2007 to December 31, 2007.

Salem Unit 1 is a Westinghouse Pressurized Water Reactor that has a licensed core thermal power of 3459 MWt and an approximate net electrical output of 1169 MWe. Salem Unit 1 achieved initial criticality on December 11, 1976 and went into commercial operation on June 30, 1977.

Salem Unit 2 is a Westinghouse Pressurized Water Reactor that has a licensed core thermal power of 3459 MWt and an approximate net electrical output of 1155 MWe. Salem Unit 2 achieved initial criticality on August 2, 1980 and went into commercial operation on October 13, 1981.

The Hope Creek Generating Station (HCGS) is a General Electric (GE) Boiling Water Reactor designed to operate at a rated core thermal power of 3339 MWt and an approximate net electrical output of 1091 MWe. The HCGS achieved initial criticality on June 28, 1986 and went into commercial operation on December 20, 1986.

This report is prepared in the format of Regulatory Guide 1.21, Appendix B, as required by Control 6.9.1.8 of the Salem Units 1 and 2 Offsite Dose Calculation Manual (ODCM) and Control 6.9.1.7 of the Hope Creek ODCM. Our responses to parts A-F of the "Supplemental Information" section of Regulatory Guide 1.21, Appendix B, are included in the following pages.

As required by Regulatory Guide 1.21, the Offsite Dose Calculation Manual limits are described in detail within this report along with a summary description of how total radioactivity measurements and their approximations were developed.

To facilitate determination of compliance with 40CFR190 requirements, the following information on electrical output is provided.

Salem Unit 1 generated 9193031 megawatt-hours of electrical energy (net) during the reporting period.

Salem Unit 2 generated 9712943 megawatt-hours of electrical energy (net) during the reporting period.

Hope Creek generated 8141104 megawatt-hours of electrical energy (net) during the reporting period.

PART A. PRELIMINARY SUPPLEMENTAL INFORMATION

1.0 REGULATORY LIMITS

1.1 Fission and Activation Gas Release Limits

The dose rate due to radioactive materials released *in gaseous effluents* from the site (i.e. Salem Units 1 & 2, and Hope Creek) to areas at and beyond the site boundary, shall be limited to the following:

For noble gases: Less than or equal to 500 mrem/yr to the total body and less than or equal to 3000 mrem/yr to the skin.

In addition, the air dose due to noble gases released *in gaseous effluents* from each reactor unit (i.e. Salem Unit 1, Unit 2, or Hope Creek) to areas at and beyond the site boundary, shall be limited to the following:

During any calendar quarter: Less than or equal to 5 mrad for gamma radiation and less than or equal to 10 mrad for beta radiation and,

During any calendar year: Less than or equal to 10 mrad for gamma radiation and less than or equal to 20 mrad for beta radiation.

1.2 Iodines, Particulates, and Tritium

The dose rate due to radioactive materials released *in gaseous effluents* from the site to areas at and beyond the site boundary, shall be limited to the following:

For iodine-131, iodine-133, tritium and all radionuclides in particulate form with half-lives greater than 8 days: Less than or equal to 1500 mrem/yr to any organ.

In addition, the dose to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each reactor unit, to areas at and beyond the site boundary, shall be limited to the following:

During any calendar quarter: Less than or equal to 7.5 mrem to any organ and,

During any calendar year: Less than or equal to 15 mrem to any organ.

1.3 Liquid Effluents Release Limits

The concentration of radioactive material released *in liquid effluents* to unrestricted areas shall be limited to the concentrations specified in 10CFR20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 2E-04 microcuries per milliliter.

In addition, the dose or dose commitment to a member of the public from radioactive materials *in liquid effluents* released to unrestricted areas shall be limited to:

During any calendar quarter: Less than or equal to 1.5 mrem to the total body, and less than or equal to 5 mrem to any organ, and

During any calendar year: Less than or equal to 3 mrem to the total body, and less than or equal to 10 mrem to any organ.

1.4 Total Dose Limit

The annual (calendar year) dose or dose commitment to any member of the public, due to releases of radioactivity and radiation, from uranium fuel cycle sources shall be limited to less than or equal to 25 mrem to the total body or any organ (except the thyroid, which shall be limited to less than or equal to 75 mrem).

2.0 MAXIMUM PERMISSIBLE CONCENTRATIONS (MPC)

Regulatory Guide 1.21 requires that the licensee provide the MPC's used in determining allowable release rates or concentrations for radioactive releases.

- a. MPC values are not used for gaseous releases. Determination of maximum release rates for noble gases, Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form (with half-lives > 8 days), are based on dose rate calculations as specified in the ODCM.
- b. According to current Technical Specifications, MPC values as stated in 10CFR20, Appendix B, Table II, Column 2 are to be used for liquid effluents. Since the MPC values were removed from 10CFR20 effective 1/1/94, the MPC values are now contained in the ODCM. These MPC values are added as Appendix B of this report.
- c. The MPC value used for dissolved or entrained noble gases *in liquid effluents* is 2E-04 microcuries per milliliter.

3.0 AVERAGE ENERGY

Regulatory Guide 1.21 requires that the licensee provide the average energy of the radionuclide mixture in releases of fission and activation gases, if applicable. Release limits for SGS or HCGS are not based upon average energy. Therefore this section is not applicable to SGS or HCGS.

4.0 MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

4.1 Liquid Effluents

Liquid effluents are monitored in accordance with Table 4.11-1 of the Salem ODCM and Table 4.11.1.1.1-1 of the Hope Creek ODCM.

During the period of record, all batch liquid wastes were routed to the sampling tanks for monitoring prior to release. The ODCM requires these tanks to be uniformly mixed for sampling and analysis before being released.

Batch releases are defined as:

- For Hope Creek, releases from the Equipment Sample Tanks, Floor Drain Sample tanks, Detergent Drain Tanks, and the Condensate Storage Tank.
- For Salem, FRAC Tank releases from the Groundwater Remediation Project, releases from the Service Water Drums which are collected and disposed via the Chemical Waste Basin, Waste Monitor Holdup Tanks and the Chemical Volume Control System (CVCS) Monitor Tanks. During the period of record, all batch liquid wastes from the Chemical Drain Tank and Laundry and Hot Shower Tanks were routed to Waste Monitor Holdup Tanks for monitoring prior to release. For process flexibility of liquid effluents, the Salem Unit 1 and 2 Liquid Radwaste System is cross-connected.

Continuous releases are defined as:

- For Hope Creek, a continuous liquid effluent release path exists through the Circulating Water Dewatering Sump Discharge.
- For Salem, continuous liquid release pathways include condensate releases for intermittent blow-down of the Steam Generators, and through the Chemical Waste Basin.

Representative samples were obtained in accordance with Table 4.11-1 of the Salem ODCM for the Salem Generating Stations and Table 4.11.1.1.1-1 of the Hope Creek ODCM for Hope Creek Generating Station. Specific activities from the analyses were multiplied by the volume of effluent discharged to the environment in order to determine the total liquid activity discharged.

The detection requirements of Table 4.11-1 (SGS) and Table 4.11.1.1.1-1 (HCGS) of the ODCM are achieved. Radionuclides measured at concentrations below the ODCM detection limit (LLD) are treated as being present. Radionuclides for which no activity was detected while meeting the required LLD's are treated as absent.

4.2 Gaseous Effluents

Salem Units 1 and 2:

Gaseous effluent streams at SGS are monitored and sampled in accordance with Table 4.11-2 of the ODCM. The Plant Vent is the final release point for planned gaseous effluent releases and is continuously monitored by installed radiation monitors. The vent is also continuously sampled for iodine and particulates with a charcoal cartridge and filter paper. The filter and charcoal are normally changed weekly, and analyzed on a multi-channel analyzer.

Sampling is also performed on all gas decay tanks and the containment atmosphere prior to release to the environment. The plant vent is normally sampled weekly for noble gases, particulates, iodines and tritium.

The detection requirements of Table 4.11-2 of the ODCM are achieved or exceeded. Radionuclides detected at concentrations below the ODCM LLD are treated as being present. Radionuclides for which no activity was detected while meeting the required LLDs are treated as absent.

Continuous Mode gaseous releases are quantified by routine sampling and isotopic analyses of the plant vent, as required by the ODCM. Specific activities for each isotope detected are multiplied by the total vent flow volume for the entire sampling period in order to determine the normal continuous release of radioactivity through the plant vent.

Batch Mode noble gas releases are quantified by sampling each decay tank or containment atmosphere prior to release. Specific activities for each isotope are multiplied by the total volume of gas discharged for that batch to determine the total activity released.

Elevated plant vent radiation monitoring system readings while the channel is in an alarm state are treated as batch mode releases. If specific activity data from grab samples are not available, then the release is quantified by the use of the plant vent radiation monitors. The monitor response is converted to "specific activity" using historical efficiency factors. The "specific activity" is multiplied by the volume of effluent discharged while the channel was in an alarm state in order to determine the total activity discharged.

Hope Creek:

Gaseous effluent streams at HCGS are monitored and sampled in accordance with Table 4.11.2.1.2-1 of the ODCM. The North Plant Vent (NPV) and South Plant Vent (SPV) are the final release points for most planned gaseous effluent releases. The NPV and SPV are continuously monitored for iodine, particulates and noble gases. These monitors have moving particulate and fixed charcoal filters. The particulate filters and charcoal cartridges are normally replaced and analyzed weekly. These analyses are performed on a multi-channel analyzer. The NPV and SPV are also normally sampled weekly for noble gases and tritium.

A small quantity of gaseous effluent is released via the Filtration, Recirculation, and Ventilation System (FRVS) vent during FRVS testing periods. The FRVS is continuously monitored for noble gases when in service, and has fixed particulate and charcoal filters. When the system is in vent mode for greater than two hours, samples are collected at the end of the release period. During periods of extended runs, samples are normally taken weekly.

The detection requirements of Tables 4.11.2.1.2-1 of the ODCM are achieved or exceeded. Radionuclides detected at concentrations below the ODCM detection limit (LLD) are treated as being present. Radionuclides for which no activity was detected while meeting the required LLDs are treated as absent.

Batch Mode noble gas releases (i.e. primary containment purge) are quantified by pre-release sampling and isotopic analysis. In order to estimate the total radioactivity released, specific activities for each isotope are multiplied by the containment volume.

4.3 Estimated Total Error

The estimated total error of reported liquid and solid releases is within 25%.

The estimated total error of the reported continuous gaseous releases is within 50% when concentrations exceed detectable levels. This error is primarily due to variability of waste stream flow rates and changes in isotopic distributions of waste streams between sampling periods. The estimated total error of the reported batch gaseous releases is within 10%.

Error estimates for releases where sample activity is below the detectable concentration levels are not included since error estimates at the LLD are not defined.

5.0 BATCH RELEASES

Summaries of batch releases of gaseous and liquid effluents are provided in Tables 4A and 4B.

6.0 UNPLANNED RELEASES

During this reporting period, the following unplanned effluent releases occurred from Salem Units 1 & 2:

1. A hole approximately 3 sq. in. (0.05% of flow area or 33-47cfm flow rate) was identified in the Salem Unit 1 Auxiliary Building Ventilation downstream of the junction with fuel handling building ventilation exhaust and waste gas decay discharge connections, but upstream of the 1R41 A thru D Radiation Monitors. The gaseous effluent release activity was conservatively estimated at $2.04\text{E-}1$ curies for the period January 1, 2007 to September 7, 2007.
2. On May 8, 2007 water/steam was discharged to the ground in the areas outside the Salem Unit 1 Auxiliary Building due to rise in the system pressure. The effluent release was estimated at $3.92\text{E-}03$ curies of tritium.
3. On May 24, 2007 the upper sight glass for the Salem Unit 2 #24 Demineralizer vessel ruptured while the vessel was in a purge rinse. The effluent release during this event was estimated at $3.61\text{E-}03$ curies of tritium.
4. On September 25, 2007 approximately 50 gallons of water/steam was released from Salem Unit 1 Valve 1HS295 on to the gravel area west of the House Heating Boilers. This event occurred due to a suspected leak by between House Heating Boiler safety tagging boundary valves and the pressurized Main Heating Steam Header. The concentration of tritium released during this event was estimated at $6.09\text{E-}06$ curies of tritium.

Corrective actions were taken including repairs/mitigation actions, soil remediation of the surrounding areas, and State and Federal regulatory reporting and records in accordance with Site procedures and processes. All the unplanned releases shown above were documented in the effluent release permit process, and resulted in less than 1 percent of the Technical Specification offsite dose release limits.

Hope Creek had no unplanned releases during this reporting period.

7.0 ELEVATED RADIATION MONITOR RESPONSES

During this reporting period no liquid or gaseous effluent releases occurred that resulted in elevated Effluent Radiation Monitor responses.

8.0 MODIFICATION TO PREVIOUS RADIOACTIVE EFFLUENT RELEASE REPORTS

Salem Unit 1

1. Revise Section 6.0 UNPLANNED RELEASES, for the following Reporting periods, based on the evaluation performed for gaseous effluent releases due to the 3 sq. in. duct hole described in above Section 6.0:

January 1, 2004 to December 31, 2004: 3.19E-01 curies

January 1, 2005 to December 31, 2005: 7.61E-01 curies

January 1, 2006 to December 31, 2006: 2.20E-01 curies

All the unplanned releases shown above were documented in effluent release permit process, resulted in less than 1 percent of the Technical Specification offsite dose release limits.

2. The 2005 Annual Effluent Release Report is modified as follows:

Replace the units Ci/Sec and Ci/ml with μ Ci/sec and μ Ci/ml respectively in Tables 1A-1 thru 6 and 2A-1 thru 6. No change in the actual effluent releases is reported as a result of this change in units.

3. A review of the Salem and Hope Creek solid radwaste volume data during the reporting period January 1, 2005 to December 31, 2005 showed the following discrepancy: Total volume in cu. ft. during the reporting period is required to be increased by 2,910 cu. ft.

There is no change to the actual records of shipping manifests or the actual shipping volumes during this reporting period.

4. The Total Dose shown in Section E Radiological Impact on Man is revised to conservatively include TLD data that was revised for the following reporting periods:

January 1, 2003 to December 31, 2003: 5.00E-01 mrem TEDE Total Body

January 1, 2004 to December 31, 2004: 6.90E-01 mrem TEDE Total Body

This change resulted in less than 1 percent of the Technical Specification offsite dose release limits for the above reporting periods.

PART B. GASEOUS EFFLUENTS

See Summary Tables 1A through 1C.

PART C. LIQUID EFFLUENTS

See Summary Tables 2A through 2B.

PART D. SOLID WASTE

See Summary in Table 3.

PART E. RADIOLOGICAL IMPACT ON MAN

The calculated individual doses in this section are based on the controlling dose pathways and age groups as described below. The estimated dose represents the maximum radiation dose that could be received by a member of the general public. The population dose impact is based on the evaluation year site-specific data (i.e., food production, milk production, feed for milk animals and seafood production).

The doses were calculated using methods described in Regulatory Guide 1.109 and represent calculations for the 12-month reporting interval. Individual doses from batch and continuous releases were calculated using the annual average historic meteorological dispersion factors as described in the respective Offsite Dose Calculation Manual. Population doses were calculated using the meteorological dispersion coefficients for the twelve month reporting interval.

Liquid Pathways

<u>Type</u>	<u>Age Group</u>	<u>Location</u>	<u>Pathway</u>
Total Body	Adult	Site Boundary	Seafood Ingestion
Organ	Adult	Site Boundary	Seafood Ingestion

Salem Unit 1

<u>Type</u>	<u>Dose</u>		<u>Limit</u>
Total Body	3.57E-05	mrem	3 mrem
Organ Dose (GILLI)	5.12E-05	mrem	10 mrem

Salem Unit 2

<u>Type</u>	<u>Dose</u>		<u>Limit</u>
Total Body	2.90E-05	mrem	3 mrem
Organ Dose (GILLI)	3.32E-05	mrem	10 mrem

Hope Creek

<u>Type</u>	<u>Dose</u>		<u>Limit</u>
Total Body	2.85E-05	mrem	3 mrem
Organ Dose (Bone)	1.22E-04	mrem	10 mrem

<u>Site</u>	<u>Dose</u>		<u>Limit</u>
Population (Total)	9.32E-05	person-rem	N/A
Population (Average)	2.07E-10	mrem	N/A

Air Pathways

Type	Age Group	Location	Pathway
Total Body	All	Site Boundary	Direct Exposure
Skin	All	Site Boundary	Direct Exposure
Organ	Infant	4.9 mi. W.	Milk, Ground Plane, Inhalation

Salem Units 1&2

Type	Dose	Limit
Total Body	1.94E-03 mrem	500 mrem
Skin	4.59E-04 mrem	3000 mrem
Organ Dose (Thyroid)	2.03E-03 mrem	15 mrem

Hope Creek

Type	Dose	Limit
Total Body	1.96E-04 mrem	500 mrem
Skin	3.61E-03 mrem	3000 mrem
Organ Dose (Thyroid)	1.22E-02 mrem	15 mrem

Site	Dose	Limit
Population (Total)	2.13E-03 person-rem	N/A
Population (Average)	2.73E-09 mrem	N/A

Direct Radiation

Direct radiation may be estimated by thermoluminescent dosimetric (TLD) measurements. One method for comparing TLD measurements is by comparison with pre-operational data. It should be noted that the TLDs measure direct radiation from both the Salem and Hope Creek Generating Stations at Artificial Island, and natural background radiation.

TLD data for the twelve-month reporting period is given below:

TLD	Location	Measurement
1S-1	0.55 miles N of Vent	4.54 mrad/std. month
5S-1	1.0 mile E of Vent	3.44 mrad/std. month

These values are interpreted to represent natural background, since the values are within the statistical variation associated with the pre-operational program results which are 3.7 mrad/standard month for TLD 1S-1 and 4.2 mrad/standard month for TLD 5S-1.

Independent Spent Fuel Storage Facility (ISFSI)

The ISFSI is a closed system and the only exposure is direct radiation. The spent fuel is stored in a sealed unit and no radioactive materials were released. This includes iodines, particulates and noble gases. Therefore, there is no dose from effluents from the facility.

The direct radiation component from the ISFSI will be measured and assessed as the normal methodology in the ODCM using that data gathered from TLD 5S-1. No credible effluents from the ISFSI negate the necessity of having a direct downwind pathway. TLD 5S-1 has significant historical data and provides a conservative surrogate for compliance with 10CFR72.104 requirements for a dose assessment to any "real person".

Total Dose

40CFR190 limits the total dose to members of the public due to radioactivity and radiation from uranium fuel cycle sources (including the ISFSI facility) to:

- <25 mrem total body or any organ and;
- <75 mrem thyroid for a calendar year.

For Artificial Island, the major sources of dose are from liquid and gaseous effluents from the Hope Creek and Salem plants.

The following doses to a "hypothetical maximum exposed individual" have been calculated for the twelve-month reporting period. They are the sum of gaseous and liquid pathway doses for the Salem 1 and 2 and Hope Creek plants:

1.07E-01	mrem	Total Body
1.44E-02	mrem	Maximum Organ Dose
1.43E-02	mrem	Thyroid

Dose to members of the public due to activities inside the site boundary

Dose to members of the public is limited to 100 mrem total effective dose equivalent (TEDE) in a year in accordance with 10CFR20.1301. The definition of members of the public changed on September 11, 2001. The various food vendors that have previously comprised the maximally exposed group are no longer allowed on site. For this reporting period, the definition of the members of the public are the members of the New Jersey National Guard to augment the security force at the site. Their typical patrol spans the site, and the following locations 16S1, CA8 and CA15 (Hope Creek Barge Slip, Dredge Spoils and Baseball Field) are averaged to estimate their dose. In accordance with the requirements of ODCM 6.9.1.8 (SGS) and 6.9.1.7 (HCGS), the dose to members of the public inside the site boundary has been calculated based on the following assumptions:

- a. The National Guard works a 40-hour week, therefore all doses are multiplied by an occupancy factor of 0.25 to assess their dose.

For the 12-month reporting period, January 1, 2007 to December 31, 2007 the calculated doses are:

2.68E-02	mrem TEDE	Total Body
3.56E-03	mrem TEDE	Maximum Organ Dose
3.56E-03	mrem TEDE	Thyroid

Assessment

1. Liquids:

Liquid effluents released from the Salem and Hope Creek Generating Stations resulted in a minimal dose to the hypothetical maximum exposed individual and were well within all applicable limits (Salem Unit 1: $1.19\text{E-}03$ % of Total Body Limit, Salem Unit 2: $9.66\text{E-}04$ % of Total Body Limit, and Hope Creek: $9.94\text{E-}04$ % of Total Body Limit).

When compared to releases in the previous reporting period, the Salem and Hope Creek Fission & Activation Products activity in the liquid effluents slightly decreased. Liquid effluent releases continue to remain well within Federal limits and compare favorably to other nuclear utilities.

2. Gaseous:

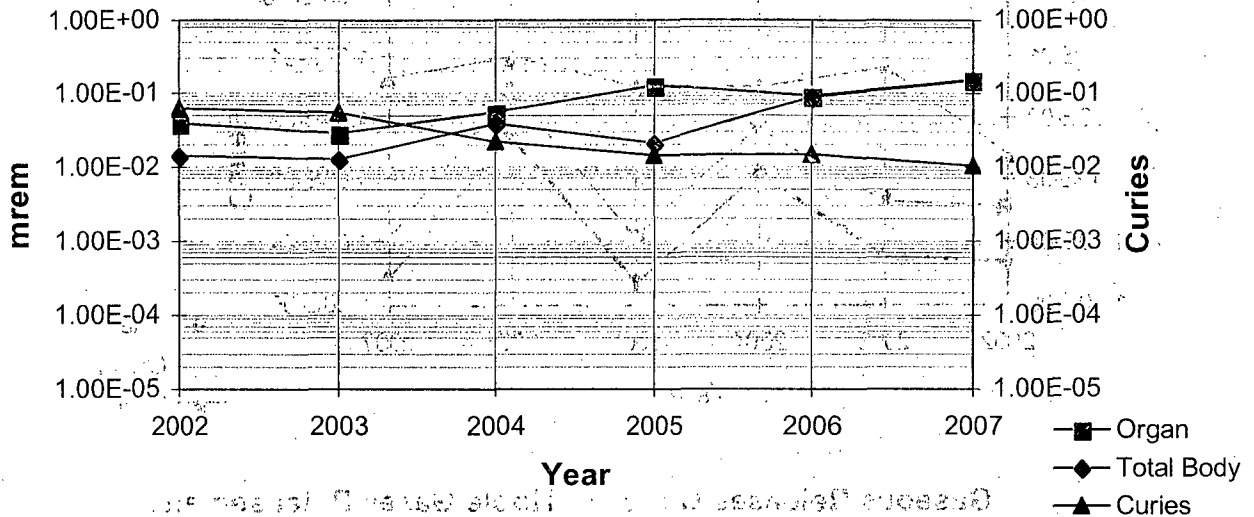
Gaseous effluents released from the Salem and Hope Creek Generating Stations resulted in a minimal dose to the hypothetical maximum exposed individual. The dose for the 12-month period was a small fraction of all applicable limits (Salem Unit 1: $1.43\text{E-}04$ % of Total Body Limit, Salem Unit 2: $1.58\text{E-}04$ % of Total Body Limit, and Hope Creek: $1.60\text{E-}03$ % of Total Body Limit).

When compared to releases in the previous reporting period, the Salem and Hope Creek noble gas effluents activity increased slightly, but remain well within Federal limits and are comparable to other nuclear utilities. Fuel integrity and gaseous effluent processing equipment continue to be maintained in order to ensure that all releases of gaseous radioactivity are As-Low-As-Reasonably-Achievable (ALARA).

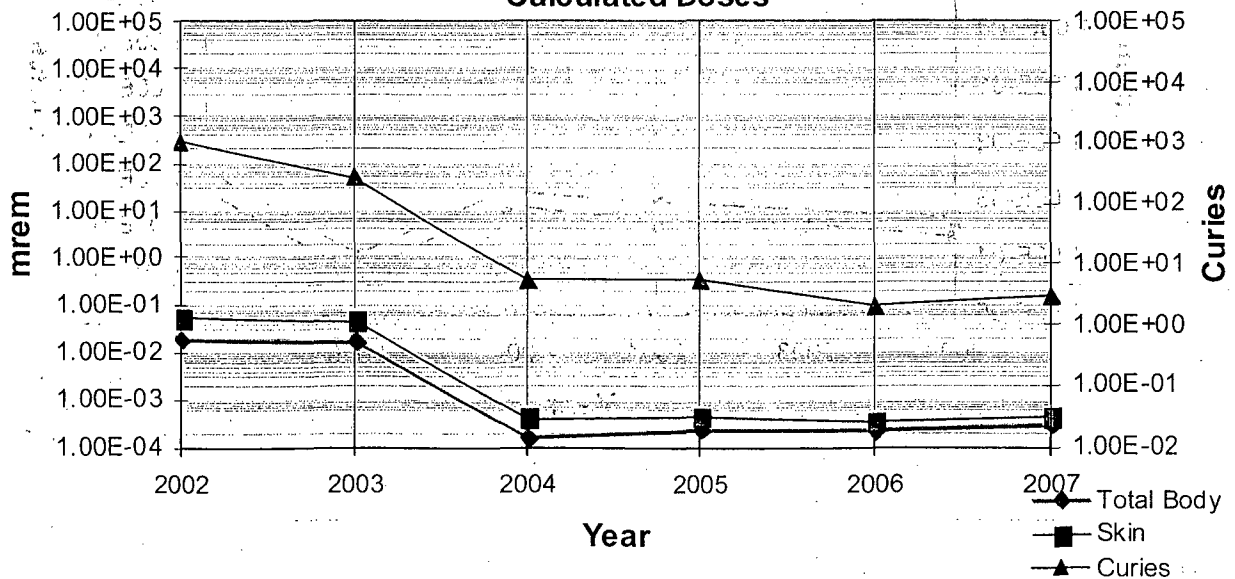
Trends

The following two trend graphs show the total curies of liquid and gaseous effluents released for Salem from 2002 through 2007. Calculated doses in the graphs are to the hypothetical maximum exposed individual.

Liquid Releases (SGS) Fission & Activation Products Curies Released and Calculated Doses

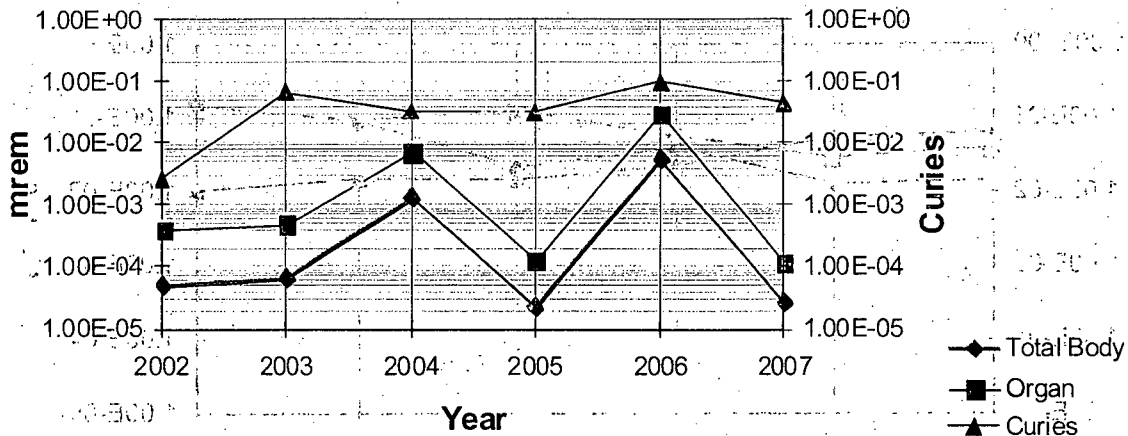


Gaseous Releases (SGS) Curies of Noble Gases Released and Calculated Doses

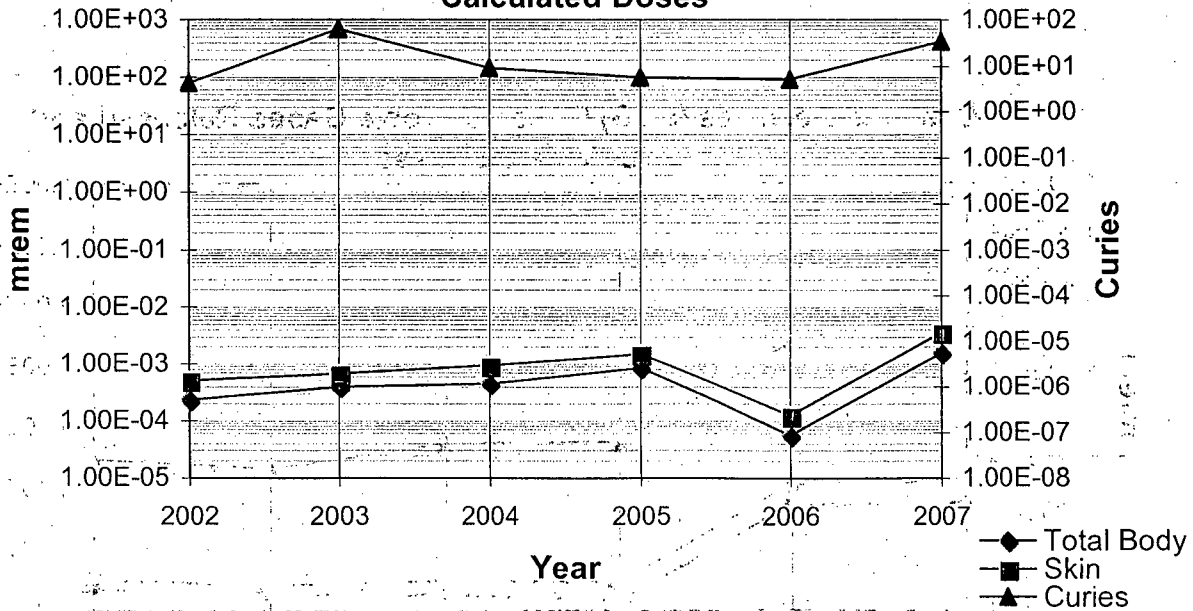


The following two trend graphs show the total curies of liquid and gaseous effluents released for Hope Creek from 2002 through 2007. Calculated doses in the graphs are to the hypothetical maximum exposed individual.

Liquid Releases (HCGS) Fission & Activation Products Curies Released and Calculated Doses



Gaseous Releases Curies of Noble Gases Released and Calculated Doses



PART F. METEOROLOGICAL DATA

Cumulative joint wind frequency distributions by atmospheric stability class at the 33 feet elevation are provided for the reporting period at the end of this report in Appendix A.

PART G. OFFSITE DOSE CALCULATION MANUAL CHANGES

During this reporting period, there were no Offsite Dose Calculation Manual changes.

PART H. INOPERABLE MONITORS

During this reporting period there were no effluent radiation monitors inoperable for greater than 30 days.

PART I. PROCESS CONTROL PROGRAM (PCP) CHANGES

During the reporting period, there were no PCP changes.

PART J. ENVIRONMENTAL MONITORING LOCATION CHANGES

During the reporting period, there were no Environmental Monitoring Location Changes.

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

		Units	1 st Quarter	2 nd Quarter	Est. Total Error
A.	Fission and Activation Gases				
1.	Total Release	Ci	2.37E-01	5.28E-02	50%
2.	Average Release Rate For Period	µCi/sec	3.05E-02	6.72E-03	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.2(a))	%	1.38E-03	4.42E-04	
B.	Iodines				
1.	Total Iodine-131	Ci	7.46E-07	1.22E-05	50%
2.	Average Release Rate For Period	µCi/sec	9.60E-08	1.55E-06	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	2.34E-03	4.09E-03	
C.	Particulates				
1.	Particulates With Half-lives > 8 days	Ci	0.00E+00	0.00E+00	50%
2.	Average Release Rate For Period	µCi/sec	0.00E+00	0.00E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	0.00E+00	0.00E+00	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D.	Tritium				
1.	Total Release	Ci	3.29E+01	4.27E+01	50%
2.	Average Release Rate For Period	µCi/sec	4.23E+00	5.43E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	2.34E-03	4.09E-03	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group. The percent TS Limit is based on most limiting nuclide and Organ dose

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	1 st Quarter	2 nd Quarter	Est. Total Error	
A. Fission and Activation Gases					
1.	Total Release	Ci	1.50E-01	2.00E-01	50%
2.	Average Release Rate For Period	µCi/sec	1.93E-02	2.54E-02	
3.	Percent of Technical Specification Limit (ODCM 3.11.2.2(a))	%	7.82E-04	6.18E-04	
B. Iodines					
1.	Total Iodine-131	Ci	0.00E+00	1.05E-06	50%
2.	Average Release Rate For Period	µCi/sec	0.00E+00	1.34E-07	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	0.00E+00	2.31E-03	
C. Particulates					
1.	Particulates With Half-lives > 8 days	Ci	0.00E+00	0.00E+00	50%
2.	Average Release Rate For Period	µC/sec	0.00E+00	0.00E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	0.00E+00	0.00E+00	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D. Tritium					
1.	Total Release	Ci	2.19E+01	3.20E+01	50%
2.	Average Release Rate For Period	µCi/sec	2.81E+00	4.07E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	1.51E-03	2.31E-03	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group. The percent TS Limit is based on most limiting nuclide and Organ dose

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	1 st Quarter	2 nd Quarter	Est. Total Error	
A. Fission and Activation Gases					
1.	Total Release	Ci	6.38E+00	1.45E+01	50%
2.	Average Release Rate For Period	μCi/sec	8.21E-01	1.84E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.2(a))	%	9.89E-03	1.45E-02	
B. Iodines					
1.	Total Iodine-131	Ci	7.39E-05	2.94E-05	50%
2.	Average Release Rate For Period	μCi/sec	9.50E-06	3.74E-06	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	1.11E-02	4.57E-03	
C. Particulates					
1.	Particulates With Half-lives > 8 days	Ci	0.00E+00	0.00E+00	50%
2.	Average Release Rate For Period	μCi/sec	0.00E+00	0.00E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	0.00E+00	0.00E+00	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D. Tritium					
1.	Total Release	Ci	1.81E+01	1.52E+00	50%
2.	Average Release Rate For Period	μCi/sec	2.32E+00	1.94E-01	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	1.11E-02	4.57E-03	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group. The percent TS Limit is based on most limiting nuclide and Organ dose

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-4
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	3 rd Quarter	4 th Quarter	Est. Total Error
A. Fission and Activation Gases				
1.	Total Release	7.38E-02 Ci	8.38E-02	50%
2.	Average Release Rate For Period	9.29E-03 μ Ci/sec	1.05E-02	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.2(a))	5.32E-04 %	6.68E-04	
B. Iodines				
1.	Total Iodine-131	5.30E-08 Ci	0.00E+00	50%
2.	Average Release Rate For Period	6.67E-09 μ Ci/sec	0.00E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	3.39E-03 %	0.00E+00	
C. Particulates				
1.	Particulates With Half-lives > 8 days	0.00E+00 Ci	0.00E+00	50%
2.	Average Release Rate For Period	0.00E+00 μ Ci/sec	0.00E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	0.00E+00 %	0.00E+00	
4.	Gross Alpha	0.00E+00 Ci	0.00E+00	
D. Tritium				
1.	Total Release	4.90E+01 Ci	1.27E+02	50%
2.	Average Release Rate For Period	6.16E+00 μ Ci/sec	1.59E+01	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	3.39E-03 %	8.77E-03	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group. The percent TS Limit is based on most limiting nuclide and Organ dose

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-5
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	3 rd Quarter	4 th Quarter	Est. Total Error	
A. Fission and Activation Gases					
1.	Total Release	Ci	3.05E-01	3.49E-01	50%
2.	Average Release Rate For Period	μCi/sec	3.83E-02	4.39E-02	
3.	Percent of Technical Specification Limit (ODCM 3.11.2.2(a))	%	9.34E-04	1.03E-03	
B. Iodines					
1.	Total Iodine-131	Ci	0.00E+00	0.00E+00	50%
2.	Average Release Rate For Period	μCi/sec	0.00E+00	0.00E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	0.00E+00	0.00E+00	
C. Particulates					
1.	Particulates With Half-lives > 8 days	Ci	0.00E+00	0.00E+00	50%
2.	Average Release Rate For Period	μCi/sec	0.00E+00	0.00E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	0.00E+00	0.00E+00	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D. Tritium					
1.	Total Release	Ci	3.15E+01	3.75E+01	50%
2.	Average Release Rate For Period	μCi/sec	3.97E+00	4.71E+00	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	2.18E-03	2.59E-03	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group. The percent TS Limit is based on most limiting nuclide and Organ dose

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1A-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

		Units	3 rd Quarter	4 th Quarter	Est. Total Error
A.	Fission and Activation Gases				
1.	Total Release	Ci	1.19E+00	1.22E+01	50%
2.	Average Release Rate For Period	μCi/sec	1.50E-01	1.53E+00	
3.	Percent of Technical Specification Limit (ODCM 3.11.2.2(a))	%	1.00E-03	1.06E-02	
B.	Iodines				
1.	Total Iodine-131	Ci	7.95E-05	1.03E-03	50%
2.	Average Release Rate For Period	μCi/sec	1.00E-05	1.30E-04	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	1.14E-02	1.36E-01	
C.	Particulates				
1.	Particulates With Half-lives > 8 days	Ci	0.00E+00	2.46E-04	50%
2.	Average Release Rate For Period	μCi/sec	0.00E+00	3.09E-05	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	0.00E+00	1.36E-01	
4.	Gross Alpha	Ci	0.00E+00	0.00E+00	
D.	Tritium				
1.	Total Release	Ci	6.31E+00	2.51E-03	50%
2.	Average Release Rate For Period	μCi/sec	7.94E-01	3.16E-04	
3.	Percent of Technical Specification Limit ² (ODCM 3.11.2.3(a))	%	1.14E-02	1.36E-01	

1. For batch releases, the estimated overall error is 10%.
2. Iodines, Tritium, and Particulates are treated as a group. The percent TS Limit is based on most limiting nuclide and Organ dose

2007 SGS AND HCG'S RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1B
SALEM AND HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - DECEMBER 2007
GASEOUS EFFLUENTS - ELEVATED RELEASES

Salem and Hope Creek Generating Stations have no elevated release points.

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE IC-1
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode		Batch Mode	
		1 st Quarter	2 nd Quarter	1 st Quarter	2 nd Quarter
1. Fission Gases					
Argon-41	Ci	0.00E+00	0.00E+00	9.98E-02	3.34E-02
Xenon-133	Ci	0.00E+00	0.00E+00	1.28E-01	1.95E-02
Xenon-133m	Ci	0.00E+00	0.00E+00	1.41E-03	0.00E+00
Xenon-135	Ci	0.00E+00	0.00E+00	8.18E-03	0.00E+00
Totals	Ci	0.00E+00	0.00E+00	2.37E-01	5.28E-02
2. Iodine					
Iodine-131	Ci	7.46E-07	1.22E-05	0.00E+00	0.00E+00
Iodine-132	Ci	2.56E-05	2.25E-05	0.00E+00	0.00E+00
Totals	Ci	2.64E-05	3.46E-05	0.00E+00	0.00E+00
3. Particulates (Half-life >8 days)	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Tritium	Ci	3.24E+01	4.25E+01	4.35E-01	1.95E-01

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode		Batch Mode	
		1 st Quarter	2 nd Quarter	1 st Quarter	2 nd Quarter
1. Fission Gases					
Argon-41	Ci	0.00E+00	0.00E+00	5.67E-02	4.16E-02
Xenon-133	Ci	0.00E+00	0.00E+00	9.37E-02	1.58E-01
Xenon-133m	Ci	0.00E+00	0.00E+00	0.00E+00	1.65E-04
Xenon-135	Ci	0.00E+00	0.00E+00	0.00E+00	1.52E-04
Totals	Ci	0.00E+00	0.00E+00	1.50E-01	2.00E-01
2. Iodine					
Iodine-131	Ci	0.00E+00	1.05E-06	0.00E+00	0.00E+00
Totals	Ci	0.00E+00	1.05E-06	0.00E+00	0.00E+00
3. Particulates (Half-life >8 days)	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Tritium	Ci	2.18E+01	3.16E+01	1.06E-01	3.57E-01

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL/ANNUAL REPORT
JANUARY - JUNE 2007
GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode		Batch Mode	
		1 st Quarter	2 nd Quarter	1 st Quarter	2 nd Quarter
1. Fission Gases					
Krypton-85m	Ci	0.00E+00	2.38E-01	0.00E+00	0.00E+00
Xenon-133	Ci	3.16E+00	1.08E+01	6.15E-03	0.00E+00
Xenon-133m	Ci	0.00E+00	0.00E+00	3.18E-04	0.00E+00
Xenon-135	Ci	3.21E+00	3.45E+00	7.09E-05	0.00E+00
Totals	Ci	6.38E+00	1.45E+01	6.90E-03	0.00E+00
2. Iodine					
Iodine-131	Ci	7.39E-05	2.94E-05	0.00E+00	0.00E+00
Iodine-133	Ci	0.00E+00	5.14E-04	0.00E+00	0.00E+00
Totals	Ci	7.39E-05	5.44E-04	0.00E+00	0.00E+00
3. Particulates (Half-life > 8 days)	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Tritium	Ci	1.81E+01	1.52E+00	2.47E-03	0.00E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-4
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode		Batch Mode	
		3 rd Quarter	4 th Quarter	3 rd Quarter	4 th Quarter
1. Fission Gases					
Argon-41	Ci	0.00E+00	0.00E+00	3.98E-02	5.02E-02
Xenon-133	Ci	0.00E+00	0.00E+00	3.41E-02	3.36E-02
Totals	Ci	0.00E+00	0.00E+00	7.38E-02	8.38E-02
2. Iodine					
Iodine-131	Ci	5.30E-08	0.00E+00	0.00E+00	0.00E+00
Iodine-132	Ci	2.92E-07	0.00E+00	0.00E+00	0.00E+00
Iodine-133	Ci	0.00E+00	1.92E-05	0.00E+00	0.00E+00
Totals	Ci	3.45E-07	1.92E-05	0.00E+00	0.00E+00
3. Particulates	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
(Half-life > 8 days)					
4. Tritium	Ci	4.75E+01	1.24E+02	1.47E+00	3.10E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-5
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
GASEOUS EFFLUENTS - GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode		Batch Mode	
		3 rd Quarter	4 th Quarter	3 rd Quarter	4 th Quarter
1. Fission Gases					
Argon-41	Ci	0.00E+00	0.00E+00	6.28E-02	6.88E-02
Xenon-133	Ci	0.00E+00	0.00E+00	2.42E-01	2.81E-01
Totals	Ci	0.00E+00	0.00E+00	3.05E-01	3.49E-01
2. Iodine	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3. Particulates (Half-life > 8 days)	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4. Tritium	Ci	3.03E+01	3.70E+01	1.24E+00	4.33E-01

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 1C-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY-DECEMBER 2007
GASEOUS EFFLUENTS- GROUND LEVEL RELEASES

Nuclides Released	Units	Continuous Mode		Batch Mode	
		3 rd Quarter	4 th Quarter	3 rd Quarter	4 th Quarter
1. Fission Gases					
Krypton-85m	Ci	2.51E-01	0.00E+00	0.00E+00	0.00E+00
Xenon-133	Ci	9.40E-01	1.02E+01	0.00E+00	0.00E+00
Xenon-135	Ci	0.00E+00	1.99E+00	0.00E+00	6.28E-05
Totals	Ci	1.19E+00	1.22E+01	0.00E+00	6.28E-05
2. Iodine					
Iodine-131	Ci	7.95E-05	1.03E-03	0.00E+00	0.00E+00
Iodine-133	Ci	5.29E-04	2.87E-03	0.00E+00	0.00E+00
Totals	Ci	6.09E-04	3.90E-03	0.00E+00	0.00E+00
3. Particulates (Half-life >8 days)					
Barium-140	Ci	0.00E+00	2.45E-04	0.00E+00	0.00E+00
Cerium-141	Ci	0.00E+00	4.95E-07	0.00E+00	0.00E+00
Totals	Ci	0.00E+00	2.45E-04	0.00E+00	0.00E+00
4. Tritium	Ci	6.31E+00	1.79E-03	0.00E+00	7.22E-04

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-1
SALEM GENERATING STATION--UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	1 st Quarter	2 nd Quarter	Est. Total Error
A. Fission and Activation Products				
1. Total Release	Ci	2.02E-03	4.43E-03	25%
2. Average Diluted Concentration	µCi/ml	4.41E-12	1.12E-11	
3. Percent of Technical Specification Limit (ODCM 3.11.1.2(a))	%	5.72E-04	1.04E-03	
B. Tritium				
1. Total Release	Ci	2.33E+02	1.72E+02	25%
2. Average Diluted Concentration	µCi/ml	5.08E-07	4.33E-07	
3. Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	1.69E-02	1.44E-02	
C. Dissolved and Entrained Noble Gases				
1. Total Release	Ci	7.74E-05	2.63E-05	25%
2. Average Diluted Concentration	µCi/ml	1.69E-13	6.62E-14	
3. Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	8.44E-08	3.31E-08	
D. Gross Alpha				
Total Release	Ci	0.00E+00	0.00E+00	25%
E. Volume of Waste Release (Prior to Dilution)	Liters	5.55E+07	5.62E+07	25%
F. Volume of Dilution Water Used During Entire Period	Liters	4.58E+11	3.97E+11	25%

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	1 st Quarter	2 nd Quarter	Est. Total Error	
A. Fission and Activation Products					
1.	Total Release	Ci	6.07E-04	1.07E-03	25%
2.	Average Diluted Concentration	μCi/ml	1.46E-12	2.55E-12	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.2(a))	%	5.42E-04	5.47E-04	
B. Tritium					
1.	Total Release	Ci	1.25E+02	1.00E+02	25%
2.	Average Diluted Concentration	μCi/ml	3.01E-07	2.40E-07	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	1.00E-02	7.99E-03	
C. Dissolved and Entrained Noble Gases					
1.	Total Release	Ci	2.51E-05	2.84E-05	25%
2.	Average Diluted Concentration	μCi/ml	6.05E-14	6.79E-14	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	3.02E-08	3.40E-08	
D. Gross Alpha					
	Total Release	Ci	0.00E+00	0.00E+00	25%
E. Volume of Waste Release (Prior to Dilution)					
		Liters	4.95E+07	5.01E+07	25%
F. Volume of Dilution Water Used During Entire Period					
		Liters	4.16E+11	4.18E+11	25%

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-3
HOPE CREEK GENERATING STATION
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JANUARY - JUNE 2007
 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	1 st Quarter	2 nd Quarter	Est. Total Error
A. Fission and Activation Products				
1.	Total Release (Ci)	1.24E-03	3.47E-03	±25%
2.	Average Diluted Concentration (µCi/ml)	8.64E-11	2.17E-10	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.2(a)) (%)	1.32E-04	1.02E-04	
B. Tritium				
1.	Total Release (Ci)	5.34E+00	1.72E+00	±25%
2.	Average Diluted Concentration (µCi/ml)	3.74E-07	1.07E-07	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1) (%)	1.25E-02	3.58E-03	
C. Dissolved and Entrained Noble Gases				
1.	Total Release (Ci)	8.36E-05	0.00E+00	±25%
2.	Average Diluted Concentration (µCi/ml)	5.85E-12	0.00E+00	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1) (%)	2.93E-06	0.00E+00	
D. Gross Alpha				
	Total Release (Ci)	0.00E+00	0.00E+00	±25%
E. Volume of Waste Release (Prior to Dilution)				
	Liters	5.04E+07	4.99E+07	±25%
F. Volume of Dilution Water Used During Entire Period				
	Liters	1.43E+10	1.60E+10	±25%

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-4
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY-DECEMBER 2007
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

		Units	3 rd Quarter	4 th Quarter	Est. Total Error
A.	Fission and Activation Products				
1.	Total Release	Ci	7.88E-04	6.50E-04	25%
2.	Average Diluted Concentration	µCi/ml	1.55E-12	1.34E-12	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.2(a))	%	4.35E-04	3.30E-04	
B.	Tritium				
1.	Total Release	Ci	2.08E+02	1.62E+02	25%
2.	Average Diluted Concentration	µCi/ml	4.09E-07	3.34E-07	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	1.36E-02	1.11E-02	
C.	Dissolved and Entrained Noble Gases				
1.	Total Release	Ci	0.00E+00	8.45E-05	25%
2.	Average Diluted Concentration	µCi/ml	0.00E+00	1.74E-13	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	0.00E+00	8.69E-08	
D.	Gross Alpha				
	Total Release	Ci	0.00E+00	0.00E+00	25%
E.	Volume of Waste Release (Prior to Dilution)	Liters	5.61E+07	5.58E+07	25%
F.	Volume of Dilution Water Used During Entire Period	Liters	5.07E+11	4.86E+11	25%

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-5
 SALEM GENERATING STATION - UNIT 2
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JULY - DECEMBER 2007
 LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

		Units	3 rd Quarter	4 th Quarter	Est. Total Error
A.	Fission and Activation Products				
1.	Total Release	Bq	2.72E+04	2.14E+04	±25%
2.	Average Diluted Concentration	µCi/ml	1.43E-12	4.32E-13	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.2(a))	%	4.02E-04	4.42E-04	
B.	Tritium				
1.	Total Release	Bq	9.96E+01	1.35E+02	±25%
2.	Average Diluted Concentration	µCi/ml	1.98E-07	2.73E-07	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	6.59E-03	9.10E-03	
C.	Dissolved and Entrained Noble Gases				
1.	Total Release	Bq	0.00E+00	7.21E-05	±25%
2.	Average Diluted Concentration	µCi/ml	0.00E+00	1.45E-13	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	%	0.00E+00	7.27E-08	
D.	Gross Alpha				
	Total Release	Bq	0.00E+00	0.00E+00	±25%
E.	Volume of Waste Release (Prior to Dilution)	Liters	5.05E+07	5.07E+07	±25%
F.	Volume of Dilution Water Used During Entire Period	Liters	5.04E+11	4.95E+11	±25%

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2A-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY-DECEMBER 2007
LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

	Units	3 rd Quarter	4 th Quarter	Est. Total Error
A. Fission and Activation Products				
1.	Total Release	3.570E-03 Ci	3.45E-02 Ci	±25%
2.	Average Diluted Concentration	2.75E-10 µCi/ml	2.13E-09 µCi/ml	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.2(a))	9.95E-05 %	2.23E-03 %	
B. Tritium				
1.	Total Release	1.28E+00 Ci	1.19E+00 Ci	±25%
2.	Average Diluted Concentration	6.20E-08 µCi/ml	7.34E-08 µCi/ml	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	2.07E-03 %	2.45E-03 %	
C. Dissolved and Entrained Noble Gases				
1.	Total Release	0.00E+00 Ci	3.54E-04 Ci	±25%
2.	Average Diluted Concentration	0.00E+00 µCi/ml	2.19E-11 µCi/ml	
3.	Percent of Technical Specification Limit (ODCM 3.11.1.1)	0.00E+00 %	1.09E-05 %	
D. Gross Alpha				
	Total Release	0.00E+00 Ci	0.00E+00 Ci	±25%
E. Volume of Waste Release (Prior to Dilution)				
		5.05E+07 Liters	3.98E+07 Liters	±25%
F. Volume of Dilution Water Used During Entire Period				
		2.07E+10 Liters	1.62E+10 Liters	±25%

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-1
 SALEM GENERATING STATION - UNIT 1
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JANUARY - JUNE 2007
 LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode		Batch Mode	
		1 st Quarter	2 nd Quarter	1 st Quarter	2 nd Quarter
1. Fission and Activation Products					
Cobalt-57	Ci	0.00E+00	0.00E+00	0.00E+00	9.46E-08
Cobalt-58	Ci	0.00E+00	0.00E+00	7.19E-04	3.27E-03
Cobalt-60	Ci	0.00E+00	0.00E+00	8.58E-04	5.35E-04
Chromium-51	Ci	0.00E+00	0.00E+00	0.00E+00	3.65E-06
Cesium-134	Ci	0.00E+00	0.00E+00	1.02E-08	1.84E-05
Cesium-137	Ci	0.00E+00	0.00E+00	4.44E-04	5.90E-04
Iron-59	Ci	0.00E+00	0.00E+00	0.00E+00	4.82E-07
Manganese-54	Ci	0.00E+00	0.00E+00	0.00E+00	3.13E-07
Niobium-95	Ci	0.00E+00	0.00E+00	0.00E+00	5.24E-08
Antimony-124	Ci	0.00E+00	0.00E+00	0.00E+00	1.24E-07
Antimony-125	Ci	0.00E+00	0.00E+00	0.00E+00	1.34E-05
Tin-117m	Ci	0.00E+00	0.00E+00	0.00E+00	2.20E-06
Totals	Ci	0.00E+00	0.00E+00	2.02E-03	4.43E-03
2. Tritium	Ci	6.17E-01	5.32E-01	2.32E+02	1.71E+02
3. Dissolved and Entrained Noble Gases					
Xenon-133	Ci	0.00E+00	0.00E+00	7.74E-05	2.63E-05
Totals	Ci	0.00E+00	0.00E+00	7.74E-05	2.63E-05
4. Gross Alpha	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode		Batch Mode	
		1 st Quarter	2 nd Quarter	1 st Quarter	2 nd Quarter
1. Fission and Activation Products					
Cobalt-58	Ci	0.00E+00	0.00E+00	1.63E-04	9.09E-04
Cobalt-60	Ci	0.00E+00	0.00E+00	2.82E-04	1.21E-04
Cesium-134	Ci	0.00E+00	0.00E+00	7.89E-06	0.00E+00
Cesium-137	Ci	0.00E+00	0.00E+00	1.36E-04	3.12E-05
Antimony-125	Ci	0.00E+00	0.00E+00	1.79E-05	0.00E+00
Tin-117m	Ci	0.00E+00	0.00E+00	0.00E+00	3.75E-06
Totals	Ci	0.00E+00	0.00E+00	6.07E-04	1.06E-03
2. Tritium	Ci	1.30E+00	2.43E+00	1.24E+02	9.77E+01
3. Dissolved and Entrained Noble Gases					
Xenon-133	Ci	0.00E+00	0.00E+00	2.51E-05	2.84E-05
Totals	Ci	0.00E+00	0.00E+00	2.51E-05	2.84E-05
4. Gross Alpha	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode		Batch Mode	
		1 st Quarter	2 nd Quarter	1 st Quarter	2 nd Quarter
1. Fission and Activation Products					
Silver-110m	Ci	0.00E+00	0.00E+00	0.00E+00	5.64E-05
Cerium-141	Ci	0.00E+00	0.00E+00	0.00E+00	4.22E-06
Cobalt-58	Ci	0.00E+00	0.00E+00	5.98E-05	1.52E-04
Cobalt-60	Ci	0.00E+00	0.00E+00	4.81E-04	1.05E-03
Cesium-134	Ci	0.00E+00	0.00E+00	0.00E+00	3.08E-04
Cesium-137	Ci	0.00E+00	0.00E+00	0.00E+00	4.28E-04
Iron-59	Ci	0.00E+00	0.00E+00	0.00E+00	1.81E-05
Lanthanum-140	Ci	0.00E+00	0.00E+00	1.25E-05	0.00E+00
Manganese-54	Ci	0.00E+00	0.00E+00	6.65E-04	1.31E-03
Sodium-24	Ci	0.00E+00	0.00E+00	0.00E+00	6.25E-06
Niobium-97	Ci	0.00E+00	0.00E+00	1.98E-06	2.76E-06
Strontium-92	Ci	0.00E+00	0.00E+00	0.00E+00	3.23E-06
Zinc-65	Ci	0.00E+00	0.00E+00	1.44E-05	1.35E-04
Totals	Ci	0.00E+00	0.00E+00	1.23E-03	3.47E-03
2. Tritium	Ci	6.99E-01	3.45E-01	4.64E+00	1.37E+00
3. Dissolved and Entrained Noble Gases					
Xenon-133	Ci	0.00E+00	0.00E+00	5.82E-05	0.00E+00
Xenon-135	Ci	0.00E+00	0.00E+00	2.54E-05	0.00E+00
Totals	Ci	0.00E+00	0.00E+00	8.36E-05	0.00E+00
4. Gross Alpha	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-4
SALEM GENERATING STATION - UNIT 1
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode		Batch Mode	
		3 rd Quarter	4 th Quarter	3 rd Quarter	4 th Quarter
1. Fission and Activation Products					
Cobalt-58	Ci	0.00E+00	0.00E+00	1.44E-04	4.46E-05
Cobalt-60	Ci	0.00E+00	0.00E+00	2.78E-04	1.88E-04
Cesium-134	Ci	0.00E+00	0.00E+00	0.00E+00	5.41E-05
Cesium-137	Ci	0.00E+00	0.00E+00	3.66E-04	3.64E-04
Totals	Ci	0.00E+00	0.00E+00	7.88E-04	6.50E-04
2. Tritium	Ci	9.37E-01	9.27E-01	2.07E+02	1.61E+02
3. Dissolved and Entrained Noble Gases					
Xenon-133	Ci	0.00E+00	0.00E+00	0.00E+00	8.45E-05
Totals	Ci	0.00E+00	0.00E+00	0.00E+00	8.45E-05
4. Gross Alpha	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-5
 SALEM GENERATING STATION - UNIT 2
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JULY - DECEMBER 2007
 LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode		Batch Mode	
		3 rd Quarter	4 th Quarter	3 rd Quarter	4 th Quarter
1. Fission and Activation Products					
Cobalt-58	Ci	0.00E+00	0.00E+00	1.47E-04	4.25E-05
Cobalt-60	Ci	0.00E+00	0.00E+00	9.64E-05	5.38E-05
Cesium-137	Ci	0.00E+00	0.00E+00	6.08E-05	3.55E-05
Antimony-125	Ci	0.00E+00	0.00E+00	4.14E-04	8.23E-05
Tin-117m	Ci	0.00E+00	0.00E+00	2.48E-06	0.00E+00
Totals	Ci	0.00E+00	0.00E+00	7.21E-04	2.14E-04
2. Tritium	Ci	3.05E+00	1.84E+00	9.65E+01	1.33E+02
3. Dissolved and Entrained Noble Gases					
Xenon-133	Ci	0.00E+00	0.00E+00	0.00E+00	7.21E-05
Totals	Ci	0.00E+00	0.00E+00	0.00E+00	7.21E-05
4. Gross Alpha	Ci	0.00E+00	0.00E+00	5.73E-06	0.00E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 2B-6
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
LIQUID EFFLUENTS

Nuclides Released	Units	Continuous Mode		Batch Mode	
		3 rd Quarter	4 th Quarter	3 rd Quarter	4 th Quarter
1. Fission and Activation Products					
Silver-110m	Ci	0.00E+00	0.00E+00	1.05E-05	9.04E-04
Cerium-141	Ci	0.00E+00	0.00E+00	2.12E-05	9.69E-05
Cobalt-58	Ci	0.00E+00	0.00E+00	2.11E-05	7.49E-04
Cobalt-60	Ci	0.00E+00	0.00E+00	2.68E-04	2.53E-03
Chromium-51	Ci	0.00E+00	0.00E+00	0.00E+00	2.25E-03
Iron-55	Ci	0.00E+00	0.00E+00	5.14E-03	2.35E-02
Iron-59	Ci	0.00E+00	0.00E+00	0.00E+00	7.77E-04
Iodine-131	Ci	0.00E+00	0.00E+00	0.00E+00	1.67E-05
Iodine-133	Ci	0.00E+00	0.00E+00	0.00E+00	8.01E-06
Lanthanum-140	Ci	0.00E+00	0.00E+00	2.49E-05	2.08E-05
Manganese-54	Ci	0.00E+00	0.00E+00	1.87E-04	3.17E-03
Molybdenum-99	Ci	0.00E+00	0.00E+00	0.00E+00	2.54E-05
Sodium-24	Ci	0.00E+00	0.00E+00	0.00E+00	1.39E-07
Niobium-97	Ci	0.00E+00	0.00E+00	9.09E-06	3.25E-05
Antimony-124	Ci	0.00E+00	0.00E+00	0.00E+00	2.05E-05
Strontium-82	Ci	0.00E+00	0.00E+00	2.30E-06	2.24E-05
Technetium-99m	Ci	0.00E+00	0.00E+00	0.00E+00	2.59E-05
Zinc-65	Ci	0.00E+00	0.00E+00	1.09E-05	3.53E-04
Totals	Ci	0.00E+00	0.00E+00	5.70E-03	3.44E-02
2. Tritium	Ci	2.82E-01	2.17E-01	9.99E-01	9.72E-01
3. Dissolved and Entrained Noble Gases					
Xenon-133	Ci	0.00E+00	0.00E+00	0.00E+00	3.46E-04
Xenon-135	Ci	0.00E+00	0.00E+00	0.00E+00	8.46E-06
Totals	Ci	0.00E+00	0.00E+00	0.00E+00	3.54E-04
4. Gross Alpha	Ci	0.00E+00	0.00E+00	0.00E+00	0.00E+00

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3A-1
SALEM GENERATING STATION – UNITS 1 AND 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY – JUNE 2007
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL
 (Not Irradiated Fuel)

SGS 1A. Type of Waste (Class A)	Units ¹	6-Month Period	Est. Total Error
a. Resins, Filters, & Evap. Bottoms	m ³	0.00E+00	25%
	Ci	0.00E+00	
b. Dry Active Waste – DAW-U-NA Seavan	m ³	4.08E-02	25%
	Ci	3.30E+00	
c. Irradiated Components	m ³	0.00E+00	25%
	Ci	0.00E+00	
d. Others	m ³	0.00E+00	25%
	Ci	0.00E+00	

¹ Volumes are measured, activities are estimated.

2A. Estimate of Major Nuclide Composition (>1%) (Class A) – SGS

<u>Nuclides</u>	<u>Resins, Filters, Evaporator Bottoms</u>		<u>Dry Active Waste</u>	
	<u>%</u>	<u>Ci</u>	<u>%</u>	<u>Ci</u>
Tritium	0.00	0.00E+00	2.77	9.13E-02
Iron-55	0.00	0.00E+00	48.18	1.59E+00
Cobalt-58	0.00	0.00E+00	14.01	4.62E-01
Cobalt-60	0.00	0.00E+00	3.65	1.20E-01
Nickel-63	0.00	0.00E+00	21.29	7.02E-01
Cesium-134	0.00	0.00E+00	2.63	8.66E-02
Cesium-137	0.00	0.00E+00	5.55	1.83E-01

3A. Solid Waste Disposal (Class A or less) – SGS

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>	<u>Type of Containers</u>
6	Truck	Memphis, TN	Metal

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3A-2
SALEM GENERATING STATION – UNITS 1 AND 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY – DECEMBER 2007
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL
 (Not Irradiated Fuel)

SGS	1A. Type of Waste (Class A)	Units ¹	6-Month Period	Est. Total Error
a.	Resins, Filters, Evap Bottoms	m ³	0.00E+00	25%
		Ci	0.00E+00	
b.	Dry Active Waste ¹ DAW-U-NA Seavan ²	m ³	1.36E+02	25%
		Ci	6.35E-01	
c.	Irradiated Components	m ³	0.00E+00	25%
		Ci	0.00E+00	
d.	Others – NRW Resin/Resin Fine CNS 14-220L	m ³	1.16E+02	25%
		Ci	5.83E-03	

¹ Volumes are measured, activities are estimated.

2A. Estimate of Major Nuclide Composition (>1%) (Class A) – SGS

<u>Nuclides</u>	<u>Dry Active Waste</u>		<u>Others – NRW Resin/Resin Fine CNS 14-220L</u>	
	<u>%</u>	<u>Ci</u>	<u>%</u>	<u>Ci</u>
Tritium	2.74	1.74E-02	2.31	1.35E-04
Iron-55	48.04	3.05E-01	48.27	2.81E-03
Cobalt-58	14.51	9.21E-02	14.40	8.39E-04
Cobalt-60	3.62	2.30E-02	3.62	2.11E-04
Nickel-63	21.04	1.34E-01	20.85	1.22E-03
Cesium-134	2.63	1.67E-02	2.13	1.24E-04
Cesium-137	5.48	3.48E-02	4.61	2.69E-04
Radium-226	0.00	0.00E+00	2.09	1.22E-04

3A. Solid Waste Disposal (Class A or less) – SGS

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>	<u>Type of Containers</u>
11	Truck	Memphis, TN	Metal

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3B-1
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL
 (Not Irradiated Fuel)

HCGS		6-Month	Est/Total
1A. Type of Waste (Class A)	Units ¹	Period	Error
a. Resins, Filters, Evap Bottoms	m ³	0.00E+00	25%
	Ci	0.00E+00	
b. Dry Active Waste	m ³	1.70E+02	25%
	Ci	1.22E+01	
c. Irradiated Components	m ³	0.00E+00	25%
	Ci	0.00E+00	
d. Others	m ³	0.00E+00	25%
	Ci	0.00E+00	

1 Volumes are measured, activities are estimated

2A. Estimate of Major Nuclide Composition (>1%) (Class A) - HCGS

Nuclides	Resins, Filters, Evaporator Bottom		Dry Active Waste	
	%	Ci	%	Ci
Chromium-51	0.00	0.00E+00	12.75	1.56E-02
Manganese-54	0.00	0.00E+00	1.56	1.90E-03
Iron-55	0.00	0.00E+00	66.99	8.19E-02
Iron-59	0.00	0.00E+00	9.15	1.12E-02
Cobalt-60	0.00	0.00E+00	4.88	5.96E-03
Nickel-63	0.00	0.00E+00	1.13	1.38E-03
Zinc-65	0.00	0.00E+00	2.75	3.36E-03

3A. Solid Waste Disposal (Class A) - HCGS

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>	<u>Type of Containers</u>
3	Truck	Memphis, TN	Metal

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 3B-2

HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
SOLID RADWASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL
 (Not Irradiated Fuel)

HCGS		6-Month	Est. Total
1A. Type of Waste (Class A)	Units ¹	Period	Error
a. Resins, Filters, Evap Bottoms	m ³	0.00E+00	25%
	Ci	0.00E+00	
b. Dry Active Waste	m ³	3.48E+02	25%
	Ci	2.40E+01	
c. Irradiated Components	m ³	0.00E+00	25%
	Ci	0.00E+00	
d. Others - HPT Rotor, "A" Rcirc Pump Impeller	m ³	5.39E+01	25%
	Ci	1.71E+00	

¹ Volumes are measured, activities are estimated

2A. Estimate of Major Nuclide Composition (>1%) (Class A) - HCGS

Nuclides	Dry Active Waste		Other	
	%	Ci	%	Ci
Chromium-51	13.64	3.27E+00	6.54	1.12E-01
Manganese-54	1.54	3.70E-01	6.64	1.13E-01
Iron-55	65.89	1.58E+01	70.75	1.21E+00
Iron-59	9.49	2.28E+00	1.45	2.47E-02
Cobalt-60	4.80	1.15E+00	2.02	3.44E-02
Nickel-63	1.11	2.66E-01	9.84	1.68E-01
Zinc-65	2.73	6.54E-01	1.60	2.72E-02

3A. Solid Waste Disposal (Class A) - HCGS

<u>Number of Shipments</u>	<u>Mode of Transportation</u>	<u>Destination</u>	<u>Type of Containers</u>
1	Truck	Oak Ridge, TN	Metal
1	Truck	Memphis, TN	Herculite Bag
11	Truck	Memphis, TN	Metal

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-1
SALEM GENERATING STATION - UNIT 1
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JANUARY - JUNE 2007
 SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
 IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: January 1, 2007 - March 31, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 282
4. Total time duration for all releases of type listed above: 2.44E+04 Min.
5. Maximum duration for release of type listed above: 8.10E+02 Min.
6. Average duration for release of type listed above: 8.66E+01 Min.
7. Minimum duration for release of type listed above: 4.70E+01 Min.
8. Average stream flow (dilution flow) during period of release: N/A

BATCH RELEASES ONLY

1. Dates: April 1, 2007 - June 30, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 162
4. Total time duration for all releases of type listed above: 3.12E+04 Min.
5. Maximum duration for release of type listed above: 4.43E+03 Min.
6. Average duration for release of type listed above: 1.92E+02 Min.
7. Minimum duration for release of type listed above: 3.50E+01 Min.
8. Average stream flow (dilution flow) during period of release: N/A

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-1 (Continued)
SALEM GENERATING STATION - UNIT 1
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JULY - DECEMBER 2007
 SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
 IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: July 1, 2007 - September 30, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 151
4. Total time duration for all releases of type listed above: 1.04E+04 Min.
5. Maximum duration for release of type listed above: 1.75E+02 Min.
6. Average duration for release of type listed above: 6.91E+01 Min.
7. Minimum duration for release of type listed above: 2.10E+01 Min.
8. Average stream flow (dilution flow) during period of release: N/A

BATCH RELEASES ONLY

1. Dates: October 1, 2007 - December 31, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 186
4. Total time duration for all releases of type listed above: 1.33E+04 Min.
5. Maximum duration for release of type listed above: 1.45E+02 Min.
6. Average duration for release of type listed above: 7.15E+01 Min.
7. Minimum duration for release of type listed above: 3.00E+01 Min.
8. Average stream flow (dilution flow) during period of release: N/A

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: January 1, 2007 - March 31, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 1104
4. Total time duration for all releases of type listed above: $1.35E+04$ Min.
5. Maximum duration for release of type listed above: $6.72E+03$ Min.
6. Average duration for release of type listed above: $1.29E+02$ Min.
7. Minimum duration for release of type listed above: $3.00E+01$ Min.
8. Average stream flow (dilution flow) during period of release: N/A

BATCH RELEASES ONLY

1. Dates: April 1, 2007 - June 30, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 597
4. Total time duration for all releases of type listed above: $5.99E+03$ Min.
5. Maximum duration for release of type listed above: $1.49E+02$ Min.
6. Average duration for release of type listed above: $6.17E+01$ Min.
7. Minimum duration for release of type listed above: $2.80E+01$ Min.
8. Average stream flow (dilution flow) during period of release: N/A

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-2 (Continued)
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: July 1, 2007 - September 30, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 96
4. Total time duration for all releases of type listed above: $5.45E+03$ Min.
5. Maximum duration for release of type listed above: $1.50E+02$ Min.
6. Average duration for release of type listed above: $5.69E+01$ Min.
7. Minimum duration for release of type listed above: $3.00E+01$ Min.
8. Average stream flow (dilution flow) during period of release: N/A

BATCH RELEASES ONLY

1. Dates: October 1, 2007 - December 31, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 99
4. Total time duration for all releases of type listed above: $6.00E+03$ Min.
5. Maximum duration for release of type listed above: $4.70E+02$ Min.
6. Average duration for release of type listed above: $6.07E+01$ Min.
7. Minimum duration for release of type listed above: $3.70E+01$ Min.
8. Average stream flow (dilution flow) during period of release: N/A

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: January 1, 2007 - March 31, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 2
4. Total time duration for all releases of type listed above: 5.34E+03 Min.
5. Maximum duration for release of type listed above: 4.78E+03 Min.
6. Average duration for release of type listed above: 2.67E+03 Min.
7. Minimum duration for release of type listed above: 5.63E+02 Min.
8. Average stream flow (dilution flow) during period of release: N/A

BATCH RELEASES ONLY

1. Dates: April 1, 2007 - June 30, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 0
4. Total time duration for all releases of type listed above: 0.00E+00 Min.
5. Maximum duration for release of type listed above: 0.00E+00 Min.
6. Average duration for release of type listed above: 0.00E+00 Min.
7. Minimum duration for release of type listed above: 0.00E+00 Min.
8. Average stream flow (dilution flow) during period of release: N/A

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4A-3 (Continued)
HOPE CREEK GENERATING STATION
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JULY - DECEMBER 2007
 SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
 IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: July 1, 2007- September 30, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 0
4. Total time duration for all releases of type listed above: 0.00E+00 Min.
5. Maximum duration for release of type listed above: 0.00E+00 Min.
6. Average duration for release of type listed above: 0.00E+00 Min.
7. Minimum duration for release of type listed above: 0.00E+00 Min.
8. Average stream flow (dilution flow) during period of release: N/A

BATCH RELEASES ONLY

1. Dates: October 1, 2007- December 31, 2007
2. Type of release: **Gaseous**
3. Number of releases during quarter: 2
4. Total time duration for all releases of type listed above: 1.20E+04 Min
5. Maximum duration for release of type listed above: 9.17E+03 Min
6. Average duration for release of type listed above: 6.01E+03 Min
7. Minimum duration for release of type listed above: 2.85E+03 Min
8. Average stream flow (dilution flow) during period of release: N/A

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-1
 SALEM GENERATING STATION - UNIT 1
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JANUARY - JUNE 2007
 SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
 IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: January 1, 2007 - March 31, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 18
4. Total time duration for all releases of type listed above: 4.21E+03 Min
5. Maximum duration for release of type listed above: 4.25E+02 Min
6. Average duration for release of type listed above: 2.34E+02 Min
7. Minimum duration for release of type listed above: 1.00E+00 Min
8. Average stream flow (dilution flow) during period of release: 9.22E+05 GPM

BATCH RELEASES ONLY

1. Dates: April 1, 2007 - June 30, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 31
4. Total time duration for all releases of type listed above: 6.07E+03 Min.
5. Maximum duration for release of type listed above: 3.99E+02 Min.
6. Average duration for release of type listed above: 1.96E+02 Min.
7. Minimum duration for release of type listed above: 1.00E+00 Min.
8. Average stream flow (dilution flow) during period of release: 7.98E+05 GPM

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-1 (Continued)
 SALEM GENERATING STATION - UNIT 1
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JULY - DECEMBER 2007
 SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
 IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: July 1, 2007 - September 30, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 18
4. Total time duration for all releases of type listed above: 4.71E+03 Min.
5. Maximum duration for release of type listed above: 4.68E+02 Min.
6. Average duration for release of type listed above: 2.62E+02 Min.
7. Minimum duration for release of type listed above: 8.30E-01 Min.
8. Average stream flow (dilution flow) during period of release: 1.02E+06 GPM

BATCH RELEASES ONLY

1. Dates: October 1, 2007 - December 31, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 16
4. Total time duration for all releases of type listed above: 2.77E+03 Min.
5. Maximum duration for release of type listed above: 4.70E+02 Min.
6. Average duration for release of type listed above: 1.73E+02 Min.
7. Minimum duration for release of type listed above: 8.30E-01 Min.
8. Average stream flow (dilution flow) during period of release: 9.77E+05 GPM

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-2
SALEM GENERATING STATION - UNIT 2
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: January 1, 2007 - March 31, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 7
4. Total time duration for all releases of type listed above: 2.60E+03 Min.
5. Maximum duration for release of type listed above: 5.71E+02 Min.
6. Average duration for release of type listed above: 3.71E+02 Min.
7. Minimum duration for release of type listed above: 3.07E+02 Min.
8. Average stream flow (dilution flow) during period of release: 8.35E+05 GPM

BATCH RELEASES ONLY

1. Dates: April 1, 2007 - June 30, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 9
4. Total time duration for all releases of type listed above: 2.97E+03 Min.
5. Maximum duration for release of type listed above: 4.19E+02 Min.
6. Average duration for release of type listed above: 3.30E+02 Min.
7. Minimum duration for release of type listed above: 1.00E+00 Min.
8. Average stream flow (dilution flow) during period of release: 8.39E+05 GPM

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-2 (Continued)
 SALEM GENERATING STATION - UNIT 2
 EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
 JULY - DECEMBER 2007
 SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
 IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: July 1, 2007 - September 30, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 6
4. Total time duration for all releases of type listed above: 2.15E+03 Min.
5. Maximum duration for release of type listed above: 4.33E+02 Min.
6. Average duration for release of type listed above: 3.58E+02 Min.
7. Minimum duration for release of type listed above: 3.05E+02 Min.
8. Average stream flow (dilution flow) during period of release: 1.01E+06 GPM

BATCH RELEASES ONLY

1. Dates: October 1, 2007 - December 31, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 10
4. Total time duration for all releases of type listed above: 3.79E+03 Min.
5. Maximum duration for release of type listed above: 4.79E+02 Min.
6. Average duration for release of type listed above: 3.79E+02 Min.
7. Minimum duration for release of type listed above: 2.93E+02 Min.
8. Average stream flow (dilution flow) during period of release: 9.96E+05 GPM

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-3
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JANUARY - JUNE 2007
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: January 1, 2007 - March 31, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 31
4. Total time duration for all releases of type listed above: $2.27E+03$ Min.
5. Maximum duration for release of type listed above: $8.40E+01$ Min.
6. Average duration for release of type listed above: $7.32E+01$ Min.
7. Minimum duration for release of type listed above: $3.03E+01$ Min.
8. Average stream flow (dilution flow) during period of release: $2.87E+04$ GPM

BATCH RELEASES ONLY

1. Dates: April 1, 2007 - June 30, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 8
4. Total time duration for all releases of type listed above: $5.73E+02$ Min.
5. Maximum duration for release of type listed above: $8.22E+01$ Min.
6. Average duration for release of type listed above: $7.16E+01$ Min.
7. Minimum duration for release of type listed above: $4.08E+01$ Min.
8. Average stream flow (dilution flow) during period of release: $3.22E+04$ GPM

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

TABLE 4B-3 (Continued)
HOPE CREEK GENERATING STATION
EFFLUENTS AND WASTE DISPOSAL ANNUAL REPORT
JULY - DECEMBER 2007
SUMMARY SHEET FOR RADIOACTIVE EFFLUENTS RELEASED
IN A BATCH MODE

BATCH RELEASES ONLY

1. Dates: July 1, 2007 - September 30, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 11
4. Total time duration for all releases of type listed above: 6.44E+02 Min.
5. Maximum duration for release of type listed above: 7.68E+01 Min.
6. Average duration for release of type listed above: 5.86E+01 Min.
7. Minimum duration for release of type listed above: 2.00E+01 Min.
8. Average stream flow (dilution flow) during period of release: 4.16E+04 GPM

BATCH RELEASES ONLY

1. Dates: October 1, 2007 - December 31, 2007
2. Type of release: **Liquid**
3. Number of releases during quarter: 48
4. Total time duration for all releases of type listed above: 3.23E+03 Min.
5. Maximum duration for release of type listed above: 8.80E+01 Min.
6. Average duration for release of type listed above: 6.72E+01 Min.
7. Minimum duration for release of type listed above: 3.50E+01 Min.
8. Average stream flow (dilution flow) during period of release: 3.25E+04 GPM

APPENDIX A

METEOROLOGICAL DATA

Lapse Rate
Wind Distributions
300-33 Foot

1/2007 - 3/2007

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	4	0.2
SSE	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	3	0.1	3	0.1	0	0.0	0	0.0	6	0.3
WNW	0	0.0	0	0.0	0	0.0	5	0.2	22	1.0	1	0.0	0	0.0	28	1.3
NW	0	0.0	0	0.0	0	0.0	0	0.0	29	1.4	6	0.3	0	0.0	35	1.6
NNW	0	0.0	0	0.0	0	0.0	1	0.0	9	0.4	1	0.0	0	0.0	11	0.5
	0	0.0	0	0.0	2	0.1	23	1.1	68	3.2	8	0.4	0	0.0	101	4.7

MEAN WIND SPEED: 14.4
MISSING: 0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	0	0.0	5	0.2
NNE	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SSE	0	0.0	0	0.0	3	0.1	0	0.0	1	0.0	0	0.0	0	0.0	4	0.2
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	0	0.0	5	0.2	1	0.0	0	0.0	0	0.0	6	0.3
SW	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	1	0.0	5	0.2	0	0.0	0	0.0	0	0.0	6	0.3
W	0	0.0	0	0.0	0	0.0	10	0.5	6	0.3	2	0.1	0	0.0	18	0.8
WNW	0	0.0	0	0.0	0	0.0	6	0.3	17	0.8	3	0.1	0	0.0	26	1.2
NW	0	0.0	0	0.0	0	0.0	5	0.2	18	0.8	2	0.1	1	0.0	26	1.2
NNW	0	0.0	0	0.0	0	0.0	6	0.3	2	0.1	1	0.0	0	0.0	9	0.4
	0	0.0	0	0.0	6	0.3	44	2.1	48	2.2	8	0.4	1	0.0	107	5.0

MEAN WIND SPEED: 13.2

MISSING: 0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	5	0.2
NNE	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	3	0.1
SSE	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	3	0.1	3	0.1	1	0.0	0	0.0	0	0.0	7	0.3
W	0	0.0	0	0.0	1	0.0	3	0.1	6	0.3	0	0.0	0	0.0	10	0.5
WNW	0	0.0	0	0.0	2	0.1	5	0.2	13	0.6	4	0.2	0	0.0	24	1.1
NW	0	0.0	0	0.0	0	0.0	9	0.4	23	1.1	5	0.2	0	0.0	37	1.7
NNW	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	4	0.2

0 0.0 0 0.0 8 0.4 35 1.6 52 2.4 9 0.4 0 0.0 104 4.9

MEAN WIND SPEED: 13.3

MISSING: 0

WIND SPEED GROUPS (MPH)

WIND DIRECTION

ATMOSPHERIC STABILITY CLASS

WIND: 30 FT

DELTA T: (300-33FT)

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
 CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	9	0.4	8	0.4	8	0.4	0	0.0	0	0.0	27	1.3
NNE	0	0.0	2	0.1	12	0.6	8	0.4	4	0.2	0	0.0	0	0.0	26	1.2
NE	0	0.0	4	0.2	17	0.8	16	0.7	11	0.5	0	0.0	0	0.0	48	2.2
ENE	0	0.0	9	0.4	11	0.5	9	0.4	1	0.0	0	0.0	0	0.0	30	1.4
E	0	0.0	5	0.2	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	10	0.5
ESE	0	0.0	1	0.0	6	0.3	1	0.0	0	0.0	0	0.0	0	0.0	8	0.4
SE	0	0.0	3	0.1	15	0.7	10	0.5	5	0.2	1	0.0	0	0.0	34	1.6
SSE	0	0.0	1	0.0	7	0.3	6	0.3	16	0.7	1	0.0	0	0.0	31	1.4
S	0	0.0	3	0.1	22	1.0	13	0.6	9	0.4	0	0.0	0	0.0	47	2.2
SSW	0	0.0	2	0.1	10	0.5	17	0.8	2	0.1	0	0.0	0	0.0	31	1.4
SW	0	0.0	1	0.0	6	0.3	9	0.4	0	0.0	0	0.0	0	0.0	16	0.7
WSW	0	0.0	2	0.1	13	0.6	17	0.8	3	0.1	0	0.0	0	0.0	35	1.6
W	0	0.0	2	0.1	27	1.3	47	2.2	39	1.8	0	0.0	0	0.0	115	5.4
WNW	0	0.0	1	0.0	26	1.2	51	2.4	70	3.3	7	0.3	0	0.0	155	7.2
NW	0	0.0	2	0.1	9	0.4	37	1.7	103	4.8	31	1.4	3	0.1	185	8.6
NNW	0	0.0	2	0.1	20	0.9	14	0.7	23	1.1	3	0.1	0	0.0	62	2.9
	0	0.0	42	2.0	215	10.1	263	12.3	294	13.7	43	2.0	3	0.1	860	40.2

MEAN WIND SPEED: 10.8
 MISSING: 13

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	3	0.1	18	0.8	10	0.5	1	0.0	0	0.0	0	0.0	32	1.5
NNE	0	0.0	3	0.1	17	0.8	5	0.2	0	0.0	0	0.0	0	0.0	25	1.2
NE	0	0.0	7	0.3	25	1.2	2	0.1	0	0.0	0	0.0	0	0.0	34	1.6
ENE	0	0.0	5	0.2	11	0.5	0	0.0	1	0.0	0	0.0	0	0.0	17	0.8
E	0	0.0	5	0.2	12	0.6	0	0.0	0	0.0	0	0.0	0	0.0	17	0.8
ESE	0	0.0	2	0.1	13	0.6	1	0.0	0	0.0	0	0.0	0	0.0	16	0.7
SE	0	0.0	6	0.3	6	0.3	9	0.4	3	0.1	2	0.1	0	0.0	26	1.2
SSE	0	0.0	7	0.3	21	1.0	6	0.3	1	0.0	0	0.0	0	0.0	35	1.6
S	0	0.0	8	0.4	11	0.5	7	0.3	3	0.1	0	0.0	0	0.0	29	1.4
SSW	0	0.0	1	0.0	11	0.5	15	0.7	3	0.1	0	0.0	0	0.0	30	1.4
SW	0	0.0	3	0.1	14	0.7	20	0.9	5	0.2	0	0.0	0	0.0	42	2.0
WSW	0	0.0	1	0.0	24	1.1	15	0.7	0	0.0	0	0.0	0	0.0	40	1.9
W	0	0.0	6	0.3	17	0.8	27	1.3	7	0.3	0	0.0	0	0.0	57	2.7
WNW	0	0.0	6	0.3	40	1.9	28	1.3	8	0.4	2	0.1	0	0.0	84	3.9
NW	0	0.0	7	0.3	26	1.2	42	2.0	11	0.5	0	0.0	0	0.0	86	4.0
NNW	0	0.0	2	0.1	20	0.9	13	0.6	2	0.1	0	0.0	0	0.0	37	1.7
	0	0.0	72	3.4	286	13.4	200	9.4	45	2.1	4	0.2	0	0.0	607	28.4

MEAN WIND SPEED: 7.3
MISSING: 3

OF 30 00 00
WIND: 30 FT
DELTA T: (300-33FT)

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	3	0.1	18	0.8	6	0.3	0	0.0	0	0.0	0	0.0	27	1.3
NNE	0	0.0	3	0.1	9	0.4	0	0.0	0	0.0	0	0.0	0	0.0	12	0.6
NE	0	0.0	2	0.1	7	0.3	0	0.0	0	0.0	0	0.0	0	0.0	9	0.4
ENE	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
E	0	0.0	10	0.5	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	0.5
ESE	0	0.0	5	0.2	8	0.4	1	0.0	0	0.0	0	0.0	0	0.0	14	0.7
SE	0	0.0	5	0.2	12	0.6	14	0.7	2	0.1	1	0.0	0	0.0	34	1.6
SSE	0	0.0	4	0.2	10	0.5	6	0.3	0	0.0	0	0.0	0	0.0	20	0.9
S	0	0.0	7	0.3	6	0.3	3	0.1	4	0.2	0	0.0	0	0.0	20	0.9
SSW	0	0.0	2	0.1	5	0.2	5	0.2	5	0.2	0	0.0	0	0.0	17	0.8
SW	0	0.0	2	0.1	13	0.6	8	0.4	0	0.0	0	0.0	0	0.0	23	1.1
WSW	0	0.0	0	0.0	2	0.1	7	0.3	0	0.0	0	0.0	0	0.0	9	0.4
W	0	0.0	3	0.1	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	9	0.4
WNW	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
NW	0	0.0	1	0.0	11	0.5	4	0.2	0	0.0	0	0.0	0	0.0	16	0.7
NNW	0	0.0	1	0.0	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	6	0.3
	0	0.0	53	2.5	113	5.3	57	2.7	11	0.5	1	0.0	0	0.0	235	11.0

MEAN WIND SPEED: 6.2
MISSING: 0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
NNE	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2
NE	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
E	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	2	0.1	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	6	0.3
SE	0	0.0	1	0.0	21	1.0	38	1.8	10	0.5	3	0.1	0	0.0	73	3.4
SSE	0	0.0	1	0.0	10	0.5	0	0.0	1	0.0	1	0.0	0	0.0	13	0.6
S	0	0.0	1	0.0	6	0.3	1	0.0	0	0.0	0	0.0	0	0.0	8	0.4
SSW	0	0.0	1	0.0	4	0.2	1	0.0	1	0.0	0	0.0	0	0.0	7	0.3
SW	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
WSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
W	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
	0	0.0	10	0.5	58	2.7	41	1.9	12	0.6	4	0.2	0	0.0	125	5.8

MEAN WIND SPEED: 7.9
MISSING: 0

SEE PAGE 10 FOR CONTINUED DATA

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

DIRECTION	WIND SPEED GROUPS (MPH)															
	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	8	0.4	47	2.2	35	1.6	12	0.6	0	0.0	0	0.0	102	4.8
NNE	0	0.0	8	0.4	42	2.0	15	0.7	8	0.4	0	0.0	0	0.0	73	3.4
NE	0	0.0	14	0.7	50	2.3	22	1.0	12	0.6	0	0.0	0	0.0	98	4.6
ENE	0	0.0	18	0.8	26	1.2	10	0.5	2	0.1	0	0.0	0	0.0	56	2.6
E	0	0.0	23	1.1	20	0.9	0	0.0	0	0.0	0	0.0	0	0.0	43	2.0
ESE	0	0.0	10	0.5	31	1.4	5	0.2	0	0.0	0	0.0	0	0.0	46	2.2
SE	0	0.0	15	0.7	54	2.5	77	3.6	23	1.1	7	0.3	0	0.0	176	8.2
SSE	0	0.0	13	0.6	52	2.4	20	0.9	22	1.0	2	0.1	0	0.0	109	5.1
S	0	0.0	19	0.9	45	2.1	25	1.2	17	0.8	0	0.0	0	0.0	106	5.0
SSW	0	0.0	6	0.3	30	1.4	45	2.1	12	0.6	0	0.0	0	0.0	93	4.3
SW	0	0.0	6	0.3	36	1.7	39	1.8	5	0.2	0	0.0	0	0.0	86	4.0
WSW	0	0.0	3	0.1	43	2.0	49	2.3	4	0.2	0	0.0	0	0.0	99	4.6
W	0	0.0	11	0.5	50	2.3	92	4.3	61	2.9	2	0.1	0	0.0	216	10.1
WNW	0	0.0	8	0.4	69	3.2	96	4.5	130	6.1	17	0.8	0	0.0	320	15.0
NW	0	0.0	10	0.5	46	2.2	97	4.5	184	8.6	44	2.1	4	0.2	385	18.0
NNW	0	0.0	5	0.2	47	2.2	36	1.7	38	1.8	5	0.2	0	0.0	131	6.1

0 0.0 177 8.3 688 32.2 663 31.0 530 24.8 77 3.6 4 0.2 2139 100.0

MISSING HOURS: 21

MEAN WIND SPEED: 9.6

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5	0.6-3.5	3.6-7.5	7.6-12.5	12.6-18.5	18.6-24.5	GE 24.6	SUM PERCENT
DIRECTION	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	
N	0	8	47	35	12	0	0	102 4.8
NNE	0	8	42	15	8	0	0	73 3.4
NE	0	14	50	22	12	0	0	98 4.6
ENE	0	18	26	10	2	0	0	56 2.6
E	0	23	20	0	0	0	0	43 2.0
ESE	0	10	31	5	0	0	0	46 2.1
SE	0	15	54	78	23	7	0	177 8.3
SSE	0	13	52	20	22	2	0	109 5.1
S	0	19	45	25	17	0	0	106 4.9
SSW	0	6	30	45	12	0	0	93 4.3
SW	0	6	36	41	5	0	0	88 4.1
WSW	0	3	43	50	4	0	0	100 4.7
W	0	11	50	92	61	2	0	216 10.1
WNW	0	8	69	96	130	17	0	320 14.9
NW	0	10	46	97	184	44	4	385 18.0
NNW	0	5	47	36	38	5	0	131 6.1
	0	177	688	667	530	77	4	2143 100.0

MISSING HOURS: 17

MEAN WIND SPEED: 9.6

0.0-0.5 0.6-3.5 3.6-7.5 7.6-12.5 12.6-18.5 18.6-24.5 GE 24.6

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

0.0 0.0 0.0 0.0 0.0 0.0 0.0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
 CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	4	0.2
SSE	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	3	0.1	0	0.0	7	0.3
WNW	0	0.0	0	0.0	0	0.0	2	0.1	8	0.4	17	0.8	1	0.0	28	1.3
NW	0	0.0	0	0.0	0	0.0	0	0.0	10	0.5	17	0.8	6	0.3	33	1.5
NNW	0	0.0	0	0.0	0	0.0	0	0.0	6	0.4	3	0.1	1	0.0	12	0.6
	0	0.0	0	0.0	0	0.0	12	0.6	39	1.8	42	1.9	8	0.4	101	4.7
MEAN WIND SPEED:	18.2															
MISSING:	0															

WIND SPEED GROUPS (MPH)

WIND DIRECTION

WIND SPEED

WIND DIRECTION

WIND SPEED

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	2	0.1	0	0.0	6	0.3
NNE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
SSE	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	1	0.0	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	0	0.0	1	0.0	5	0.2	0	0.0	0	0.0	6	0.3
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	1	0.0	5	0.2	1	0.0	0	0.0	0	0.0	7	0.3
W	0	0.0	0	0.0	0	0.0	7	0.3	5	0.2	5	0.2	2	0.1	19	0.9
WNW	0	0.0	0	0.0	0	0.0	3	0.1	10	0.5	9	0.4	3	0.1	25	1.2
NW	0	0.0	0	0.0	0	0.0	3	0.1	9	0.4	11	0.5	3	0.1	26	1.2
NNW	0	0.0	0	0.0	0	0.0	0	0.0	8	0.4	0	0.0	1	0.0	9	0.4
	0	0.0	0	0.0	2	0.1	26	1.2	42	1.9	28	1.3	9	0.4	107	5.0

MEAN WIND SPEED: 16.9

MISSING: 0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
 CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	1	0.0	4	0.2	0	0.0	0	0.0	5	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	3	0.1
SSE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	1	0.0	3	0.1	1	0.0	1	0.0	0	0.0	6	0.3
W	0	0.0	0	0.0	0	0.0	3	0.1	5	0.2	3	0.1	0	0.0	11	0.5
WNW	0	0.0	0	0.0	0	0.0	5	0.2	3	0.1	12	0.6	4	0.2	24	1.1
NW	0	0.0	0	0.0	0	0.0	4	0.2	11	0.5	18	0.8	4	0.2	37	1.7
NNW	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	11	0.5	0	0.0	4	0.2
	0	0.0	0	0.0	2	0.1	20	0.9	34	1.6	40	1.9	3	0.1	104	4.8

MEAN WIND SPEED: 17.4
 MISSING: 0

11-57 11-58 11-59 12-00 12-01 12-02 12-03 12-04 12-05 12-06 12-07 12-08 12-09 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 12-29 12-30 1-01 1-02 1-03 1-04 1-05 1-06 1-07 1-08 1-09 1-10 1-11 1-12 1-13 1-14 1-15 1-16 1-17 1-18 1-19 1-20 1-21 1-22 1-23 1-24 1-25 1-26 1-27 1-28 1-29 1-30 2-01 2-02 2-03 2-04 2-05 2-06 2-07 2-08 2-09 2-10 2-11 2-12 2-13 2-14 2-15 2-16 2-17 2-18 2-19 2-20 2-21 2-22 2-23 2-24 2-25 2-26 2-27 2-28 2-29 2-30 3-01 3-02 3-03 3-04 3-05 3-06 3-07 3-08 3-09 3-10 3-11 3-12 3-13 3-14 3-15 3-16 3-17 3-18 3-19 3-20 3-21 3-22 3-23 3-24 3-25 3-26 3-27 3-28 3-29 3-30

WIND SPEED GROUPS (MPH)

11-57 11-58 11-59 12-00 12-01 12-02 12-03 12-04 12-05 12-06 12-07 12-08 12-09 12-10 12-11 12-12 12-13 12-14 12-15 12-16 12-17 12-18 12-19 12-20 12-21 12-22 12-23 12-24 12-25 12-26 12-27 12-28 12-29 12-30 1-01 1-02 1-03 1-04 1-05 1-06 1-07 1-08 1-09 1-10 1-11 1-12 1-13 1-14 1-15 1-16 1-17 1-18 1-19 1-20 1-21 1-22 1-23 1-24 1-25 1-26 1-27 1-28 1-29 1-30 2-01 2-02 2-03 2-04 2-05 2-06 2-07 2-08 2-09 2-10 2-11 2-12 2-13 2-14 2-15 2-16 2-17 2-18 2-19 2-20 2-21 2-22 2-23 2-24 2-25 2-26 2-27 2-28 2-29 2-30 3-01 3-02 3-03 3-04 3-05 3-06 3-07 3-08 3-09 3-10 3-11 3-12 3-13 3-14 3-15 3-16 3-17 3-18 3-19 3-20 3-21 3-22 3-23 3-24 3-25 3-26 3-27 3-28 3-29 3-30

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	7	0.3	8	0.4	8	0.4	9	0.4	0	0.0	33	1.5
NNE	0	0.0	1	0.0	7	0.3	11	0.5	5	0.2	4	0.2	1	0.0	29	1.3
NE	0	0.0	1	0.0	11	0.5	5	0.2	17	0.8	14	0.6	3	0.1	51	2.4
ENE	0	0.0	4	0.2	12	0.6	6	0.3	6	0.3	1	0.0	0	0.0	29	1.3
E	0	0.0	3	0.1	7	0.3	0	0.0	0	0.0	0	0.0	0	0.0	10	0.5
ESE	0	0.0	0	0.0	6	0.3	3	0.1	1	0.0	0	0.0	0	0.0	10	0.5
SE	0	0.0	0	0.0	7	0.3	13	0.6	5	0.2	4	0.2	1	0.0	30	1.4
SSE	0	0.0	1	0.0	10	0.5	4	0.2	17	0.8	6	0.3	1	0.0	39	1.8
S	0	0.0	2	0.1	9	0.4	12	0.6	15	0.7	3	0.1	0	0.0	41	1.9
SSW	0	0.0	3	0.1	6	0.3	13	0.6	11	0.5	0	0.0	0	0.0	33	1.5
SW	0	0.0	0	0.0	3	0.1	5	0.2	8	0.4	0	0.0	0	0.0	16	0.7
WSW	0	0.0	2	0.1	10	0.5	12	0.6	12	0.6	2	0.1	0	0.0	38	1.8
W	0	0.0	0	0.0	14	0.6	29	1.3	44	2.0	21	1.0	0	0.0	108	5.0
WNW	0	0.0	0	0.0	11	0.5	35	1.6	59	2.7	54	2.5	8	0.4	167	7.7
NW	0	0.0	0	0.0	5	0.2	8	0.4	44	2.0	75	3.5	45	2.1	177	8.2
NNW	0	0.0	1	0.0	12	0.6	12	0.6	10	0.5	18	0.8	9	0.4	62	2.9
	0	0.0	19	0.9	137	6.4	176	8.2	262	12.2	211	9.8	68	3.2	873	40.5

MEAN WIND SPEED: 15.0
MISSING: 0

DELTA T: (300-33FT)
WIND: 150 FT
LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	4	0.2	10	0.5	12	0.6	6	0.3	0	0.0	32	1.5
NNE	0	0.0	1	0.0	3	0.1	16	0.7	3	0.1	0	0.0	1	0.0	24	1.1
NE	0	0.0	3	0.1	4	0.2	21	1.0	5	0.2	0	0.0	0	0.0	33	1.5
ENE	0	0.0	0	0.0	7	0.3	8	0.4	1	0.0	0	0.0	0	0.0	16	0.7
E	0	0.0	0	0.0	7	0.3	8	0.4	0	0.0	0	0.0	0	0.0	15	0.7
ESE	0	0.0	0	0.0	3	0.1	7	0.3	1	0.0	0	0.0	0	0.0	11	0.5
SE	0	0.0	1	0.0	2	0.1	5	0.2	4	0.2	4	0.2	4	0.2	20	0.9
SSE	0	0.0	2	0.1	6	0.3	9	0.4	5	0.2	1	0.0	0	0.0	23	1.1
S	0	0.0	3	0.1	9	0.4	14	0.6	3	0.1	4	0.2	0	0.0	33	1.5
SSW	0	0.0	5	0.2	8	0.4	16	0.7	11	0.5	4	0.2	0	0.0	44	2.0
SW	0	0.0	4	0.2	4	0.2	16	0.7	16	0.7	10	0.5	0	0.0	50	2.3
WSW	0	0.0	2	0.1	8	0.4	20	0.9	13	0.6	2	0.1	0	0.0	45	2.1
W	0	0.0	0	0.0	9	0.4	17	0.8	22	1.0	4	0.2	1	0.0	53	2.5
WNW	0	0.0	0	0.0	11	0.5	38	1.8	24	1.1	6	0.3	2	0.1	81	3.8
NW	0	0.0	1	0.0	6	0.3	27	1.3	47	2.2	10	0.5	0	0.0	91	4.2
NNW	0	0.0	2	0.1	3	0.1	22	1.0	8	0.4	4	0.2	0	0.0	39	1.8
	0	0.0	24	1.1	94	4.4	254	11.8	175	8.1	55	2.6	8	0.4	610	28.3

MEAN WIND SPEED: 11.7
MISSING: 0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	2	0.1	2	0.1	12	0.6	1	0.0	0	0.0	17	0.8
NNE	0	0.0	1	0.0	1	0.0	3	0.1	1	0.0	0	0.0	0	0.0	6	0.3
NE	0	0.0	0	0.0	4	0.2	4	0.2	1	0.0	0	0.0	0	0.0	9	0.4
ENE	0	0.0	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	0	0.0	5	0.2
E	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	3	0.1	8	0.4	6	0.3	1	0.0	0	0.0	0	0.0	18	0.8
SE	0	0.0	3	0.1	7	0.3	5	0.2	7	0.3	4	0.2	2	0.1	28	1.3
SSE	0	0.0	1	0.0	5	0.2	0	0.0	3	0.1	2	0.1	0	0.0	11	0.5
S	0	0.0	1	0.0	7	0.3	6	0.3	6	0.3	4	0.2	1	0.0	25	1.2
SSW	0	0.0	0	0.0	8	0.4	10	0.5	5	0.2	9	0.4	1	0.0	33	1.5
SW	0	0.0	0	0.0	4	0.2	9	0.4	9	0.4	3	0.1	0	0.0	25	1.2
WSW	0	0.0	1	0.0	2	0.1	5	0.2	6	0.3	0	0.0	0	0.0	14	0.6
W	0	0.0	0	0.0	3	0.1	3	0.1	1	0.0	0	0.0	0	0.0	7	0.3
WNW	0	0.0	1	0.0	5	0.2	3	0.1	1	0.0	0	0.0	0	0.0	10	0.5
NW	0	0.0	0	0.0	1	0.0	2	0.1	7	0.3	0	0.0	0	0.0	10	0.5
NNW	0	0.0	1	0.0	1	0.0	8	0.4	4	0.2	0	0.0	0	0.0	14	0.6
	0	0.0	13	0.6	64	3.0	67	3.1	64	3.0	23	1.1	4	0.2	235	10.9

MEAN WIND SPEED: 11.1
MISSING: 0

REVISION: 10/10/70
BY: J. B. ...
...
...
...

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	1	0.0	2	0.1	1	0.0	0	0.0	0	0.0	4	0.2
NE	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	2	0.1	5	0.2	2	0.1	5	0.2	10	0.5	24	1.1
SSE	0	0.0	0	0.0	7	0.3	4	0.2	4	0.2	5	0.2	1	0.0	21	1.0
S	0	0.0	1	0.0	4	0.2	18	0.8	13	0.6	1	0.0	0	0.0	37	1.7
SSW	0	0.0	0	0.0	5	0.2	9	0.4	8	0.4	2	0.1	0	0.0	24	1.1
SW	0	0.0	1	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	7	0.3
WSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
W	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
	0	0.0	4	0.2	20	0.9	46	2.1	31	1.4	13	0.6	11	0.5	125	5.8

MEAN WIND SPEED: 13.3
MISSING: 0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	1	0.0	13	0.6	23	1.1	42	1.9	18	0.8	0	0.0	97	4.5
NNE	0	0.0	3	0.1	12	0.6	32	1.5	13	0.6	6	0.3	2	0.1	68	3.2
NE	0	0.0	4	0.2	21	1.0	33	1.5	27	1.3	14	0.6	3	0.1	102	4.7
ENE	0	0.0	4	0.2	23	1.1	18	0.8	7	0.3	1	0.0	0	0.0	53	2.5
E	0	0.0	4	0.2	16	0.7	9	0.4	0	0.0	0	0.0	0	0.0	29	1.3
ESE	0	0.0	4	0.2	17	0.8	18	0.8	3	0.1	0	0.0	0	0.0	42	1.9
SE	0	0.0	4	0.2	18	0.8	30	1.4	24	1.1	19	0.9	17	0.8	112	5.2
SSE	0	0.0	4	0.2	29	1.3	21	1.0	30	1.4	17	0.8	2	0.1	103	4.8
S	0	0.0	7	0.3	29	1.3	51	2.4	37	1.7	13	0.6	1	0.0	138	6.4
SSW	0	0.0	8	0.4	27	1.3	49	2.3	42	1.9	15	0.7	1	0.0	142	6.6
SW	0	0.0	5	0.2	11	0.5	34	1.6	36	1.7	13	0.6	0	0.0	99	4.6
WSW	0	0.0	5	0.2	22	1.0	48	2.2	33	1.5	5	0.2	0	0.0	113	5.2
W	0	0.0	0	0.0	26	1.2	62	2.9	79	3.7	36	1.7	3	0.1	206	9.6
WNW	0	0.0	1	0.0	27	1.3	86	4.0	105	4.9	98	4.5	18	0.8	335	15.5
NW	0	0.0	1	0.0	12	0.6	44	2.0	128	5.9	131	6.1	58	2.7	374	17.4
NNW	0	0.0	5	0.2	16	0.7	43	2.0	41	1.9	26	1.2	11	0.5	142	6.6
	0	0.0	60	2.8	319	14.8	601	27.9	647	30.0	412	19.1	116	5.4	2155	100.0

MISSING HOURS: 5

MEAN WIND SPEED: 13.9

U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 WASHINGTON, D.C. 20541

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	13	0.6	23	1.1	42	1.9	18	0.8	0	0.0	97	4.5
NNE	0	0.0	3	0.1	12	0.6	32	1.5	13	0.6	6	0.3	2	0.1	68	3.1
NE	0	0.0	4	0.2	21	1.0	33	1.5	27	1.3	14	0.6	3	0.1	102	4.7
ENE	0	0.0	4	0.2	23	1.1	18	0.8	7	0.3	1	0.0	0	0.0	53	2.5
E	0	0.0	4	0.2	16	0.7	9	0.4	0	0.0	0	0.0	0	0.0	29	1.3
ESE	0	0.0	4	0.2	17	0.8	18	0.8	3	0.1	0	0.0	0	0.0	42	1.9
SE	0	0.0	4	0.2	18	0.8	30	1.4	24	1.1	19	0.9	17	0.8	112	5.2
SSE	0	0.0	4	0.2	29	1.3	21	1.0	30	1.4	17	0.8	2	0.1	103	4.8
S	0	0.0	7	0.3	29	1.3	51	2.4	37	1.7	14	0.6	1	0.0	139	6.4
SSW	0	0.0	8	0.4	27	1.3	49	2.3	42	1.9	15	0.7	1	0.0	142	6.6
SW	0	0.0	5	0.2	11	0.5	34	1.6	39	1.8	13	0.6	0	0.0	102	4.7
WSW	0	0.0	5	0.2	22	1.0	48	2.2	33	1.5	5	0.2	0	0.0	113	5.2
W	0	0.0	0	0.0	26	1.2	62	2.9	79	3.7	36	1.7	3	0.1	206	9.5
WNW	0	0.0	1	0.0	27	1.3	86	4.0	105	4.9	98	4.5	18	0.8	335	15.5
NW	0	0.0	1	0.0	12	0.6	44	2.0	128	5.9	131	6.1	58	2.7	374	17.3
NNW	0	0.0	5	0.2	16	0.7	43	2.0	41	1.9	26	1.2	11	0.5	142	6.6
	0	0.0	60	2.8	319	14.8	601	27.8	650	30.1	413	19.1	116	5.4	2159	100.0

MISSING HOURS: 10
 MEAN WIND SPEED: 13.9

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	4	0.2
SSE	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	12	0.1	13	0.1
WNW	0	0.0	0	0.0	0	0.0	2	0.1	8	0.4	15	0.7	13	0.1	28	1.3
NW	0	0.0	0	0.0	0	0.0	0	0.0	11	0.0	24	1.1	8	0.4	33	1.6
NNW	0	0.0	0	0.0	0	0.0	0	0.0	15	0.2	16	0.3	2	0.1	13	0.6
0	0	0.0	0	0.0	0	0.0	11	0.5	25	1.2	47	2.2	15	0.7	98	4.7

MEAN WIND SPEED: 19.8
MISSING: 3

WIND SPEED GROUPS (MPH)

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
 CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	5	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
SSE	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	1	0.0	0	0.0	4	0.2
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	0	0.0	1	0.0	4	0.2	1	0.0	0	0.0	6	0.3
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	6	0.3	1	0.0	0	0.0	0	0.0	7	0.3
W	0	0.0	0	0.0	0	0.0	4	0.2	6	0.3	4	0.2	3	0.1	17	0.8
WNW	0	0.0	0	0.0	0	0.0	2	0.1	5	0.2	15	0.7	6	0.3	26	1.2
NW	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	16	0.8	4	0.2	26	1.2
NNW	0	0.0	0	0.0	0	0.0	1	0.0	6	0.3	2	0.1	1	0.0	10	0.5
	0	0.0	0	0.0	0	0.0	22	1.0	30	1.4	39	1.9	15	0.7	106	5.0

MEAN WIND SPEED: 18.5
 MISSING: 1

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
 CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	2	0.1	0	0.0	5	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	3	0.1
SSE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	5	0.2
W	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	5	0.2	2	0.1	11	0.5
WNW	0	0.0	0	0.0	0	0.0	5	0.2	3	0.1	7	0.3	8	0.4	23	1.1
NW	0	0.0	0	0.0	0	0.0	2	0.1	9	0.4	19	0.9	5	0.2	35	1.7
NNW	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	3	0.1	0	0.0	5	0.2
	0	0.0	0	0.0	1	0.0	18	0.9	26	1.2	41	1.9	15	0.7	101	4.8

MEAN WIND SPEED: 18.9
 MISSING: 3

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	6	0.3	5	0.2	13	0.6	1	0.0	6	0.3	32	1.5
NNE	0	0.0	0	0.0	3	0.1	9	0.4	2	0.1	7	0.3	1	0.0	22	1.0
NE	0	0.0	0	0.0	10	0.5	6	0.3	13	0.6	13	0.6	0	0.0	42	2.0
ENE	0	0.0	1	0.0	11	0.5	8	0.4	4	0.2	0	0.0	0	0.0	24	1.1
E	0	0.0	2	0.1	10	0.5	1	0.0	0	0.0	0	0.0	0	0.0	13	0.6
ESE	0	0.0	2	0.1	6	0.3	3	0.1	1	0.0	0	0.0	0	0.0	12	0.6
SE	0	0.0	0	0.0	5	0.2	7	0.3	6	0.3	4	0.2	2	0.1	24	1.1
SSE	0	0.0	0	0.0	10	0.5	4	0.2	11	0.5	6	0.3	1	0.0	32	1.5
S	0	0.0	0	0.0	12	0.6	15	0.7	16	0.8	7	0.3	1	0.0	51	2.4
SSW	0	0.0	0	0.0	3	0.1	8	0.4	18	0.9	1	0.0	0	0.0	30	1.4
SW	0	0.0	0	0.0	4	0.2	5	0.2	9	0.4	0	0.0	0	0.0	18	0.9
WSW	0	0.0	2	0.1	7	0.3	10	0.5	13	0.6	3	0.1	0	0.0	35	1.7
W	0	0.0	0	0.0	11	0.5	22	1.0	36	1.7	23	1.1	5	0.2	97	4.6
WNW	0	0.0	0	0.0	10	0.5	24	1.1	39	1.9	71	3.4	28	1.3	172	8.2
NW	0	0.0	0	0.0	6	0.3	5	0.2	29	1.4	70	3.3	62	2.9	172	8.2
NNW	0	0.0	0	0.0	10	0.5	12	0.6	7	0.3	13	0.6	16	0.8	58	2.8
	0	0.0	8	0.4	124	5.9	144	6.8	217	10.3	219	10.4	122	5.8	834	39.6

MEAN WIND SPEED: 16.4
MISSING: 39

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	4	0.2	8	0.4	8	0.4	12	0.6	1	0.0	33	1.6
NNE	0	0.0	0	0.0	3	0.1	4	0.2	5	0.2	4	0.2	0	0.0	16	0.8
NE	0	0.0	0	0.0	2	0.1	19	0.9	9	0.4	0	0.0	0	0.0	30	1.4
ENE	0	0.0	2	0.1	0	0.0	11	0.5	4	0.2	0	0.0	0	0.0	17	0.8
E	0	0.0	0	0.0	6	0.3	6	0.3	2	0.1	0	0.0	0	0.0	14	0.7
ESE	0	0.0	0	0.0	0	0.0	5	0.2	7	0.3	1	0.0	0	0.0	13	0.6
SE	0	0.0	1	0.0	5	0.2	5	0.2	4	0.2	2	0.1	6	0.3	23	1.1
SSE	0	0.0	0	0.0	3	0.1	7	0.3	3	0.1	0	0.0	0	0.0	13	0.6
S	0	0.0	1	0.0	4	0.2	8	0.4	5	0.2	5	0.2	0	0.0	23	1.1
SSW	0	0.0	3	0.1	3	0.1	17	0.8	19	0.9	5	0.2	3	0.1	50	2.4
SW	0	0.0	0	0.0	5	0.2	14	0.7	22	1.0	15	0.7	3	0.1	59	2.8
WSW	0	0.0	0	0.0	7	0.3	15	0.7	17	0.8	3	0.1	0	0.0	42	2.0
W	0	0.0	2	0.1	5	0.2	20	1.0	16	0.8	11	0.5	2	0.1	56	2.7
WNW	0	0.0	0	0.0	7	0.3	13	0.6	36	1.7	16	0.8	6	0.3	78	3.7
NW	0	0.0	0	0.0	3	0.1	12	0.6	51	2.4	29	1.4	1	0.0	96	4.6
NNW	0	0.0	1	0.0	2	0.1	17	0.8	15	0.7	11	0.5	0	0.0	46	2.2
	0	0.0	10	0.5	59	2.8	181	8.6	223	10.6	114	5.4	22	1.0	609	28.9

MEAN WIND SPEED: 14.3
MISSING: 1

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
 CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	1	0.0	4	0.2	8	0.4	8	0.4	0	0.0	21	1.0
NNE	0	0.0	0	0.0	1	0.0	1	0.0	2	0.1	0	0.0	0	0.0	4	0.2
NE	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	1	0.0	4	0.2	1	0.0	2	0.1	0	0.0	0	0.0	8	0.4
E	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	1	0.0	2	0.1	5	0.2	1	0.0	0	0.0	0	0.0	9	0.4
SE	0	0.0	1	0.0	2	0.1	5	0.2	3	0.1	2	0.1	2	0.1	15	0.7
SSE	0	0.0	0	0.0	4	0.2	7	0.3	4	0.2	3	0.1	1	0.0	19	0.9
S	0	0.0	0	0.0	4	0.2	4	0.2	3	0.1	3	0.1	1	0.0	15	0.7
SSW	0	0.0	0	0.0	5	0.2	13	0.6	12	0.6	14	0.7	3	0.1	47	2.2
SW	0	0.0	0	0.0	3	0.1	13	0.6	7	0.3	12	0.6	1	0.0	36	1.7
WSW	0	0.0	1	0.0	2	0.1	5	0.2	5	0.2	4	0.2	0	0.0	17	0.8
W	0	0.0	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	6	0.3
WNW	0	0.0	0	0.0	4	0.2	0	0.0	4	0.2	0	0.0	0	0.0	8	0.4
NW	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	4	0.2	0	0.0	9	0.4
NNW	0	0.0	0	0.0	0	0.0	6	0.3	6	0.3	3	0.1	0	0.0	15	0.7
	0	0.0	4	0.2	40	1.9	70	3.3	60	2.9	53	2.5	8	0.4	235	11.2

MEAN WIND SPEED: 13.5
 MISSING: 0.0

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
 CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	3	0.1
NE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	3	0.1
ENE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	1	0.0	0	0.0	4	0.2
SSE	0	0.0	0	0.0	0	0.0	1	0.0	4	0.2	2	0.1	3	0.1	10	0.5
S	0	0.0	0	0.0	1	0.0	6	0.3	12	0.6	6	0.3	3	0.1	28	1.3
SSW	0	0.0	0	0.0	4	0.2	13	0.6	21	1.0	6	0.3	0	0.0	44	2.1
SW	0	0.0	1	0.0	1	0.0	6	0.3	10	0.5	5	0.2	0	0.0	23	1.1
WSW	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
WNW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
	0	0.0	1	0.0	10	0.5	32	1.5	50	2.4	22	1.0	6	0.3	121	5.8

MEAN WIND SPEED: 15.2

MISSING: 4

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	11	0.5	18	0.9	37	1.8	25	1.2	8	0.4	100	4.8
NNE	0	0.0	0	0.0	7	0.3	17	0.8	12	0.6	13	0.6	1	0.0	50	2.4
NE	0	0.0	0	0.0	16	0.8	28	1.3	25	1.2	15	0.7	0	0.0	84	4.0
ENE	0	0.0	4	0.2	16	0.8	22	1.0	10	0.5	0	0.0	0	0.0	52	2.5
E	0	0.0	2	0.1	19	0.9	9	0.4	2	0.1	0	0.0	0	0.0	32	1.5
ESE	0	0.0	3	0.1	8	0.4	15	0.7	9	0.4	1	0.0	0	0.0	36	1.7
SE	0	0.0	2	0.1	14	0.7	19	0.9	19	0.9	11	0.5	10	0.5	75	3.6
SSE	0	0.0	0	0.0	17	0.8	25	1.2	23	1.1	14	0.7	5	0.2	84	4.0
S	0	0.0	1	0.0	21	1.0	34	1.6	36	1.7	22	1.0	5	0.2	119	5.7
SSW	0	0.0	3	0.1	15	0.7	52	2.5	76	3.6	27	1.3	6	0.3	179	8.5
SW	0	0.0	1	0.0	13	0.6	38	1.8	49	2.3	32	1.5	4	0.2	137	6.5
WSW	0	0.0	3	0.1	16	0.8	42	2.0	39	1.9	10	0.5	0	0.0	110	5.2
W	0	0.0	2	0.1	16	0.8	53	2.5	63	3.0	43	2.0	14	0.7	191	9.1
WNW	0	0.0	0	0.0	21	1.0	47	2.2	95	4.5	122	5.8	51	2.4	336	16.0
NW	0	0.0	0	0.0	11	0.5	23	1.1	95	4.5	162	7.7	80	3.8	371	17.6
NNW	0	0.0	1	0.0	13	0.6	36	1.7	41	1.9	38	1.8	19	0.9	148	7.0
	0	0.0	23	1.1	234	11.1	478	22.7	631	30.0	535	25.4	203	9.6	2104	100.0

MISSING HOURS: 56

MEAN WIND SPEED: 15.8

ARTIFICIAL ISLAND 01/07-03/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	11	0.5	18	0.9	37	1.8	25	1.2	8	0.4	100	4.7
NNE	0	0.0	0	0.0	7	0.3	17	0.8	12	0.6	13	0.6	1	0.0	50	2.4
NE	0	0.0	0	0.0	16	0.8	28	1.3	25	1.2	15	0.7	0	0.0	84	4.0
ENE	0	0.0	4	0.2	16	0.8	22	1.0	10	0.5	0	0.0	0	0.0	52	2.5
E	0	0.0	2	0.1	19	0.9	9	0.4	2	0.1	0	0.0	0	0.0	32	1.5
ESE	0	0.0	3	0.1	8	0.4	15	0.7	9	0.4	1	0.0	0	0.0	36	1.7
SE	0	0.0	2	0.1	14	0.7	19	0.9	19	0.9	11	0.5	10	0.5	75	3.6
SSE	0	0.0	0	0.0	17	0.8	25	1.2	23	1.1	14	0.7	5	0.2	84	4.0
S	0	0.0	1	0.0	21	1.0	34	1.6	36	1.7	22	1.0	5	0.2	119	5.6
SSW	0	0.0	3	0.1	15	0.7	52	2.5	76	3.6	28	1.3	6	0.3	180	8.5
SW	0	0.0	1	0.0	13	0.6	38	1.8	50	2.4	34	1.6	4	0.2	140	6.6
WSW	0	0.0	3	0.1	16	0.8	42	2.0	39	1.9	10	0.5	0	0.0	110	5.2
W	0	0.0	2	0.1	16	0.8	53	2.5	63	3.0	43	2.0	14	0.7	191	9.1
WNW	0	0.0	0	0.0	21	1.0	47	2.2	95	4.5	122	5.8	51	2.4	336	15.9
NW	0	0.0	0	0.0	11	0.5	23	1.1	95	4.5	162	7.7	80	3.8	371	17.6
NNW	0	0.0	1	0.0	13	0.6	36	1.7	41	1.9	38	1.8	19	0.9	148	7.0
	0	0.0	23	1.1	234	11.1	478	22.7	632	30.0	538	25.5	203	9.6	2108	100.0

MISSING HOURS: 52

MEAN WIND SPEED: 15.8

FILED AT (DATE)

CLASS

WIND: 300 FT

ARTIFICIAL ISLAND 01/07-03/07

Lapse Rate
Wind Distributions
300-33 Foot

4/2007 - 6/2007

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
 CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	1	0.0	3	0.1	10	0.5	1	0.0	0	0.0	0	0.0	15	0.7
NNE	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	1	0.0	0	0.0	5	0.2
NE	0	0.0	1	0.0	1	0.0	17	0.8	5	0.2	0	0.0	0	0.0	24	1.2
ENE	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
E	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	2	0.1	5	0.2	12	0.6	2	0.1	0	0.0	21	1.0
SSE	0	0.0	0	0.0	10	0.5	2	0.1	9	0.4	1	0.0	0	0.0	22	1.1
S	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SSW	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2
SW	0	0.0	1	0.0	3	0.1	3	0.1	0	0.0	0	0.0	0	0.0	7	0.3
WSW	0	0.0	0	0.0	4	0.2	5	0.2	2	0.1	0	0.0	0	0.0	11	0.5
W	0	0.0	0	0.0	0	0.0	9	0.4	11	0.5	1	0.0	0	0.0	21	1.0
WNW	0	0.0	0	0.0	3	0.1	2	0.1	2	0.1	0	0.0	0	0.0	7	0.3
NW	0	0.0	0	0.0	2	0.1	21	1.0	12	0.6	0	0.0	0	0.0	35	1.7
NNW	0	0.0	0	0.0	6	0.3	16	0.8	7	0.3	0	0.0	0	0.0	29	1.4
	0	0.0	3	0.1	45	2.2	96	4.8	62	3.1	5	0.2	0	0.0	211	10.5

MEAN WIND SPEED: 11.0
 MISSING: 5

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	1	0.0	8	0.4	6	0.3	1	0.0	0	0.0	0	0.0	16	0.8
NNE	0	0.0	0	0.0	5	0.2	4	0.2	0	0.0	1	0.0	0	0.0	10	0.5
NE	0	0.0	1	0.0	4	0.2	4	0.2	0	0.0	0	0.0	0	0.0	9	0.4
ENE	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	1	0.0	4	0.2	3	0.1	0	0.0	0	0.0	8	0.4
SSE	0	0.0	0	0.0	1	0.0	0	0.0	3	0.1	1	0.0	0	0.0	5	0.2
S	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0	4	0.2
SSW	0	0.0	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	0	0.0	5	0.2
SW	0	0.0	0	0.0	7	0.3	2	0.1	2	0.1	0	0.0	0	0.0	11	0.5
WSW	0	0.0	0	0.0	4	0.2	3	0.1	1	0.0	0	0.0	0	0.0	8	0.4
W	0	0.0	0	0.0	6	0.3	4	0.2	5	0.2	1	0.0	0	0.0	16	0.8
WNW	0	0.0	0	0.0	2	0.1	6	0.3	5	0.2	1	0.0	0	0.0	14	0.7
NW	0	0.0	0	0.0	0	0.0	4	0.2	6	0.3	0	0.0	0	0.0	10	0.5
NNW	0	0.0	0	0.0	7	0.3	8	0.4	2	0.1	0	0.0	0	0.0	17	0.8
	0	0.0	2	0.1	55	2.7	50	2.5	28	1.4	4	0.2	0	0.0	139	6.9

MEAN WIND SPEED: 9.3
MISSING: 6

ARTIFICIAL ISLAND 04/07-06/07

WIND: 30 FT

DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M

CLASS B

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
 CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	1	0.0	5	0.2	0	0.0	0	0.0	0	0.0	6	0.3
NE	0	0.0	1	0.0	4	0.2	4	0.2	0	0.0	0	0.0	0	0.0	9	0.4
ENE	0	0.0	0	0.0	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
E	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
SE	0	0.0	0	0.0	2	0.1	5	0.2	7	0.3	0	0.0	0	0.0	14	0.7
SSE	0	0.0	1	0.0	1	0.0	4	0.2	5	0.2	0	0.0	0	0.0	11	0.5
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	1	0.0	5	0.2	1	0.0	0	0.0	0	0.0	0	0.0	7	0.3
SW	0	0.0	1	0.0	2	0.1	0	0.0	2	0.1	0	0.0	0	0.0	5	0.2
WSW	0	0.0	0	0.0	4	0.2	2	0.1	1	0.0	0	0.0	0	0.0	7	0.3
W	0	0.0	0	0.0	1	0.0	8	0.4	2	0.1	2	0.1	0	0.0	13	0.6
WNW	0	0.0	0	0.0	4	0.2	6	0.3	4	0.2	0	0.0	0	0.0	14	0.7
NW	0	0.0	1	0.0	1	0.0	4	0.2	0	0.0	0	0.0	0	0.0	6	0.3
NNW	0	0.0	0	0.0	2	0.1	5	0.2	2	0.1	0	0.0	0	0.0	9	0.4
	0	0.0	5	0.2	39	1.9	48	2.4	23	1.1	2	0.1	0	0.0	117	5.8

MEAN WIND SPEED: 9.4
 MISSING: 5.0

ARTIFICIAL ISLAND
 JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	4	0.2	9	0.4	23	1.1	3	0.1	0	0.0	0	0.0	39	1.9
NNE	0	0.0	3	0.1	19	0.9	14	0.7	1	0.0	1	0.0	0	0.0	38	1.9
NE	0	0.0	5	0.2	30	1.5	26	1.3	0	0.0	0	0.0	0	0.0	61	3.0
ENE	0	0.0	4	0.2	23	1.1	14	0.7	0	0.0	0	0.0	0	0.0	41	2.0
E	0	0.0	6	0.3	17	0.8	9	0.4	2	0.1	0	0.0	0	0.0	34	1.7
ESE	0	0.0	5	0.2	10	0.5	15	0.7	7	0.3	0	0.0	0	0.0	37	1.8
SE	0	0.0	1	0.0	10	0.5	35	1.7	38	1.9	3	0.1	0	0.0	87	4.3
SSE	0	0.0	3	0.1	18	0.9	23	1.1	13	0.6	0	0.0	0	0.0	57	2.8
S	0	0.0	5	0.2	25	1.2	30	1.5	2	0.1	0	0.0	0	0.0	62	3.1
SSW	0	0.0	4	0.2	30	1.5	8	0.4	1	0.0	0	0.0	0	0.0	43	2.1
SW	0	0.0	6	0.3	10	0.5	11	0.5	13	0.6	0	0.0	0	0.0	40	2.0
WSW	0	0.0	3	0.1	20	1.0	14	0.7	7	0.3	0	0.0	0	0.0	44	2.2
W	0	0.0	1	0.0	11	0.5	17	0.8	26	1.3	3	0.1	0	0.0	58	2.9
WNW	0	0.0	1	0.0	9	0.4	24	1.2	21	1.0	7	0.3	10	0.5	72	3.6
NW	0	0.0	6	0.3	5	0.2	18	0.9	6	0.3	6	0.3	2	0.1	43	2.1
NNW	0	0.0	4	0.2	11	0.5	14	0.7	24	1.2	6	0.3	0	0.0	59	2.9
	0	0.0	61	3.0	257	12.8	295	14.7	164	8.2	26	1.2	12	0.6	815	40.6

MEAN WIND SPEED: 9.5
MISSING: 13

WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	1	0.0	14	0.7	1	0.0	0	0.0	0	0.0	0	0.0	16	0.8
NNE	0	0.0	0	0.0	15	0.7	2	0.1	0	0.0	0	0.0	0	0.0	17	0.8
NE	0	0.0	2	0.1	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	6	0.3
ENE	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	6	0.3
E	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	6	0.3
ESE	0	0.0	1	0.0	7	0.3	3	0.1	0	0.0	0	0.0	0	0.0	11	0.5
SE	0	0.0	0	0.0	8	0.4	14	0.7	0	0.0	0	0.0	0	0.0	22	1.1
SSE	0	0.0	2	0.1	9	0.4	2	0.1	0	0.0	0	0.0	0	0.0	13	0.6
S	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SSW	0	0.0	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	6	0.3
SW	0	0.0	1	0.0	6	0.3	5	0.2	2	0.1	0	0.0	0	0.0	14	0.7
WSW	0	0.0	2	0.1	8	0.4	2	0.1	0	0.0	0	0.0	0	0.0	12	0.6
W	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
WNW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NW	0	0.0	2	0.1	1	0.0	3	0.1	0	0.0	0	0.0	0	0.0	6	0.3
NNW	0	0.0	2	0.1	2	0.1	4	0.2	0	0.0	0	0.0	0	0.0	8	0.4
	0	0.0	21	1.0	82	4.1	43	2.1	4	0.2	0	0.0	0	0.0	150	7.5

MEAN WIND SPEED: 6.5
MISSING: 19

WIND SPEED GROUPS (MPH)

WIND DIRECTION

WIND SPEED

WIND DIRECTION

WIND SPEED

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
 CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NNE	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SE	0	0.0	0	0.0	7	0.3	7	0.3	0	0.0	0	0.0	0	0.0	14	0.7
SSE	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	6	0.3
S	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	3	0.1
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
WSW	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
W	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WNW	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
NW	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NNW	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
	0	0.0	5	0.2	24	1.2	12	0.6	2	0.1	0	0.0	0	0.0	43	2.1

MEAN WIND SPEED: 6.6
 MISSING: 0

ARTIFICIAL ISLAND 04/07-06/07
 WIND: 30 FT
 DELTA T: (300-33FT)

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	12	0.6	56	2.8	47	2.3	7	0.3	0	0.0	0	0.0	122	6.1
NNE	0	0.0	7	0.3	66	3.3	31	1.5	4	0.2	3	0.1	0	0.0	111	5.5
NE	0	0.0	16	0.8	57	2.8	55	2.7	6	0.3	0	0.0	0	0.0	134	6.7
ENE	0	0.0	10	0.5	40	2.0	18	0.9	0	0.0	0	0.0	0	0.0	68	3.4
E	0	0.0	18	0.9	31	1.5	11	0.5	3	0.1	0	0.0	0	0.0	63	3.1
ESE	0	0.0	12	0.6	33	1.6	26	1.3	7	0.3	0	0.0	0	0.0	78	3.9
SE	0	0.0	5	0.2	51	2.5	123	6.1	69	3.4	5	0.2	0	0.0	253	12.6
SSE	0	0.0	7	0.3	61	3.0	43	2.1	32	1.6	2	0.1	0	0.0	145	7.2
S	0	0.0	9	0.4	44	2.2	35	1.7	4	0.2	0	0.0	0	0.0	92	4.6
SSW	0	0.0	11	0.5	54	2.7	25	1.2	4	0.2	0	0.0	0	0.0	94	4.7
SW	0	0.0	18	0.9	52	2.6	32	1.6	23	1.1	0	0.0	0	0.0	125	6.2
WSW	0	0.0	10	0.5	62	3.1	34	1.7	12	0.6	0	0.0	0	0.0	118	5.9
W	0	0.0	4	0.2	35	1.7	48	2.4	44	2.2	7	0.3	0	0.0	138	6.9
WNW	0	0.0	7	0.3	43	2.1	48	2.4	33	1.6	8	0.4	10	0.5	149	7.4
NW	0	0.0	15	0.7	26	1.3	68	3.4	28	1.4	6	0.3	2	0.1	145	7.2
NNW	0	0.0	12	0.6	53	2.6	65	3.2	36	1.8	6	0.3	0	0.0	172	8.6
	0	0.0	173	8.6	764	38.1	709	35.3	312	15.5	37	1.8	12	0.6	2007	100.0

MISSING HOURS: 177

MEAN WIND SPEED: 8.17

WIND SPEED AND DIRECTION

WIND DIRECTION

WIND SPEED

WIND DIRECTION AND SPEED

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

DIRECTION	WIND SPEED GROUPS (MPH)															
	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	12	0.6	59	2.8	49	2.3	7	0.3	0	0.0	0	0.0	127	6.0
NNE	0	0.0	7	0.3	66	3.1	36	1.7	7	0.3	3	0.1	0	0.0	119	5.6
NE	0	0.0	17	0.8	59	2.8	55	2.6	6	0.3	0	0.0	0	0.0	137	6.5
ENE	0	0.0	11	0.5	40	1.9	18	0.9	0	0.0	0	0.0	0	0.0	69	3.3
E	0	0.0	18	0.9	32	1.5	11	0.5	3	0.1	0	0.0	0	0.0	64	3.0
ESE	0	0.0	12	0.6	35	1.7	26	1.2	7	0.3	0	0.0	0	0.0	80	3.8
SE	0	0.0	5	0.2	58	2.8	137	6.5	75	3.6	5	0.2	0	0.0	280	13.3
SSE	0	0.0	7	0.3	66	3.1	45	2.1	36	1.7	4	0.2	0	0.0	158	7.5
S	0	0.0	9	0.4	49	2.3	35	1.7	4	0.2	0	0.0	0	0.0	97	4.6
SSW	0	0.0	13	0.6	61	2.9	25	1.2	4	0.2	0	0.0	0	0.0	103	4.9
SW	0	0.0	18	0.9	58	2.8	33	1.6	23	1.1	0	0.0	0	0.0	132	6.3
WSW	0	0.0	10	0.5	65	3.1	36	1.7	12	0.6	0	0.0	0	0.0	123	5.8
W	0	0.0	4	0.2	39	1.8	50	2.4	44	2.1	7	0.3	0	0.0	144	6.8
WNN	0	0.0	8	0.4	44	2.1	48	2.3	33	1.6	8	0.4	10	0.5	151	7.2
NW	0	0.0	17	0.8	27	1.3	69	3.3	28	1.3	6	0.3	2	0.1	149	7.1
NNW	0	0.0	12	0.6	56	2.7	65	3.1	37	1.8	6	0.3	0	0.0	176	8.3
	0	0.0	180	8.5	814	38.6	738	35.0	326	15.5	39	1.8	12	0.6	2109	100.0
MISSING HOURS:	75															
MEAN WIND SPEED:	8.6															

U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 OFFICE OF MARINE AND COAST GUARD SURVEILLANCE
 WASHINGTON, D.C. 20540

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	0	0.0	8	0.4	4	0.2	0	0.0	0	0.0	12	0.6
NNE	0	0.0	0	0.0	1	0.0	4	0.2	2	0.1	2	0.1	1	0.0	10	0.5
NE	0	0.0	1	0.0	1	0.0	8	0.4	8	0.4	3	0.1	0	0.0	21	1.0
ENE	0	0.0	0	0.0	1	0.0	3	0.1	1	0.0	0	0.0	0	0.0	5	0.2
E	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	1	0.0	4	0.2	6	0.3	9	0.4	3	0.1	23	1.1
SSE	0	0.0	0	0.0	4	0.2	7	0.3	1	0.0	9	0.4	0	0.0	21	1.0
S	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SSW	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	3	0.1	1	0.0	3	0.1	0	0.0	0	0.0	7	0.3
WSW	0	0.0	0	0.0	0	0.0	6	0.3	3	0.1	2	0.1	0	0.0	11	0.5
W	0	0.0	0	0.0	1	0.0	3	0.1	10	0.5	7	0.3	1	0.0	22	1.1
WNW	0	0.0	0	0.0	1	0.0	2	0.1	2	0.1	2	0.1	0	0.0	7	0.3
NW	0	0.0	0	0.0	2	0.1	9	0.4	20	1.0	35	0.3	0	0.0	37	1.8
NNW	0	0.0	0	0.0	7	0.3	8	0.4	17	0.8	11	0.5	0	0.0	33	1.6
TOTAL	0	0.0	1	0.0	26	1.2	66	3.2	77	3.7	41	2.0	5	0.2	215	10.4
MEAN WIND SPEED:	13.8															
MISSING:	0															

WIND SPEED GROUPS (MPH)

ARTIFICIAL ISLAND 04/07-06/07
JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 150 FT
DELTA T: (300-33FT)

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	5	0.2	5	0.2	1	0.0	1	0.0	0	0.0	12	0.6
NNE	0	0.0	1	0.0	5	0.2	5	0.2	2	0.1	0	0.0	1	0.0	14	0.7
NE	0	0.0	0	0.0	2	0.1	7	0.3	1	0.0	0	0.0	0	0.0	10	0.5
ENE	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	2	0.1
E	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	2	0.1	0	0.0	6	0.3
SSE	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	4	0.2	0	0.0	6	0.3
S	0	0.0	0	0.0	3	0.1	1	0.0	1	0.0	0	0.0	0	0.0	5	0.2
SSW	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
SW	0	0.0	0	0.0	6	0.3	0	0.0	2	0.1	2	0.1	0	0.0	10	0.5
WSW	0	0.0	0	0.0	5	0.2	3	0.1	1	0.0	1	0.0	0	0.0	10	0.5
W	0	0.0	0	0.0	3	0.1	6	0.3	3	0.1	3	0.1	1	0.0	16	0.8
WNW	0	0.0	0	0.0	1	0.0	4	0.2	5	0.2	4	0.2	1	0.0	15	0.7
NW	0	0.0	0	0.0	3	0.1	2	0.1	5	0.2	2	0.1	0	0.0	12	0.6
NNW	0	0.0	0	0.0	3	0.1	8	0.4	6	0.3	2	0.1	0	0.0	19	0.9
ALL	0	0.0	1	0.0	42	2.0	46	2.2	31	1.5	22	1.1	3	0.1	145	7.0
MEAN WIND SPEED:	11.7															
MISSING:	0															

PROPERTY OF (NAME)
DATE (DATE)
LOCATION (LOCATION)
PERIOD OF WIND BY STATION AND BASED

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
 CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
NNE	0	0.0	0	0.0	0	0.0	5	0.2	1	0.0	0	0.0	0	0.0	6	0.3
NE	0	0.0	0	0.0	5	0.2	3	0.1	2	0.1	0	0.0	0	0.0	10	0.5
ENE	0	0.0	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	0	0.0	5	0.2
E	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
SE	0	0.0	0	0.0	2	0.1	2	0.1	2	0.1	4	0.2	3	0.1	13	0.6
SSE	0	0.0	0	0.0	0	0.0	4	0.2	4	0.2	2	0.1	0	0.0	10	0.5
S	0	0.0	2	0.1	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SSW	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
SW	0	0.0	0	0.0	5	0.2	0	0.0	0	0.0	2	0.1	0	0.0	7	0.3
WSW	0	0.0	0	0.0	2	0.1	3	0.1	1	0.0	1	0.0	0	0.0	7	0.3
W	0	0.0	0	0.0	0	0.0	9	0.4	2	0.1	2	0.1	2	0.1	15	0.7
WNW	0	0.0	0	0.0	5	0.2	1	0.0	5	0.2	3	0.1	0	0.0	14	0.7
NW	0	0.0	1	0.0	2	0.1	2	0.1	4	0.2	0	0.0	0	0.0	9	0.4
NNW	0	0.0	0	0.0	3	0.1	3	0.1	2	0.1	2	0.1	0	0.0	10	0.5
MEAN																
	0	0.0	3	0.1	33	1.5	40	1.9	25	1.2	15	0.3	5	0.2	122	5.9
MEAN WIND SPEED:	11.9															
MISSING:	0															

MEAN WIND SPEED: 11.9
 MISSING: 0

0.0-0.5 0.6-3.5 3.6-7.5 7.6-12.5 12.6-18.5 18.6-24.5 GE 24.6

122 5.9

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	8	0.4	9	0.4	17	0.8	4	0.2	1	0.0	40	1.9
NNE	0	0.0	2	0.1	9	0.4	16	0.8	9	0.4	1	0.0	1	0.0	38	1.8
NE	0	0.0	3	0.1	12	0.6	29	1.4	18	0.9	0	0.0	0	0.0	62	3.0
ENE	0	0.0	5	0.2	21	1.0	17	0.8	6	0.3	0	0.0	0	0.0	49	2.4
E	0	0.0	2	0.1	8	0.4	12	0.6	5	0.2	1	0.0	0	0.0	28	1.3
ESE	0	0.0	2	0.1	4	0.2	9	0.4	12	0.6	8	0.4	0	0.0	35	1.7
SE	0	0.0	1	0.0	9	0.4	15	0.7	30	1.4	26	1.2	6	0.3	87	4.2
SSE	0	0.0	0	0.0	13	0.6	20	1.0	20	1.0	5	0.2	1	0.0	59	2.8
S	0	0.0	6	0.3	21	1.0	27	1.3	9	0.4	1	0.0	0	0.0	64	3.1
SSW	0	0.0	4	0.2	16	0.8	18	0.9	5	0.2	0	0.0	0	0.0	43	2.1
SW	0	0.0	2	0.1	11	0.5	9	0.4	11	0.5	13	0.6	1	0.0	47	2.3
WSW	0	0.0	3	0.1	10	0.5	15	0.7	5	0.2	5	0.2	2	0.1	40	1.9
W	0	0.0	1	0.0	10	0.5	9	0.4	29	1.4	10	0.5	3	0.1	62	3.0
WNW	0	0.0	0	0.0	7	0.3	12	0.6	20	1.0	15	0.7	18	0.9	72	3.5
NW	0	0.0	3	0.1	4	0.2	9	0.4	14	0.7	5	0.2	8	0.4	43	2.1
NNW	0	0.0	4	0.2	9	0.4	7	0.3	8	0.4	20	1.0	11	0.5	59	2.8
	0	0.0	39	1.9	172	8.3	233	11.2	218	10.5	114	5.5	52	2.5	828	39.8
MEAN WIND SPEED:	12.9															
MISSING:	0															

WIND DIRECTION

WIND SPEED

ATMOSPHERIC STABILITY CLASS

ARTIFICIAL ISLAND

PERIOD OF RECORD

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
 CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	7	0.3	11	0.5	7	0.3	1	0.0	1	0.0	28	1.3
NNE	0	0.0	1	0.0	5	0.2	18	0.9	7	0.3	1	0.0	1	0.0	33	1.6
NE	0	0.0	3	0.1	4	0.2	14	0.7	2	0.1	1	0.0	0	0.0	24	1.2
ENE	0	0.0	1	0.0	10	0.5	4	0.2	1	0.0	0	0.0	0	0.0	16	0.8
E	0	0.0	2	0.1	7	0.3	5	0.2	2	0.1	0	0.0	0	0.0	16	0.8
ESE	0	0.0	0	0.0	2	0.1	6	0.3	4	0.2	0	0.0	0	0.0	12	0.6
SE	0	0.0	1	0.0	10	0.5	28	1.3	33	1.8	11	0.5	1	0.0	89	4.3
SSE	0	0.0	1	0.0	8	0.4	16	0.8	8	0.4	1	0.0	0	0.0	34	1.6
S	0	0.0	2	0.1	12	0.6	7	0.3	1	0.0	0	0.0	0	0.0	22	1.1
SSW	0	0.0	5	0.2	10	0.5	8	0.4	10	0.5	3	0.1	1	0.0	37	1.8
SW	0	0.0	3	0.1	19	0.9	22	1.1	11	0.5	4	0.2	1	0.0	60	2.9
WSW	0	0.0	0	0.0	7	0.3	10	0.5	5	0.2	0	0.0	1	0.0	23	1.1
W	0	0.0	3	0.1	9	0.4	17	0.8	6	0.3	0	0.0	0	0.0	35	1.7
WNW	0	0.0	2	0.1	7	0.3	19	0.9	5	0.2	1	0.0	0	0.0	34	1.6
NW	0	0.0	3	0.1	5	0.2	21	1.0	21	1.0	5	0.2	0	0.0	55	2.6
NNW	0	0.0	0	0.0	7	0.3	14	0.7	18	0.9	2	0.1	0	0.0	41	2.0
	0	0.0	28	1.3	129	6.2	220	10.6	146	7.0	30	1.4	6	0.3	559	26.8

MEAN WIND SPEED: 10.6
 MISSING: 0

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
 CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	0	0.0	1	0.0	7	0.3	4	0.2	0	0.0	0	0.0	12	0.6
NNE	0	0.0	0	0.0	3	0.1	5	0.2	15	0.7	0	0.0	0	0.0	23	1.1
NE	0	0.0	0	0.0	2	0.1	5	0.2	3	0.1	0	0.0	0	0.0	10	0.5
ENE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	2	0.1
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	1	0.0	6	0.3	0	0.0	1	0.0	0	0.0	0	0.0	8	0.4
SE	0	0.0	0	0.0	3	0.1	5	0.2	11	0.5	5	0.2	0	0.0	24	1.2
SSE	0	0.0	1	0.0	4	0.2	2	0.1	3	0.1	1	0.0	0	0.0	11	0.5
S	0	0.0	1	0.0	6	0.3	2	0.1	0	0.0	0	0.0	0	0.0	9	0.4
SSW	0	0.0	0	0.0	1	0.0	6	0.3	2	0.1	5	0.2	0	0.0	14	0.7
SW	0	0.0	0	0.0	2	0.1	4	0.2	6	0.3	4	0.2	0	0.0	16	0.8
WSW	0	0.0	0	0.0	2	0.1	3	0.1	4	0.2	0	0.0	0	0.0	9	0.4
W	0	0.0	0	0.0	3	0.1	5	0.2	3	0.1	0	0.0	0	0.0	11	0.5
WNW	0	0.0	0	0.0	1	0.0	2	0.1	2	0.1	0	0.0	0	0.0	5	0.2
NW	0	0.0	0	0.0	1	0.0	1	0.0	4	0.2	0	0.0	0	0.0	6	0.3
NNW	0	0.0	0	0.0	1	0.0	3	0.1	4	0.2	0	0.0	0	0.0	8	0.4
	0	0.0	3	0.1	37	1.8	50	2.4	64	3.1	15	0.7	0	0.0	169	8.1
MEAN WIND SPEED:	11.6															
MISSING:	0															

U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL DATA CENTER

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
NNE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	1	0.0	4	0.2	6	0.3	1	0.0	0	0.0	12	0.6
SSE	0	0.0	0	0.0	2	0.1	3	0.1	0	0.0	1	0.0	0	0.0	6	0.3
S	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	2	0.1	0	0.0	5	0.2
SSW	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	1	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	4	0.2
W	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WNW	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
NW	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
NNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	0	0.0	8	0.4	22	1.1	8	0.4	5	0.2	0	0.0	43	2.1

MEAN WIND SPEED: 11.6
MISSING: 0

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	22	1.1	44	2.1	33	1.6	6	0.3	2	0.1	109	5.2
NNE	0	0.0	4	0.2	23	1.1	54	2.6	36	1.7	4	0.2	4	0.2	125	6.0
NE	0	0.0	7	0.3	26	1.2	66	3.2	35	1.7	4	0.2	0	0.0	138	6.6
ENE	0	0.0	6	0.3	37	1.8	25	1.2	11	0.5	0	0.0	0	0.0	79	3.8
E	0	0.0	4	0.2	19	0.9	19	0.9	8	0.4	1	0.0	0	0.0	51	2.4
ESE	0	0.0	3	0.1	13	0.6	18	0.9	18	0.9	9	0.4	0	0.0	61	2.9
SE	0	0.0	2	0.1	26	1.2	60	2.9	95	4.6	58	2.8	13	0.6	254	12.2
SSE	0	0.0	2	0.1	32	1.5	52	2.5	37	1.8	23	1.1	1	0.0	147	7.1
S	0	0.0	11	0.5	44	2.1	41	2.0	11	0.5	3	0.1	0	0.0	110	5.3
SSW	0	0.0	9	0.4	35	1.7	37	1.8	17	0.8	9	0.4	1	0.0	108	5.2
SW	0	0.0	5	0.2	46	2.2	37	1.8	33	1.6	25	1.2	2	0.1	148	7.1
WSW	0	0.0	3	0.1	26	1.2	43	2.1	20	1.0	9	0.4	3	0.1	104	5.0
W	0	0.0	4	0.2	26	1.2	50	2.4	53	2.5	22	1.1	7	0.3	162	7.8
WNW	0	0.0	2	0.1	24	1.2	42	2.0	39	1.9	25	1.2	19	0.9	151	7.3
NW	0	0.0	7	0.3	18	0.9	46	2.2	68	3.3	18	0.9	8	0.4	165	7.9
NNW	0	0.0	4	0.2	30	1.4	43	2.1	55	2.6	27	1.3	11	0.5	170	8.2
	0	0.0	75	3.6	447	21.5	677	32.5	569	27.3	243	11.7	71	3.4	2082	100.0

MISSING HOURS: 102

MEAN WIND SPEED: 12.1

WIND SPEED GROUPS (MPH)
 0.0-0.5 0.6-3.5 3.6-7.5 7.6-12.5 12.6-18.5 18.6-24.5 GE 24.6
 SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	2	0.1	22	1.0	46	2.1	36	1.6	6	0.3	2	0.1	114	5.2
NNE	0	0.0	4	0.2	23	1.1	56	2.6	42	1.9	4	0.2	4	0.2	133	6.1
NE	0	0.0	7	0.3	26	1.2	68	3.1	35	1.6	4	0.2	0	0.0	140	6.4
ENE	0	0.0	7	0.3	38	1.7	25	1.1	11	0.5	0	0.0	0	0.0	81	3.7
E	0	0.0	4	0.2	20	0.9	19	0.9	8	0.4	1	0.0	0	0.0	52	2.4
ESE	0	0.0	3	0.1	14	0.6	19	0.9	18	0.8	9	0.4	0	0.0	63	2.9
SE	0	0.0	2	0.1	26	1.2	63	2.9	106	4.9	63	2.9	13	0.6	273	12.5
SSE	0	0.0	2	0.1	39	1.8	59	2.7	38	1.7	26	1.2	3	0.1	167	7.6
S	0	0.0	11	0.5	49	2.2	42	1.9	11	0.5	3	0.1	0	0.0	116	5.3
SSW	0	0.0	9	0.4	37	1.7	41	1.9	18	0.8	19	0.9	1	0.0	115	5.3
SW	0	0.0	6	0.3	49	2.2	42	1.9	33	1.5	25	1.1	2	0.1	157	7.2
WSW	0	0.0	3	0.1	26	1.2	48	2.2	20	0.9	9	0.4	3	0.1	109	5.0
W	0	0.0	4	0.2	27	1.2	54	2.5	54	2.5	22	1.0	7	0.3	168	7.7
WNW	0	0.0	2	0.1	25	1.1	43	2.0	39	1.8	26	1.1	19	0.9	153	7.0
NW	0	0.0	8	0.4	20	0.9	46	2.1	69	3.2	18	0.8	8	0.4	169	7.7
NNW	0	0.0	4	0.2	32	1.5	44	2.0	56	2.6	27	1.2	11	0.5	174	8.0
	0	0.0	78	3.6	473	21.7	715	32.7	594	27.2	251	11.5	73	3.3	2184	100.0

MISSING HOURS: 0

MEAN WIND SPEED: 12.1

LA 5251 04/07-06/07

WIND SPEED GROUPS (MPH)

LA 5251 04/07-06/07

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
 CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	4	0.2	6	0.3	2	0.1	1	0.0	0	0.0	13	0.6
NNE	0	0.0	0	0.0	6	0.3	5	0.2	2	0.1	1	0.0	1	0.0	15	0.7
NE	0	0.0	0	0.0	3	0.1	5	0.2	1	0.0	0	0.0	0	0.0	9	0.4
ENE	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	1	0.0	0	0.0	3	0.1
SE	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	2	0.1	0	0.0	6	0.3
SSE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	4	0.2	0	0.0	5	0.2
S	0	0.0	0	0.0	2	0.1	1	0.0	1	0.0	0	0.0	0	0.0	4	0.2
SSW	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	3	0.1	1	0.0	1	0.0	3	0.1	0	0.0	8	0.4
WSW	0	0.0	0	0.0	5	0.2	2	0.1	1	0.0	1	0.0	0	0.0	9	0.4
W	0	0.0	0	0.0	5	0.2	6	0.3	5	0.2	3	0.1	1	0.0	20	1.0
WNW	0	0.0	0	0.0	0	0.0	4	0.2	5	0.2	3	0.1	4	0.2	16	0.8
NW	0	0.0	0	0.0	3	0.1	1	0.0	4	0.2	4	0.2	0	0.0	12	0.6
NNW	0	0.0	0	0.0	2	0.1	7	0.3	7	0.3	1	0.0	0	0.0	17	0.8
	0	0.0	0	0.0	37	1.8	43	2.1	33	1.6	24	1.2	6	0.3	143	7.0

MEAN WIND SPEED: 12.6
 MISSING: 2

WIND CLASS GROUPS (MPH)

WIND CLASS GROUPS (MPH)

WIND CLASS GROUPS (MPH)

WIND CLASS GROUPS (MPH)

ARTIFICIAL ISLAND: 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
 CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	1	0.0	3	0.1	0	0.0	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	0	0.0	2	0.1	3	0.1	0	0.0	0	0.0	5	0.2
NE	0	0.0	0	0.0	4	0.2	2	0.1	2	0.1	0	0.0	0	0.0	8	0.4
ENE	0	0.0	0	0.0	4	0.2	1	0.0	1	0.0	0	0.0	0	0.0	6	0.3
E	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ESE	0	0.0	0	0.0	1	0.0	2	0.1	1	0.0	1	0.0	0	0.0	5	0.2
SE	0	0.0	0	0.0	1	0.0	1	0.0	2	0.1	4	0.2	3	0.1	11	0.5
SSE	0	0.0	1	0.0	2	0.1	3	0.1	3	0.1	2	0.1	0	0.0	11	0.5
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	2	0.1	0	0.0	7	0.3
WSW	0	0.0	0	0.0	2	0.1	5	0.2	1	0.0	1	0.0	0	0.0	9	0.4
W	0	0.0	0	0.0	0	0.0	4	0.2	5	0.2	1	0.0	3	0.1	13	0.6
WNW	0	0.0	0	0.0	4	0.2	1	0.0	6	0.3	2	0.1	2	0.1	15	0.7
NW	0	0.0	0	0.0	2	0.1	4	0.2	4	0.2	0	0.0	0	0.0	10	0.5
NNW	0	0.0	0	0.0	2	0.1	1	0.0	5	0.2	0	0.0	2	0.1	10	0.5
	0	0.0	2	0.1	30	1.5	33	1.6	33	1.6	13	0.6	10	0.5	121	5.9

MEAN WIND SPEED: 12.7
 MISSING: 1

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
 CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	1	0.0	6	0.3	5	0.2	19	0.9	6	0.3	1	0.0	38	1.9
NNE	0	0.0	0	0.0	3	0.1	15	0.7	12	0.6	4	0.2	2	0.1	36	1.8
NE	0	0.0	1	0.0	10	0.5	24	1.2	21	1.0	1	0.0	0	0.0	57	2.8
ENE	0	0.0	3	0.1	11	0.5	25	1.2	10	0.5	0	0.0	0	0.0	49	2.4
E	0	0.0	1	0.0	13	0.6	11	0.5	5	0.2	1	0.0	1	0.0	32	1.6
ESE	0	0.0	1	0.0	2	0.1	7	0.3	11	0.5	10	0.5	3	0.1	34	1.7
SE	0	0.0	0	0.0	6	0.3	9	0.4	15	0.7	24	1.2	8	0.4	62	3.0
SSE	0	0.0	0	0.0	6	0.3	13	0.6	23	1.1	10	0.5	1	0.0	53	2.6
S	0	0.0	3	0.1	13	0.6	26	1.3	9	0.4	2	0.1	0	0.0	53	2.6
SSW	0	0.0	3	0.1	15	0.7	19	0.9	11	0.5	22	1.1	0	0.0	50	2.4
SW	0	0.0	2	0.1	12	0.6	10	0.5	10	0.5	11	0.5	5	0.2	50	2.4
WSW	0	0.0	3	0.1	7	0.3	11	0.5	11	0.5	4	0.2	3	0.1	39	1.9
W	0	0.0	5	0.2	6	0.3	13	0.6	17	0.8	21	1.0	5	0.2	67	3.3
WNW	0	0.0	0	0.0	8	0.4	5	0.2	20	1.0	20	1.0	27	1.3	80	3.9
NW	0	0.0	3	0.1	6	0.3	7	0.3	12	0.6	21	0.5	9	0.4	48	2.3
NNW	0	0.0	2	0.1	7	0.3	7	0.3	9	0.4	12	0.6	21	1.0	58	2.8
	0	0.0	28	1.4	131	6.4	207	10.1	215	10.5	129	6.8	86	4.2	805	39.4

MEAN WIND SPEED: 14.6
 MISSING: 22

FILE 71 (1-1-1)
 2000
 2000

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	5	0.2	10	0.5	14	0.7	4	0.2	1	0.0	35	1.7
NNE	0	0.0	3	0.1	4	0.2	8	0.4	11	0.5	4	0.2	2	0.1	32	1.6
NE	0	0.0	0	0.0	5	0.2	7	0.3	9	0.4	2	0.1	0	0.0	23	1.1
ENE	0	0.0	2	0.1	7	0.3	5	0.2	1	0.0	0	0.0	0	0.0	15	0.7
E	0	0.0	0	0.0	11	0.5	0	0.0	3	0.1	0	0.0	2	0.1	16	0.8
ESE	0	0.0	1	0.0	1	0.0	5	0.2	4	0.2	0	0.0	0	0.0	11	0.5
SE	0	0.0	1	0.0	7	0.3	13	0.6	12	0.6	6	0.3	5	0.2	44	2.1
SSE	0	0.0	0	0.0	10	0.5	20	1.0	20	1.0	7	0.3	0	0.0	57	2.8
S	0	0.0	2	0.1	8	0.4	9	0.4	5	0.2	0	0.0	0	0.0	24	1.2
SSW	0	0.0	3	0.1	3	0.1	8	0.4	13	0.6	6	0.3	1	0.0	34	1.7
SW	0	0.0	2	0.1	7	0.3	9	0.4	24	1.2	9	0.4	3	0.1	54	2.6
WSW	0	0.0	2	0.1	15	0.7	12	0.6	8	0.4	4	0.2	1	0.0	42	2.1
W	0	0.0	1	0.0	8	0.4	5	0.2	14	0.7	2	0.1	0	0.0	30	1.5
WNW	0	0.0	3	0.1	9	0.4	11	0.5	17	0.8	3	0.1	0	0.0	43	2.1
NW	0	0.0	0	0.0	3	0.1	7	0.3	21	1.0	11	0.5	3	0.1	45	2.2
NNW	0	0.0	1	0.0	5	0.2	13	0.6	20	1.0	7	0.3	2	0.1	48	2.3
	0	0.0	22	1.1	108	5.3	142	6.9	196	9.6	65	3.2	20	1.0	553	27.0

MEAN WIND SPEED: 12.7
MISSING: 6

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NOAA TECHNICAL MEMORANDUM
WIND DIRECTION AND SPEED

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
 CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	1	0.0	10	0.5	0	0.0	0	0.0	11	0.5
NNE	0	0.0	0	0.0	0	0.0	0	0.0	11	0.5	7	0.3	0	0.0	18	0.9
NE	0	0.0	1	0.0	0	0.0	4	0.2	6	0.3	1	0.0	0	0.0	12	0.6
ENE	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	2	0.1	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	4	0.2
SE	0	0.0	1	0.0	1	0.0	3	0.1	2	0.1	2	0.1	0	0.0	9	0.4
SSE	0	0.0	0	0.0	2	0.1	8	0.4	4	0.2	2	0.1	1	0.0	17	0.8
S	0	0.0	1	0.0	4	0.2	4	0.2	1	0.0	1	0.0	0	0.0	11	0.5
SSW	0	0.0	1	0.0	4	0.2	2	0.1	5	0.2	3	0.1	2	0.1	17	0.8
SW	0	0.0	0	0.0	1	0.0	7	0.3	4	0.2	7	0.3	1	0.0	20	1.0
WSW	0	0.0	1	0.0	0	0.0	2	0.1	4	0.2	4	0.2	0	0.0	11	0.5
W	0	0.0	0	0.0	1	0.0	1	0.0	5	0.2	2	0.1	0	0.0	9	0.4
WNW	0	0.0	0	0.0	1	0.0	4	0.2	3	0.1	2	0.1	0	0.0	10	0.5
NW	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	3	0.1	0	0.0	6	0.3
NNW	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	3	0.1	0	0.0	9	0.4
	0	0.0	7	0.3	19	0.9	41	2.0	60	2.9	37	1.8	4	0.2	169	8.2

MEAN WIND SPEED: 14.2
 MISSING: 1

NO. OF OBS. (WIND)
 MEAN WIND SPEED (MPH)
 MEAN WIND DIRECTION (DEG)
 MEAN WIND VELOCITY (MPH)
 MEAN WIND VELOCITY (KNOTS)

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
 CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	3	0.1
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSE	0	0.0	0	0.0	1	0.0	1	0.0	2	0.1	1	0.0	0	0.0	5	0.2
S	0	0.0	1	0.0	2	0.1	2	0.1	2	0.1	1	0.0	1	0.0	9	0.4
SSW	0	0.0	0	0.0	1	0.0	2	0.1	2	0.1	1	0.0	1	0.0	8	0.3
SW	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
WSW	0	0.0	1	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	5	0.2
W	0	0.0	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	2	0.1
WNW	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
NW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
NNW	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
	0	0.0	3	0.1	8	0.4	12	0.6	14	0.7	4	0.2	2	0.1	43	2.1
MEAN WIND SPEED:	12.1															
MISSING:	0															

ARTIFICIAL ISLAND 04/07-06/07
 JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

ARTIFICIAL ISLAND: 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	16	0.8	34	1.7	51	2.5	11	0.5	2	0.1	116	5.7
NNE	0	0.0	3	0.1	14	0.7	33	1.6	41	2.0	18	0.9	6	0.3	115	5.6
NE	0	0.0	2	0.1	24	1.2	50	2.4	49	2.4	7	0.3	0	0.0	132	6.4
ENE	0	0.0	5	0.2	26	1.3	35	1.7	13	0.6	0	0.0	0	0.0	79	3.9
E	0	0.0	1	0.0	29	1.4	14	0.7	8	0.4	1	0.0	3	0.1	56	2.7
ESE	0	0.0	4	0.2	6	0.3	17	0.8	16	0.8	12	0.6	3	0.1	58	2.8
SE	0	0.0	2	0.1	17	0.8	30	1.5	40	2.0	44	2.1	20	1.0	153	7.5
SSE	0	0.0	1	0.0	23	1.1	47	2.3	55	2.7	35	1.7	2	0.1	163	8.0
S	0	0.0	7	0.3	36	1.8	44	2.1	18	0.9	4	0.2	1	0.0	110	5.4
SSW	0	0.0	8	0.4	29	1.4	32	1.6	31	1.5	12	0.6	4	0.2	116	5.7
SW	0	0.0	5	0.2	28	1.4	33	1.6	42	2.1	32	1.6	9	0.4	149	7.3
WSW	0	0.0	7	0.3	29	1.4	36	1.8	30	1.5	17	0.8	4	0.2	123	6.0
W	0	0.0	6	0.3	21	1.0	30	1.5	58	2.8	37	1.8	11	0.5	163	8.0
WNW	0	0.0	3	0.1	24	1.2	29	1.4	53	2.6	33	1.6	33	1.6	175	8.5
NW	0	0.0	3	0.1	17	0.8	25	1.2	66	3.2	37	1.8	13	0.6	161	7.9
NNW	0	0.0	3	0.1	20	1.0	42	2.1	60	2.9	29	1.4	25	1.2	179	8.7
	0	0.0	62	3.0	359	17.5	531	25.9	631	30.8	329	16.1	136	6.6	2048	100.0

MISSING HOURS: 136

MEAN WIND SPEED: 13.8

ARTIFICIAL ISLAND 04/07-06/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	16	0.8	34	1.6	55	2.7	11	0.5	2	0.1	120	5.8
NNE	0	0.0	3	0.1	14	0.7	34	1.6	42	2.0	21	1.0	6	0.3	120	5.8
NE	0	0.0	2	0.1	24	1.2	50	2.4	49	2.4	7	0.3	0	0.0	132	6.4
ENE	0	0.0	5	0.2	26	1.3	35	1.7	13	0.6	0	0.0	0	0.0	79	3.8
E	0	0.0	1	0.0	29	1.4	14	0.7	8	0.4	1	0.0	3	0.1	56	2.7
ESE	0	0.0	4	0.2	7	0.3	17	0.8	16	0.8	12	0.6	3	0.1	59	2.8
SE	0	0.0	2	0.1	17	0.8	31	1.5	46	2.2	44	2.1	21	1.0	161	7.8
SSE	0	0.0	1	0.0	23	1.1	48	2.3	56	2.7	37	1.8	5	0.2	170	8.2
S	0	0.0	7	0.3	36	1.7	44	2.1	18	0.9	4	0.2	1	0.0	110	5.3
SSW	0	0.0	8	0.4	29	1.4	32	1.5	31	1.5	12	0.6	4	0.2	116	5.6
SW	0	0.0	5	0.2	28	1.4	33	1.6	42	2.0	32	1.5	9	0.4	149	7.2
WSW	0	0.0	7	0.3	29	1.4	36	1.7	30	1.4	17	0.8	4	0.2	123	5.9
W	0	0.0	6	0.3	21	1.0	30	1.4	58	2.8	37	1.8	11	0.5	163	7.9
WNW	0	0.0	3	0.1	24	1.2	29	1.4	53	2.6	33	1.6	33	1.6	175	8.4
NW	0	0.0	3	0.1	17	0.8	25	1.2	66	3.2	37	1.8	13	0.6	161	7.8
NNW	0	0.0	3	0.1	20	1.0	43	2.1	60	2.9	29	1.4	25	1.2	180	8.7
	0	0.0	62	3.0	360	17.4	535	25.8	643	31.0	334	16.1	140	6.8	2074	100.0

MISSING HOURS: 110

MEAN WIND SPEED: 13.8

MEAN WIND SPEED

MEAN WIND SPEED

MEAN WIND SPEED

Lapse Rate
Wind Distributions
300-33 Foot

7/2007 - 9/2007

ARTIFICIAL ISLAND: 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
 CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	6	0.3	16	0.7	10	0.5	1	0.0	0	0.0	33	1.5
SSE	0	0.0	0	0.0	6	0.3	11	0.5	1	0.0	1	0.0	0	0.0	19	0.9
S	0	0.0	0	0.0	5	0.2	1	0.0	0	0.0	0	0.0	0	0.0	6	0.3
SSW	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	4	0.2
SW	0	0.0	0	0.0	0	0.0	9	0.4	0	0.0	0	0.0	0	0.0	9	0.4
WSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NW	0	0.0	0	0.0	0	0.0	3	0.1	7	0.3	0	0.0	0	0.0	10	0.5
NNW	0	0.0	0	0.0	4	0.2	13	0.6	4	0.2	0	0.0	0	0.0	21	1.0
	0	0.0	1	0.0	24	1.1	59	2.7	22	1.0	2	0.1	0	0.0	108	4.9

MEAN WIND SPEED: 10.2
 MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
 CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	6	0.3	6	0.3	2	0.1	0	0.0	0	0.0	14	0.6
NNE	0	0.0	1	0.0	1	0.0	3	0.1	0	0.0	0	0.0	0	0.0	5	0.2
NE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	4	0.2	6	0.3	9	0.4	2	0.1	0	0.0	21	1.0
SSE	0	0.0	0	0.0	15	0.7	3	0.1	2	0.1	0	0.0	0	0.0	20	0.9
S	0	0.0	0	0.0	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
SSW	0	0.0	0	0.0	5	0.2	1	0.0	0	0.0	0	0.0	0	0.0	6	0.3
SW	0	0.0	0	0.0	4	0.2	1	0.0	0	0.0	0	0.0	0	0.0	5	0.2
WSW	0	0.0	0	0.0	3	0.1	9	0.4	0	0.0	0	0.0	0	0.0	12	0.5
W	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
WNW	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	0	0.0	0	0.0	5	0.2
NW	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	4	0.2
NNW	0	0.0	0	0.0	5	0.2	14	0.6	2	0.1	0	0.0	0	0.0	21	1.0
	0	0.0	1	0.0	52	2.4	51	2.3	16	0.7	2	0.1	0	0.0	122	5.5

MEAN WIND SPEED: 8.6
 MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
 CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	5	0.2	28	1.3	18	0.8	0	0.0	0	0.0	0	0.0	51	2.3
NNE	0	0.0	8	0.4	37	1.7	27	1.2	5	0.2	0	0.0	0	0.0	77	3.5
NE	0	0.0	6	0.3	24	1.1	15	0.7	0	0.0	0	0.0	0	0.0	45	2.0
ENE	0	0.0	2	0.1	18	0.8	12	0.5	0	0.0	0	0.0	0	0.0	32	1.5
E	0	0.0	4	0.2	8	0.4	0	0.0	0	0.0	0	0.0	0	0.0	12	0.5
ESE	0	0.0	4	0.2	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	7	0.3
SE	0	0.0	3	0.1	14	0.6	32	1.5	36	1.6	0	0.0	0	0.0	85	3.9
SSE	0	0.0	4	0.2	30	1.4	33	1.5	30	1.4	4	0.2	0	0.0	101	4.6
S	0	0.0	5	0.2	58	2.6	54	2.5	23	1.0	0	0.0	0	0.0	140	6.4
SSW	0	0.0	0	0.0	35	1.6	29	1.3	4	0.2	0	0.0	0	0.0	68	3.1
SW	0	0.0	2	0.1	27	1.2	40	1.8	0	0.0	0	0.0	0	0.0	69	3.1
WSW	0	0.0	3	0.1	17	0.8	22	1.0	0	0.0	0	0.0	0	0.0	42	1.9
W	0	0.0	3	0.1	13	0.6	4	0.2	3	0.1	0	0.0	0	0.0	23	1.0
WNW	0	0.0	1	0.0	8	0.4	5	0.2	1	0.0	0	0.0	0	0.0	15	0.7
NW	0	0.0	2	0.1	15	0.7	16	0.7	0	0.0	0	0.0	0	0.0	33	1.5
NNW	0	0.0	6	0.3	30	1.4	7	0.3	3	0.1	0	0.0	0	0.0	46	2.1
	0	0.0	58	2.6	365	16.6	314	14.2	105	4.8	4	0.2	0	0.0	846	38.4

MEAN WIND SPEED: 8.1
 MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	10	0.5	35	1.6	17	0.8	0	0.0	0	0.0	0	0.0	62	2.8
NNE	0	0.0	7	0.3	20	0.9	3	0.1	1	0.0	0	0.0	0	0.0	31	1.4
NE	0	0.0	11	0.5	19	0.9	5	0.2	0	0.0	0	0.0	0	0.0	35	1.6
ENE	0	0.0	15	0.7	13	0.6	0	0.0	0	0.0	0	0.0	0	0.0	28	1.3
E	0	0.0	15	0.7	10	0.5	0	0.0	0	0.0	0	0.0	0	0.0	25	1.1
ESE	0	0.0	2	0.1	22	1.0	8	0.4	0	0.0	0	0.0	0	0.0	32	1.5
SE	0	0.0	4	0.2	17	0.8	30	1.4	7	0.3	0	0.0	0	0.0	58	2.6
SSE	0	0.0	3	0.1	8	0.4	14	0.6	4	0.2	0	0.0	0	0.0	29	1.3
S	0	0.0	6	0.3	14	0.6	29	1.3	2	0.1	0	0.0	0	0.0	51	2.3
SSW	0	0.0	4	0.2	21	1.0	29	1.3	2	0.1	0	0.0	0	0.0	56	2.5
SW	0	0.0	5	0.2	34	1.5	16	0.7	1	0.0	0	0.0	0	0.0	56	2.5
WSW	0	0.0	6	0.3	31	1.4	14	0.6	1	0.0	0	0.0	0	0.0	52	2.4
W	0	0.0	12	0.5	20	0.9	6	0.3	0	0.0	0	0.0	0	0.0	38	1.7
WNW	0	0.0	9	0.4	16	0.7	5	0.2	1	0.0	0	0.0	0	0.0	31	1.4
NW	0	0.0	9	0.4	24	1.1	17	0.8	5	0.2	0	0.0	0	0.0	55	2.5
NNW	0	0.0	5	0.2	14	0.6	7	0.3	1	0.0	0	0.0	0	0.0	27	1.2

0 0.0 123 5.6 318 14.4 200 9.1 25 1.1 0 0.0 0 0.0 0 0.0 666 30.2

MEAN WIND SPEED: 6.4
MISSING: 0

WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)
LAPSE RATE: -0.4 TO 1.5 DEG C/100M
CLASS E

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	40	1.8	24	1.1	0	0.0	0	0.0	0	0.0	65	2.9
NNE	0	0.0	3	0.1	34	1.5	4	0.2	0	0.0	0	0.0	0	0.0	41	1.9
NE	0	0.0	13	0.6	25	1.1	2	0.1	0	0.0	0	0.0	0	0.0	40	1.8
ENE	0	0.0	10	0.5	10	0.5	0	0.0	0	0.0	0	0.0	0	0.0	20	0.9
E	0	0.0	3	0.1	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
ESE	0	0.0	1	0.0	11	0.5	1	0.0	0	0.0	0	0.0	0	0.0	13	0.6
SE	0	0.0	0	0.0	4	0.2	8	0.4	0	0.0	0	0.0	0	0.0	12	0.5
SSE	0	0.0	2	0.1	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	5	0.2
S	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	6	0.3
SSW	0	0.0	1	0.0	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0	5	0.2
SW	0	0.0	1	0.0	6	0.3	3	0.1	0	0.0	0	0.0	0	0.0	10	0.5
WSW	0	0.0	1	0.0	6	0.3	0	0.0	0	0.0	0	0.0	0	0.0	7	0.3
W	0	0.0	1	0.0	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	5	0.2
WNW	0	0.0	2	0.1	5	0.2	1	0.0	0	0.0	0	0.0	0	0.0	8	0.4
NW	0	0.0	2	0.1	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	7	0.3
NNW	0	0.0	1	0.0	14	0.6	1	0.0	0	0.0	0	0.0	0	0.0	16	0.7
	0	0.0	42	1.9	175	7.9	48	2.2	0	0.0	0	0.0	0	0.0	265	12.0

MEAN WIND SPEED: 5.7
MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	11	0.5	0	0.0	0	0.0	0	0.0	0	0.0	11	0.5
NE	0	0.0	1	0.0	6	0.3	0	0.0	0	0.0	0	0.0	0	0.0	7	0.3
ENE	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2
SSE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	2	0.1	24	1.1	0	0.0	0	0.0	0	0.0	0	0.0	26	1.2

MEAN WIND SPEED: 5.7
MISSING: 0

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NOAA TECHNICAL MEMORANDUM
WIND SPEED GROUPS (MPH)

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

	0.0-0.5	0.6-3.5	3.6-7.5	7.6-12.5	12.6-18.5	18.6-24.5	GE 24.6	SUM PERCENT
DIRECTION	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	
N	0	19	124	76	2	0	0	221
NNE	0	20	110	42	6	0	0	178
NE	0	32	78	26	0	0	0	136
ENE	0	29	46	13	0	0	0	88
E	0	22	23	0	0	0	0	45
ESE	0	7	37	9	0	0	0	53
SE	0	7	52	100	72	3	0	234
SSE	0	9	68	69	46	5	0	197
S	0	11	94	88	26	0	0	219
SSW	0	5	75	62	6	0	0	148
SW	0	8	79	71	1	0	0	159
WSW	0	10	60	50	1	0	0	121
W	0	16	39	14	3	0	0	72
WNW	0	13	31	16	3	0	0	63
NW	0	14	45	46	13	0	0	118
NNW	0	12	81	47	12	0	0	152
	0	234	1042	729	191	8	0	2204

MISSING HOURS: 4

MEAN WIND SPEED: 7.4

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

DIRECTION	WIND SPEED GROUPS (MPH)															
	0.0-0.5	0.6-3.5	3.6-7.5	7.6-12.5	12.6-18.5	18.6-24.5	GE 24.6	SUM PERCENT								
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	
N	0	0.0	19	0.9	124	5.6	76	3.4	2	0.1	0	0.0	0	0.0	221	10.0
NNE	0	0.0	20	0.9	110	5.0	42	1.9	6	0.3	0	0.0	0	0.0	178	8.1
NE	0	0.0	32	1.4	78	3.5	26	1.2	0	0.0	0	0.0	0	0.0	136	6.2
ENE	0	0.0	29	1.3	46	2.1	13	0.6	0	0.0	0	0.0	0	0.0	88	4.0
E	0	0.0	22	1.0	23	1.0	0	0.0	0	0.0	0	0.0	0	0.0	45	2.0
ESE	0	0.0	7	0.3	37	1.7	9	0.4	0	0.0	0	0.0	0	0.0	53	2.4
SE	0	0.0	7	0.3	52	2.4	100	4.5	72	3.3	3	0.1	0	0.0	234	10.6
SSE	0	0.0	9	0.4	68	3.1	69	3.1	46	2.1	5	0.2	0	0.0	197	8.9
S	0	0.0	11	0.5	94	4.3	88	4.0	26	1.2	0	0.0	0	0.0	219	9.9
SSW	0	0.0	5	0.2	75	3.4	62	2.8	6	0.3	0	0.0	0	0.0	148	6.7
SW	0	0.0	8	0.4	79	3.6	71	3.2	1	0.0	0	0.0	0	0.0	159	7.2
WSW	0	0.0	10	0.5	60	2.7	50	2.3	1	0.0	0	0.0	0	0.0	121	5.5
W	0	0.0	16	0.7	39	1.8	16	0.7	4	0.2	0	0.0	0	0.0	75	3.4
WNW	0	0.0	13	0.6	31	1.4	15	0.7	3	0.1	0	0.0	0	0.0	63	2.9
NW	0	0.0	14	0.6	45	2.0	46	2.1	13	0.6	0	0.0	0	0.0	118	5.3
NNW	0	0.0	12	0.5	81	3.7	47	2.1	12	0.5	0	0.0	0	0.0	152	6.9
	0	0.0	234	10.6	1042	47.2	731	33.1	192	8.7	8	0.4	0	0.0	2207	100.0

MISSING HOURS: 1

MEAN WIND SPEED: 7.4

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	1	0.0	13	0.6	14	0.6	7	0.3	1	0.0	36	1.6
SSE	0	0.0	0	0.0	3	0.1	5	0.2	6	0.3	0	0.0	1	0.0	15	0.7
S	0	0.0	0	0.0	3	0.1	3	0.1	0	0.0	0	0.0	0	0.0	6	0.3
SSW	0	0.0	0	0.0	0	0.0	25	0.2	0	0.0	0	0.0	0	0.0	5	0.2
SW	0	0.0	0	0.0	0	0.0	5	0.2	3	0.1	0	0.0	0	0.0	8	0.4
WSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
NW	0	0.0	0	0.0	0	0.0	2	0.1	8	0.4	0	0.0	0	0.0	10	0.5
NNW	0	0.0	0	0.0	3	0.1	7	0.3	7	0.3	3	0.1	1	0.0	21	1.0
	0	0.0	0	0.0	12	0.5	44	2.0	39	1.8	10	0.5	3	0.1	108	4.9

MEAN WIND SPEED: 13.0
MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	0	0.0	1	0.0	9	0.4	1	0.0	0	0.0	0	0.0	11	0.5
NNE	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	3	0.1
NE	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	3	0.1	7	0.3	2	0.1	7	0.3	3	0.1	22	1.0
SSE	0	0.0	0	0.0	12	0.5	4	0.2	3	0.1	0	0.0	0	0.0	19	0.9
S	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	0	0.0	0	0.0	5	0.2
SSW	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0	4	0.2
SW	0	0.0	0	0.0	4	0.2	3	0.1	1	0.0	0	0.0	0	0.0	8	0.4
WSW	0	0.0	0	0.0	1	0.0	9	0.4	1	0.0	0	0.0	0	0.0	11	0.5
W	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
WNW	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	0	0.0	0	0.0	5	0.2
NW	0	0.0	0	0.0	1	0.0	2	0.1	2	0.1	0	0.0	0	0.0	5	0.2
NNW	0	0.0	0	0.0	1	0.0	16	0.7	3	0.1	2	0.1	0	0.0	23	1.0
	0	0.0	0	0.0	34	1.5	60	2.7	15	0.7	10	0.5	3	0.1	122	5.5

MEAN WIND SPEED: 10.9
MISSING: 0

NO. OF OBSERVATIONS: 122
PERCENT OF TIME WITH WIND: 5.5%

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	10	0.5	12	0.5	1	0.0	0	0.0	0	0.0	23	1.0
NNE	0	0.0	1	0.0	3	0.1	6	0.3	2	0.1	0	0.0	0	0.0	12	0.5
NE	0	0.0	1	0.0	1	0.0	5	0.2	2	0.1	0	0.0	0	0.0	9	0.4
ENE	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
E	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	2	0.1	6	0.3	8	0.4	3	0.1	3	0.1	22	1.0
SSE	0	0.0	0	0.0	6	0.3	5	0.2	5	0.2	6	0.3	0	0.0	22	1.0
S	0	0.0	0	0.0	7	0.3	4	0.2	0	0.0	0	0.0	0	0.0	11	0.5
SSW	0	0.0	0	0.0	6	0.3	3	0.1	1	0.0	0	0.0	0	0.0	10	0.5
SW	0	0.0	0	0.0	6	0.3	3	0.1	0	0.0	0	0.0	0	0.0	9	0.4
WSW	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	0	0.0	0	0.0	5	0.2
W	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	4	0.2
WNW	0	0.0	1	0.0	1	0.0	2	0.1	1	0.0	0	0.0	0	0.0	5	0.2
NW	0	0.0	0	0.0	0	0.0	6	0.3	1	0.0	1	0.0	0	0.0	8	0.4
NNW	0	0.0	0	0.0	10	0.5	12	0.5	2	0.1	1	0.0	0	0.0	25	1.1
	0	0.0	3	0.1	59	2.7	71	3.2	24	1.1	11	0.5	3	0.1	171	7.8

MEAN WIND SPEED: 10.2
MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	3	0.1	18	0.8	25	1.1	6	0.3	0	0.0	0	0.0	52	2.4
NNE	0	0.0	1	0.0	17	0.8	34	1.5	14	0.6	4	0.2	0	0.0	70	3.2
NE	0	0.0	3	0.1	9	0.4	26	1.2	12	0.5	0	0.0	0	0.0	50	2.3
ENE	0	0.0	3	0.1	11	0.5	14	0.6	6	0.3	0	0.0	0	0.0	34	1.5
E	0	0.0	4	0.2	4	0.2	1	0.0	0	0.0	0	0.0	0	0.0	9	0.4
ESE	0	0.0	2	0.1	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0	6	0.3
SE	0	0.0	5	0.2	13	0.6	10	0.5	37	1.7	21	1.0	5	0.2	91	4.1
SSE	0	0.0	4	0.2	14	0.6	29	1.3	36	1.6	15	0.7	4	0.2	102	4.6
S	0	0.0	1	0.0	38	1.7	76	3.4	32	1.5	1	0.0	0	0.0	148	6.7
SSW	0	0.0	3	0.1	17	0.8	31	1.4	19	0.9	1	0.0	0	0.0	71	3.2
SW	0	0.0	2	0.1	8	0.4	24	1.1	27	1.2	0	0.0	0	0.0	61	2.8
WSW	0	0.0	0	0.0	14	0.6	14	0.6	7	0.3	0	0.0	0	0.0	35	1.6
W	0	0.0	3	0.1	9	0.4	7	0.3	6	0.3	1	0.0	0	0.0	26	1.2
WNW	0	0.0	2	0.1	5	0.2	8	0.4	1	0.0	0	0.0	0	0.0	16	0.7
NW	0	0.0	2	0.1	7	0.3	14	0.6	9	0.4	2	0.1	0	0.0	34	1.5
NNW	0	0.0	2	0.1	22	1.0	11	0.5	4	0.2	2	0.1	0	0.0	41	1.9
	0	0.0	40	1.8	209	9.5	325	14.7	216	9.8	47	2.1	9	0.4	846	38.4

MEAN WIND SPEED: 10.7
MISSING: 0

INVESTIGATION REPORT
NO. 100-11000-100
U.S. DEPARTMENT OF COMMERCE
BUREAU OF MARINE RESEARCH
WASHINGTON, D.C.

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
 CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	10	0.5	20	0.9	19	0.9	2	0.1	0	0.0	52	2.4
NNE	0	0.0	2	0.1	7	0.3	18	0.8	5	0.2	1	0.0	0	0.0	33	1.5
NE	0	0.0	1	0.0	9	0.4	7	0.3	4	0.2	0	0.0	0	0.0	21	1.0
ENE	0	0.0	2	0.1	17	0.8	9	0.4	0	0.0	0	0.0	0	0.0	28	1.3
E	0	0.0	1	0.0	18	0.8	3	0.1	0	0.0	0	0.0	0	0.0	22	1.0
ESE	0	0.0	1	0.0	7	0.3	7	0.3	7	0.3	0	0.0	0	0.0	22	1.0
SE	0	0.0	2	0.1	12	0.5	20	0.9	24	1.1	10	0.5	0	0.0	68	3.1
SSE	0	0.0	0	0.0	10	0.5	11	0.5	15	0.7	0	0.0	0	0.0	36	1.6
S	0	0.0	1	0.0	11	0.5	25	1.1	13	0.6	1	0.0	0	0.0	51	2.3
SSW	0	0.0	5	0.2	19	0.9	30	1.4	20	0.9	2	0.1	0	0.0	76	3.4
SW	0	0.0	5	0.2	10	0.5	23	1.0	12	0.5	1	0.0	0	0.0	51	2.3
WSW	0	0.0	5	0.2	23	1.0	22	1.0	5	0.2	1	0.0	0	0.0	56	2.5
W	0	0.0	5	0.2	21	1.0	12	0.5	6	0.3	0	0.0	0	0.0	44	2.0
WNW	0	0.0	1	0.0	16	0.7	5	0.2	4	0.2	2	0.1	0	0.0	28	1.3
NW	0	0.0	4	0.2	17	0.8	13	0.6	15	0.7	5	0.2	0	0.0	54	2.5
NNW	0	0.0	0	0.0	7	0.3	11	0.5	4	0.2	2	0.1	0	0.0	24	1.1
	0	0.0	36	1.6	214	9.7	236	10.7	153	6.9	27	1.2	0	0.0	666	30.2

MEAN WIND SPEED: 9.7
 MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	4	0.2	15	0.7	39	1.8	1	0.0	0	0.0	60	2.7
NNE	0	0.0	2	0.1	7	0.3	27	1.2	11	0.5	0	0.0	0	0.0	47	2.1
NE	0	0.0	1	0.0	5	0.2	13	0.6	4	0.2	0	0.0	0	0.0	23	1.0
ENE	0	0.0	1	0.0	6	0.3	5	0.2	0	0.0	0	0.0	0	0.0	12	0.5
E	0	0.0	3	0.1	7	0.3	1	0.0	0	0.0	0	0.0	0	0.0	11	0.5
ESE	0	0.0	3	0.1	2	0.1	4	0.2	1	0.0	0	0.0	0	0.0	10	0.5
SE	0	0.0	0	0.0	6	0.3	6	0.3	6	0.3	1	0.0	0	0.0	19	0.9
SSE	0	0.0	1	0.0	4	0.2	2	0.1	3	0.1	0	0.0	0	0.0	10	0.5
S	0	0.0	0	0.0	0	0.0	3	0.1	3	0.1	0	0.0	0	0.0	6	0.3
SSW	0	0.0	1	0.0	2	0.1	2	0.1	4	0.2	0	0.0	0	0.0	9	0.4
SW	0	0.0	0	0.0	2	0.1	6	0.3	0	0.0	1	0.0	0	0.0	9	0.4
WSW	0	0.0	0	0.0	3	0.1	4	0.2	0	0.0	0	0.0	0	0.0	7	0.3
W	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	6	0.3
WNW	0	0.0	1	0.0	2	0.1	3	0.1	0	0.0	0	0.0	0	0.0	6	0.3
NW	0	0.0	2	0.1	3	0.1	6	0.3	0	0.0	0	0.0	0	0.0	11	0.5
NNW	0	0.0	2	0.1	3	0.1	10	0.5	4	0.2	0	0.0	0	0.0	19	0.9
	0	0.0	18	0.8	60	2.7	109	4.9	75	3.4	3	0.1	0	0.0	265	12.0

MEAN WIND SPEED: 10.1
MISSING: 0

WIND DIRECTION AND SPEED
AT 150 FT
AT 300 FT
AT 330 FT

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	0	0.0	4	0.2	7	0.3	0	0.0	0	0.0	11	0.5
ENE	0	0.0	0	0.0	2	0.1	4	0.2	0	0.0	0	0.0	0	0.0	6	0.3
E	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSE	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	0	0.0	5	0.2	14	0.6	7	0.3	0	0.0	0	0.0	26	1.2

MEAN WIND SPEED: 10.3
MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	5	0.2	43	2.0	81	3.7	67	3.0	3	0.1	0	0.0	199	9.0
NNE	0	0.0	6	0.3	34	1.5	90	4.1	32	1.5	5	0.2	0	0.0	167	7.6
NE	0	0.0	6	0.3	27	1.2	56	2.5	29	1.3	0	0.0	0	0.0	118	5.4
ENE	0	0.0	6	0.3	38	1.7	33	1.5	6	0.3	0	0.0	0	0.0	83	3.8
E	0	0.0	8	0.4	34	1.5	5	0.2	0	0.0	0	0.0	0	0.0	47	2.1
ESE	0	0.0	6	0.3	14	0.6	12	0.5	8	0.4	0	0.0	0	0.0	40	1.8
SE	0	0.0	7	0.3	37	1.7	62	2.8	91	4.1	49	2.2	12	0.5	258	11.7
SSE	0	0.0	5	0.2	50	2.3	58	2.6	68	3.1	21	1.0	5	0.2	207	9.4
S	0	0.0	2	0.1	62	2.8	114	5.2	48	2.2	2	0.1	0	0.0	228	10.3
SSW	0	0.0	9	0.4	47	2.1	72	3.3	44	2.0	3	0.1	0	0.0	175	7.9
SW	0	0.0	7	0.3	30	1.4	64	2.9	43	2.0	2	0.1	0	0.0	146	6.6
WSW	0	0.0	5	0.2	43	2.0	54	2.5	14	0.6	1	0.0	0	0.0	117	5.3
W	0	0.0	8	0.4	34	1.5	26	1.2	13	0.6	1	0.0	0	0.0	82	3.7
WNW	0	0.0	5	0.2	26	1.2	22	1.0	7	0.3	2	0.1	0	0.0	62	2.8
NW	0	0.0	8	0.4	28	1.3	43	2.0	35	1.6	8	0.4	0	0.0	122	5.5
NNW	0	0.0	4	0.2	46	2.1	67	3.0	24	1.1	11	0.5	1	0.0	153	6.9
	0	0.0	97	4.4	593	26.9	859	39.0	529	24.0	108	4.9	18	0.8	2204	100.0
MISSING HOURS:	4															
MEAN WIND SPEED:	10.4															

U.S. DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 WASHINGTON, D.C. 20541

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	5	0.2	43	1.9	81	3.7	67	3.0	3	0.1	0	0.0	199	9.0
NNE	0	0.0	6	0.3	34	1.5	90	4.1	32	1.4	5	0.2	0	0.0	167	7.6
NE	0	0.0	6	0.3	27	1.2	56	2.5	29	1.3	0	0.0	0	0.0	118	5.3
ENE	0	0.0	6	0.3	38	1.7	33	1.5	6	0.3	0	0.0	0	0.0	83	3.8
E	0	0.0	8	0.4	34	1.5	5	0.2	0	0.0	0	0.0	0	0.0	47	2.1
ESE	0	0.0	6	0.3	14	0.6	12	0.5	8	0.4	0	0.0	0	0.0	40	1.8
SE	0	0.0	7	0.3	37	1.7	62	2.8	91	4.1	49	2.2	12	0.5	258	11.7
SSE	0	0.0	5	0.2	50	2.3	58	2.6	68	3.1	21	1.0	5	0.2	207	9.4
S	0	0.0	2	0.1	62	2.8	114	5.2	48	2.2	2	0.1	0	0.0	228	10.3
SSW	0	0.0	9	0.4	47	2.1	72	3.3	44	2.0	23	0.1	0	0.0	175	7.9
SW	0	0.0	7	0.3	30	1.4	64	2.9	43	1.9	2	0.1	0	0.0	146	6.6
WSW	0	0.0	5	0.2	43	1.9	54	2.4	14	0.6	1	0.0	0	0.0	117	5.3
W	0	0.0	8	0.4	34	1.5	26	1.2	16	0.7	1	0.0	0	0.0	85	3.9
WNW	0	0.0	5	0.2	26	1.2	22	1.0	7	0.3	2	0.1	0	0.0	62	2.8
NW	0	0.0	8	0.4	28	1.3	43	1.9	35	1.6	18	0.4	0	0.0	122	5.5
NNW	0	0.0	4	0.2	46	2.1	67	3.0	24	1.1	11	0.5	1	0.0	153	6.9
	0	0.0	97	4.4	593	26.9	859	38.9	532	24.1	108	4.9	18	0.8	2207	100.0

MISSING HOURS: 1

MEAN WIND SPEED: 10.4

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
 CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	0	0.0	3	0.1
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	0	0.0	10	0.5	13	0.6	5	0.2	1	0.0	29	1.3
SSE	0	0.0	0	0.0	3	0.1	8	0.4	8	0.4	2	0.1	1	0.0	22	1.0
S	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	6	0.3
SSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	0	0.0	4	0.2	5	0.2	0	0.0	0	0.0	9	0.4
WSW	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	4	0.2
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
NW	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	7	0.3	0	0.0	9	0.4
NNW	0	0.0	0	0.0	1	0.0	8	0.4	7	0.3	2	0.1	2	0.1	20	0.9
	0	0.0	1	0.0	10	0.5	37	1.7	40	1.8	16	0.7	4	0.2	108	4.9

MEAN WIND SPEED: 13.6
 MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
 CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	1	0.0	11	0.5	2	0.1	2	0.1	0	0.0	16	0.7
NNE	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
NE	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	2	0.1	4	0.2	0	0.0	5	0.2	5	0.2	16	0.7
SSE	0	0.0	0	0.0	9	0.4	4	0.2	4	0.2	1	0.0	0	0.0	18	0.8
S	0	0.0	0	0.0	8	0.4	0	0.0	0	0.0	0	0.0	0	0.0	8	0.4
SSW	0	0.0	0	0.0	3	0.1	3	0.1	0	0.0	0	0.0	0	0.0	6	0.3
SW	0	0.0	0	0.0	4	0.2	2	0.1	1	0.0	0	0.0	0	0.0	7	0.3
WSW	0	0.0	0	0.0	1	0.0	8	0.4	4	0.2	0	0.0	0	0.0	13	0.6
W	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
WNW	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	0	0.0	0	0.0	5	0.2
NW	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	2	0.1	0	0.0	5	0.2
NNW	0	0.0	0	0.0	0	0.0	12	0.5	4	0.2	2	0.1	0	0.0	18	0.8
	0	0.0	0	0.0	35	1.6	52	2.4	18	0.8	12	0.5	5	0.2	122	5.5

MEAN WIND SPEED: 11.4
 MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
 CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	18	0.8	30	1.4	9	0.4	0	0.0	0	0.0	57	2.6
NNE	0	0.0	2	0.1	10	0.5	28	1.3	21	1.0	4	0.2	2	0.1	67	3.0
NE	0	0.0	2	0.1	10	0.5	25	1.1	14	0.6	0	0.0	0	0.0	51	2.3
ENE	0	0.0	4	0.2	11	0.5	13	0.6	6	0.3	0	0.0	0	0.0	34	1.5
E	0	0.0	2	0.1	6	0.3	4	0.2	0	0.0	0	0.0	0	0.0	12	0.5
ESE	0	0.0	1	0.0	3	0.1	3	0.1	0	0.0	0	0.0	0	0.0	7	0.3
SE	0	0.0	8	0.4	6	0.3	10	0.5	21	1.0	14	0.6	11	0.5	70	3.2
SSE	0	0.0	3	0.1	12	0.5	27	1.2	35	1.6	20	0.9	4	0.2	101	4.6
S	0	0.0	3	0.1	22	1.0	57	2.6	32	1.5	6	0.3	0	0.0	120	5.4
SSW	0	0.0	2	0.1	18	0.8	44	2.0	22	1.0	5	0.2	0	0.0	91	4.1
SW	0	0.0	3	0.1	6	0.3	22	1.0	29	1.3	7	0.3	0	0.0	67	3.0
WSW	0	0.0	4	0.2	11	0.5	16	0.7	15	0.7	5	0.2	0	0.0	51	2.3
W	0	0.0	1	0.0	13	0.6	8	0.4	2	0.1	2	0.1	0	0.0	26	1.2
WNW	0	0.0	1	0.0	6	0.3	9	0.4	4	0.2	1	0.0	0	0.0	21	1.0
NW	0	0.0	0	0.0	7	0.3	10	0.5	13	0.6	4	0.2	0	0.0	34	1.5
NNW	0	0.0	4	0.2	11	0.5	15	0.7	2	0.1	5	0.2	0	0.0	37	1.7
	0	0.0	40	1.8	170	7.7	321	14.6	225	10.2	73	3.3	17	0.8	846	38.4

MEAN WIND SPEED: 11.5
 MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
 CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	7	0.3	17	0.8	18	0.8	9	0.4	0	0.0	51	2.3
NNE	0	0.0	0	0.0	3	0.1	10	0.5	14	0.6	4	0.2	1	0.0	32	1.5
NE	0	0.0	1	0.0	7	0.3	1	0.0	8	0.4	1	0.0	0	0.0	18	0.8
ENE	0	0.0	2	0.1	7	0.3	8	0.4	0	0.0	0	0.0	0	0.0	17	0.8
E	0	0.0	2	0.1	9	0.4	9	0.4	1	0.0	0	0.0	0	0.0	21	1.0
ESE	0	0.0	0	0.0	5	0.2	9	0.4	8	0.4	0	0.0	0	0.0	22	1.0
SE	0	0.0	0	0.0	5	0.2	17	0.8	24	1.1	9	0.4	1	0.0	56	2.5
SSE	0	0.0	0	0.0	15	0.7	18	0.8	14	0.6	4	0.2	0	0.0	51	2.3
S	0	0.0	0	0.0	10	0.5	12	0.5	12	0.5	4	0.2	0	0.0	38	1.7
SSW	0	0.0	2	0.1	10	0.5	15	0.7	31	1.4	13	0.6	2	0.1	73	3.3
SW	0	0.0	6	0.3	15	0.7	16	0.7	23	1.0	8	0.4	1	0.0	69	3.1
WSW	0	0.0	3	0.1	5	0.2	15	0.7	21	1.0	2	0.1	0	0.0	46	2.1
W	0	0.0	2	0.1	18	0.8	16	0.7	10	0.5	3	0.1	0	0.0	49	2.2
WNW	0	0.0	3	0.1	17	0.8	20	0.9	4	0.2	2	0.1	0	0.0	46	2.1
NW	0	0.0	2	0.1	12	0.5	8	0.4	12	0.5	9	0.4	4	0.2	47	2.1
NNW	0	0.0	1	0.0	4	0.2	9	0.4	11	0.5	4	0.2	1	0.0	30	1.4
	0	0.0	24	1.1	149	6.8	200	9.1	211	9.6	72	3.3	10	0.5	666	30.2

MEAN WIND SPEED: 11.9
 MISSING: 0

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 WASHINGTON, D.C. 20541

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	4	0.2	4	0.2	36	1.6	15	0.7	0	0.0	61	2.8
NNE	0	0.0	0	0.0	3	0.1	10	0.5	13	0.6	5	0.2	0	0.0	31	1.4
NE	0	0.0	0	0.0	2	0.1	12	0.5	14	0.6	6	0.3	0	0.0	34	1.5
ENE	0	0.0	0	0.0	4	0.2	4	0.2	3	0.1	0	0.0	0	0.0	11	0.5
E	0	0.0	1	0.0	1	0.0	3	0.1	4	0.2	0	0.0	0	0.0	9	0.4
ESE	0	0.0	3	0.1	2	0.1	0	0.0	1	0.0	0	0.0	0	0.0	6	0.3
SE	0	0.0	1	0.0	2	0.1	4	0.2	5	0.2	2	0.1	0	0.0	14	0.6
SSE	0	0.0	1	0.0	7	0.3	4	0.2	2	0.1	0	0.0	0	0.0	14	0.6
S	0	0.0	0	0.0	2	0.1	4	0.2	6	0.3	0	0.0	0	0.0	12	0.5
SSW	0	0.0	1	0.0	0	0.0	2	0.1	3	0.1	3	0.1	0	0.0	9	0.4
SW	0	0.0	0	0.0	1	0.0	4	0.2	4	0.2	2	0.1	0	0.0	11	0.5
WSW	0	0.0	1	0.0	3	0.1	1	0.0	3	0.1	0	0.0	0	0.0	8	0.4
W	0	0.0	2	0.1	2	0.1	5	0.2	2	0.1	0	0.0	0	0.0	11	0.5
WNW	0	0.0	1	0.0	1	0.0	3	0.1	1	0.0	0	0.0	0	0.0	6	0.3
NW	0	0.0	1	0.0	3	0.1	3	0.1	3	0.1	0	0.0	0	0.0	10	0.5
NNW	0	0.0	0	0.0	4	0.2	4	0.2	9	0.4	1	0.0	0	0.0	18	0.8
	0	0.0	14	0.6	41	1.9	67	3.0	109	4.9	34	1.5	0	0.0	265	12.0

MEAN WIND SPEED: 12.5
MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	0	0.0	0	0.0	1	0.0	5	0.2	0	0.0	0	0.0	6	0.3
ENE	0	0.0	0	0.0	2	0.1	6	0.3	2	0.1	2	0.1	0	0.0	12	0.5
E	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	0	0.0	3	0.1	11	0.5	10	0.5	2	0.1	0	0.0	26	1.2

MEAN WIND SPEED: 12.8
MISSING: 0

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	39	1.8	72	3.3	72	3.3	26	1.2	0	0.0	211	9.6
NNE	0	0.0	3	0.1	19	0.9	56	2.5	50	2.3	13	0.6	3	0.1	144	6.5
NE	0	0.0	4	0.2	21	1.0	44	2.0	44	2.0	7	0.3	0	0.0	120	5.4
ENE	0	0.0	6	0.3	28	1.3	33	1.5	11	0.5	2	0.1	0	0.0	80	3.6
E	0	0.0	5	0.2	18	0.8	17	0.8	6	0.3	0	0.0	0	0.0	46	2.1
ESE	0	0.0	4	0.2	13	0.6	12	0.5	9	0.4	0	0.0	0	0.0	38	1.7
SE	0	0.0	9	0.4	17	0.8	49	2.2	68	3.1	35	1.6	24	1.1	202	9.2
SSE	0	0.0	5	0.2	49	2.2	68	3.1	71	3.2	32	1.5	5	0.2	230	10.4
S	0	0.0	3	0.1	53	2.4	80	3.6	50	2.3	10	0.5	0	0.0	196	8.9
SSW	0	0.0	7	0.3	36	1.6	69	3.1	57	2.6	21	1.0	2	0.1	192	8.7
SW	0	0.0	10	0.5	30	1.4	52	2.4	64	2.9	17	0.8	1	0.0	174	7.9
WSW	0	0.0	8	0.4	22	1.0	46	2.1	48	2.2	7	0.3	0	0.0	131	5.9
W	0	0.0	5	0.2	33	1.5	34	1.5	15	0.7	5	0.2	0	0.0	92	4.2
WNW	0	0.0	5	0.2	28	1.3	37	1.7	12	0.5	3	0.1	0	0.0	85	3.9
NW	0	0.0	3	0.1	23	1.0	27	1.2	32	1.5	24	1.1	4	0.2	113	5.1
NNW	0	0.0	5	0.2	28	1.3	63	2.9	35	1.6	15	0.7	4	0.2	150	6.8
	0	0.0	84	3.8	457	20.7	759	34.4	644	29.2	217	9.8	43	2.0	2204	100.0

MISSING HOURS: 4
 MEAN WIND SPEED: 11.8

ARTIFICIAL ISLAND 07/07-09/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

DIRECTION	WIND SPEED GROUPS (MPH)													SUM PERCENT		
	0.0-0.5	0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6				
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	39	1.8	72	3.3	72	3.3	26	1.2	0	0.0	211	9.6
NNE	0	0.0	3	0.1	19	0.9	56	2.5	50	2.3	13	0.6	3	0.1	144	6.5
NE	0	0.0	4	0.2	21	1.0	44	2.0	44	2.0	7	0.3	0	0.0	120	5.4
ENE	0	0.0	6	0.3	28	1.3	33	1.5	11	0.5	2	0.1	0	0.0	80	3.6
E	0	0.0	5	0.2	18	0.8	17	0.8	6	0.3	0	0.0	0	0.0	46	2.1
ESE	0	0.0	4	0.2	13	0.6	12	0.5	9	0.4	0	0.0	0	0.0	38	1.7
SE	0	0.0	9	0.4	17	0.8	49	2.2	68	3.1	35	1.6	24	1.1	202	9.2
SSE	0	0.0	5	0.2	49	2.2	68	3.1	71	3.2	32	1.4	5	0.2	230	10.4
S	0	0.0	3	0.1	53	2.4	80	3.6	50	2.3	10	0.5	0	0.0	196	8.9
SSW	0	0.0	7	0.3	36	1.6	69	3.1	57	2.6	21	1.0	2	0.1	192	8.7
SW	0	0.0	10	0.5	30	1.4	52	2.4	64	2.9	17	0.8	1	0.0	174	7.9
WSW	0	0.0	8	0.4	22	1.0	46	2.1	48	2.2	7	0.3	0	0.0	131	5.9
W	0	0.0	5	0.2	33	1.5	34	1.5	17	0.8	5	0.2	0	0.0	94	4.3
WNW	0	0.0	5	0.2	28	1.3	37	1.7	13	0.6	3	0.1	0	0.0	86	3.9
NW	0	0.0	3	0.1	23	1.0	27	1.2	32	1.4	24	1.1	4	0.2	113	5.1
NNW	0	0.0	5	0.2	28	1.3	63	2.9	35	1.6	15	0.7	4	0.2	150	6.8
	0	0.0	84	3.8	457	20.7	759	34.4	647	29.3	217	9.8	43	1.9	2207	100.0
MISSING HOURS:	1															
MEAN WIND SPEED:	11.8															

WIND: 300 FT
 DELTA T: (300-33FT)

Lapse Rate
Wind Distributions
300-33 Foot

10/2007 - 12/2007

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	6	0.3	1	0.0	0	0.0	0	0.0	7	0.3
SSE	0	0.0	0	0.0	4	0.2	10	0.5	5	0.2	0	0.0	0	0.0	19	0.9
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
W	0	0.0	0	0.0	2	0.1	10	0.5	0	0.0	0	0.0	0	0.0	12	0.6
WNW	0	0.0	0	0.0	1	0.0	4	0.2	0	0.0	1	0.0	1	0.0	7	0.3
NW	0	0.0	0	0.0	0	0.0	3	0.1	8	0.4	0	0.0	0	0.0	11	0.5
NNW	0	0.0	0	0.0	0	0.0	2	0.1	5	0.2	0	0.0	0	0.0	7	0.3
	0	0.0	0	0.0	9	0.4	43	2.0	19	0.9	1	0.0	1	0.0	73	3.4

MEAN WIND SPEED: 11.0
MISSING: 4

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	1	0.0	6	0.3	0	0.0	0	0.0	0	0.0	7	0.3
NNE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ESE	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSE	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
S	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
SSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SW	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
WSW	0	0.0	0	0.0	2	0.1	4	0.2	0	0.0	0	0.0	0	0.0	6	0.3
W	0	0.0	0	0.0	2	0.1	1	0.0	3	0.1	0	0.0	0	0.0	6	0.3
WNW	0	0.0	0	0.0	3	0.1	8	0.4	2	0.1	4	0.2	0	0.0	17	0.8
NW	0	0.0	0	0.0	5	0.2	3	0.1	3	0.1	2	0.1	0	0.0	13	0.6
NNW	0	0.0	0	0.0	2	0.1	6	0.3	2	0.1	0	0.0	0	0.0	10	0.5
	0	0.0	3	0.1	20	0.9	34	1.6	11	0.5	6	0.3	0	0.0	74	3.5

MEAN WIND SPEED: 10.0
MISSING: 2

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	0	0.0	0	0.0	6	0.3
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	2	0.1	5	0.2	1	0.0	0	0.0	0	0.0	8	0.4
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	1	0.0	1	0.0	2	0.1	2	0.1	0	0.0	0	0.0	6	0.3
SSE	0	0.0	0	0.0	4	0.2	3	0.1	1	0.0	0	0.0	0	0.0	8	0.4
S	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SW	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
WSW	0	0.0	0	0.0	3	0.1	2	0.1	1	0.0	0	0.0	0	0.0	6	0.3
W	0	0.0	0	0.0	7	0.3	4	0.2	0	0.0	0	0.0	0	0.0	11	0.5
WNW	0	0.0	0	0.0	5	0.2	4	0.2	0	0.0	1	0.0	1	0.0	11	0.5
NW	0	0.0	0	0.0	4	0.2	5	0.2	10	0.5	0	0.0	0	0.0	19	0.9
NNW	0	0.0	0	0.0	4	0.2	1	0.0	2	0.1	0	0.0	0	0.0	7	0.3
	0	0.0	2	0.1	38	1.8	30	1.4	17	0.8	1	0.0	1	0.0	89	4.2

MEAN WIND SPEED: 9.0
MISSING: 1

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 30 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	6	0.3	8	0.4	15	0.7	3	0.1	0	0.0	0	0.0	32	1.5
NNE	0	0.0	4	0.2	40	1.9	32	1.5	8	0.4	0	0.0	0	0.0	84	3.9
NE	0	0.0	5	0.2	28	1.3	49	2.3	4	0.2	0	0.0	0	0.0	86	4.0
ENE	0	0.0	17	0.8	24	1.1	17	0.8	3	0.1	0	0.0	0	0.0	61	2.9
E	0	0.0	8	0.4	16	0.7	3	0.1	0	0.0	0	0.0	0	0.0	27	1.3
ESE	0	0.0	3	0.1	5	0.2	1	0.0	0	0.0	0	0.0	0	0.0	9	0.4
SE	0	0.0	2	0.1	9	0.4	16	0.7	2	0.1	0	0.0	0	0.0	29	1.4
SSE	0	0.0	2	0.1	13	0.6	29	1.4	12	0.6	2	0.1	0	0.0	58	2.7
S	0	0.0	8	0.4	20	0.9	33	1.5	11	0.5	0	0.0	0	0.0	72	3.4
SSW	0	0.0	6	0.3	23	1.1	16	0.7	6	0.3	0	0.0	0	0.0	51	2.4
SW	0	0.0	4	0.2	15	0.7	5	0.2	1	0.0	0	0.0	0	0.0	25	1.2
WSW	0	0.0	4	0.2	21	1.0	15	0.7	2	0.1	0	0.0	0	0.0	42	2.0
W	0	0.0	9	0.4	17	0.8	23	1.1	17	0.8	9	0.4	1	0.0	76	3.6
WNW	0	0.0	4	0.2	16	0.7	24	1.1	25	1.2	13	0.6	0	0.0	82	3.8
NW	0	0.0	6	0.3	21	1.0	13	0.6	26	1.2	2	0.1	0	0.0	68	3.2
NNW	0	0.0	4	0.2	14	0.7	20	0.9	5	0.2	0	0.0	0	0.0	43	2.0
	0	0.0	92	4.3	290	13.6	311	14.6	125	5.9	26	1.2	1	0.0	845	39.6

MEAN WIND SPEED: 8.6
MISSING: 27

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
 CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	8	0.4	23	1.1	5	0.2	0	0.0	0	0.0	0	0.0	36	1.7
NNE	0	0.0	8	0.4	32	1.5	10	0.5	0	0.0	0	0.0	0	0.0	50	2.3
NE	0	0.0	13	0.6	31	1.5	9	0.4	0	0.0	0	0.0	0	0.0	53	2.5
ENE	0	0.0	10	0.5	13	0.6	3	0.1	0	0.0	0	0.0	0	0.0	26	1.2
E	0	0.0	8	0.4	6	0.3	1	0.0	0	0.0	0	0.0	0	0.0	15	0.7
ESE	0	0.0	9	0.4	14	0.7	8	0.4	0	0.0	0	0.0	0	0.0	31	1.5
SE	0	0.0	0	0.0	15	0.7	43	2.0	8	0.4	0	0.0	0	0.0	66	3.1
SSE	0	0.0	2	0.1	20	0.9	20	0.9	4	0.2	0	0.0	0	0.0	46	2.2
S	0	0.0	6	0.3	7	0.3	33	1.5	3	0.1	1	0.0	0	0.0	50	2.3
SSW	0	0.0	6	0.3	18	0.8	20	0.9	6	0.3	1	0.0	0	0.0	51	2.4
SW	0	0.0	4	0.2	26	1.2	27	1.3	2	0.1	0	0.0	0	0.0	59	2.8
WSW	0	0.0	8	0.4	44	2.1	22	1.0	1	0.0	0	0.0	0	0.0	75	3.5
W	0	0.0	9	0.4	24	1.1	27	1.3	2	0.1	0	0.0	0	0.0	62	2.9
WNW	0	0.0	5	0.2	23	1.1	28	1.3	7	0.3	0	0.0	0	0.0	63	3.0
NW	0	0.0	7	0.3	31	1.5	38	1.8	2	0.1	0	0.0	0	0.0	78	3.7
NNW	0	0.0	4	0.2	30	1.4	27	1.3	3	0.1	10	0.0	0	0.0	64	3.0
	0	0.0	107	5.0	357	16.7	321	15.0	38	1.8	2	0.1	0	0.0	825	38.6

MEAN WIND SPEED: 7.2
 MISSING: 15

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
 CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	4	0.2	22	1.0	0	0.0	0	0.0	0	0.0	0	0.0	26	1.2
NNE	0	0.0	3	0.1	13	0.6	1	0.0	0	0.0	0	0.0	0	0.0	17	0.8
NE	0	0.0	3	0.1	18	0.8	0	0.0	0	0.0	0	0.0	0	0.0	21	1.0
ENE	0	0.0	6	0.3	14	0.7	0	0.0	0	0.0	0	0.0	0	0.0	20	0.9
E	0	0.0	2	0.1	5	0.2	0	0.0	0	0.0	0	0.0	0	0.0	7	0.3
ESE	0	0.0	1	0.0	11	0.5	0	0.0	0	0.0	0	0.0	0	0.0	12	0.6
SE	0	0.0	2	0.1	5	0.2	11	0.5	5	0.2	0	0.0	0	0.0	23	1.1
SSE	0	0.0	2	0.1	2	0.1	2	0.1	2	0.1	0	0.0	0	0.0	8	0.4
S	0	0.0	2	0.1	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	4	0.2
SSW	0	0.0	0	0.0	2	0.1	0	0.0	1	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	5	0.2	5	0.2	1	0.0	1	0.0	0	0.0	0	0.0	12	0.6
WSW	0	0.0	1	0.0	15	0.7	5	0.2	0	0.0	0	0.0	0	0.0	21	1.0
W	0	0.0	1	0.0	3	0.1	2	0.1	0	0.0	0	0.0	0	0.0	6	0.3
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	2	0.1	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2
NNW	0	0.0	1	0.0	10	0.5	1	0.0	0	0.0	0	0.0	0	0.0	12	0.6
	0	0.0	35	1.6	128	6.0	24	1.1	9	0.4	0	0.0	0	0.0	196	9.2

MEAN WIND SPEED: 5.8
 MISSING: 16

WIND SPEED GROUPS (MPH)
 0.0-0.5 0.6-3.5 3.6-7.5 7.6-12.5 12.6-18.5 18.6-24.5 GE 24.6
 SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT SUM PERCENT

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
 CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
NE	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ENE	0	0.0	0	0.0	9	0.4	0	0.0	0	0.0	0	0.0	0	0.0	9	0.4
E	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SE	0	0.0	1	0.0	3	0.1	0	0.0	3	0.1	2	0.1	0	0.0	9	0.4
SSE	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	1	0.0	0	0.0	4	0.2
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SW	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	6	0.3	19	0.9	1	0.0	4	0.2	3	0.1	0	0.0	33	1.5

MEAN WIND SPEED: 7.6
 MISSING: 4

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 30 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

	0.0-0.5	0.6-3.5	3.6-7.5	7.6-12.5	12.6-18.5	18.6-24.5	GE 24.6	SUM PERCENT
DIRECTION	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	
N	0	18	58	28	3	0	0	107
NNE	0	15	88	44	8	0	0	155
NE	0	22	81	67	5	0	0	175
ENE	0	33	60	21	3	0	0	117
E	0	20	30	4	0	0	0	54
ESE	0	16	32	10	0	0	0	58
SE	0	6	33	78	21	2	0	140
SSE	0	6	46	65	25	3	0	145
S	0	17	30	68	14	1	0	130
SSW	0	12	43	41	13	1	0	110
SW	0	15	48	35	5	0	0	103
WSW	0	13	86	49	4	0	0	152
W	0	19	55	67	22	9	1	173
WNW	0	9	48	68	34	19	2	180
NW	0	15	63	62	49	4	0	193
NNW	0	9	60	57	17	0	0	143
	0	245	861	764	223	39	3	2135
	0.0	11.5	40.3	35.8	10.4	1.8	0.1	100.0

MISSING HOURS: 73

MEAN WIND SPEED: 7.9

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS
WIND: 30 FT
DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	18	0.8	58	2.7	28	1.3	3	0.1	0	0.0	0	0.0	107	5.0
NNE	0	0.0	15	0.7	88	4.1	44	2.1	8	0.4	0	0.0	0	0.0	155	7.2
NE	0	0.0	22	1.0	81	3.8	67	3.1	5	0.2	0	0.0	0	0.0	175	8.2
ENE	0	0.0	33	1.5	60	2.8	21	1.0	3	0.1	0	0.0	0	0.0	117	5.5
E	0	0.0	20	0.9	30	1.4	4	0.2	0	0.0	0	0.0	0	0.0	54	2.5
ESE	0	0.0	16	0.7	32	1.5	10	0.5	0	0.0	0	0.0	0	0.0	58	2.7
SE	0	0.0	6	0.3	33	1.5	78	3.6	21	1.0	2	0.1	0	0.0	140	6.5
SSE	0	0.0	6	0.3	46	2.2	65	3.0	25	1.2	3	0.1	0	0.0	145	6.8
S	0	0.0	17	0.8	30	1.4	68	3.2	14	0.7	1	0.0	0	0.0	130	6.1
SSW	0	0.0	12	0.6	43	2.0	41	1.9	13	0.6	1	0.0	0	0.0	110	5.1
SW	0	0.0	15	0.7	48	2.2	35	1.6	5	0.2	0	0.0	0	0.0	103	4.8
WSW	0	0.0	13	0.6	86	4.0	49	2.3	4	0.2	0	0.0	0	0.0	152	7.1
W	0	0.0	19	0.9	55	2.6	67	3.1	22	1.0	9	0.4	1	0.0	173	8.1
WNW	0	0.0	9	0.4	48	2.2	68	3.2	34	1.6	19	0.9	2	0.1	180	8.4
NW	0	0.0	15	0.7	63	2.9	62	2.9	52	2.4	4	0.2	0	0.0	196	9.2
NNW	0	0.0	9	0.4	60	2.8	57	2.7	17	0.8	10	0.0	0	0.0	143	6.7
C.	0.0	245	11.5	861	40.3	764	35.7	226	10.6	39	1.8	3	0.1	2138	100.0	

MISSING HOURS: 70

MEAN WIND SPEED: 7.9

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT	SUM PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	0	0.0	6	0.3	3	0.1	1	0.0	0	0.0	10	0.5
SSE	0	0.0	0	0.0	2	0.1	4	0.2	9	0.4	1	0.0	0	0.0	16	0.7
S	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SSW	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	2	0.1
SW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	0	0.0	4	0.2
W	0	0.0	0	0.0	1	0.0	5	0.2	7	0.3	0	0.0	0	0.0	13	0.6
WNW	0	0.0	0	0.0	0	0.0	2	0.1	2	0.1	0	0.0	4	0.2	8	0.4
NW	0	0.0	0	0.0	0	0.0	2	0.1	4	0.2	5	0.2	1	0.0	12	0.5
NNW	0	0.0	0	0.0	0	0.0	0	0.0	4	0.2	2	0.1	0	0.0	6	0.3
	0	0.0	0	0.0	3	0.1	27	1.2	33	1.5	9	0.4	5	0.2	77	3.5

MEAN WIND SPEED: 14.5
MISSING: 0

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
 CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	2	0.1	3	0.1	1	0.0	0	0.0	0	0.0	6	0.3
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	5	0.2	1	0.0	1	0.0	0	0.0	7	0.3
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	2	0.1	0	0.0	7	0.3
SSE	0	0.0	0	0.0	4	0.2	1	0.0	0	0.0	1	0.0	0	0.0	6	0.3
S	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SW	0	0.0	1	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	3	0.1
WSW	0	0.0	0	0.0	1	0.0	2	0.1	1	0.0	1	0.0	0	0.0	5	0.2
W	0	0.0	0	0.0	5	0.2	4	0.2	2	0.1	0	0.0	1	0.0	12	0.5
WNW	0	0.0	0	0.0	2	0.1	5	0.2	2	0.1	2	0.1	1	0.0	12	0.5
NW	0	0.0	0	0.0	4	0.2	5	0.2	3	0.1	5	0.2	2	0.1	19	0.9
NNW	0	0.0	0	0.0	4	0.2	1	0.0	1	0.0	2	0.1	0	0.0	8	0.4

0 0.0 1 0.0 28 1.3 29 1.3 14 0.6 14 0.6 4 0.2 90 4.1

MEAN WIND SPEED: 11.9
 MISSING: 0

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
 CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	3	0.1	10	0.5	9	0.4	12	0.5	4	0.2	0	0.0	38	1.7
NNE	0	0.0	1	0.0	9	0.4	29	1.3	25	1.1	11	0.5	0	0.0	75	3.4
NE	0	0.0	2	0.1	14	0.6	29	1.3	39	1.8	4	0.2	0	0.0	88	4.0
ENE	0	0.0	4	0.2	20	0.9	29	1.3	8	0.4	5	0.2	0	0.0	66	3.0
E	0	0.0	4	0.2	12	0.5	4	0.2	0	0.0	0	0.0	0	0.0	20	0.9
ESE	0	0.0	2	0.1	5	0.2	1	0.0	0	0.0	0	0.0	0	0.0	8	0.4
SE	0	0.0	2	0.1	9	0.4	9	0.4	12	0.5	2	0.1	1	0.0	35	1.6
SSE	0	0.0	0	0.0	10	0.5	24	1.1	20	0.9	8	0.4	2	0.1	64	2.9
S	0	0.0	4	0.2	19	0.9	26	1.2	24	1.1	1	0.0	0	0.0	74	3.4
SSW	0	0.0	2	0.1	15	0.7	20	0.9	5	0.2	6	0.3	0	0.0	48	2.2
SW	0	0.0	4	0.2	8	0.4	4	0.2	6	0.3	0	0.0	0	0.0	22	1.0
WSW	0	0.0	4	0.2	12	0.5	16	0.7	9	0.4	3	0.1	0	0.0	44	2.0
W	0	0.0	3	0.1	15	0.7	16	0.7	24	1.1	21	1.0	16	0.7	95	4.3
WNW	0	0.0	4	0.2	13	0.6	20	0.9	19	0.9	22	1.0	11	0.5	89	4.1
NW	0	0.0	3	0.1	9	0.4	16	0.7	12	0.5	24	1.1	3	0.1	67	3.1
NNW	0	0.0	2	0.1	10	0.5	8	0.4	15	0.7	3	0.1	0	0.0	38	1.7
	0	0.0	44	2.0	190	8.7	260	11.9	230	10.5	114	5.2	33	1.5	871	39.7

MEAN WIND SPEED: 12.2
 MISSING: 1

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
 CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	1	0.0	4	0.2	15	0.7	7	0.3	0	0.0	0	0.0	27	1.2
NNE	0	0.0	2	0.1	9	0.4	28	1.3	13	0.6	0	0.0	0	0.0	52	2.4
NE	0	0.0	1	0.0	10	0.5	19	0.9	11	0.5	0	0.0	0	0.0	41	1.9
ENE	0	0.0	3	0.1	7	0.3	15	0.7	5	0.2	0	0.0	0	0.0	30	1.4
E	0	0.0	1	0.0	7	0.3	3	0.1	1	0.0	0	0.0	0	0.0	12	0.5
ESE	0	0.0	4	0.2	6	0.3	9	0.4	8	0.4	0	0.0	0	0.0	27	1.2
SE	0	0.0	2	0.1	5	0.2	20	0.9	28	1.3	7	0.3	3	0.1	65	3.0
SSE	0	0.0	0	0.0	8	0.4	20	0.9	24	1.1	4	0.2	0	0.0	56	2.6
S	0	0.0	3	0.1	11	0.5	17	0.8	29	1.3	4	0.2	1	0.0	65	3.0
SSW	0	0.0	2	0.1	8	0.4	21	1.0	18	0.8	7	0.3	4	0.2	60	2.7
SW	0	0.0	4	0.2	17	0.8	26	1.2	15	0.7	2	0.1	1	0.0	65	3.0
WSW	0	0.0	1	0.0	13	0.6	31	1.4	26	1.2	0	0.0	1	0.0	72	3.3
W	0	0.0	1	0.0	9	0.4	32	1.5	17	0.8	2	0.1	0	0.0	61	2.8
WNW	0	0.0	1	0.0	5	0.2	33	1.5	22	1.0	6	0.3	0	0.0	67	3.1
NW	0	0.0	2	0.1	4	0.2	24	1.1	44	2.0	4	0.2	0	0.0	78	3.6
NNW	0	0.0	4	0.2	5	0.2	19	0.9	29	1.3	3	0.1	1	0.0	61	2.8
	0	0.0	32	1.5	128	5.8	332	15.1	297	13.5	39	1.8	11	0.5	839	38.2

MEAN WIND SPEED: 11.6

MISSING: 1

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
 CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	1	0.0	2	0.1	7	0.3	4	0.2	0	0.0	0	0.0	14	0.6
NNE	0	0.0	1	0.0	0	0.0	14	0.6	3	0.1	0	0.0	0	0.0	18	0.8
NE	0	0.0	2	0.1	4	0.2	4	0.2	2	0.1	0	0.0	0	0.0	12	0.5
ENE	0	0.0	2	0.1	7	0.3	5	0.2	0	0.0	0	0.0	0	0.0	14	0.6
E	0	0.0	3	0.1	12	0.5	1	0.0	0	0.0	0	0.0	0	0.0	16	0.7
ESE	0	0.0	1	0.0	3	0.1	5	0.2	2	0.1	0	0.0	0	0.0	11	0.5
SE	0	0.0	1	0.0	3	0.1	7	0.3	5	0.2	4	0.2	3	0.1	23	1.0
SSE	0	0.0	0	0.0	2	0.1	3	0.1	9	0.4	1	0.0	1	0.0	16	0.7
S	0	0.0	0	0.0	0	0.0	2	0.1	5	0.2	3	0.1	0	0.0	10	0.5
SSW	0	0.0	0	0.0	1	0.0	3	0.1	2	0.1	0	0.0	2	0.1	9	0.4
SW	0	0.0	1	0.0	2	0.1	4	0.2	4	0.2	0	0.0	0	0.0	11	0.5
WSW	0	0.0	1	0.0	5	0.2	8	0.4	6	0.3	0	0.0	0	0.0	20	0.9
W	0	0.0	2	0.1	3	0.1	3	0.1	0	0.0	0	0.0	0	0.0	8	0.4
WNW	0	0.0	3	0.1	2	0.1	0	0.0	1	0.0	0	0.0	0	0.0	6	0.3
NW	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	0	0.0	0	0.0	2	0.1
NNW	0	0.0	1	0.0	1	0.0	11	0.5	3	0.1	0	0.0	0	0.0	16	0.7
	0	0.0	19	0.9	47	2.1	78	3.6	47	2.1	9	0.4	6	0.3	206	9.4

MEAN WIND SPEED: 10.5
 MISSING: 6

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 150 FT
DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	0	0.0	0	0.0	3	0.1
E	0	0.0	0	0.0	3	0.1	3	0.1	0	0.0	0	0.0	0	0.0	6	0.3
ESE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	0	0.0	1	0.0	2	0.1	0	0.0	3	0.1	6	0.3
SSE	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	3	0.1	5	0.2
S	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0	1	0.0	3	0.1
SSW	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
WSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
W	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WNW	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NW	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NNW	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
	0	0.0	5	0.2	5	0.2	10	0.5	8	0.4	0	0.0	7	0.3	35	1.6

MEAN WIND SPEED: 13.5
MISSING: 2

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	5	0.2	18	0.8	38	1.7	25	1.1	4	0.2	0	0.0	90	4.1
NNE	0	0.0	4	0.2	18	0.8	71	3.2	41	1.9	11	0.5	0	0.0	145	6.6
NE	0	0.0	6	0.3	28	1.3	59	2.7	57	2.6	5	0.2	0	0.0	155	7.1
ENE	0	0.0	9	0.4	35	1.6	53	2.4	13	0.6	5	0.2	0	0.0	115	5.2
E	0	0.0	8	0.4	37	1.7	11	0.5	1	0.0	0	0.0	0	0.0	57	2.6
ESE	0	0.0	7	0.3	15	0.7	16	0.7	11	0.5	0	0.0	0	0.0	49	2.2
SE	0	0.0	5	0.2	19	0.9	45	2.1	51	2.3	16	0.7	10	0.5	146	6.7
SSE	0	0.0	0	0.0	28	1.3	52	2.4	64	2.9	15	0.7	6	0.3	165	7.5
S	0	0.0	7	0.3	33	1.5	47	2.1	60	2.7	8	0.4	2	0.1	157	7.2
SSW	0	0.0	4	0.2	25	1.1	48	2.2	27	1.2	14	0.6	6	0.3	124	5.7
SW	0	0.0	12	0.5	28	1.3	37	1.7	26	1.2	3	0.1	1	0.0	107	4.9
WSW	0	0.0	6	0.3	32	1.5	64	2.9	45	2.1	4	0.2	1	0.0	152	6.9
W	0	0.0	6	0.3	33	1.5	63	2.9	54	2.5	24	1.1	17	0.8	197	9.0
WNW	0	0.0	9	0.4	23	1.0	68	3.1	50	2.3	30	1.4	21	1.0	201	9.2
NW	0	0.0	6	0.3	18	0.8	54	2.5	65	3.0	41	1.9	9	0.4	193	8.8
NNW	0	0.0	8	0.4	22	1.0	45	2.1	54	2.5	11	0.5	1	0.0	141	6.4
	0	0.0	102	4.6	412	18.8	771	35.1	644	29.4	191	8.7	74	3.4	2194	100.0

MISSING HOURS: 14

MEAN WIND SPEED: 11.9

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 150 FT
 DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	5	0.2	18	0.8	38	1.7	25	1.1	4	0.2	0	0.0	90	4.1
NNE	0	0.0	4	0.2	18	0.8	71	3.2	41	1.9	11	0.5	0	0.0	145	6.6
NE	0	0.0	6	0.3	28	1.3	59	2.7	57	2.6	5	0.2	0	0.0	155	7.1
ENE	0	0.0	9	0.4	35	1.6	53	2.4	13	0.6	5	0.2	0	0.0	115	5.2
E	0	0.0	8	0.4	37	1.7	11	0.5	1	0.0	0	0.0	0	0.0	57	2.6
ESE	0	0.0	7	0.3	15	0.7	16	0.7	11	0.5	0	0.0	0	0.0	49	2.2
SE	0	0.0	5	0.2	19	0.9	45	2.0	51	2.3	16	0.7	10	0.5	146	6.6
SSE	0	0.0	0	0.0	28	1.3	52	2.4	64	2.9	15	0.7	6	0.3	165	7.5
S	0	0.0	7	0.3	33	1.5	47	2.1	60	2.7	8	0.4	2	0.1	157	7.1
SSW	0	0.0	4	0.2	25	1.1	48	2.2	27	1.2	14	0.6	6	0.3	124	5.6
SW	0	0.0	12	0.5	28	1.3	37	1.7	26	1.2	3	0.1	1	0.0	107	4.9
WSW	0	0.0	6	0.3	32	1.5	64	2.9	45	2.0	4	0.2	1	0.0	152	6.9
W	0	0.0	6	0.3	33	1.5	63	2.9	54	2.5	24	1.1	17	0.8	197	9.0
WNW	0	0.0	9	0.4	23	1.0	68	3.1	50	2.3	30	1.4	21	1.0	201	9.1
NW	0	0.0	6	0.3	18	0.8	54	2.5	66	3.0	43	2.0	9	0.4	196	8.9
NNW	0	0.0	8	0.4	22	1.0	45	2.0	54	2.5	11	0.5	1	0.0	141	6.4
	0	0.0	102	4.6	412	18.8	771	35.1	645	29.4	193	8.8	74	3.4	2197	100.0

MISSING HOURS: 11

MEAN WIND SPEED: 11.9

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: LE -1.9 DEG C/100M
CLASS A

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	3	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ESE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SE	0	0.0	0	0.0	2	0.1	4	0.2	2	0.1	0	0.0	0	0.0	8	0.4
SSE	0	0.0	0	0.0	1	0.0	5	0.2	10	0.5	2	0.1	0	0.0	18	0.8
S	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
WSW	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	0	0.0	4	0.2
W	0	0.0	0	0.0	1	0.0	1	0.0	10	0.5	0	0.0	0	0.0	12	0.6
WNW	0	0.0	0	0.0	0	0.0	3	0.1	3	0.1	0	0.0	4	0.2	10	0.5
NW	0	0.0	0	0.0	0	0.0	2	0.1	1	0.0	5	0.2	3	0.1	11	0.5
NNW	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	0	0.0	0	0.0	7	0.3
	0	0.0	0	0.0	4	0.2	22	1.0	33	1.5	11	0.5	7	0.3	77	3.5

MEAN WIND SPEED: 15.5

MISSING: 0

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.8 TO -1.7 DEG C/100M
 CLASS B

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	0	0.0	1	0.0	3	0.1	0	0.0	0	0.0	4	0.2
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
ENE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
E	0	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
S	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSW	0	0.0	1	0.0	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	3	0.1
WSW	0	0.0	0	0.0	1	0.0	3	0.1	2	0.1	0	0.0	0	0.0	6	0.3
W	0	0.0	0	0.0	0	0.0	4	0.2	0	0.0	3	0.1	0	0.0	7	0.3
WNW	0	0.0	0	0.0	2	0.1	7	0.3	4	0.2	2	0.1	5	0.2	20	0.9
NW	0	0.0	0	0.0	0	0.0	5	0.2	3	0.1	2	0.1	4	0.2	14	0.6
NNW	0	0.0	0	0.0	1	0.0	7	0.3	2	0.1	2	0.1	0	0.0	12	0.6
	0	0.0	3	0.1	7	0.3	31	1.4	16	0.7	10	0.5	9	0.4	76	3.5

MEAN WIND SPEED: 14.6
 MISSING: 0

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

LAPSE RATE: -1.6 TO -1.5 DEG C/100M
CLASS C

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	2	0.1	3	0.1	1	0.0	0	0.0	0	0.0	6	0.3
NNE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NE	0	0.0	0	0.0	0	0.0	5	0.2	1	0.0	1	0.0	0	0.0	7	0.3
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	0	0.0	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	2	0.1
ESE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
SE	0	0.0	1	0.0	1	0.0	1	0.0	1	0.0	2	0.1	0	0.0	6	0.3
SSE	0	0.0	0	0.0	3	0.1	2	0.1	0	0.0	1	0.0	0	0.0	6	0.3
S	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
SSW	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	3	0.1
SW	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	2	0.1
WSW	0	0.0	0	0.0	2	0.1	2	0.1	1	0.0	1	0.0	0	0.0	6	0.3
W	0	0.0	0	0.0	3	0.1	3	0.1	3	0.1	0	0.0	1	0.0	10	0.5
WNW	0	0.0	0	0.0	4	0.2	6	0.3	0	0.0	4	0.2	1	0.0	15	0.7
NW	0	0.0	0	0.0	3	0.1	3	0.1	4	0.2	6	0.3	3	0.1	19	0.9
NNW	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	3	0.1	0	0.0	7	0.3
	0	0.0	3	0.1	24	1.1	27	1.2	13	0.6	18	0.8	5	0.2	90	4.1

MEAN WIND SPEED: 12.9

MISSING: 0

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -1.4 TO -0.5 DEG C/100M
 CLASS D

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	7	0.3	11	0.5	18	0.8	5	0.2	0	0.0	43	2.0
NNE	0	0.0	1	0.0	4	0.2	19	0.9	23	1.1	20	0.9	0	0.0	67	3.1
NE	0	0.0	2	0.1	8	0.4	27	1.2	46	2.1	10	0.5	0	0.0	93	4.3
ENE	0	0.0	4	0.2	20	0.9	22	1.0	16	0.7	5	0.2	0	0.0	67	3.1
E	0	0.0	4	0.2	11	0.5	7	0.3	1	0.0	1	0.0	0	0.0	24	1.1
ESE	0	0.0	0	0.0	7	0.3	2	0.1	1	0.0	0	0.0	0	0.0	10	0.5
SE	0	0.0	3	0.1	6	0.3	4	0.2	6	0.3	3	0.1	1	0.0	23	1.1
SSE	0	0.0	2	0.1	10	0.5	20	0.9	17	0.8	6	0.3	2	0.1	57	2.6
S	0	0.0	3	0.1	15	0.7	19	0.9	27	1.2	10	0.5	0	0.0	74	3.4
SSW	0	0.0	2	0.1	11	0.5	23	1.1	13	0.6	7	0.3	0	0.0	56	2.6
SW	0	0.0	3	0.1	10	0.5	7	0.3	3	0.1	3	0.1	0	0.0	26	1.2
WSW	0	0.0	4	0.2	12	0.6	13	0.6	9	0.4	5	0.2	0	0.0	43	2.0
W	0	0.0	3	0.1	17	0.8	10	0.5	17	0.8	23	1.1	20	0.9	90	4.1
WNW	0	0.0	3	0.1	10	0.5	11	0.5	17	0.8	27	1.2	25	1.1	93	4.3
NW	0	0.0	2	0.1	10	0.5	10	0.5	17	0.8	17	0.8	16	0.7	72	3.3
NNW	0	0.0	1	0.0	4	0.2	5	0.2	12	0.6	10	0.5	1	0.0	33	1.5
	0	0.0	39	1.8	162	7.4	210	9.6	243	11.2	152	7.0	65	3.0	871	40.0

MEAN WIND SPEED: 13.8
 MISSING: 1

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: -0.4 TO 1.5 DEG C/100M
 CLASS E

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	5	0.2	10	0.5	14	0.6	3	0.1	0	0.0	32	1.5
NNE	0	0.0	0	0.0	5	0.2	10	0.5	18	0.8	5	0.2	0	0.0	38	1.7
NE	0	0.0	1	0.0	1	0.0	16	0.7	16	0.7	1	0.0	0	0.0	35	1.6
ENE	0	0.0	1	0.0	13	0.6	15	0.7	11	0.5	1	0.0	0	0.0	41	1.9
E	0	0.0	1	0.0	9	0.4	4	0.2	2	0.1	0	0.0	0	0.0	16	0.7
ESE	0	0.0	0	0.0	5	0.2	2	0.1	13	0.6	4	0.2	0	0.0	24	1.1
SE	0	0.0	1	0.0	5	0.2	10	0.5	16	0.7	8	0.4	3	0.1	43	2.0
SSE	0	0.0	1	0.0	9	0.4	12	0.6	21	1.0	14	0.6	1	0.0	58	2.7
S	0	0.0	2	0.1	10	0.5	13	0.6	33	1.5	12	0.6	2	0.1	72	3.3
SSW	0	0.0	2	0.1	4	0.2	14	0.6	16	0.7	23	1.1	6	0.3	65	3.0
SW	0	0.0	5	0.2	9	0.4	16	0.7	29	1.3	8	0.4	2	0.1	69	3.2
WSW	0	0.0	0	0.0	12	0.6	13	0.6	22	1.0	9	0.4	1	0.0	57	2.6
W	0	0.0	0	0.0	8	0.4	21	1.0	38	1.7	9	0.4	1	0.0	77	3.5
WNN	0	0.0	0	0.0	1	0.0	8	0.4	46	2.1	14	0.6	3	0.1	72	3.3
NW	0	0.0	1	0.0	4	0.2	8	0.4	38	1.7	22	1.0	1	0.0	74	3.4
NNW	0	0.0	3	0.1	3	0.1	7	0.3	32	1.5	18	0.8	2	0.1	65	3.0
	0	0.0	18	0.8	103	4.7	179	8.2	365	16.8	151	6.9	22	1.0	838	38.5

MEAN WIND SPEED: 14.1
 MISSING: 2

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: 1.6 TO 4.0 DEG C/100M
 CLASS F

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	0	0.0	3	0.1	2	0.1	8	0.4	0	0.0	0	0.0	13	0.6
NNE	0	0.0	0	0.0	1	0.0	5	0.2	9	0.4	1	0.0	0	0.0	16	0.7
NE	0	0.0	3	0.1	0	0.0	2	0.1	3	0.1	2	0.1	0	0.0	10	0.5
ENE	0	0.0	0	0.0	3	0.1	5	0.2	3	0.1	1	0.0	0	0.0	12	0.6
E	0	0.0	1	0.0	6	0.3	5	0.2	1	0.0	0	0.0	0	0.0	13	0.6
ESE	0	0.0	1	0.0	7	0.3	4	0.2	4	0.2	2	0.1	0	0.0	18	0.8
SE	0	0.0	0	0.0	1	0.0	2	0.1	3	0.1	2	0.1	1	0.0	9	0.4
SSE	0	0.0	3	0.1	1	0.0	6	0.3	6	0.3	2	0.1	0	0.0	18	0.8
S	0	0.0	1	0.0	1	0.0	4	0.2	8	0.4	6	0.3	0	0.0	20	0.9
SSW	0	0.0	0	0.0	0	0.0	1	0.0	6	0.3	1	0.0	2	0.1	10	0.5
SW	0	0.0	0	0.0	0	0.0	0	0.0	6	0.3	0	0.0	0	0.0	6	0.3
WSW	0	0.0	0	0.0	0	0.0	3	0.1	7	0.3	4	0.2	0	0.0	14	0.6
W	0	0.0	1	0.0	4	0.2	0	0.0	6	0.3	3	0.1	0	0.0	14	0.6
WNW	0	0.0	0	0.0	3	0.1	3	0.1	0	0.0	1	0.0	0	0.0	7	0.3
NW	0	0.0	2	0.1	1	0.0	0	0.0	3	0.1	0	0.0	0	0.0	6	0.3
NNW	0	0.0	0	0.0	2	0.1	3	0.1	9	0.4	0	0.0	0	0.0	14	0.6

0 0.0 12 0.6 33 1.5 45 2.1 82 3.8 25 1.1 3 0.1 200 9.2

MEAN WIND SPEED: 12.9
 MISSING: 12

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ARTIFICIAL ISLAND: 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

LAPSE RATE: GT 4.0 DEG C/100M
 CLASS G

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT
N	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NNE	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
NE	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	2	0.1
ENE	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
E	0	0.0	1	0.0	1	0.0	4	0.2	2	0.1	0	0.0	0	0.0	8	0.4
ESE	0	0.0	0	0.0	1	0.0	0	0.0	3	0.1	0	0.0	0	0.0	4	0.2
SE	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
SSE	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1	0.0
S	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1	1	0.0	0	0.0	4	0.2
SSW	0	0.0	0	0.0	1	0.0	0	0.0	2	0.1	0	0.0	0	0.0	3	0.1
SW	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WSW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
W	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
WNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
NNW	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	3	0.1	6	0.3	5	0.2	12	0.6	1	0.0	0	0.0	27	1.2

MEAN WIND SPEED: 11.3
 MISSING: 10

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
 BY ATMOSPHERIC STABILITY CLASS
 WIND: 300 FT
 DELTA T: (300-33FT)

ALL STABILITY CLASSES

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT	SUM	PERCENT		
N	0	0.0	2	0.1	18	0.8	27	1.2	44	2.0	8	0.4	0	0.0	99	4.5
NNE	0	0.0	2	0.1	10	0.5	34	1.6	50	2.3	26	1.2	0	0.0	122	5.6
NE	0	0.0	8	0.4	9	0.4	50	2.3	70	3.2	14	0.6	0	0.0	151	6.9
ENE	0	0.0	5	0.2	36	1.7	43	2.0	30	1.4	7	0.3	0	0.0	121	5.6
E	0	0.0	8	0.4	29	1.3	21	1.0	6	0.3	1	0.0	0	0.0	65	3.0
ESE	0	0.0	1	0.0	20	0.9	9	0.4	22	1.0	6	0.3	0	0.0	58	2.7
SE	0	0.0	5	0.2	16	0.7	21	1.0	28	1.3	15	0.7	5	0.2	90	4.1
SSE	0	0.0	6	0.3	25	1.1	45	2.1	55	2.5	25	1.1	3	0.1	159	7.3
S	0	0.0	6	0.3	27	1.2	37	1.7	71	3.3	29	1.3	2	0.1	172	7.9
SSW	0	0.0	6	0.3	18	0.8	41	1.9	39	1.8	31	1.4	18	0.4	143	6.6
SW	0	0.0	9	0.4	19	0.9	25	1.1	40	1.8	12	0.6	2	0.1	107	4.9
WSW	0	0.0	4	0.2	27	1.2	38	1.7	41	1.9	19	0.9	1	0.0	130	6.0
W	0	0.0	4	0.2	34	1.6	39	1.8	74	3.4	38	1.7	22	1.0	211	9.7
WNW	0	0.0	3	0.1	20	0.9	38	1.7	70	3.2	48	2.2	38	1.7	217	10.0
NW	0	0.0	5	0.2	18	0.8	28	1.3	66	3.0	52	2.4	27	1.2	196	9.0
NNW	0	0.0	4	0.2	13	0.6	23	1.1	58	2.7	37	1.7	13	0.1	138	6.3
	0	0.0	78	3.6	339	15.6	519	23.8	764	35.1	368	16.9	111	5.1	2179	100.0

MISSING HOURS: 29

MEAN WIND SPEED: 13.8

ARTIFICIAL ISLAND 10/07-12/07

JOINT DISTRIBUTION OF WIND DIRECTION AND SPEED
BY ATMOSPHERIC STABILITY CLASS

WIND: 300 FT
DELTA T: (300-33FT)

DIRECTION VS SPEED ONLY

WIND SPEED GROUPS (MPH)

DIRECTION	0.0-0.5		0.6-3.5		3.6-7.5		7.6-12.5		12.6-18.5		18.6-24.5		GE 24.6		SUM PERCENT	
	SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT		SUM PERCENT			
N	0	0.0	2	0.1	18	0.8	27	1.2	44	2.0	8	0.4	0	0.0	99	4.5
NNE	0	0.0	2	0.1	10	0.5	34	1.6	50	2.3	26	1.2	0	0.0	122	5.6
NE	0	0.0	8	0.4	9	0.4	50	2.3	70	3.2	14	0.6	0	0.0	151	6.9
ENE	0	0.0	5	0.2	36	1.7	43	2.0	30	1.4	7	0.3	0	0.0	121	5.5
E	0	0.0	8	0.4	29	1.3	21	1.0	6	0.3	1	0.0	0	0.0	65	3.0
ESE	0	0.0	1	0.0	20	0.9	9	0.4	22	1.0	6	0.3	0	0.0	58	2.7
SE	0	0.0	5	0.2	16	0.7	21	1.0	28	1.3	15	0.7	5	0.2	90	4.1
SSE	0	0.0	6	0.3	25	1.1	45	2.1	55	2.5	25	1.1	3	0.1	159	7.3
S	0	0.0	6	0.3	27	1.2	37	1.7	71	3.3	29	1.3	2	0.1	172	7.9
SSW	0	0.0	6	0.3	18	0.8	41	1.9	39	1.8	31	1.4	8	0.4	143	6.6
SW	0	0.0	9	0.4	19	0.9	25	1.1	40	1.8	12	0.6	2	0.1	107	4.9
WSW	0	0.0	4	0.2	27	1.2	38	1.7	41	1.9	19	0.9	1	0.0	130	6.0
W	0	0.0	4	0.2	34	1.6	39	1.8	74	3.4	38	1.7	22	1.0	211	9.7
WNW	0	0.0	3	0.1	20	0.9	38	1.7	70	3.2	48	2.2	38	1.7	217	9.9
NW	0	0.0	5	0.2	18	0.8	28	1.3	66	3.0	54	2.5	27	1.2	198	9.1
NNW	0	0.0	4	0.2	13	0.6	23	1.1	58	2.7	37	1.7	3	0.1	138	6.3
	0	0.0	78	3.6	339	15.5	519	23.8	764	35.0	370	17.0	111	5.1	2181	100.0

MISSING HOURS: 27

MEAN WIND SPEED: 13.8

APPENDIX B

MPC DATA

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

APPENDIX F: Maximum Permissible Concentration (MPC) Values - Liquid Effluents

The following radionuclide concentrations were obtained from 10 CFR 20 Appendix B, Table II, Column 2 as revised January 1, 1991

Table F-1: Maximum Permissible Concentrations

Element	Isotope	Soluble Conc ($\mu\text{Ci/ml}$)	Insoluble Conc. ($\mu\text{Ci/ml}$)
Actinium (89)	Ac-227	2E-6	3E-4
	Ac-228	9E-5	9E-5
Americium (95)	Am-241	4E-6	3E-5
	Am-242m	4E-6	9E-5
	Am-242	1E-4	1E-4
	Am-243	4E-6	3E-5
	Am-244	5E-3	5E-3
Antimony (51)	Sb-122	3E-5	3E-5
	Sb-124	2E-5	2E-5
	Sb-125	1E-4	1E-4
Arsenic (33)	As-73	5E-4	5E-4
	As-74	5E-5	5E-5
	As-76	2E-5	2E-5
	As-77	8E-5	8E-5
Astatine (85)	At-211	2E-6	7E-5
Barium (56)	Ba-131	2E-4	2E-4
	Ba-140	3E-5	2E-5
Berkelium (97)	Bk-249	6E-4	6E-4
	Bk-250	2E-4	2E-4
Beryllium (4)	Be-7	2E-3	2E-3
Bismuth (83)	Bi-206	4E-5	4E-5
	Bi-207	6E-5	6E-5
	Bi-210	4E-5	4E-5
	Bi-212	4E-4	4E-4
Bromine (35)	Br-82	3E-4	4E-5
Cadmium (48)	Cd-109	2E-4	2E-4
	Cd-115m	3E-5	3E-5
	Cd-115	3E-5	4E-5
Calcium (20)	Ca-45	9E-6	2E-4
	Ca-47	5E-5	3E-5
Californium (98)	Cf-249	4E-6	2E-5
	Cf-250	1E-5	3E-5
	Cf-251	4E-6	3E-5
	Cf-252	7E-6	7E-6
	Cf-253	1E-4	1E-4
	Cf-254	1E-7	1E-7

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

Table F-1 (Continued)

Element	Isotope	Soluble Conc. ($\mu\text{Ci/ml}$)	Insoluble Conc. ($\mu\text{Ci/ml}$)
Carbon (6)	C-14	8E-4	-----
Cerium (58)	Ce-141	9E-5	9E-5
	Ce-143	4E-5	4E-5
	Ce-144	1E-5	1E-5
Cesium (55)	Cs-131	2E-3	9E-4
	Cs-134m	6E-3	1E-3
	Cs-134	9E-6	4E-5
	Cs-135	1E-4	2E-4
	Cs-136	9E-5	6E-5
	Cs-137	2E-5	4E-5
Chlorine (17)	Cl-36	8E-5	6E-5
	Cl-38	4E-4	4E-4
Chromium (24)	Cr-51	2E-3	2E-3
Cobalt (27)	Co-57	5E-4	4E-4
	Co-58m	3E-3	2E-3
	Co-58	1E-4	9E-5
	Co-60	5E-5	3E-5
Copper (29)	Cu-64	3E-4	2E-4
Curium (96)	Cm-242	2E-5	2E-5
	Cm-243	5E-6	2E-5
	Cm-244	7E-6	3E-5
	Cm-245	4E-6	3E-5
	Cm-246	4E-6	3E-5
	Cm-247	4E-6	2E-5
	Cm-248	4E-7	1E-6
	Cm-249	2E-3	2E-3
Dysprosium (66)	Dy-165	4E-4	4E-4
	Dy-166	4E-5	4E-5
Einsteinium (99)	Es-253	2E-5	2E-5
	Es-254m	2E-5	2E-5
	Es-254	1E-5	1E-5
	Es-255	3E-5	3E-5
Erbium (68)	Er-169	9E-5	9E-5
	Er-171	1E-4	1E-4
Europium (63)	Eu-152 (9.2 hrs)	6E-5	6E-5
	Eu-152 (13 yrs)	8E-5	8E-5
	Eu-154	2E-5	2E-5
	Eu-155	2E-4	2E-4
Fermium (100)	Fm-254	1E-4	1E-4
	Fm-255	3E-5	3E-5
	Fm-256	9E-7	9E-7

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

Table F-1 (Continued)

Element	Isotope	Soluble Conc. ($\mu\text{Ci/ml}$)	Insoluble Conc. ($\mu\text{Ci/ml}$)
Fluorine (9)	F-18	8E-4	5E-4
Gadolinium (64)	Gd-153	2E-4	2E-4
	Gd-159	8E-5	8E-5
Gallium (31)	Ga-72	4E-5	4E-5
Germanium (32)	Ge-71	2E-3	2E-3
Gold (79)	Au-196	2E-4	1E-4
	Au-198	5E-5	5E-5
	Au-199	2E-4	2E-4
Hafnium (72)	Hf-181	7E-5	7E-5
Holmium (67)	Ho-166	3E-5	3E-5
Hydrogen (3)	H-3	3E-3	3E-3
Indium (49)	In-113m	1E-3	1E-3
	In-114m	2E-5	2E-5
	In-115m	4E-4	4E-4
	In-115	9E-5	9E-5
Iodine (53)	I-125	2E-7	2E-4
	I-126	3E-7	9E-5
	I-129	6E-8	2E-4
	I-131	3E-7	6E-5
	I-132	8E-6	2E-4
	I-133	1E-6	4E-5
	I-134	2E-5	6E-4
	I-135	4E-6	7E-5
Iridium (77)	Ir-190	2E-4	2E-4
	Ir-192	4E-5	4E-5
	Ir-194	3E-5	3E-5
Iron (26)	Fe-55	8E-4	2E-3
	Fe-59	6E-5	5E-5
Lanthanum (57)	La-140	2E-5	2E-5
Lead (82)	Pb-203	4E-4	4E-4
	Pb-210	1E-7	2E-4
	Pb-212	2E-5	2E-5
Lutetium (71)	Lu-177	1E-4	1E-4
Manganese (25)	Mn-52	3E-5	3E-5
	Mn-54	1E-4	1E-4
	Mn-56	1E-4	1E-4
Mercury (80)	Hg-197m	2E-4	2E-4
	Hg-197	3E-4	5E-4
	Hg-203	2E-5	1E-4
Molybdenum (42)	Mo-99	2E-4	4E-5

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

Table F-1 (Continued)

Element	Isotope	Soluble Conc. ($\mu\text{Ci/ml}$)	Insoluble Conc. ($\mu\text{Ci/ml}$)
Neodymium (60)	Nd-144	7E-5	8E-5
	Nd-147	6E-5	6E-5
	Nd-149	3E-4	3E-4
Neptunium (93)	Np-237	3E-6	3E-5
	Np-239	1E-4	1E-4
Nickel (28)	Ni-59	2E-4	2E-3
	Ni-63	3E-5	7E-4
	Ni-65	1E-4	1E-4
Niobium (41)	Nb-93m	4E-4	4E-4
	Nb-95	1E-4	1E-4
	Nb-97	9E-4	9E-4
Osmium (76)	Os-185	7E-5	7E-5
	Os-191m	3E-3	2E-3
	Os-191	2E-4	2E-4
	Os-193	6E-5	5E-5
Palladium (46)	Pd-103	3E-4	3E-4
	Pd-109	9E-5	7E-5
Phosphorus (15)	P-32	2E-5	2E-5
Platinum (78)	Pt-191	1E-4	1E-4
	Pt-193m	1E-3	1E-3
	Pt-193	9E-4	2E-3
	Pt-197m	1E-3	9E-4
	Pt-197	1E-4	1E-4
Plutonium (94)	Pu-238	5E-6	3E-5
	Pu-239	5E-6	3E-5
	Pu-240	5E-6	3E-5
	Pu-241	2E-4	1E-3
	Pu-242	5E-6	3E-5
	Pu-243	3E-4	3E-4
Polonium (84)	Po-210	7E-7	3E-5
Potassium (19)	K-42	3E-4	2E-5
Praseodymium(59)	Pr-142	3E-5	3E-5
	Pr-143	5E-5	5E-5
Promethium (61)	Pm-147	2E-4	2E-4
	Pm-149	4E-5	4E-5
Protactinium(91)	Pa-230	2E-4	2E-4
	Pa-231	9E-7	2E-5
	Pa-233	1E-4	1E-4

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Table F-1 (Continued)

Element	Isotope	Soluble Conc. ($\mu\text{Ci/ml}$)	Insoluble Conc. ($\mu\text{Ci/ml}$)
Radium (88)	Ra-223	7E-7	4E-6
	Ra-224	2E-6	5E-6
	Ra-226	3E-8	3E-5
	Ra-228	3E-8	3E-5
Rhenium (75)	Re-183	6E-4	3E-4
	Re-186	9E-5	5E-5
	Re-187	3E-3	2E-3
	Re-188	6E-5	3E-5
Rhodium (45)	Rh-103m	1E-2	1E-2
	Rh-105	1E-4	1E-4
Rubidium (37)	Rb-86	7E-5	2E-5
	Rb-87	1E-4	2E-4
Ruthenium (44)	Ru-97	4E-4	3E-4
	Ru-103	8E-5	8E-5
	Ru-105	1E-4	1E-4
	Ru-106	1E-5	1E-5
Samarium (62)	Sm-147	6E-5	7E-5
	Sm-151	4E-4	4E-4
	Sm-153	8E-5	8E-5
Scandium (21)	Sc-46	4E-5	4E-5
	Sc-47	9E-5	9E-5
	Sc-48	3E-5	3E-5
Selenium (34)	Se-75	3E-4	3E-4
Silicon (14)	Si-31	9E-4	2E-4
Silver (47)	Ag-105	1E-4	1E-4
	Ag-110m	3E-5	3E-5
	Ag-111	4E-5	4E-5
Sodium (11)	Na-22	4E-5	3E-5
	Na-24	2E-4	3E-5
Strontium (38)	Sr-85m	7E-3	7E-3
	Sr-85	1E-4	2E-4
	Sr-89	3E-6	3E-5
	Sr-90	3E-7	4E-5
	Sr-91	7E-5	5E-5
	Sr-92	7E-5	6E-5
Sulfur (16)	S-35	6E-5	3E-4
Tantalum (73)	Ta-182	4E-5	4E-5

2007 SGS AND HCGS RADIOACTIVE EFFLUENTS RELEASE REPORT

Table F-1 (Continued)

Element	Isotope	Soluble Conc. (μCi/ml)	Insoluble Conc. (μCi/ml)
Technetium (43)	Tc-96m	1E-2	1E-2
	Tc-96	1E-4	5E-5
	Tc-97m	4E-4	2E-4
	Tc-97	2E-3	8E-4
	Tc-99m	6E-3	3E-3
	Tc-99	3E-4	2E-4
Tellurium (52)	Te-125m	2E-4	1E-4
	Te-127m	6E-5	5E-5
	Te-127	3E-4	2E-4
	Te-129m	3E-5	2E-5
	Te-129	8E-4	8E-4
	Te-131m	6E-5	4E-5
	Te-132	3E-5	2E-5
Terbium (65)	Tb-160	4E-5	4E-5
Thallium (81)	Tl-200	4E-4	2E-4
	Tl-201	3E-4	2E-4
	Tl-202	1E-4	7E-5
	Tl-204	1E-4	6E-5
Thorium (90)	Th-227	2E-5	2E-5
	Th-228	7E-6	1E-5
	Th-230	2E-6	3E-5
	Th-231	2E-4	2E-4
	Th-232	2E-6	4E-5
	Th-natural	2E-6	2E-5
	Th-234	2E-5	2E-5
Thulium (69)	Tm-170	5E-5	5E-5
	Tm-171	5E-4	5E-4
Tin (50)	Sn-113	9E-5	8E-5
	Sn-124	2E-5	2E-5
Tungsten (74)	W-181	4E-4	3E-4
	W-185	1E-4	1E-4
	W-187	7E-5	6E-5
Uranium (92)	U-230	5E-6	5E-6
	U-232	3E-5	3E-5
	U-233	3E-5	3E-5
	U-234	3E-5	3E-5
	U-235	3E-5	3E-5
	U-236	3E-5	3E-5
	U-238	4E-5	4E-5
	U-240	3E-5	3E-5
	U-natural	3E-5	3E-5

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Table F-1 (Continued)

Element	Isotope	Soluble Conc. (μCi/ml)	Insoluble Conc. (μCi/ml)
Vanadium (23)	V-48	3E-5	3E-5
Ytterbium (70)	Yb-175	1E-4	1E-4
Yttrium	Y-90	2E-5	2E-5
	Y-91m	3E-3	3E-3
	Y-91	3E-5	3E-5
	Y-92	6E-5	6E-5
	Y-93	3E-5	3E-5
Zinc (30)	Zn-65	1E-4	2E-4
	Zn-69m	7E-5	6E-5
	Zn-69	2E-3	2E-3
Zirconium (40)	Zr-93	8E-4	8E-4
	Zr-95	6E-5	6E-5
	Zr-97	2E-5	2E-5
Any single radio-nuclide not listed above with decay mode other than alpha emission or spontaneous fission and with radio-active half-life greater than 2 hours.		3E-6	3E-6
Any single radio-nuclide not listed above, which decays by alpha emission or spontaneous fission.		3E-8	3E-8

Notes:

1. If the identity of any radionuclide is not known, the limiting values for purposes of this table shall be: 3E-8 μCi/ml.
2. If the identity and concentration of each radionuclide are known, the limiting values should be derived as follows: Determine, for each radionuclide in the mixture, the ratio between the quantity present in the mixture and the limit otherwise established in Appendix B for the specific radionuclide not in a mixture. The sum of such ratios for all the radionuclides in the mixture may not exceed "1" (i.e. "unity").