

REGULATORY DOCUMENT COPY

JUL 21 1980



DISTRIBUTION:
Docket File: 50-320
NRR Reading File
AEB Reading File
EHMarkee

Docket No.: 50-320

MEMORANDUM FOR: W. F. Pasedag, Leader
Radiological Analysis Section
Accident Evaluation Branch, DSI

FROM: Earl H. Markee, Jr., Leader
Meteorology Section
Accident Evaluation Branch, DSI

SUBJECT: INPUT TO CRAC ANALYSIS FOR THE FIRST 120
HOURS OF THE THREE MILE ISLAND INCIDENT

Sarbes Acharya of your section has requested CRAC code input for March 28, 1979 at 0400 LST through April 2, 1979 at 0300 LST at the Three Mile Island site. This input consists of: (1) punched cards with hourly wind speeds, occurrences of precipitation, and atmospheric stability; (2) a joint frequency distribution of wind speed, direction, atmospheric stability and; (3) mixing heights for the spring season at Three Mile Island.

Recently, Pickard, Lowe, and Garrick submitted a tape of hourly meteorological data for July 1, 1978 through June 30, 1979 at the Three Mile Island site. This tape was used in the preparation of the punched cards and the joint frequency distribution. Wind speeds, which were measured at 100 feet, were corrected to the 10 meter level using procedures outlined in NUREG-0324, (X0000Q - A Program For The Meteorological Evaluation of Routine Effluent Releases at Nuclear Power Plants), (Draft). For both the joint frequency distribution and the punched cards, the wind speeds are given in miles per hour. The atmospheric stability was defined by the vertical temperature difference between 150 feet and 33 feet. Wind direction was measured at 100 ft. and is defined as the sector from which the wind is blowing. The occurrence of precipitation was determined from the local climatological data from the NWS Weather Service Office at Harrisburg, Pa. The punched cards were provided to S. Acharya separately and the joint frequency distribution is enclosed.

The mixing heights for Three Mile Island and an explanation of how they are determined are also enclosed. These data were prepared by W. Corbin of the Meteorology Section.

Earl H. Markee, Jr., Leader
Meteorology Section
Accident Evaluation Branch, DSI

Enclosure:
As stated

8008010015

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

cc:	w/encl.				
OFFICE ▶	W. Kreger	AEB:DSI	AEB:DSI		
SURNAME ▶	W. Houston	WCorbin	EHMarkee		
DATE ▶	S. Acharya				
	J. Levine	7/18/80	7/18/80		

ENCLOSURE
MORNING AND AFTERNOON MIXING HEIGHTS
AT THREE MILE ISLAND DURING
THE SPRING SEASON

The mixing height is the height above the earth's surface through which vigorous vertical mixing occurs. Holzworth¹ calculated average mixing heights at 62 stations in the contiguous United States. The stations which best represent the Three Mile Island site are Pittsburg, Pa. and Washington, D.C. The average of these two stations gives the mixing heights listed below.

Mean Mixing Heights for the
Spring Season (m)

Morning	560
Afternoon	1890

Holzworth defines the morning mixing height as the height at which the dry adiabat with a temperature given by the surface minimum temperature from 0200 to 0600 LST plus 5⁰C intersects the 1200 GMT temperature profile. In a similar manner, Holzworth defines the afternoon mixing height as the height at which the dry adiabat with a temperature given by the surface maximum temperature from 1200 to 1600 LST intersects the 1200 GMT temperature profile.

¹Holzworth, George C., Mixing Heights, Wind Speeds, and Potential for Urban Air Pollution throughout the Contiguous United States, Environmental Protection Agency, Research Triangle Park, North Carolina,

JFREQ FOR 1M1 UNIT 2 - FIRST 120 HOURS OF THE INCIDENT - INPUT TO CPAC CODE

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS

U (MPH)	ATMOSPHERIC STABILITY CLASS A															
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	WW	NNW	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0-0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5-1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CALM= 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS

U (MPH)	ATMOSPHERIC STABILITY CLASS B															
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	WW	NNW	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0-0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5-1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CALM= 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS

U (MPH)	ATMOSPHERIC STABILITY CLASS C															
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	WW	NNW	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0-0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5-1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CALM= 0.60 MPH

JPPEQ FOR UNIT 2 - FIRST 120 HOURS OF THE INCIDENT - REFUT TO CRAC CODE

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS

U (MPH)	ATMOSPHERIC STABILITY CLASS D																
	N	NNE	NE	ESE	E	ESE	SE	SSE	S	SSM	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.5-1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	1	2	2	2	0	2	1	2	3	0	0	1	0	4	20

CALM = 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS

U (MPH)	ATMOSPHERIC STABILITY CLASS E																
	N	NNE	NE	ESE	E	ESE	SE	SSE	S	SSM	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.5-1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-1.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-3.0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-5.0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	1	3	1	5	6	6	7	1	1	0	4	0	0	0	2	40

CALM = 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN HOURS

U (MPH)	ATMOSPHERIC STABILITY CLASS F																
	N	NNE	NE	ESE	E	ESE	SE	SSE	S	SSM	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.5-1.0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.0-1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0-5.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0-10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VARIABLE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	2	2	3	0	2	2	4	1	1	0	7	2	2	3	5	4	45

CALM = 0.60 MPH

JPREQ FOR TMI UNIT 2 - FIRST 120 HOURS OF THE INCIDENT - INTBT TO CFAC CODE

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN FRACTIONS

U (MPH) CALM	ATMOSPHERIC STABILITY CLASS A													TOTAL		
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW		NW	NNW
CALM-.5	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
.5-1.5	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
1.5-2.0	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
2.0-3.0	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
3.0-5.0	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
5.0-10.0	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
>10.0	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
VARIABLE	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
TOTAL	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

CALM= 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN FRACTIONS

U (MPH) CALM	ATMOSPHERIC STABILITY CLASS B													TOTAL		
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW		NW	NNW
CALM-.5	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
.5-1.5	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
1.5-2.0	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
2.0-3.0	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
3.0-5.0	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
5.0-10.0	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
>10.0	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
VARIABLE	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
TOTAL	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

CALM= 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN FRACTIONS

U (MPH) CALM	ATMOSPHERIC STABILITY CLASS C													TOTAL		
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW		NW	NNW
CALM-.5	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
.5-1.5	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
1.5-2.0	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
2.0-3.0	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
3.0-5.0	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
5.0-10.0	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
>10.0	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
VARIABLE	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
TOTAL	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

CALM= 0.60 MPH

JEPEX FOR THE UNIT 2 - FIRST 120 HOURS OF THE INCIDENT - INPUT TO CRAC CODE

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN FRACTIONS

U - MPH CALM	ATMOSPHERIC STABILITY CLASS D															
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM - .5	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
.5 - .75	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
.75 - 1.0	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
1.0 - 1.5	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
1.5 - 2.0	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	1.67
2.0 - 3.0	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	1.67
3.0 - 5.0	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	3.33
5.0 - 10.0	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	6.67
>10.0	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	3.33
VARIABLE																0.0
TOTAL	0.0	0.0	0.0	1.67	1.67	0.0	1.67	0.83	1.67	2.50	0.0	0.0	0.83	0.0	3.33	16.67

CALM = 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN FRACTIONS

U - MPH CALM	ATMOSPHERIC STABILITY CLASS E															
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM - .5	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
.5 - .75	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
.75 - 1.0	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
1.0 - 1.5	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
1.5 - 2.0	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	1.67
2.0 - 3.0	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	1.67
3.0 - 5.0	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	7.50
5.0 - 10.0	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	12.50
>10.0	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	10.00
VARIABLE																0.0
TOTAL	2.50	0.83	2.50	4.17	5.00	5.00	5.83	0.83	0.83	0.0	3.33	0.0	0.0	0.0	1.67	33.33

CALM = 0.60 MPH

JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION IN FRACTIONS

U - MPH CALM	ATMOSPHERIC STABILITY CLASS F															
	N	NNE	NE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL
CALM - .5	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
.5 - .75	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
.75 - 1.0	1.67	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	4.17
1.0 - 1.5	0.0	0.0	0.0	1.67	0.0	0.0	0.0	0.0	1.67	0.0	0.0	0.0	0.0	1.67	0.0	7.50
1.5 - 2.0	0.0	1.67	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	5.83
2.0 - 3.0	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	7.50
3.0 - 5.0	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	8.33
5.0 - 10.0	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	2.50
>10.0	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
VARIABLE																0.0
TOTAL	1.67	1.67	2.50	3.0	3.33	3.33	0.83	0.83	5.00	5.83	1.67	1.67	0.0	4.17	3.33	37.50

CALM = 0.60 MPH

END JOB 9115 LPAJPEQ 7/16/80 CORBIN BOX 280
END JOB 9115 LPAJPEQ 7/16/80 CORBIN BOX 280
END JOB 9115 LPAJPEQ 14:31:27 CORBIN BOX 280
END JOB 9115 LPAJPEQ 14:31:27 CORBIN BOX 280

COMPUTER CENTER

NATIONAL INSTITUTE OF HEALTH
BUILDING 12, ROOM 1100, BETHESDA, MARYLAND 20205