

LAKE WORTH UTILITIES AUTHORITY

CITY OF LAKE WORTH
114 COLLEGE STREET
LAKE WORTH, FLORIDA 33460

TELEPHONE 585-2571 EXT. 55

CLIFFORD C. BLAISDELL, JR.
UTILITIES DIRECTOR

ROBERT G. SMALL, CHAIRMAN
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WILLIAM V. BLUMER
ROBERT W. WILMOTH

June 24, 1974

Mr. Hamilton S. Oven, Jr.
Deputy Executive Director
Florida Department of Pollution Control
2565 Executive Center Circle, East
Montgomery Building
Tallahassee, Florida 32301

Subject: Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification
Engineer's Project No. 73014-1

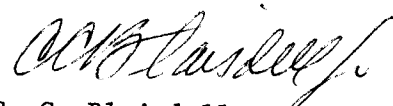
Dear Mr. Oven:

The attached material presents the information requested in your May 28, 1974, letter, (attached) regarding the subject application, officially submitted to the Department of Pollution Control May 9, 1974.

Your department's favorable consideration of our application in the near future is respectfully requested.

Very truly yours,

LAKE WORTH UTILITIES AUTHORITY


C. C. Blaisdell, Jr.
Utilities Director

CCBJr/dh

Attachments



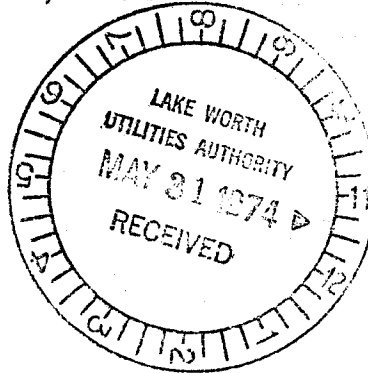
STATE OF FLORIDA
DEPARTMENT OF POLLUTION CONTROL
2562 EXECUTIVE CENTER CIRCLE, EAST
MONTGOMERY BUILDING, TALLAHASSEE, FLORIDA 32301

PETER P. BALJET
EXECUTIVE DIRECTOR

May 28, 1974

DAVID H. LEVIN
CHAIRMAN

Mr. Clifford C. Blaisdell, Jr.
Utilities Director
City of Lake Worth
114 College Street
Lake Worth, Florida 33460



Dear Mr. Blaisdell:

The Department of Pollution Control has been reviewing the material submitted as an application for certification of a site for a steam-electric generating Unit S-5. While almost all information is generally encompassed in the Ten-Year Site Plan and applications to construct air and water pollution sources, it is difficult for this agency or other agencies to review in the present format. You are hereby requested to submit the following in 25 copies:

1. U.S. Geological Survey quadrangle map showing plant location with information noted as requested in section 2.1 and 2.2 of the application form.
2. Your comments regarding compliance with this department's application format should be amplified to state why not applicable or the specific pages in the Ten-Year Site Plan referred to.

Since the Ten-Year Site Plan submitted by you considered Unit S-5 under construction certain information was not provided. Please address in detail sections 2.5(c), 3.2(a), 3.7(b) and section 4 of the application form.

The department will try to expedite review and certification of the proposed unit. However, I can not commit the department to the time table mentioned in your letter of May 15, 1974.

Sincerely yours,

Hamilton S. Owen, Jr.
Hamilton S. Owen, Jr.
Deputy Executive Director

HSOJr/wm

cc: Mr. Bill White

Mr. Tom Krilowicz, Mr. Francis Seidman

JOHN R. MIDDLEMAS
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W. D. FREDERICK, JR.
BOARD MEMBER

CONTENTS

1. Comments regarding Lake Worth Utilities Authority's compliance with January 1, 1974, Department of Pollution Control Standard Format for Application For Site Certification For Unit S-5.
2. Discussion of 2.5c, 3.2a, 3.7b and 4 of Department of Pollution Control Format for Site Certification Application.
3. U. S. Coast and Geodetic Survey Quadrangle Maps, Regional Demography, Land Use and Site Layout Map, associated information as outlined in Sections 2.1 and 2.2.

Comments regarding Lake Worth Utilities Authority's compliance with January 1, 1974 Department of Pollution Control Standard Format for Application For Site Certification For Unit S-5.

1 Pertinent Applicant Information

Site Plan, Form 1A

Application For Permit To Construct A Water Pollution Source

Application For Permit To Construct An Air Pollution Source

2 The Site

2.1 Attached

2.2 Attached

2.3 Not Applicable - see Site Plan Pages 4-3, 4-4

2.4 Not Applicable - see Site Plan Pages 3-4, 4-3, 4-4

2.5 a. Not Applicable

Site Plan Pages 3-4, 4-3, 4-4

b. Application For Permit To Construct A Water Pollution Source

Supplement A and B

Liquid wastes are disposed of in the Lake Worth Sanitary Sewer System. Water is purchased from the Lake Worth Water Department.

c. Attached

d. Application For Permit To Construct A Water Pollution Source

Supplement A and B

- e. See 2.5b
- f. See 2.5b
- g. See 2.5b
- h. See 2.5b

2.6 See attached climatological data
Site Plan Pages 4-3, 4-4, and
Air Quality Impact Evaluation (included with Site Plan)

- 2.7 a. Not Applicable
Site Plan 4-3, 4-4
- b. See 2.7a
 - c. See 2.7a
 - d. See 2.7a
 - e. See 2.7a
 - f. See 2.7a

- 2.8 a. Site Plan, "Air Quality Impact Evaluation"
- b. Site Plan, "Air Quality Impact Evaluation"

2.9 Section 2.1, 2.2
Site Plan Pages 4-3, 4-4

3 The Plant

- 3.1 Site Plan Exhibits 1, 2 and 3
Application For Permit To Construct An Air Pollution Source
Plot Plan and Flow Diagram

Application For Permit To Construct A Water Pollution Source
Plot Plan and Flow Diagram

- 3.2 Application For Permit To Construct An Air Pollution Source
Attached
- 3.3 a. Application For Permit To Construct A Water Pollution Source
Section 2.5b
b. Application For Permit To Construct A Water Pollution Source
Section 2.5b
c. Attached water use tabulation
d. Attached water use tabulation
Application For Permit To Construct A Water Pollution Source
- 3.4 a. Not Applicable - Lake Worth Utilities Authority Unit S-5 will be
equipped with a closed loop, fresh water, cooling tower system.
Make up water will be supplied by the Lake Worth Utilities Authority
Water System.
b. See 3.4a
c. See 3.4a
d. See 3.4a
e. See 3.4a
f. See 3.4a
g. See 3.4a
h. See 3.4a
- 3.5 a. Application For Permit To Construct A Water Pollution Source
Waste is disposed of in Lake Worth Sanitary Sewer System
b. See 3.5a
c. See 3.5a

- d. See 3.5a
-
- 3.6
 - a. Application For Permit To Construct A Water Pollution Source
 - b. Application For Permit To Construct A Water Pollution Source
 - c. Not Applicable
 - d. Application For Permit To Construct A Water Pollution Source
Application For Permit To Construct An Air Pollution Source
-
- 3.7
 - a. Application For Permit To Construct An Air Pollution Source
Air Quality Impact Evaluation
 - b. Attached
 - c. Application For Permit To Construct An Air Pollution Source
Drawing No. 1 and 2
 - d. Application For Permit To Construct An Air Pollution Source
Drawing No. 1 and 2
 - e. None
-
- 3.8
 - a. Not Applicable

There will be no associated transmission facilities involved in the construction and operation of Unit S-5. Generator leads from the unit will be run approximately 250 feet underground to the existing 138 kV substation.
 - b. See 3.8a
 - c. See 3.8a
 - d. See 3.8a
 - e. See 3.8a
 - f. See 3.8a
 - g. See 3.8a
 - h. See 3.8a

4 Environmental Effects of Site Preparation and Construction

4.1 Attached

4.2 Attached

4.3 Attached

4.4 Attached

5 Environmental Effects of Plant Operation

5.1 a. Not Applicable

Site Plan Page 3-4 and Exhibit 3

Application For Permit To Construct A Water Pollution Source

Supplement A and B

b. Not Applicable - see 5.1a

c. Not Applicable - see 5.1a

d. Not Applicable - see 5.1a

e. Not Applicable - see 5.1a

f. Not Applicable - see 5.1a

g. Due to the southern location and nearness to the ocean, the Lake Worth Utilities Authority Power Plant rarely encounters conditions conducive to significant cooling tower fogging. These conditions typically occur in the winter season during the early morning hours when the wind is out of the North-North West.

Historically the plume rises to a relatively high altitude (+1000 ft) and is generally carried in a South-Southeast direction. Dissipation is quite rapid with the plume frequently dispersing while still over plant site area.

5.2 a. Not Applicable

Application For Permit To Construct A Water Pollution Source

- b. Drift loss from Unit S-5 cooling tower, expected to be less than .005% of coolant flow, will either evaporate into the atmosphere or fall on the paved areas surrounding the tower (see map from Section 2.1 and 2.2 and Plot Plan). (See Application For Permit To Construct A Water Pollution Source for tower water contents.)
- 5.3 Existing sanitary waste systems are connected to the Lake Worth Sanitary Sewer System as will be systems for Unit S-5. An increase in sanitary waste is not anticipated due to the new unit.
- 5.4 Air Quality Impact Evaluation
- 5.5 Not Applicable
Site Plan Pages 3.8 and 4.3
- 5.6 None
- 5.7 None

6 Environmental Measurements and Monitoring Programs

- 6.1 Lake Worth Utilities Authority is presently working with the County Health Department in an effort to establish a sampling or monitoring system acceptable to the Department of Pollution Control.
- 6.2
 - a. Not Applicable
Section 2.5b
 - b. Not Applicable
Section 2.5b

- 6.3 a. Not Applicable

Site Plan Pages 4-3, 4-4

- b. See 6.3a

- c. See 6.3a

- d. See 6.3a

- 6.4 a. Not Applicable

Section 2.5b

- b. See 6.4a

- 6.5 a. Air Quality Impact Evaluation

- b. Air Quality Impact Evaluation

- c. Air Quality Impact Evaluation

- 6.6 Not Applicable

Site Plan Pages 4-3, 4-4

Latitude 26° 41' N Longitude 80° 06' W Elevation (ground) 15 ft. Standard time used: EASTERN WBAN #12344

Date	Temperature °F.								Weather types on dates of occurrence 1 Fog 2 Heavy fog x 3 Thunderstorm 4 Ice pellets 5 Hail 6 Glaze 7 Duststorm 8 Smoke, Haze 9 Blowing snow	Snow, ice pellets or ice on ground at 07A In.	Precipitation		Avg. station pressure - In. Elev. 21 feet m.s.l.	Wind			Sunshine		Sky cover Tenth		Date	
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days Base 65°		Water equivalent In.			Snow, ice pellets In.	Resultant direction		Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile		Hours and tenths	Percent of possible	Sunrise to sunset		Midnight to midnight
						Heating	Cooling									Speed m.p.h.	Direction					
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	82	65	74	6	66		0	9	0	0	0	30.08	11	5.0	5.2	15	14			7	6	1
2	85	66	75	7	69		0	10	0	0	0	30.10	10	7.1	7.9	15	11			6	7	2
3	82	71	77	9	70		0	12	0	0	0	30.12	13	9.0	9.6	20	12			6	4	3
4	83	69	76	8	69		0	11	0	0	0	30.11	14	4.4	4.6	12	15			6	4	3
5	83	66	75	7	67		0	10	2	0	0	30.07	04	1.3	5.9	12	10			3	2	4
6	84	66	75	7	67		0	10	1	0	0	30.07	25	2.6	5.3	10	29			3	3	5
7	83	62	73	5	64		0	8	2	0	0	30.06	20	1.7	4.3	10	03			6	6	6
8	86	64	75	7	64		0	10		0	0	30.02	21	7.0	7.3	18	24			5	3	7
9	70	63	67	0	61		0	2	1	0	0	30.07	33	9.0	10.8	20	34			5	3	8
10	76	61	69	2	62		0	4	1	0	0	29.99	33	6.4	6.6	12	32			10	9	9
11	69	61	65	-2	61		0	0	1	3	0	29.87	32	8.2	8.5	20	32			9	9	10
12	67	50	59	-8	56		0	0	1	3	0	29.86	31	13.2	14.2	26	30			10	10	11
13	61	41	51	-16	40	14	0	0	0	0	0	30.19	31	11.5	11.9	23	31			10	10	12
14	72	44	58	-9	43	7	0	0	0	0	0	30.19	31	11.5	11.9	23	31			0	1	13
15	68	50	59	-8	41	6	0	0	0	0	0	30.26	32	9.4	9.6	15	33			5	3	14
16	77	53	65	-2	51	0	0	0	0	0	0	30.24	31	7.8	8.3	20	32			10	9	15
17	78	69	74	7	54	0	0	0	0	0	0	30.24	03	7.4	11.2	25	07			10	10	16
18	81	64	73	6	61	0	0	8	0	0	0	30.21	08	15.4	15.5	25	07			5	7	17
19	84	59	72	5	59	0	0	7	1	0	0	30.08	09	11.0	11.1	18	11			3	3	18
20	76	55	66	-1	53	0	0	1	2	0	0	29.98	27	6.4	7.1	16	29			2	1	19
21	79	55	67	0	57	0	0	2	0	0	0	29.97	30	3.6	6.0	10	09			3	4	20
22	81	73	77	10	69	0	0	12	0	0	0	29.94	14	9.0	9.2	23	14			9	9	21
23	87*	69	78*	11	68	0	0	13	0	0	0	29.94	15	14.0	14.4	26	14			10	9	22
24	77	63	71	4	63	0	0	6	1	0	0	29.98	29	4.1	7.6	18	30			9	9	23
25	77	60	69	2	56	0	0	4		0	0	30.02	33	5.6	6.0	18	36			10	8	24
26	79	69	74	7	60	0	0	9		0	0	30.09	06	7.4	11.2	20	08			10	7	25
27	84	70	77	10	66	0	0	12		0	0	30.07	12	10.0	10.6	20	12			9	9	26
28	86	59	73	6	65	0	0	8		0	0	29.99	18	6.0	8.3	18	16			9	9	27
29	66	47	57	-10	50	8	0	0		0	0	29.89	22	7.1	9.9	26	20			9	8	28
30	66	38*	51*	-16	39	14	0	0		0	0	29.98	28	11.5	12.5	33	29			7	7	29
31	77	51	64	-3	52	1	0	0		0	0	30.23	34	9.3	9.9	22	34			3	3	30
	Sum	Sum				Total	Total			Total	Total	For the month:						Total	% for	Sum	Sum	
	2402	1855				56	177	Number of days		2.62	0	30.06	01	8	9.1	33	29			210	195	
	Avg.	Avg.	Avg.	Dep.	Avg.	Dep.	Dep.	Precipitation		Dep.								Possible	month	Avg.	Avg.	
	77.3	59.8	68.7	1.8	59	-31		≤ .01 inch	10	0.14										6.8	A.3	
Season to date										Greatest in 24 hours and dates								Greatest depth on ground of snow, ice pellets or ice and date				
Number of days										Snow, ice pellets												
Maximum Temp.										Thunderstorms												
Minimum Temp.										Heavy fog X												
≥ 90° F										Clear												
≤ 32° F										Partly cloudy												
≥ 32° F										Cloudy												
≥ 0° F																						
≥ 0° F																						

HOURLY PRECIPITATION (Water equivalent in inches)

[illegible]

- * Extreme temperatures for the month. May be the last of more than one occurrence.
- Below zero temperature or negative departure from normal.
- +

‡ $\geq 70^\circ$ at Alaskan stations.
 + Also on an earlier date, or dates.
 X Heavy fog restricts visibility to $\frac{1}{4}$ mile or less.
 T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 8

Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals. Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. The code for directions are tens of degrees from true North: 1 = 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. Wind directions are in tens of degrees in Col. 17. Entries in Col. 18 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data \$2.00 per year including annual issue if published; 75¢ extra for foreign mailing. Single copy: 20¢ for monthly issue; 15¢ for annual issue. Make checks payable to Department of Commerce, NOAA; send payments and orders to: National Climatic Center, Federal Building, Asheville, N. C. 28801. Attn: Publications.

I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

William H. Haggard

Director, National Climatic Center

SUMMARY BY HOURS

Hour	Local time	Sky cover in mm	Station pressure in.	AVERAGES					Resultant wind	
				Temperature			Relative humidity %	Wind speed m.p.h.	Direction	Speed m.p.h.
				Air °F	Wet bulb °F	Dew Pt. °F				
01	6	30.06	65	61	58	80	7.3	33	1.4	
04	6	30.04	64	60	58	81	7.3	33	1.1	
07	6	30.06	63	59	57	83	7.1	31	2.0	
10	7	30.11	70	64	59	89	10.6	13	1.2	
13	7	30.06	75	66	60	60	12.5	09	1.2	
16	7	30.03	75	66	60	60	12.4	06	1.6	
19	6	30.06	69	63	59	72	8.1	01	1.6	
22	5	30.03	66	62	59	74	7.4	07	1.6	

WIND	dir		WIND	dir		TEMPERATURE		WIND	dir	
------	-----	--	------	-----	--	-------------	--	------	-----	--

NOTES

CEILING COLUMN—

UNL indicates an unlimited ceiling.

WEATHER COLUMN—

T	Tornado
Q	Thunderstorm
S	Squall
R	Rain
RW	Rain showers
ZR	Freezing rain
L	Drizzle
ZL	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
IP	Ice pellets
A	Hail
F	Fog
IF	Ice fog
GF	Ground fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS—

Directions are those from which the wind blows, indicated in tens of degrees from true North, i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots multiply by 1.15 to convert to miles per hour.



FIRST CLASS



LOCAL CLIMATOLOGICAL DATA

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

WEST PALM BEACH, FLORIDA
NATIONAL WEATHER SERVICE OFC
PALM BEACH INTERNATIONAL AP
FEBRUARY 1973

Latitude 26° 41' N Longitude 80° 06' W Elevation (ground) 15 ft. Standard time used: EASTERN W3AN #12844

Date	Temperature °F								Weather types on dates of occurrence 1 Fog 2 Heavy fog x 3 Thunderstorm 4 Ice pellets 5 Hail 6 Glaze 7 Duststorm 8 Smoke, Haze 9 Blowing snow	Snow-ice pellets or ice on ground at 07AM In.	Precipitation		Avg. station pressure In. Elev. feet m.s.l.	Wind				Sunshine		Sky cover Tenths		Date		
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days Base 65°		Water equivalent In.			Snow-ice pellets In.	Resultant direction		Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile		Hours and tenths	Percent of possible	Sunrise to sunset	Midnight to midnight			
						Heating	Cooling									Speed m.p.h.	Direction							
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
1	81	72	77	10	63		0	12		0		30.09	11	16.0	16.1	20	14			10	10	1		
2	85*	74	80*	13	69		0	15		.10	0	29.98	16	10.8	11.2	21	14			10	10	2		
3	75	53	64	-3	51	1	0			.07	0	30.03	30	12.3	12.5	18	29			5	5	3		
4	71	46	59	-8	47	6	0			.17	0	30.20	33	9.5	10.9	15	04			0	0	4		
5	75	54	65	-2	52	0	0			0	0	30.23	01	2.8	6.0	9	33			0	0	4		
6	77	52	65	-2	51	0	0			0	0	30.21	05	1.6	5.3	9	10			0	4	5		
7	78	53	66	-1	52	0	0	1		0	0	30.16	24	1.0	4.9	8	31			2	2	6		
8	80	52	66	-1	55	0	1		8	0	0	30.03	19	6.2	6.5	16	16			1	2	7		
9	83	57	70	3	58	0	0	1		0	0	29.84	16	9.9	10.5	21	15			2	1	8		
10	75	42	59	-8	49	6	0			.03	0	29.75	27	18.6	20.3	29	26			3	4	9		
11	56	39*	48*	-19	32	17	0			.04	0	30.07	30	14.4	14.5	20	31			6	8	10		
12	73	43	58	-9	43	7	0			0	0	30.14	02	5.8	10.4	14	07			9	7	11		
13	77	52	65	-2	50	0	0			0	0	30.15	09	6.6	9.2	15	11			8	6	12		
14	80	66	73	5	58	0	0			.01	0	30.08	14	10.6	11.4	20	16			8	8	13		
15	83	58	71	3	61	0	0	3		.30	0	29.98	23	6.8	10.2	15	27			7	7	14		
16	70	51	61	-7	39	4	0			.57	0	30.07	31	10.0	10.4	14	32			7	6	15		
17	64	46	55	-13	38	10	0			0	0	30.14	33	11.7	12.8	17	33			0	1	16		
18	65	53	59	-9	51	6	0			0	0	30.13	04	3.7	7.5	15	11			5	6	17		
19	65	60	63	-5	57	2	0			.20	0	30.09	34	7.9	8.2	12	33			10	10	18		
20	72	54	63	-5	49	2	0	2	8	.56	0	30.08	31	10.6	10.9	17	31			10	10	19		
21	72	49	61	-7	42	4	0			0	0	30.09	32	10.9	12.1	21	31			9	8	20		
22	70	47	59	-9	38	6	0			0	0	30.03	32	7.6	8.2	16	35			5	3	21		
23	67	45	56	-12	41	9	0			0	0	30.02	29	3.9	4.3	13	30			4	3	22		
24	75	52	64	-4	47	1	0			0	0	30.13	03	2.4	6.0	12	03			10	8	23		
25	73	63	68	0	61	0	3			.57	0	30.16	09	4.8	7.1	15	12			9	9	24		
26	83	62	73	5	62	0	8		8	.07	0	30.07	20	3.5	8.8	16	30			10	9	25		
27	75	55	65	-3	53	0	0	1	8	0	0	30.03	30	7.6	8.5	16	33			9	8	26		
28	78	53	66	-3	53	0	1		8	.02	0	30.13	01	7.7	11.9	20	02			8	6	27		
																						5	6	28
Sum	Sum					Total	Total			Total	Total	For the month:				Total	%	Sum	Sum					
2078	1503					81	60	Number of days		2.71	0	30.07	31	2.4	9.9	29	26			176	153			
Avg.	Avg.	Avg.	Dep.	Avg.		Dep.	Dep.	Precipitation		Dep.									for		Avg.			
74.2	53.7	64.0	-3.6	51		17		≤ .01 inch	13	0.36								Date: 10	Possible month		Avg.			
								Season to date																
								Snow, ice pellets																
								≥ 1.0 inch	0															
								Thunderstorms	1															
								Heavy fog X	1															
								Clear, or partly cloudy	0															
								≥ 90° F	0															
								≤ 32° F	0															
								≥ 32° F	0															
								≥ 0° F	0															
								Dep.	Dep.															
								0	-43															

YEAR & MONTH: -73 02

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA
Other observational data contained in records on file can be furnished at cost via microfilm, microfiche, or paper copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Climatic Center, Federal Building, Asheville, North Carolina 28801.

FIRST CLASS

WEST PALM BEACH, FLORIDA
NATIONAL WEATHER SERVICE OFC
PALM BEACH INTERNATIONAL AP
MARCH 1973

15 ft. Standard time used: EASTERN

W8AN #12344

HOURLY PRECIPITATION (Water equivalent in inches)

AVERAGES										Resultant wind	
Hour	Local time	Sky cover	Tenns	Stress pressure in.	Temperature				Wind speed m.p.h.	Direction	Speed m.p.h.
					Air °F	Mer bulb °F	Dew Pt.	Relative humidity %			
01	5	30	01	70	64	60	71	9.3	13	5.5	
04	5	29	98	70	63	50	72	8.8	13	4.9	
07	6	30	01	69	63	59	72	7.7	13	4.3	
10	7	30	05	77	67	60	58	14.1	12	6.3	
13	6	30	02	79	67	60	53	14.4	12	7.7	
16	6	29	99	79	67	60	54	13.4	12	8.2	
19	5	29	99	74	65	60	63	9.8	13	5.0	
22	3	30	02	71	65	60	69	9.5	13	5.0	

OBSERVATIONS AT 3-HOUR INTERVALS

OBSERVATIONS																	
HOUR	TEMPERATURE				WIND				TEMPERATURE				WIND				
	SKY	TEMP.	WET	DEW	SKY	TEMP.	WET	DEW	SKY	TEMP.	WET	DEW	SKY	TEMP.	WET	DEW	
UNCL	TEMP.	TEMP.	TEMP.	TEMP.	UNCL	TEMP.	TEMP.	TEMP.	UNCL	TEMP.	TEMP.	TEMP.	UNCL	TEMP.	TEMP.	TEMP.	
01	5 UNCL	69	59	52	55	05	14	0 UNCL	70	60	53	55	10	12	0 UNCL	62	58
04	7 UNCL	69	59	52	55	05	14	0 UNCL	71	61	54	55	11	11	0 UNCL	62	58
07	10 UNCL	69	59	52	55	07	12	0 UNCL	70	60	53	55	10	11	0 UNCL	61	58
10	10 UNCL	73	62	53	46	06	10	7	73	65	59	58	12	8	10	73	62
13	10 UNCL	78	62	51	39	03	11	6	78	65	59	57	13	12	10	79	69
16	10 UNCL	76	62	52	43	09	11	7	77	64	58	48	14	12	3	74	65
19	10 UNCL	70	60	53	55	08	11	9	71	62	56	59	12	6	1	68	63
22	10 UNCL	70	60	53	55	10	10	9	67	62	58	73	33	4	1	68	63
01	0 UNCL	70	64	60	71	12	4	0 UNCL	73	66	62	69	11	7	10	75	69
04	0 UNCL	70	64	60	71	15	4	1 UNCL	72	66	62	71	12	6	10	75	69
07	4 UNCL	66	63	61	84	00	0	1 UNCL	64	62	60	87	00	0	7	74	69
10	2 UNCL	79	69	63	53	08	10	2 UNCL	79	69	64	63	13	4	7	79	70
13	2 UNCL	80	68	62	46	11	12	2 UNCL	82	70	64	55	09	7	9	82	72
16	2 UNCL	79	68	62	46	11	12	2 UNCL	80	70	64	53	07	9	9	81	72
19	2 UNCL	74	66	61	64	10	6	10	76	68	64	56	07	11	10	77	70
22	3 UNCL	73	66	62	69	11	8	6	75	69	65	71	09	12	8	75	70
01	8 UNCL	75	71	68	76	11	10	6 UNCL	75	70	67	76	12	5	10	76	70
04	3 UNCL	75	70	67	79	14	6	5 UNCL	73	68	65	79	13	4	5	76	69
07	6 UNCL	74	69	67	85	13	11	10	80	71	67	85	17	11	9	81	72
10	10 UNCL	82	73	69	65	13	11	10	83	76	67	63	13	11	10	82	73
13	10 UNCL	83	73	68	61	13	12	10	81	72	67	63	15	11	9	82	73
16	10 UNCL	80	72	68	67	12	13	5 UNCL	81	72	67	63	12	11	10	78	71
19	8 UNCL	76	70	67	74	14	8	3 UNCL	76	70	67	74	12	7	10	75	70
22	8 UNCL	76	70	67	74	14	8	10	76	69	66	71	10	8	7	72	69
01	3 UNCL	71	69	68	90	00	0	2 UNCL	76	70	67						

NOTES

CEILING COLUMN—

UNL indicates an unlimited ceiling.

WEATHER COLUMN

T	Tornado
Q	Thunderstorm
R	Squall
Q	Rain
RW	Rain showers
ZR	Freezing rain
L	Drizzle
ZL	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
IP	Ice pellets
A	Hail
F	Fog
GF	Ice fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS.—

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots
multiply by 1.15 to convert
to miles per hour

U.S. DEPARTMENT OF COMMERCE
NATIONAL CLIMATIC CENTER
FEDERAL BUILDING
ASHEVILLE, N.C. 28801

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FIRST CLASS



LOCAL CLIMATOLOGICAL DATA

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

WEST PALM BEACH, FLORIDA
NATIONAL WEATHER SERVICE OPC
PALM BEACH INTERNATIONAL AP
APRIL 1973

Latitude 26° 41' N Longitude 80° 05' W Elevation (ground) 15 ft. Standard time used: EASTERN WBAN #12844

Date	Temperature °F						Degree days Base 65°		Weather types on dates of occurrence 1 Fog 2 Heavy fog x 3 Thunderstorm 4 Ice pellets 5 Hail 6 Glaze 7 Duststorm 8 Smoke, Haze 9 Blowing snow	Snow ice pellets or ice on ground at 07AM In.	Precipitation		Avg. station pressure In. Elev. 21 feet m.s.l.	Wind				Sunshine		Sky cover Tenths		Date	
	Maximum	Minimum	Average	Departure from normal	Average dew point	Heating	Cooling	Water equivalent In.			Snow ice pellets In.	Resultant direction		Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile	Hours and tenths	Percent of possible	Sunrise to sunset	Midnight to midnight			
1	85	75	80	8	68	0	15			0	T	0	29.89	16	12.3	12.7	26	15		9	8	1	
2	82	72	77	5	60	0	12		1	0	.02	0	29.89	36	4.6	10.2	14	34		7	7	2	
3	87	73	80	8	69	0	15			0	0	0	29.78	15	11.3	11.8	21	16		6	8	3	
4	91	74	83*	10	69	0	18			0	0	0	29.73	21	14.3	15.2	26	23		6	8	4	
5	78	66	72	-1	58	0	7			0	0	0	30.00	34	6.0	9.8	17	31		9	7	5	
6	81	59	70	-3	58	0	5			0	0	0	30.06	08	6.0	10.2	16	10		9	7	6	
7	86	74	80	7	68	0	15			0	0	0	29.83	14	15.2	15.8	26	16		7	7	7	
8	83	70	77	4	69	0	12			0	.65	0	29.77	23	6.7	9.9	22	21		7	7	8	
9	90	68	79	6	64	0	14			0	0	0	29.92	26	6.6	8.1	23	23		10	8	9	
10	77	58	68	-6	52	0	3			0	0	0	30.05	30	11.4	11.7	22	33		10	8	10	
11	74	48*	61*	-13	42	4	0			0	0	0	30.14	32	7.5	8.9	17	04		1	0	11	
12	78	50	64	-10	50	1	0			0	0	0	30.14	08	1.9	6.0	15	06		1	0	12	
13	80	56	68	-6	52	0	3		8	0	0	0	30.14	01	5.2	9.2	17	06		1	0	13	
14	82	59	71	-3	57	0	6			0	0	0	30.18	09	9.9	11.1	23	10		3	3	14	
15	79	71	75	1	54	0	10			0	0	0	30.26	07	19.5	20.4	23	07		5	6	15	
16	81	70	76	1	57	0	11			0	.17	0	30.22	08	18.4	18.7	24	07		7	6	16	
17	82	68	75	0	58	0	10			0	.12	0	30.15	09	17.1	17.5	25	09		5	6	17	
18	82	72	77	2	60	0	12			0	T	0	30.09	08	20.0	20.1	28	07		5	5	18	
19	82	71	77	2	61	0	12			0	0	0	30.06	08	15.3	15.7	22	08		6	7	19	
20	83	72	78	3	61	0	13			0	0	0	30.08	07	16.8	17.1	25	08		9	7	20	
21	83	73	78	3	60	0	13			0	T	0	30.16	08	20.5	20.7	28	07		4	5	21	
22	83	73	78	3	58	0	13			0	T	0	30.16	09	17.0	17.4	23	09		4	5	22	
23	83	70	77	1	57	0	12			0	0	0	30.07	11	10.0	10.1	20	10		5	4	23	
24	84	62	73	-3	59	0	8			0	0	0	29.95	13	7.4	7.5	14	13		5	7	24	
25	85	70	78	2	62	0	13			0	T	0	29.88	13	12.8	13.1	22	13		9	9	25	
26	89	68	79	3	66	0	14		3	0	.35	0	29.82	16	8.6	9.4	30	29		6	7	26	
27	91*	70	81	5	66	0	16			0	.14	0	29.77	22	13.7	15.0	24	24		8	8	27	
28	80	60	70	-6	50	0	5			0	0	0	29.95	33	9.5	11.1	18	02		0	2	28	
29	81	53	67	-9	49	0	2			0	0	0	30.05	05	5.9	9.4	16	06		3	2	29	
30	82	61	72	-4	53	0	7			0	0	0	30.11	07	9.6	10.5	20	04		4	4	30	
Sum		Sum		Total		Total		Total		Total		Total		For the month:		Total		%		Sum		Sum	
2484		1984		5		294		Number of days		1.45		0		30.01		10		4.8		12.8		30	
Avg.		Avg.		Avg.		Avg.		Precipitation		Dep.		Dep.		Date: 24		Possible		month		1.71		169	
82.8		66.2		74.5		0.6		Season to date		5		5		5.7		5.7		5.7		5.7		5.7	
Number of days		Total		Total		Total		Season to date		Total		Total		Greatest in 24 hours and dates		Greatest depth on ground of snow, ice pellets or ice and date		Greatest depth on ground of snow, ice pellets or ice and date		Greatest depth on ground of snow, ice pellets or ice and date		Greatest depth on ground of snow, ice pellets or ice and date	
Maximum Temp.		Minimum Temp.		Maximum Temp.		Minimum Temp.		Maximum Temp.		Minimum Temp.		Maximum Temp.		Minimum Temp.		Maximum Temp.		Minimum Temp.		Maximum Temp.		Minimum Temp.	
≥ 90° F		≤ 32°		≥ 32°		≤ 0°		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0		0		0		Season to date		Total		Total		Precipitation		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets		Snow, ice pellets	
3		0																					

HOUR	SKY COVER	CEILING	WIND DIR	WIND SPEED	WIND GUST	TEMPERATURE	REL HUM	WEATHER	HOUR	SKY COVER	CEILING	WIND DIR	WIND SPEED	WIND GUST	TEMPERATURE	REL HUM	WEATHER	HOUR	SKY COVER	CEILING	WIND DIR	WIND SPEED	WIND GUST	TEMPERATURE	REL HUM	WEATHER									
						AIR	WET BULB																												
01	5	UNL	12			75	69	65	71	13	10	6	39	8				01	5	UNL	12			75	69	65	71	13	10	6	39	8			
02	8	23	12			75	69	66	71	17	12	10	11	3				02	8	23	12			75	69	66	71	17	12	10	11	3			
03	7	20	12			76	69	66	71	17	10	9	11	3				03	7	20	12			76	69	66	71	17	10	9	11	3			
04	9	30	12			82	73	63	63	15	23	10	50	12				04	9	30	12			82	73	63	63	15	23	10	50	12			
05	10	23	10			82	74	73	67	15	12	2	UNL	10				05	10	23	10			82	74	73	67	15	12	2	UNL	10			
06	8	50	8			80	73	70	72	15	5	10	120	10				06	8	50	8			80	73	70	72	15	5	10	120	10			
07	9	33	10			77	72	70	79	18	4	4	UNL	8				07	9	33	10			77	72	70	79	18	4	4	UNL	8			
08	5	UNL	12															08	5	UNL	12														
09	8	23	12															09	8	23	12														
10	7	20	12															10	7	20	12														
11	9	30	12															11	9	30	12														
12	10	23	10															12	10	23	10														
13	8	50	8															13	8	50	8														
14	9	33	10															14	9	33	10														
15	10	23	10															15	10	23	10														
16	8	50	8															16	8	50	8														
17	9	33	10															17	9	33	10														
18	5	UNL	12															18	5	UNL	12														
19	8	23	12															19	8	23	12														
20	7	20	12															20	7	20	12														
21	9	30	12															21	9	30	12														
22	10	23	10															22	10	23	10														

NOTES

CEILING COLUMN—
UNL indicates an unlimited ceiling.

WEATHER COLUMN—

- T Tornado
- TS Thunderstorm
- Q Squall
- R Rain
- RV Rain showers
- ZR Freezing rain
- L Drizzle
- ZL Freezing drizzle
- S Snow
- SP Snow pellets
- IC Ice crystals
- SW Snow showers
- SG Snow grains
- IP Ice pellets
- H Hail
- F Fog
- IF Ice fog
- GF Ground fog
- BD Blowing dust
- BV Blowing sand
- BS Blowing snow
- BY Blowing spray
- K Smoke
- H Haze
- D Dust

WIND COLUMN—

Directions are those from which the wind blows, indicated in tens of degrees from true North (i.e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots; multiply by 1.15 to convert to miles per hour.

ADDITIONAL DATA
Other observational data contained in records on file can be furnished at cost via microfilm, microfiche, or paper copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Climatic Center, Federal Building, Asheville, North Carolina 28801.

STATION: WEST PALM BEACH FLA

YEAR & MONTH: 73 04

U.S. DEPARTMENT OF COMMERCE
NATIONAL CLIMATIC CENTER
FEDERAL BUILDING
ASHEVILLE, N.C. 28801

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U.S. DEPARTMENT OF COMMERCE
210



FIRST CLASS

Latitude 26° 41' N Longitude 80° 06' W Elevation (ground) 15 ft. Standard time used: EASTERN W9AN #12844

Date	Temperature °F						Degree days Base 65°		Weather types on dates of occurrence 1 Fog 2 Heavy fog x 3 Thunderstorm 4 Ice pellets 5 Hall 6 Glaze 7 Duststorm 8 Smoke, Haze 9 Blowing snow	Snow ice pellets or ice on ground at 07AM In.	Precipitation		Avg. station pressure In. Elev. 21 feet m.s.l.	Wind			Sunshine		Sky cover Tenths		Date		
	Maximum	Minimum	Average	Departure from normal	Average dew point	Heating	Cooling	Water equiva- lent In.			Snow ice pellets In.	Resultant direction		Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile		Hours and tenths	Percent of possible	Sunrise to sunset		Midnight to midnight	
																Speed m.p.h.	Direction						
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1	82	71	77	1	57	0	12		0	0	0	30.16	09	15.0	15.1	22	08			7	5	1	
2	83	73	78	2	62	0	13		0	0	0	30.16	09	15.7	16.1	23	10			7	9	2	
3	84	72	78	1	61	0	13		0	0	0	30.10	13	10.8	11.2	20	12			7	9	3	
4	88	71	80	3	63	0	15		0	0	0	30.00	18	4.1	8.3	16	13			7	8	4	
5	83	68	76	-1	59	0	11		0	0	0	30.01	04	8.4	10.8	18	03			5	3	5	
6	82	69	76	-1	57	0	11		0	0	0	30.07	09	10.8	11.2	16	09			8	6	6	
7	84	74	79	2	63	0	14		0	0	0	30.09	10	14.0	14.2	21	11			8	7	7	
8	85	76	81	4	66	0	16		0	0	0	30.07	13	15.0	15.4	24	13			8	6	8	
9	90	72	81	4	70	0	16	3	0	1.93	0	29.99	14	7.4	11.9	29	12			9	8	9	
10	90	71	81	4	69	0	16	3	0	1.4	0	29.98	28	8.3	11.7	26	34			9	10	9	
11	88	68	78	1	67	0	13	1	0	0	0	29.98	27	4	7.1	15	06			2	1	10	
12	89	68	79	2	67	0	14	1	0	0	0	29.98	14	3.3	6.6	16	12			0	0	12	
13	89	70	80	2	67	0	15		0	0	0	30.01	15	6.1	7.6	18	10			2	3	13	
14	88	72	80	2	68	0	15		0	0	0	30.04	12	4.1	5.5	16	13			9	9	14	
15	88	71	80	2	67	0	15	3	0	0	0	30.02	20	3.3	4.8	14	27			10	9	15	
16	83	65	74	-4	62	0	9	3	0	0	0	29.98	33	6.6	8.6	16	36			8	6	16	
17	83	60*	72*	-16	52	0	7		0	0	0	29.95	30	2.8	7.5	14	32			6	5	17	
18	83	63	73	-5	58	0	8		0	0	0	29.95	03	3.9	8.3	15	08			9	9	18	
19	85	70	78	0	63	0	13		0	0	0	29.96	01	2.4	8.1	14	07			9	9	19	
20	91	65	78	0	63	0	13		0	0	0	29.92	21	7.6	10.2	17	25			9	9	19	
21	88	66	77	-1	63	0	12		0	0	0	29.93	15	3.9	8.6	17	12			4	3	20	
22	87	70	79	1	67	0	14		0	0	0	29.93	18	3.9	8.1	15	16			7	5	21	
23	89	71	80	1	67	0	15		0	0	0	29.92	17	2.8	8.2	17	11			10	9	22	
24	89	73	81	2	70	0	16	3	0	0	0	29.92	17	2.8	8.2	17	11			5	6	23	
25	94*	72	83	4	70	0	18		0	.07	0	29.88	19	3.2	6.2	18	13			7	5	24	
26	92	71	82	3	71	0	17	3	0	.03	0	29.85	15	6.3	11.2	21	36			8	6	25	
27	91	77	84	5	73	0	19	3	0	1.70	0	29.85	16	5.0	6.3	32	18			8	5	26	
28	93	81	87*	8	75	0	22		0	0	0	29.85	16	7.5	8.1	17	14			6	5	27	
29	92	79	86	7	77	0	21	3	0	0	0	29.94	14	10.9	12.2	21	12			6	5	28	
30	91	73	82	2	73	0	17	3	0	0	0	30.03	14	9.3	10.8	22	14			5	6	29	
31	89	73	81	1	71	0	16		0	.03	0	30.08	10	7.6	14.4	23	04			7	8	30	
									0	0	0	30.05	07	7.9	8.3	17	11			4	6	31	
Sum	Sum					Total	Total			Total	Total	For the month:						Total	%	Sum	Sum		
2713	2191					0	456	Number of days	4.13	0	29.99	12	4.3	9.8	32	18			for	207	189		
Avg.	Avg.							Precipitation	Dep.											Avg.	Avg.		
87.5	70.8	79.2	1.6	66	0			≥ 0.1 inch	9	-0.98							Date: 26	Possible	month	6.7	6.1		
Season to date								Snow, ice pellets		Greatest in 24 hours and dates								Greatest depth on ground of snow, ice pellets or ice and date					
Number of days								≥ 1.0 inch	0	Precipitation								Snow, ice pellets					
Maximum Temp.								Minimum Temp.	182	1253	Thunderstorms								0				
≥ 90° F								≥ 32°	≥ 32°	≥ 0°	Heavy fog X								0				
9								0	0	0	-6.5	Clear 3								0			

[illegible]

* Extreme temperatures for the month. May be the last of more than one occurrence.
- Below zero temperature or negative departure from normal.
+ $\geq 70^{\circ}$ at Alaskan stations.
X Also on an earlier date.
T Heavy fog restricts visibility $\frac{1}{4}$ mile or less.
In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The measure for degree days begins with July for heating and with January for cooling.
Data in columns 6, 10, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows.
Resultant wind is the vector sum of wind directions and speeds divided by the number of observations.
Figures for directions are tens of degrees from true North: i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees (09, 18, 27, 36), entries in Col. 15 are farther observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

Subscription Price: Local Climatological Data \$ 2.00 per year including annual issue if published, foreign mailing 75c extra. Single copy: 20c for monthly issue; 15c for annual summary. Make checks payable to Department of Commerce, NOAA. Send payments and orders to National Climatic Center, Federal Building, Asheville, North Carolina 28801.

I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

Director, National Climatic Center

SUMMARY BY HOURS

Hour	Local time	Sky cover tenths	Station pressure in.	AVERAGES					Resultant wind		
				Temperature				Relative humidity %	Wind speed m.p.h.	Direction	Speed m.p.h.
				Air °F	Wet bulb °F	Dew pt. °F					
01	5	29.99	74	69	66	75	7.8	19			
04	4	29.97	73	68	65	77	7.4	16	3.		
07	7	30.00	74	68	65	73	8.9	13	2.		
10	7	30.02	83	71	65	54	11.7	14	3.		
13	6	30.00	85	73	66	54	13.6	11	7.		
16	7	29.96	83	72	66	58	12.7	11	8.		
19	7	29.97	79	70	66	66	9.2	11	6.		
22	6	30.01	76	70	67	73	7.1	12	3.		

OBSERVATIONS AT 3-HOUR INTERVALS

[illegible]

NOTES

CEILING COLUMN—

UNL indicates an unlimited ceiling.

WEATHER COLUMN—

- * Tornado
- T Thunderstorm
- Q Squall
- R Rain
- RW Rain showers
- ZR Freezing rain
- L Drizzle
- ZL Freezing drizzle
- S Snow
- SP Snow pellets
- IC Ice crystals
- SW Snow showers
- SG Snow grains
- IP Ice pellets
- A Hail
- F Fog
- IF Ice fog
- GF Ground fog
- BD Blowing dust
- BN Blowing sand
- BS Blowing snow
- BY Blowing spray
- K Smoke
- H Haze
- D Dust

WIND COLUMNS—

Directions are those from which the wind blows, indicated in tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots.
multiply by 1.15 to convert
to miles per hour.

ADDITIONAL DATA
Other observational data contained in records on file can be furnished at cost via microfilm, microfiche, or paper copies of the original records. Inquiries as to availability and costs should be addressed to: Director, National Climatic Center, Federal Building, Asheville, North Carolina 28801.

STATION. WEST PALM BEACH FLA

YEAR & MONTH: 73 05

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ASHEVILLE, N.C. 28801

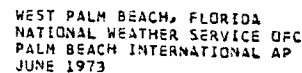
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FIRST CLASS



Latitude 26° 41' N Longitude 80° 06' W Elevation 'ground' 15 ft. Standard time used: EASTERN WBAN #12344

Date	Temperature °F								Weather types on dates of occurrence 1 Fog 2 Heavy fog x 3 Thunderstorm 4 Ice pellets 5 Hail 6 Glaze 7 Duststorm 8 Smoke, Haze 9 Blowing snow	Snow ice pellets or ice on ground at 07AM In.	Precipitation		Avg. station pressure In. Elev. 21 feet m.s.l.	Wind				Sunshine		Sky cover Tenth		Date	
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days Base 65°		Water equivalent In.			Snow ice pellets In.	Resultant direction		Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile		Hours and tenths	Percent of possible	Sunrise to sunset	Midnight to midnight		
						Heating	Cooling									Speed m.p.h.	Direction						
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1	89	79	84	4	70	0	19		0	0	0	30.03	07	10.5	10.8	17	09			5	5	1	
2	87	73	80	0	68	0	15		0	0	0	29.99	09	8.9	9.5	17	08			4	3	2	
3	89	77	83	3	70	0	18	3	0	T	0	30.01	07	13.9	14.5	23	06			7	7	3	
4	88	79	84	4	70	0	19		0	0	0	30.06	10	15.0	15.7	21	11			6	5	4	
5	89	79	84	4	70	0	19		0	T	0	30.09	11	11.8	12.1	17	10			5	4	5	
6	89	77	83	3	68	0	18		0	T	0	30.06	08	11.7	12.5	17	10			5	4	6	
7	85	73	79	-1	69	0	14		0	0	2.01	29.96	07	11.6	12.2	24	10			10	9	7	
8	89	72	81	0	71	0	16	1	8	0	0	30.00	15	10.1	11.5	21	11			3	4	8	
9	90	79	85*	4	72	0	20		0	T	0	30.09	12	11.1	11.4	18	12			9	7	9	
10	89	76	83	2	69	0	18		0	0	0	30.07	11	7.4	7.5	17	11			6	5	10	
11	89	73	81	0	68	0	16		0	0	0	30.04	11	6.7	6.9	13	09			6	5	11	
12	89	77	83	2	69	0	18		0	0	0	30.02	12	10.0	10.1	18	11			6	5	12	
13	90	75	83	2	71	0	18		0	0	0	30.03	14	6.5	7.1	17	12			8	8	13	
14	92*	75	84	3	72	0	19	3		T	0	30.04	20	.5	5.9	14	34			9	8	14	
15	91	73	82	1	71	0	17	3		0	0	30.00	20	3.7	5.3	14	11			7	5	15	
16	91	72	82	1	70	0	17	3		.12	0	29.97	30	3.4	7.8	21	36			6	6	16	
17	89	72	81	0	71	0	16	3		.33	0	29.93	21	1.3	6.2	14	18			10	9	17	
18	89	72	81	-1	70	0	16	3		.23	0	29.93	23	5.2	6.2	21	24			10	9	18	
19	90	69*	80	-2	69	0	15	3		.08	0	30.00	14	3.4	5.6	17	10			6	5	19	
20	83	75	79	-3	71	0	14	3		1.73	0	30.07	13	1.8	5.5	20	14			10	10	20	
21	83	74	79*	-3	72	0	14	3		.86	0	30.09	09	3.8	5.3	21	10			10	10	21	
22	89	74	82	0	72	0	17	3		.09	0	30.08	13	5.1	6.0	13	09			10	7	22	
23	90	73	82	0	71	0	17	3		.15	0	30.01	22	5.3	6.3	12	29			10	8	23	
24	91	74	83	1	72	0	18	3	8	.48	0	29.93	20	4.0	6.2	20	25			10	8	24	
25	87	73	80	-2	72	0	15	3	8	.73	0	29.88	10	2.5	4.0	17	07			7	8	25	
26	89	74	82	0	71	0	17	3	8	.01	0	29.86	10	1.1	7.2	14	11			10	10	26	
27	91	74	83	1	72	0	18	3	8	.71	0	29.91	21	6.2	7.8	21	18			7	7	27	
28	89	75	82	0	72	0	17		8	0	0	29.92	20	7.4	7.8	15	21			10	9	28	
29	90	73	82	0	72	0	17		8	0	0	29.88	18	4.6	7.1	13	13			4	4	29	
30	90	74	82	0	71	0	17		8	0	0	29.91	21	.3	6.8	13	07			2	3	30	
Sum	Sum					Total	Total			Total	Total	For the month:						Total	%	Sum	Sum		
2656	2233					0	509	Number of days		7.53	0	29.99	12	4.4	8.3	24	10			214	200		
Avg.	Avg.						Dep.	Precipitation		Dep.									for				
88.9	74.5					0		≤ .01 inch	13	0.00								Date: 07	Possible	month	Avg.		
Season to date								Snow, ice pellets		Greatest in 24 hours and dates						Greatest depth on ground of snow, ice pellets or ice and date							
Number of days								≤ 1.0 inch	0	Precipitation						Snow, ice pellets							
Maximum Temp.								Thunderstorms	15	Heavy fog X						0							
Minimum Temp.								188	1747	2.48						20-21							
≥ 90° f								≥ 32°	≥ 32°	≥ 0°	Dep.						Dep.						
11								0	0	0	-63	Clear						Partly Cloudy					

HOURLY PRECIPITATION (Water equivalent in inches)

[illegible]

- * Extreme temperatures for the month. May be the last of more than one occurrence.
- Below zero temperature or negative departure from normal.
+ $\geq 70^\circ$ at Alaskan stations.
X Also on an earlier date, or dates.
T Heavy fog restricts visibility to $\frac{1}{4}$ mile or less.
In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.

The season for degree days begins with July for heating and with January for cooling.

Data in columns 6, 12, 13, 14, and 15 are based on 8 observations per day at 3-hour intervals.

Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations. Figures for directions are tens of degrees from true North: i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.

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I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

William H. Haggard

Director, National Climatic Center

SUMMARY BY HOURS

Hour	Sky cover tenths	Station pressure in.	AVERAGES					Resultant wind	
			Temperature			Relative humidity %	Wind speed m.p.h.		
			Air °F	Wet bulb °F	Dew Pt. °F			Direction	Speed m.p.h.
01	6	29.98	78	73	70	73	5.9	12	3.4
04	5	29.97	76	73	70	81	5.3	13	3.0
07	6	30.00	78	73	70	76	6.0	13	2.5
10	7	30.03	85	75	71	63	9.4	14	4.0
13	7	30.01	85	75	71	63	12.0	10	7.2
16	8	29.97	84	75	71	65	11.2	11	6.7
19	8	29.98	81	74	71	73	9.5	12	4.6
22	7	30.01	79	73	70	75	5.9	12	4.6

[illegible]

NOTES

CEILING COLUMN—

WEATHER COLUMN—

- Tornado
- Thunderstorm

WIND COLUMNS—

Directions are those from which the wind blows, indicated in Tens of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

4 Speed is expressed in knots;
5 multiply by 1.15 to convert
3 to miles per hour.

ADDITIONAL DATA
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STATION: WEST PALM BEACH FLA YEAR & MONTH: 73 06

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OBSERVATIONS AT 3-HOUR INTERVALS

[illegible]

NOTES

CEILING COLUMN—
UNL indicates an unlimited ceiling.

WEATHER COLUMN—

T	Tornado
R	Thunderstorm
Q	Squall
R	Rain
R/V	Rain showers
Z/R	Freezing rain
L	Drizzle
Z/L	Freezing drizzle
S	Snow
SP	Snow pellets
IC	Ice crystals
SW	Snow showers
SG	Snow grains
IP	Ice pellets
A	Hail
F	Fog
I	Ice fog
GF	Ground fog
BD	Blowing dust
BN	Blowing sand
BS	Blowing snow
BY	Blowing spray
K	Smoke
H	Haze
D	Dust

WIND COLUMNS—
Directions are those from which the wind blows, indicated in tens of degrees from true North: 1 e., 09 for East, 13 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots multiply by 1.15 to convert to miles per hour.

STATION: WEST PALM BEACH FLA YEAR & MONTH: 73 07

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LOCAL CLIMATOLOGICAL DATA

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

WEST PALM BEACH, FLORIDA
NATIONAL WEATHER SERVICE OFC
PALM BEACH INTERNATIONAL AP
AUGUST 1973

Latitude 26° 41' N Longitude 80° 05' W Elevation (ground) 15 ft. Standard time used: EASTERN WBAN #12844

Date	Temperature °F							Weather types on dates of occurrence 1 Fog 2 Heavy fog x 3 Thunderstorm 4 Ice pellets 5 Hail 6 Glaze 7 Duststorm 8 Smoke, haze 9 Blowing snow	Snow ice pellets or ice on ground at 07AM In.	Precipitation		Avg. station pressure In. Elev. 21 feet m.s.l.	Wind			Sunshine		Sky cover Tenths		Date			
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days Base 65°				Water equivalent In.	Snow, ice pellets In.		Resultant direction	Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile		Hours and tenths	Percent of possible		Sunrise to sunset	Midnight to midnight	
						Heating	Cooling									Speed m.p.h.	Direction						
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1	89	75	82	-1	72	0	17		0	0	0	29.97	19	4.7	5.2	21	15		10	9	1		
2	90	74	82	-1	73	0	17	3	0	.60	0	29.97	15	4.2	5.8	21	19		10	9	2		
3	90	76	83	0	74	0	18		0	0	0	30.02	14	5.1	5.5	17	13		9	6	3		
4	90	78	84	1	74	0	19		0	0	0	30.07	14	8.3	9.2	16	12		4	3	4		
5	88	73	82	-1	73	0	17	3	0	.89	0	30.08	16	3.1	4.2	17	22		8	7	5		
6	90	74	82	-1	73	0	17	3	0	.01	0	30.03	07	9	4.3	10	24		6	6	6		
7	88	73	81	-3	71	0	16	3	0	.05	0	30.02	06	1.3	5.6	10	10		10	8	7		
8	88	73	81	-3	71	0	16	3	0	.05	0	30.01	23	1.2	2.6	15	35		9	9	8		
9	88	74	81	-3	72	0	16	3	0	.20	0	29.97	29	3	4.3	15	29		9	8	9		
10	83	73	78	-5	72	0	13	3	0	.73	0	29.96	19	2.4	4.0	17	12		10	9	10		
11	90	75	83	0	74	0	18		0	T	0	30.07	12	8.0	8.3	18	12		7	7	11		
12	92	82	87*	4	73	0	22		0	T	0	30.13	10	12.5	12.7	18	07		6	5	12		
13	92	79	86	3	72	0	21		0	T	0	30.07	09	10.5	10.9	20	08		5	4	13		
14	91	73	82	-1	71	0	17		0	.04	0	30.01	16	1.8	7.5	18	27		8	7	14		
15	92	74	83	0	70	0	18	3	0	T	0	30.00	06	5	6.5	21	22		7	8	15		
16	90	74	82	-1	72	0	17	3	0	.57	0	30.04	09	5.2	6.3	16	08		9	8	16		
17	91	75	83	0	73	0	18		0	.13	0	30.04	08	13.0	13.4	18	06		4	4	17		
18	89	78	84	1	73	0	19		0	T	0	30.00	09	10.4	10.9	16	07		6	5	18		
19	90	76	83	0	73	0	18		0	T	0	29.96	11	6.1	6.9	16	08		8	8	19		
20	89	74	82	-1	72	0	17	3	0	.46	0	29.94	13	2.8	4.8	17	13		9	9	20		
21	85	71	78	-5	71	0	13	3	0	.08	0	29.85	12	8	5.2	20	34		10	10	21		
22	90	69*	80	-3	69	0	15	3	0	.05	0	29.80	21	1.3	6.8	13	10		3	4	22		
23	92*	73	83	0	72	0	18		0	0	0	29.92	18	4.9	5.9	14	20		4	3	23		
24	88	73	81	-2	72	0	16	3	0	.43	0	30.02	19	5.9	6.6	20	22		9	8	24		
25	89	73	81	-2	73	0	16		0	.34	0	30.02	11	7.4	8.5	20	13		7	7	25		
26	88	79	84	1	73	0	19		0	0	0	30.04	10	9.4	9.8	16	08		9	6	26		
27	88	79	84	1	72	0	19		0	T	0	30.05	08	9.5	10.2	17	07		4	4	27		
28	88	73	81	-2	72	0	16		0	.05	0	29.99	04	8.2	10.5	22	06		7	6	28		
29	82	77	80	-3	74	0	15	3	0	.41	0	29.97	10	10.0	10.5	20	11		9	8	29		
30	86	73	80	-3	73	0	15	3	0	.50	0	29.98	08	8.7	10.5	21	09		10	10	30		
31	82	73	78*	-5	73	0	13	3	0	1.92	0	30.01	11	7.7	8.1	20	11		10	9	31		
Sum		Sum		Total		Total		Total		Total		For the month:		Total		Total		Sum		Sum		Sum	
274.8		231.8		506.6		526		Number of days		7.51		0 30.00 11 4.6 7.5 22 05		Total		%		Sum		234		246	
Avg.		Avg.		Avg.		Avg.		Precipitation		Dep.		Date: 28		Possible		month		Avg.		7.6		7.0	
88.6		74.8		81.7		-1.3		72		0		Snow, ice pellets		≤ 0.1 inch		19		0.77					
Number of days		Season to date		Total		Total		Greatest in 24 hours and dates		Greatest depth on ground of snow, ice pellets or ice and date													
Maximum Temp.		Minimum Temp.		0		2832		Thunderstorms		16		Precipitation		Snow, ice pellets									
≤ 90° F		≤ 32°		≤ 33°		≤ 0°		Heavy fog		X		0		1.97 30-31		0							
14		0		0		0		Clear		1		Partly cloudy		12		Cloudy		18					

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A. M. Hour ending at												P. M. Hour ending at												Date	
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
1																									1	
2																	.55	.05							2	
3																									3	
4																									4	
5											.31	.58	T						.01						5	
6																									6	
7																							.05		7	
8				.02	.01			T	T		T	T	T	T	T							.10	.10		8	
9	T																								9	
10	T	.04	.03	T				T	T	.01	.02	T		.44	.17	.02	T	T							10	
11															T										11	
12																									12	
13														T											13	
14						.02	T										.02								14	
15																	T	T							15	
16											.53	.04	T												16	
17	.02	.11				T	T	T																	17	
18																									18	
19	T	T				T														T	T				19	
20						.05		.36					.03	T									.03	.01	20	
21	T														.06	.02	T								21	
22																									22	
23																						.04	.01		23	
24																									24	
25		.34	T			.07	.03					T	T	.03	.25	.05									25	
26																									26	
27																									27	
28	T																.05	T	T						28	
29						.02	T			.07	.02	.16	T	.03	.11	.03	T			.11					29	
30					.15	.01					.01							.02	.10	T					30	
31	.15	.03	.01				.02			.05	.58	.15	.10	T	T	T	T	.15	.39	.16	.05	.03	.02	T	.01	31

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	TEMPERATURE				WIND				WEATHER	TEMPERATURE				WIND				WEATHER	TEMPERATURE				WIND					
	TEMPERATURE				WIND					TEMPERATURE				WIND					TEMPERATURE				WIND					
	SKY COVER Tenths	CEILING Height of Feet	WIND Direction Force	WIND Speed Miles	SKY COVER Tenths	CEILING Height of Feet	WIND Direction Force	WIND Speed Miles		SKY COVER Tenths	CEILING Height of Feet	WIND Direction Force	WIND Speed Miles	SKY COVER Tenths	CEILING Height of Feet	WIND Direction Force	WIND Speed Miles		SKY COVER Tenths	CEILING Height of Feet	WIND Direction Force	WIND Speed Miles	SKY COVER Tenths	CEILING Height of Feet	WIND Direction Force	WIND Speed Miles		
01	9	300	12	77	74	72	85	00	0	10	300	12	76	73	72	87	00	0	6	UNL	12	78	74	73	85	00	0	
04	9	300	12	77	72	71	87	00	0	7	300	12	75	72	71	87	00	0	10	300	12	76	74	73	90	00	0	
07	10	140	10	77	74	72	85	20	4	10	300	13	78	74	73	85	19	4	10	300	12	81	77	73	82	00	0	
10	10	140	10	83	77	73	77	20	7	10	25	13	87	78	74	65	13	12	10	300	12	89	78	73	65	17	10	
13	10	140	10	87	76	72	61	13	10	10	300	13	88	79	73	65	13	14	10	300	13	89	78	73	59	17	10	
16	10	140	10	84	76	72	61	13	10	10	300	13	89	78	74	63	18	6	8	300	13	90	78	73	57	12	13	
19	10	140	10	79	73	71	77	22	3	10	300	12	77	74	72	85	30	4	8	300	13	84	76	73	70	13	4	
22	10	140	10	77	73	71	82	00	0	8	UNL	12	81	76	74	85	00	0	4	UNL	12	81	75	74	79	00	0	
DAY 02																												
01	1	UNL	12	81	76	74	79	14	5	5	UNL	12	79	74	72	79	00	0	7	300	10	79	75	74	85	00	0	
04	0	UNL	12	81	75	74	77	13	5	8	UNL	12	78	74	73	85	00	0	6	UNL	10	78	74	72	82	00	0	
07	5	UNL	12	81	76	74	79	24	4	8	UNL	12	80	75	73	87	21	3	1	UNL	8	79	75	73	87	00	0	
10	7	300	12	83	79	75	65	15	12	8	14	12	82	75	72	72	19	8	7	300	12	87	78	74	65	00	0	
13	4	UNL	12	89	78	74	61	12	12	10	250	12	81	75	72	74	21	4	9	UNL	12	88	78	74	61	10	9	
16	4	UNL	13	88	77	73	61	14	13	9	250	13	86	77	73	65	12	8	5	UNL	12	88	78	74	63	06	0	
19	2	UNL	13	84	76	72	67	13	7	8	250																	

NOTES

CEILING COLUMN—

UNL indicates an unlimited ceiling.

WEATHER COLUMN—

- * Tornado
- T Thunderstorm
- Q Squall
- R Rain
- RW Rain showers
- ZR Freezing rain
- L Drizzle
- ZL Freezing drizzle
- S Snow
- SP Snow pellets
- IC Ice crystals
- SW Snow showers
- SG Snow grains
- IP Ice pellets
- A Hail
- F Fog
- IF Ice fog
- GF Ground fog
- BD Blowing dust
- BN Blowing sand
- BS Blowing snow
- BY Blowing spray
- K Smoke
- H Haze
- D Dust

WIND COLUMNS—

Directions are those from which the wind blows, indicated in terms of degrees from true North; i. e., 09 for East, 18 for South, 27 for West. Entry of 00 in the direction column indicates calm.

Speed is expressed in knots;
multiply by 1.15 to convert
to miles per hour.

U.S. DEPARTMENT OF COMMERCE
NATIONAL CLIMATIC CENTER
FEDERAL BUILDING
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FIRST CLASS

OBSERVATIONS AT 3-HOUR INTERVALS

[illegible]

ADDITIONAL DATA

Other observational data contained in records on file can be furnished at cost via microfilm or microfiche copies of the original records. Inquiries as to availability and costs should be addressed to:
Director, National Weather Records Center, Federal Building, Asheville, N. C. 28301

STATION: WEST PALM BEACH FLA

YEAR & MONTH: 69 09



LOCAL CLIMATOLOGICAL DATA

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

WEST PALM BEACH, FLORIDA
NATIONAL WEATHER SERVICE OFC
PALM BEACH INTERNATIONAL AP
OCTOBER 1973

Latitude 26° 41' N Longitude 80° 06' W Elevation (ground) 15 ft. Standard time used: EASTERN WBAN #12844

Date	Temperature °F							Weather types on dates of occurrence 1 Fog 2 Heavy fog x 3 Thunderstorm 4 Ice pellets 5 Hall 6 Glaze 7 Duststorm 8 Smoke, Haze 9 Blowing snow	Snow, ice pellets or ice on ground at 07AM In.	Precipitation		Avg. station pressure In. Elev. 21 feet m.s.l.	Wind				Sunshine		Sky cover Tenths		Date	
	Maximum	Minimum	Average	Departure from normal	Average dew point	Degree days Base 63°				Water equivalent In.	Snow, ice pellets In.		Resultant direction	Resultant speed m.p.h.	Average speed m.p.h.	Fastest mile	Hours and tenths	Percent of possible	Sunrise to sunset	Midnight to midnight		
						Heating	Cooling															
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	87	76	82	1	69	0	17		0	0	0	30.06	08	10.4	10.6	14	10			5	5	1
2	87	77	82	1	68	0	17		0	.13	0	30.03	07	9.9	10.4	24	07			4	4	2
3	85	76	81	0	70	0	16		0	1.03	0	29.93	05	8.1	8.9	16	09			7	7	3
4	83	73	78	-2	72	0	13	3	0	.10	0	29.88	09	2.6	2.6	9	08			9	8	4
5	87	73	80	0	72	0	15		0	0	0	29.92	35	3.0	5.0	9	07			3	2	5
6	87	75	81	1	72	0	16		0	T	0	29.93	03	6.7	8.6	16	05			3	3	6
7	89*	74	82*	2	71	0	17	3	0	2.21	0	29.92	12	3.6	5.9	18	32			7	6	7
8	86	73	80	0	71	0	15	3	0	.81	0	29.95	04	1.4	7.6	15	09			7	9	8
9	85	71	78	-2	70	0	13	3	0	.59	0	29.94	04	3.7	5.9	15	03			8	7	9
10	85	70	78	-1	68	0	13	3	0	.85	0	29.89	04	6.9	8.2	29	04			7	5	10
11	85	74	80	1	66	0	15	3	0	.30	0	29.91	07	13.3	13.4	23	07			7	6	11
12	84	75	80	1	63	0	15		0	.08	0	30.01	07	17.8	18.0	26	07			5	4	12
13	84	75	80	1	63	0	15		0	0	0	30.07	08	16.2	16.4	20	08			2	3	13
14	85	77	81	2	67	0	16		0	0	0	30.06	07	13.7	13.8	18	08			6	6	14
15	84	73	79	0	64	0	14		0	0	0	30.02	08	8.4	8.6	15	09			3	2	15
16	83	68	76	-2	65	0	11		0	0	0	29.94	03	3.8	4.8	12	09			3	2	16
17	84	67	76	-2	67	0	11		0	0	0	29.91	05	5.6	5.8	15	07			4	4	17
18	84	75	80	2	69	0	15		0	0	0	29.90	07	13.3	13.5	21	06			9	8	18
19	84	75	80	2	71	0	15		0	.17	0	29.81	05	16.0	16.7	25	04			9	8	19
20	85	76	81	4	72	0	16		0	.56	0	29.75	03	16.0	16.4	23	05			7	7	20
21	85	76	81	4	72	0	16		0	.03	0	29.80	04	17.1	17.4	23	06			8	8	21
22	85	77	81	4	70	0	16		0	T	0	29.86	04	19.0	19.4	25	03			7	7	22
23	84	71	78	1	68	0	13		0	.01	0	29.83	01	11.9	13.8	22	05			7	6	23
24	83	68	76	-1	64	0	11		0	0	0	29.83	33	12.5	13.7	20	33			2	1	24
25	83	66	75	-2	64	0	10		0	0	0	29.86	31	11.3	12.2	21	32			4	2	25
26	83	65	74	-2	65	0	9	1	0	0	0	29.94	35	6.3	8.3	15	36			2	2	26
27	82	65	74	-2	61	0	9		0	0	0	30.02	07	4.6	6.8	14	05			2	2	27
28	83	62	73	-3	64	0	8		0	T	0	30.01	11	5.1	5.8	13	13			6	5	28
29	81	61	71	-5	61	0	6	1	0	T	0	29.92	29	6.9	8.6	14	31			1	3	29
30	75	54	65*	-11	50	0	0		0	0	0	29.95	30	7.8	9.1	18	29			1	1	30
31	83	54*	69	-7	57	0	4		0	0	0	29.87	20	5.2	6.3	15	23			2	4	31
Sum		Sum				Total	Total			Total	Total	For the month:				Total	%	Sum	Sum			
2610		2192				0	397			6.97	0	29.93	05	6.8	10.4	29	04		for 158	147		
Avg.		Avg.				Dep.	Dep.			Dep.						Date: 10	Possible	month	Avg.	Avg.		
84.2		70.7				-0.7	67												5.1	4.7		
						Season to date	Total	Total				Greatest in 24 hours and dates				Greatest depth on ground of snow, ice pellets or ice and date						
Number of days						0	3744					Precipitation				Snow, ice pellets						
Maximum Temp.		Minimum Temp.				0	3744					Precipitation				Snow, ice pellets						
≥ 90° F		≥ 32°				Dep.	Dep.					2.77 7- 8				0						
0		0				0	0					Clear 11 Partly cloudy 14 Cloudy 6										

HOURLY PRECIPITATION (Water equivalent in inches)

Date	A. M. Hour ending at												P. M. Hour ending at												Date
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
1																									1
2																									2
3			.40								T	T		.13				.13	.30	.23			.02		3
4		.02										.04		.04	T										4
5																									5
6		T	T																T	T		T			6
7		T	.03	T	.01	.05	.33	.05						T	.85	1.20	T		T	T	T	.03	.05	.08	7
8		.09	.03	.01	.05	.04	T							.07	.42		.10	.01	.02	.04	T	.03	.03		8
9			.05	T																					9
10																									10
11								.13	T	.17	T	.06	.01												11
12								.03			T														12
13															.01		.08	T							13
14																									14
15																									15
16																									16
17																									17
18																									18
19									.05	T	T	T		T	T										19
20										.01	.02	T	T	.01		.04		.01	T		.11	.01	.04	T	20
21			.01	.07	.09	.20	.01		.01			T	T	.01					T		.13				21
22			T	T	T						T	T		T	T			T	T						22
23																									23
24																									24
25																									25
26																									26
27																									27
28																									28
29	T																								29
30																									30
31																									31

Extreme temperatures for the month. May be the last of more than one occurrence.
- Below zero temperature or negative departure from normal.
+ ≥ 70° at Alaskan stations.
* Also on an earlier date, or dates.
X Heavy fog restricts visibility to 1/4 mile or less.
T In the Hourly Precipitation table and in columns 9, 10, and 11 indicates an amount too small to measure.
The season for degree days begins with July for heating and with January for cooling.
Data in columns 6, 12, 13, 14, and 15 are based on 3 observations per day at 3-hour intervals.
Wind directions are those from which the wind blows. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations.
Figures for directions are tens of degrees from true North; i.e., 09 = East, 18 = South, 27 = West, 36 = North, and 00 = Calm. When directions are in tens of degrees in Col. 17, entries in Col. 16 are fastest observed 1-minute speeds. If the / appears in Col. 17, speeds are gusts.
Any errors detected will be corrected and changes in summary data will be annotated in the annual summary.

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I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

William H. Haggard
Director, National Climatic Center

SUMMARY BY HOURS												
AVERAGES											Resultant wind	
Hour	Local time	Sky cover	TEMP.	Station pressure in.	Temperature				Relative humidity %	Wind speed m.p.h.	Direction	Speed m.p.h.
					Air °F	Wet bulb °F	Dew Pt. °F					
01	4	29.93	74	69	65	77	8.9	69	4.8			
04	7	29.93	73	68	66	77	7.9	74	5.0			
07	9	29.93	73	68	66	79	8.3	69	5.0			
10	12	29.96	82	72	66	83	12.0	69	7.7			
13	3	29.93	82	72	67	60	13.6	69	10.2			
16	6	29.90	82	72	67	61	12.1	69	8.2			
19	9	29.92	77	70	67	72	9.6	69	7.0			
22	12	29.94	75	70	67	73	10.2	69	6.4			

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER	CEILING	WIND DIRECTION	WIND SPEED	TEMPERATURE			WIND			SKY COVER	CEILING	WIND DIRECTION	WIND SPEED	TEMPERATURE			WIND			SKY COVER	CEILING	WIND DIRECTION	WIND SPEED	TEMPERATURE			WIND		
					AIR °F	WET BULB °F	DEW PT. °F	REL. HUM.	DIR	AIR °F					WET BULB °F	DEW PT. °F	REL. HUM.	DIR	AIR °F	WET BULB °F					DEW PT. °F	REL. HUM.	DIR	AIR °F	WET BULB °F	DEW PT. °F
01	0	UNL	12	Day 01	79	71	67	67	09	7	4	UNL	12	Day 02	80	71	67	65	03	11	8	31	12	Day 03	80	73	69	69	04	5
04	2	UNL	12		77	70	67	71	09	6	3	UNL	12		78	71	68	71	05	6	8	25	12		78	73	70	77	06	5
07	2	UNL	12		77	71	67	67	08	8	2	UNL	13		79	70	66	65	05	10	3	UNL	13		79	73	70	74	06	5
10	4	UNL	13		85	73	70	61	07	11	3	UNL	13		85	73	68	57	10	10	3	UNL	13		83	74	70	65	05	12
13	3	UNL	13		85	73	71	63	07	11	3	UNL	13		85	73	67	53	06	13	8	28	13		84	75	71	65	05	12
16	9	100	13		84	74	70	63	07	10	3	00	13		85	74	69	55	05	6	9	100	12		81	74	71	72	05	5
19	8	33	13		81	73	69	67	07	11	2	UNL	12		81	73	71	74	04	7	10	25	8	RW	81	73	71	82	05	5
22	5	UNL	12		80	72	69	67	10	10	2	UNL	12		80	73	70	72	06	9	8	50	8		77	73	71	85	29	5
01	5	UNL	10	Day 04	76	73	72	87	00	0	3	UNL	10	Day 05	76	73	72	87	29	4	0	UNL	12	Day 06	77	74	72	85	28	5
04	2	UNL	10		74	72	71	90	00	0	0	UNL	12		74	72	71	90	00	0	0	UNL	12		77	74	72	85	32	0
07	6	85	10		75	72	71	87	00	0	0	UNL	10		75	72	71	87	31	5	1	UNL	13		76	73	71	85	00	13
10	6	85	10		75	72	71	87	00	0	0	UNL	10		84	76	73	77	06	12	8	100	12		84	70	63	61	04	13
13	10	100	12		80	75	73	79	08	4	5	UNL	13		85	77	73	67	07	2	3	UNL	13		87	76	72	61	04	13
16	10	100	13		82	75	72	72	10	6	2	UNL	12		86	77	73	65	04	5	3	UNL	12		85	75	72	63	02	10
19	10	300	13		79	74	72	79	09	4	0	UNL	12		82	76	73	74	35	6	4	UNL	12		81	75	73	77	04	5
22	10	35	12		78	74	73	85	00	0	1	UNL	12		78	74	73	85	29	5	3	UNL	12		81	75	72	74	05	9
01	1	UNL	12	Day 07	81	74	71	72	04	7	10	23	7	Day 08	76	73	71	85	28	5	9	100	8	Day 09	73	70	69	87	26	5
04	5	UNL	12		75	72	71	87	00	0	10	23	7		76	73	71	85	31	6	9	120	8		73	70	69	84	05	5
07	1	UNL	13		75	72	71	87	29	4	10	80	10		75	72	70	85	32	4	3	UNL	12	RW	74	71	69	84	36	5
10	7	20	13		85	77	73	63	20	4	4	UNL	13		83	73	72	70	12	7	8	22	13		83	75	72	70	06	6
13	9	38	12		86	77	73	65	13	8	4	UNL	13		85	76	72	63	11	11	10	15	5	TRW	76	71	69	79	12	5
16	9	80	13		76	71	69	79	00	0	10	23	12		81	75	72	74	11	8	9	250	13		83	74	70	65	05	8
19	10	20	12		78	73	72	79	12	8	10	25	8	TRW	77	74	72	85	03	0	9	230	12		78	73	71	79	36	3
22	10	45	7		78	73	70	77	12	10	10	20	8	TRW	77	74	71	86	33	12	6	30	12		78	73	70	77	05	5
01	3	UNL	12	Day 10	73	71	70	90	00	0	1	UNL	10	Day 11	78	70	66	67	07	13	2	UNL	10	Day 12	78	68	63	60	08	15
04	3	UNL	12		73	68	67	87	35	3	3	UNL	10		77	69	65	67	07	12	4	UNL	10		78	68	63	60	07	15
07	4	UNL	12		73	70	68	84	29	3	9	33	10	RW	77	70	65	67	11	8	1	UNL	10		77	67	62	60	06	13
10	6	100	13		82	73	70	67	07	12	7	300	12		81	72	68	65	05	6	3	UNL	12		82	69	62	51	08	13
13	6	100	13		82	73	69	89	04	12	8	100	12		84	73	67	57	06	12	8	100	12		84	70	63	61	04	13
16	6	30	13		84	73	69	59	01	12	3	UNL	13		82	73	68	63	07	11	10	38	10		72	69	64	61	07	15
19	4	UNL	10		76	71	68	76	06	9	5	UNL	10		79	70	65	62	08	11	4	UNL	12	RW	78	68	63	60	06	15
22	4	UNL	10		75	70	67	78	05	9	4	UNL	10		75	70	65	64	07	20	4	UNL	12		78	68	63	60	08	17
01	5	UNL	12	Day 13	77	67	62	60	08	17	7	60	12	Day 14	78	71	67	69	08	14	0	UNL	12	Day 15	77	69	65	67	10	7
04	7	60	12		77	67	61	58	08	13	10	100	12		78	71	67	69	07	12	0	UNL	12		74	68	63	62	08	15
07	4	UNL	13		77	67	62	60	09	13	8	33	13		79	72	69	72	07	15	6	40	12		77	68	63	62	08	9
10	1	UNL	13		82	70	63	53	07	14	7	38	13		83	73	69	63	08	11	3	UNL	13		83	71	64	53	09	13
13	0	UNL	13		83	69	62	49	09	14	6	60	13		83	73	68	61	08	16	3	UNL	13		83	70	63	51	09	5
16	1	UNL	13		82	71	65	56	07	14	3	UNL	13		83	72	67	59	08	10	1	UNL	12		82	70	64	53	03	10
19	3	UNL	13		79	70	66	65	07	13	4	UNL	12		79	70	66	65	06	10	1	UNL	12		77	69	64	64	06	5
22	0	UNL	13		79	70	65	64	08	15	2	UNL	12		78	70	65	64	07	8	1	UNL	12		76	69	66	71	08	6
01	5	UNL	12	Day 16	76	69	66	71	10	4	5	UNL	12	Day 17	68	65	64	87	00	0	0	UNL	12	Day 18	77	70	66	69	08	9
04	0	UNL	12		68	66	65	90	00	0	3	UNL	12		67	65	64	90	00	0	4	UNL	12		77	70	67	71	07	8
07	3	UNL	12		70	68	67	90	31	3	8	300	12		69	66	65	87	30	0	8	UNL	13		77	70	67	71	07	8
10	6	33	13		82	73	65	63	06	5	3	UNL	13		82	73	68	63	04	3	9	300	13		83	73	68	61	07	11
13	3	UNL	13		82	71	66	58	09	11	3	UNL	13		83	73	69	63	05	10	10	300	13		84	73	68	59	05	12
16	0	UNL	13		82	71	65	56	11	9	3	UNL	13		82	72	67	67	05	8	10	300	12		83	73	68	63	06	13
19	0	UNL	12		76	68	63	64	11	3	4	UNL	12		79	71	67	67	05	8	10	300	12		80	74	71	76	08	13
22	0	UNL	12		71	67	64	79	00	0	3	UNL	12		78	71	68	71	05	9	10	100	12		80	73	69	69	06	18
01	10	300	12	Day 19	78	72	69	74	07	14	10	33	10	Day 20	78	74	72	82	05	17	10	25	10	Day 21	78	74	73	85	01	8
04	7	300	12		78	73	71	79	05	17	10	33	8		77	73	71	82	03	18	9	60	8		78	73	73	82	03	12
07	10	20	10		78	73	71	79	02	13	4	UNL	10	RW	78	73	71	79	02	11	10	60	10		79	74	72	79	04	15
10	9	25	13		81	73	69	63	03	17	10	19	12		82	76	74	77	03	12	9	25	13		84	72	73	70	03	17
13	10	20	10		81	75	72	77	04	14	6	28	13		82	77	75	79	04	15	7	25	12		84	76	72	67	04	20
16	10	100	13		81	75	72	74	07	18	7	19	8		82	76	73	74	05	17	6	28	12		83	75	72	70	04	14
19	6	25	12		80	74	72	77	04	13	8	80	7		77	74	73	88	01	12	8	30	12		81	75	72	74	05	16
22	1	UNL	10		77	74	72	85	05	10	10	80	10		78	74	73	85	03	12	5	UNL	12		80	74	71	74	05	19
01	5	UNL	10	Day 22	79	73	71	77	04	14	3	UNL	10	Day 23	79	72	68	69	03	13	0	UNL	8	Day 24	71	68	67	87		

YEAR & MONTH: 73. 10

FIRST CLASS

OBSERVATIONS AT 3-HOUR INTERVALS

HOUR	SKY COVER	TEMP	WIND	WEATHER	TEMPERATURE					WIND	WEATHER	TEMPERATURE					WIND	WEATHER												
					AIR	SEA	WIND	WIND	WIND			AIR	SEA	WIND	WIND	WIND														
01	10	120	10	DAY 01	74	71	69	84	21	6	10	100	8	DAY 02	74	72	71	90	00	0	10	45	6	DAY 03	75	73	72	90	00	0
04	10	100	10		76	73	71	85	17	7	10	100	8		76	73	71	85	17	7	10	100	8		77	75	74	91	05	5
07	10	100	10		78	74	72	82	20	8	10	100	8		78	74	72	82	20	8	10	100	8		76	74	73	90	00	0
10	7	300	13		84	77	74	72	25	10	6	38	10		83	77	74	74	23	4	7	59	8		83	76	73	72	01	0
13	10	85	12		87	77	75	63	20	12	5	38	12		85	77	74	68	10	7	7	59	10		85	75	71	63	01	13
16	10	85	12		79	73	71	77	02	19	10	25	13		83	77	74	74	11	8	7	59	10		83	72	67	59	01	10
19	10	60	10		77	73	71	82	34	6	10	40	8		80	76	74	82	00	0	7	59	10		79	72	69	64	05	0
22	10	60	10		75	72	71	87	00	0	8	UNL	7		77	74	73	83	00	0	5	UNL	7		75	70	67	70	05	0
01	4	UNL	7	DAY 04	71	68	67	87	00	0	1	UNL	7	DAY 05	70	68	67	90	00	0	9	100	10	DAY 06	72	70	69	90	25	5
04	2	UNL	7		70	68	67	87	00	0	0	UNL	7		69	67	66	90	00	0	12	2	0		72	71	70	90	25	5
07	7	300	8		71	68	67	87	33	3	0	UNL	7		65	65	65	90	00	0	7	100	5		72	70	69	90	31	5
10	7	60	10		80	71	67	65	04	4	4	UNL	6		82	73	69	65	13	0	5	UNL	10		80	73	70	72	02	7
13	6	60	12		85	73	67	55	36	10	6	35	12		82	74	68	55	11	6	8	130	13		83	73	69	61	02	11
16	0	UNL	12		82	72	67	61	05	8	5	UNL	13		83	74	70	65	16	10	10	19	8		78	73	71	79	07	14
19	0	UNL	12		75	70	67	74	03	0	5	UNL	10		78	73	70	67	15	4	8	80	8		77	70	67	71	04	14
22	0	UNL	12		72	69	67	84	00	0	10	25	7		74	71	70	87	16	4	7	45	10		76	69	65	69	06	14
01	2	UNL	10	DAY 07	75	68	64	69	06	10	3	UNL	12	DAY 08	73	65	50	64	09	6	1	UNL	13	DAY 09	70	64	61	73	11	6
04	3	UNL	10		74	68	64	71	07	11	0	UNL	12		69	63	59	71	00	0	1	UNL	13		65	61	59	81	00	0
07	3	UNL	12		74	67	63	69	09	10	3	UNL	13		70	63	59	68	07	5	0	UNL	13		65	61	59	81	05	4
10	3	UNL	12		80	68	62	54	03	14	2	UNL	13		80	67	60	51	07	11	4	UNL	13		80	69	63	56	23	4
13	9	30	12		80	68	62	54	08	12	8	40	13		81	68	61	51	09	7	3	UNL	13		82	70	63	53	17	5
16	3	UNL	12		80	68	61	52	08	12	4	UNL	12		79	68	61	54	10	7	1	UNL	13		82	70	64	55	10	10
19	1	UNL	12		75	66	60	60	10	11	0	UNL	12		66	63	61	84	00	0	0	UNL	12		68	65	63	84	00	0
22	6	45	10		75	66	60	60	10	11	0	UNL	12		66	63	61	84	00	0	0	UNL	12		68	65	63	84	00	0
01	0	UNL	6	DAY 10	68	65	63	84	30	4	10	50	12	DAY 11	71	64	59	66	04	21	8	60	12	DAY 12	70	62	57	64	07	12
04	0	UNL	6		64	62	61	90	29	4	7	90	12		70	62	57	64	04	17	10	60	12		72	63	57	59	09	15
07	0	UNL	6		67	64	62	84	30	5	4	UNL	13		70	62	57	64	04	15	9	55	12		72	63	57	59	07	14
10	0	UNL	8		75	70	65	64	35	13	5	UNL	13		75	64	57	50	03	15	9	75	12		73	64	57	54	03	13
13	0	UNL	8		80	70	64	58	34	11	5	UNL	13		77	65	57	50	03	15	9	75	12		73	64	57	54	03	13
16	10	25	10		74	69	66	76	04	13	10	45	12		71	63	57	61	04	14	8	75	12		73	64	57	54	03	13
19	10	28	7		72	66	63	73	03	20	9	40	12		71	63	57	61	05	16	7	60	12		73	63	57	57	04	12
22	10	28	7		72	64	59	64	03	18	7	60	12		72	63	57	59	06	16	10	45	12		71	63	57	61	08	16
01	10	60	10	DAY 13	73	63	57	57	04	16	3	UNL	12	DAY 14	72	63	57	59	00	10	0	UNL	12	DAY 15	69	61	55	61	10	5
04	10	UNL	10		71	63	57	61	07	13	1	UNL	12		72	63	57	59	06	11	4	UNL	12		62	58	55	78	38	3
07	1	UNL	13		68	61	57	68	05	7	3	UNL	13		71	63	57	61	05	10	4	UNL	13		66	60	55	68	00	0
10	5	UNL	13		77	65	57	50	08	14	3	UNL	13		78	65	57	49	09	14	5	UNL	13		79	68	61	54	09	10
13	5	UNL	13		78	65	57	49	07	12	2	UNL	13		79	65	57	47	06	14	7	60	13		78	70	66	67	07	7
16	7	45	13		76	64	57	52	08	12	4	UNL	13		77	65	57	50	08	13	2	UNL	13		79	69	63	59	13	7
19	5	UNL	12		74	64	57	55	07	14	3	UNL	13		73	63	57	57	09	10	0	UNL	13		72	68	63	73	13	3
22	5	UNL	12		74	64	57	55	08	14	0	UNL	12		70	61	55	59	07	8	1	UNL	12		69	65	63	81	26	4
01	0	UNL	12	DAY 16	65	63	61	87	00	0	2	UNL	4	DAY 17	69	65	63	81	00	0	2	UNL	10	DAY 18	75	67	63	66	10	10
04	0	UNL	7		65	62	60	84	23	6	0	UNL	6		67	63	61	81	00	0	3	UNL	10		75	67	63	66	09	10
07	0	UNL	6		62	59	57	84	00	0	1	UNL	1		64	62	61	90	00	0	6	83	12		75	67	63	66	09	13
10	0	UNL	7		78	68	63	60	25	8	8	80	10		81	70	65	58	07	5	6	270	12		79	69	63	58	09	13
13	1	UNL	10		84	69	59	43	25	8	8	80	10		83	71	64	53	11	6	8	55	12		79	69	63	58	09	13
16	4	UNL	2		82	68	59	44	24	3	7	80	12		80	69	63	56	13	8	10	18	5		79	69	63	58	09	13
19	3	UNL	4		74	66	62	60	00	0	8	75	8		77	68	63	62	11	8	10	25	8		75	69	63	74	00	11
22	3	UNL	4		71	66	63	70	19	4	6	70	8		76	68	63	64	09	10	10	23	2		70	66	64	81	13	6
01	10	16	8	DAY 19	71	67	64	79	12	11	1	UNL	12	DAY 20	73	67	63	71	09	6	2	UNL	12	DAY 21	76	69	65	69	14	7
04	10	100	8		70	66	63	79	23	11	2	UNL	12		74	68	64	71	09	9	3	UNL	12		75	69	65	71	12	6
07	10	100	10		70	66	63	79	19	4	4	UNL	12		75	68	64	69	09	9	3	UNL	12		76	68	64	71	12	6
10	7	85	10		78	70	66	67	32	5	8	23	13		80	70	65	60	10	14	3	UNL	13		82	71	65	56	12	6
13	8	100	13		75	68	64	69	10	10	8	90	13		82	71	64	53	11	15	4	33	13		83	71	65	55	12	13
16	7	100	13		78	67	61	56	07	9	2	UNL	13		80	70	65	60	09	13	2	UNL	13		81	70	64	56	12	11
19	2	UNL	12		75	68	64	69	08	7	3	UNL	12		77	68	63	62	09	10	0	UNL	12		75	68	64	69	11	7
22	1	UNL	12		74	68	64	71	09	4	6	23	12		77	69	65	67	10	9	4	UNL	12		77	69	64	64	11	7
01	1	UNL	12	DAY 22	75	68	64	69	13	5																				

OBSERVATIONS AT PALM BEACH												OBSERVATIONS AT PALM BEACH													
HOUR	TEMPERATURE				WIND				TEMPERATURE				WIND				TEMPERATURE				WIND				
	SKY COVER	TEMPERATURE	WIND	WIND	WIND	WIND	WIND	WIND	SKY COVER	TEMPERATURE	WIND	WIND	WIND	WIND	WIND	WIND	SKY COVER	TEMPERATURE	WIND	WIND	WIND	WIND	WIND	WIND	
	PERCENT	AIR °F	WET BULB °F	DEW PT. °F	REL. HUM. %	DIR	SPEED KNOTS	WAVE HIGHS	PERCENT	AIR °F	WET BULB °F	DEW PT. °F	REL. HUM. %	DIR	SPEED KNOTS	WAVE HIGHS	PERCENT	AIR °F	WET BULB °F	DEW PT. °F	REL. HUM. %	DIR	SPEED KNOTS	WAVE HIGHS	
01	8	45	12						DAY 01	72	61	53	51	07	13			DAY 02	71	60	52	51	07	12	
04	3	UNL	12							69	59	51	53	07	10				70	60	52	53	07	10	
07	7	40	12							69	59	52	55	06	10				71	60	52	51	07	10	
10	5	UNL	13							75	62	53	46	07	14				76	63	54	47	06	12	
13	4	UNL	13							76	62	53	45	05	14				77	64	55	47	09	11	
16	8	40	13							75	62	52	45	05	13				76	63	54	47	09	9	
19	7	45	12							72	60	52	45	06	11				74	62	53	48	09	13	
22	8	29	12							72	60	52	50	06	12				72	61	53	51	09	10	
01	9	35	12						DAY 04	71	62	53	53	09	13			DAY 05	75	64	57	54	15	13	
04	10	50	12							72	63	57	51	10	8				75	65	58	55	14	9	
07	9	23	12							72	63	57	54	14	10				79	68	61	54	15	14	
10	9	30	12							77	65	58	47	13	11				80	67	61	54	15	14	
13	4	UNL	12							79	65	58	47	13	11				80	67	61	54	15	14	
16	4	UNL	12							77	65	58	47	14	14				80	67	61	54	15	14	
19	1	UNL	12							74	65	59	60	14	10				79	65	59	63	17	5	
22	3	UNL	12							75	64	57	54	14	10				78	64	59	64	15	5	
01	10	60	10						DAY 07	69	64	61	76	31	5			DAY 08	65	60	57	75	32	7	
04	10	80	10							69	63	59	71	04	5				63	58	55	75	33	6	
07	10	80	10							69	63	59	71	04	5				63	58	55	75	33	6	
10	7	80	12							78	67	61	56	05	4				63	62	62	97	30		

Speed is expressed in knots;
multiply by 1.15 to convert
to miles per hour.

STATION: WEST PALM BEACH FLA YEAR & MONTH: 73 12

FIRST CLASS

Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification

2.5c - WATER USAGE

Water use at the power plant will consist of boiler and cooling tower make-up and demineralizer back wash water. An average estimated water use of 828,000 gallons per day will represent 14% of the 1978 average daily output of the Lake Worth Utilities Authority water plant. Of the total average water consumption in an area within 5 mile radius, excluding private wells, the estimated S-5 usage for that same year would represent 7.6%. It is noted that the Lake Worth Utilities Authority water plant has a total design capacity of 25,000,000 gallons per day of which S-5 use will represent approximately 3%.

The attached tabulation describes the past and projected water use for Lake Worth Utilities Authority Unit S-5 and general use in the area.

LOCAL GROUND WATER USAGE (MGD) WITHIN A 5 MILE RADIUS OF
LAKE WORTH UTILITIES AUTHORITY GENERATING STATION

	1973		1978 (Projected)*		1982 (Projected)*	
	<u>Avg.</u>	<u>Max.**</u>	<u>Avg.</u>	<u>Max.**</u>	<u>Avg.</u>	<u>Max.**</u>
Lake Worth	4.43	5.34	5.15	6.31	5.84	7.15
Lantana	.713	1.07	.910	1.366	1.106	1.660
Palm Springs	1.19	1.85	1.519	2.361	1.846	2.870
Atlantis	.471	.599	.601	.764	.731	.929
Manalapan	.454	.587	.579	.749	.704	.911
Seminole Manor	.437	.631	.558	.805	.678	.979
Lake Clark Shores	.222	.279	.283	.356	.344	.433
Lake Worth Hills	.274	.385	.350	.491	.425	.597
Englewood Manor	.093	.101	.119	.129	.144	.157
S-5 Usage	--	--	.828	1.454	.828	1.454
<u>TOTAL</u>	<u>8.29</u>	<u>10.84</u>	<u>10.897</u>	<u>14.785</u>	<u>12.646</u>	<u>17.14</u>
S-5 % OF TOTAL	--	--	7.6%	9.8%	6.5%	8.5%
S-5 % OF LAKE WORTH TOTAL			14.0%	18.7%	12.4%	16.9%

*Projections are based on increase in usage within existing service area with no growth attributed to service expansion.

**Average Maximum based on monthly water use data.

Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification

3.2a - FUEL INFORMATION

Unit S-5 will operate on natural gas and/or low sulfur residual fuel in quantities and proportions as outlined in the application for Air Pollution Permit.

Natural gas is supplied to Lake Worth Utilities Authority by Florida Public Utilities Company, a distributor of gas purchased from Florida Gas Transmission Company. Their rate and curtailment schedule is such that Lake Worth Utilities Authority would be among the last customers to be "cut back," should shortages occur.

Heavy oil, delivered via tank truck, is stored at the site in two existing above ground tanks with a total capacity of 1,600,000 gallons. These storage facilities are provided with dikes to contain the total tank volume in the event of tank failure. Dikes are designed so as to confine the spillage to the immediate area and prevent local run-off water from mixing with and becoming contaminated by the spilled fuel. Rain fall would provide the only means of oil and water contact, and this would occur only if the dike was full due to a tank failure.

The presently existing fuel facilities and supply arrangements are sufficient to provide the fuel needs of Unit S-5.

Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification

3.7b - AIR EMISSIONS

As indicated by the tabulation in the Application For Permit To Construct An Air Pollution Source, Lake Worth Utilities Authority's Unit S-5 will be operated so as to comply with the Department of Pollution Control stack emission standards through the firing of low sulfur oil and natural gas. Historically, Lake Worth Utilities Authority has generated a majority of their power on natural gas as shown in the following table.

LAKE WORTH UTILITIES AUTHORITY
HISTORICAL FUEL USE

	<u>% Natural Gas</u>	<u>% Oil</u>
1969	96	4
1970	94	6
1971	91	9
*1972	95	5
1973	96	4

*Installation of higher capacity gas line by Lake Worth Utilities Authority.

SO₂

Lake Worth Utilities Authority, as well as the utility industry in general, is of the opinion that present day SO₂ stack gas removal systems have not yet proven their performance capability or reliability. In addition, the

relatively large area required to accomodate the facility, prohibits the use of such a device at the Lake Worth Utilities Authority plant site.

In an effort to assure compliance with the Department of Pollution Control standards for emission rates and air quality, Lake Worth Utilities Authority has worked closely with their oil supplier in predicting future fuel oil needs and corresponding availability. Load models and projections of anticipated fuel usage through 1982 have been submitted to the supplier.

Since the submission of the application, Lake Worth Utilities Authority has obtained, from Belcher Oil Company of Miami, a statement of intent (attached) to provide sufficient quantities of low sulfur residual oil. In addition, Lake Worth Utilities Authority and Belcher Oil Company are currently negotiating a multi-year contract for the purchase of the power plant fuel oil needs.

This contract, expected to be executed this summer, in conjunction with the existing natural gas contract (attached) will guarantee acceptable SO₂ emissions without stack gas removal.

PARTICULATE

A particulate control device will be installed in the boiler exhaust system to reduce particulate discharge rates to allowable levels. The

type of device has not yet been determined and is contingent upon final boiler design.

Additional information regarding SO₂ and particulate concentration levels is provided by the "Air Quality Impact Evaluation" included in the site plan. Studies were performed and data tabulated for various fuel types and stack heights.

NO_x

Control of NO_x will be accomplished through boiler design. As indicated, NO_x emissions will conform to the Department of Pollution Control standards.

Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification

4.1 - SITE PREPARATION AND PLANT CONSTRUCTION

Unit S-5 will be an addition to the existing municipal generating station which has been in operation at the site since 1949. The site is presently dedicated to public works, water production, power generation and various other municipal activities.

Installation of the unit will at worst result in the demolition and restructuring of the south wall of the utility owned warehouse and line department building, located directly north of the proposed S-5 site and the excavation of existing parking areas and plant access roads to provide sufficient area for equipment installation. (see plot plan)

An alternate plan to lift and physically transport the warehouse building to a nearby location is also being considered, thus eliminating the demolition of the wall.

LAND USE

It is estimated that 25,000 (.6 acres) square feet of land area will be required to accomodate the total project, of which 37% will be occupied by the turbine-generator unit, 19% by the steam generator with auxiliaries, and 44% by the cooling tower. Access areas will be provided by utilizing existing pavement and plant service roadways. (see plot plan included in Site Plan)

WATER USE

Water usage of approximately 2 million gallons over the two year construction period is expected. Major use will be for soil compaction, flushing, cleaning, and pressure testing of various components (cooling tower, boiler, piping, etc.)

AIR QUALITY

Effects on air quality due to the increased truck traffic and heavy equipment in the immediate area during the construction period will be minimal, as will be the effect due to particulate matter caused by excavation, demolition and normal construction activities.

SOLID WASTE

Solid waste will consist of shipping material, form lumber, asphalt and concrete excavated from existing parking areas and utility access roads, general rubble, breakage and scrap. Such materials will be disposed of by construction contractors. Open burning disposal of solid waste will not be permitted.

NOISE LEVELS

Since Unit S-5 is to be erected at the existing utility facility which is shared by the power plant, public works department and water plant, the in-

crease in ambient noise levels will be minimal. The operation of heavy construction equipment will be the major contributor to the increase in local noise levels, since blasting, riveting, or jack hammering are not expected to be necessary.

WORK FORCE

During the estimated two year construction period, the number of workers present at the site will fluctuate considerably depending on contractor scheduling. A maximum of 70 workers is expected at the height of construction activity. Since the work force will be assembled from the local area, housing and education provisions will not be necessary.

Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification

4.2 - SPECIAL FEATURES

Lake Worth Utilities Authority intends to operate and equip Unit S-5 in such a manner as to conform to the allowable emission rates. An in-depth study of the operation of the system is described, and results tabulated in the "Air Quality Impact Evaluation" included with the Site Plan. Air Quality was shown to actually improve due to the installation of the higher efficiency Unit S-5.

SOLID WASTE GENERATION AND DISPOSAL

Particulate matter removed from the boiler exhaust gases will represent the only solid waste generated by Unit S-5, and this will occur only when operating on oil fuel. A city operated sanitary land fill project has agreed to accept the particulate matter from Lake Worth Utilities Authority. A further possibility for disposal of the materials is its possible sale for Vanadium recovery, but is dependent upon the demand for such material.

Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification

4.3 - ASSOCIATED TRANSMISSION FACILITIES CONSTRUCTION

There will be no associated transmission facilities involved in the construction and operation of Unit S-5. Generator leads from the unit will be run approximately 250 feet underground to the existing 138 kV substation.

Lake Worth Utilities Authority
Application for Unit S-5 Site
Certification

4.4 - RESOURCES COMMITTED

There will be no irreversible or irretrievable commitments of resources associated with the construction of Unit S-5.

PALM BEACH COUNTY POPULATION DATA

Division of Population Studies-Bureau of Economic and Business Research

<u>COUNTY</u> <u>City</u>	<u>1970</u> <u>U. S.</u> <u>Census</u>	<u>Population</u> <u>Estimate for</u> <u>July 1, 1973</u>	<u>Total</u> <u>Population</u> <u>Change</u>	<u>%</u> <u>Increase</u>
PALM BEACH	348,993	427,983	78,990	23
Atlantis	425	844	419	99
Belle Glade	15,949	17,077	1,128	7
Boca Raton	29,538	38,874	9,336	32
Boynton Beach	18,115	26,507	8,392	46
Briny Breeze	481	689	208	43
Cloud Lake	136	136	0	
Delray Beach	19,915	25,046	5,131	21
Glen Ridge	216	233	17	8
Golf Village	50	54	4	8
Golfview	201	207	6	3
Greenacres City	1,731	2,949	1,218	70
Gulf Stream	408	474	66	16
Haverhill	1,034	1,081	47	5
Highland Beach	624	1,406	782	125
Hypoluxo	336	354	18	5
Juno Beach	747	883	136	18
Jupiter	3,136	5,358	2,222	71
Jupiter Inlet Colony	396	448	52	13
Lake Clarke Shores	2,328	2,694	366	14
Lake Park	6,993	7,927	934	13
Lake Worth	23,714	25,934	2,220	9
Lantana	7,126	7,826	700	10
Manalapan	205	235	30	15
Mangonia Park	827	885	58	7
North Palm Beach	9,035	12,056	3,021	33
Ocean Ridge	1,074	1,155	81	8
Pahokee	5,663	5,944	281	5
Palm Beach	9,086	9,742	656	12
Palm Beach Gardens	6,102	8,315	2,213	36
Palm Beach Shores	1,214	1,419	205	17
Palm Springs	4,340	6,288	1,948	47
Riviera Beach	21,401	25,164	3,763	17
Royal Palm Beach	475	1,621	1,146	241
South Bay	2,958	3,026	68	2
South Palm Beach	188	367	179	95
Tequests Village	2,642	3,798	1,156	44
West Palm Beach	57,375	61,663	4,288	7
Unincorporated	92,809	119,304	26,495	29

BELCHER OIL COMPANY



P. O. BOX 1751
MIAMI, FLORIDA 33101

June 20, 1974

Florida Department of Pollution Control
2565 Executive Center Circle, East
Montgomery Building
Tallahassee, Florida 32301

Attention: Mr. Hamilton S. Oven, Jr.
Deputy Executive Director

Gentlemen:

At the request of the Lake Worth Utilities Authority, we are herewith stating our position in regard to the supply of low sulfur fuel oil as required for the projected mid-1978 operation of the Authority's proposed 75 MW unit.

In accordance with Federal Energy Office regulations, as set forth in the January 15, 1974, Federal Register, the Belcher Oil Company is the base period supplier of record for the Lake Worth Utilities Authority and, as such, is obligated to meet the Authority's fuel oil needs, as governed by the terms of the residual oil allocation program.

The Lake Worth Utilities Authority has provided us with their projected residual oil needs through Calendar Year 1983, including the amounts of low sulfur oil (0.75% or less) required for the operation of their proposed 75 MW unit. As you know, the future supply of low sulfur residual oil is quite uncertain, primarily due to the fact that these volumes will most likely have to originate outside the continental United States. We therefore cannot make an unqualified guarantee at this point in time. However, we do feel that through the use of our best efforts we should be able to supply the authority with its requested

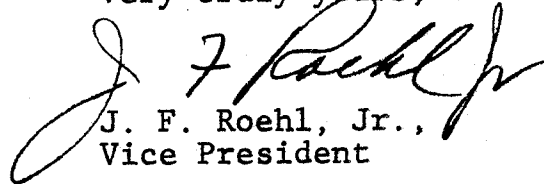
-2-

Florida Department of Pollution Control
Attention: Mr. Hamilton S. Oven, Jr.
Deputy Executive Director

low sulfur residual oil for the mid-1978 operation of
its 75 MW unit.

If you require additional information concerning this
matter, please contact us.

Very truly yours,



J. F. Roehl, Jr.,
Vice President

smb

SERVICE AGREEMENT
FOR
PREFERRED INTERRUPTIBLE GAS SERVICE

THIS AGREEMENT executed in duplicate as of the 8th day of January, 1972 by and between FLORIDA PUBLIC UTILITIES COMPANY, a Florida corporation, hereinafter referred to as "Seller", party of the first part, and the LAKE WORTH UTILITIES AUTHORITY, CITY OF LAKE WORTH, located in the County of Palm Beach and the State of Florida, hereinafter referred to as "Buyer", party of the second part.

W I T N E S S E T H

WHEREAS, Seller is a public utility company engaged, among other businesses, in the sale and distribution of gas in the municipalities of Lake Worth, Palm Beach and West Palm Beach, Florida and vicinity;

WHEREAS, Buyer owns an electric generating plant situated at College Street and 3rd Avenue South in Lake Worth, Florida (hereinafter referred to as "Buyer's Plant") and desires to purchase from Seller interruptible natural gas service for use in Buyer's Plant, as hereinafter provided,

WHEREAS, it will be necessary for Seller to install additional facilities in order to supply natural gas service to Buyer as herein provided, and

WHEREAS, Seller must purchase natural gas from Florida Gas Transmission Company, hereinafter referred to as "Supplier", for resale to Buyer;

NOW, THEREFORE, in consideration of the premises and the covenants hereinafter contained and made by the parties hereto, the Seller and Buyer covenant and agree as follows:

ARTICLE I

Construction of Facilities and Commencement of Deliveries

1. This Agreement is subject to and contingent upon the ability of Seller to enter into a contract with Florida Gas Transmission Company for the Purchase of natural gas under and pursuant to said Supplier's Rate Schedule I, as filed with the Federal Power Commission, as said Rate Schedule I is now in effect or may hereafter be legally amended or superseded, and is further conditioned upon the ability of Seller to obtain and to continue to obtain the quantity and quality of natural gas from said Florida Gas Transmission Company required and stipulated herein. Furthermore, this Agreement is contingent upon the completion by Florida Gas Transmission Company of the construction of certain additional facilities to its system into the Lake Worth area, the cost of which is to be paid for by Buyer at an estimated cost of \$182,000.00. If the cost exceeds \$182,000.00, the Seller will, at Buyer's option, pay the additional cost and that amount paid for by the Seller will be repaid by the Buyer through a negotiated rate surcharge spread over the term of the contract. The cost of easements or rights of way are not included as part of the Buyer's costs.

2. This Agreement is subject to and contingent upon Seller purchasing from City of Lake Worth a parcel of land (approximately 100 feet by 100 feet in size) for a new City Gate and Regulating Station on the property now owned by the City of Lake Worth in Tracts 73 and 74 of Palm Beach Farms Company Plat No. 7 in Palm Beach County, Florida, and is further conditioned upon rezoning of said property to allow the construction and operation of a City Gate and Regulating Station. Seller recognizes that it must negotiate with the City Commission, City of Lake Worth, for the purchase of said land.

3. Seller will use due diligence to complete or cause the completion of the construction of new facilities to be constructed by Seller necessary for the commencement of deliveries hereunder.

4. In the event the contingent provisions of Section 1 and Section 2 above are not complied with, the terms of the Service Agreement for Preferred Interruptible Gas Service between Florida Public Utilities Company and the City of Lake Worth, dated May 15, 1968, now in effect shall remain in effect and in force.

ARTICLE II

Definitions

The following terms shall have the meanings defined below:

1. "Day" -- A period of 24 consecutive hours beginning and ending at 8:00 A.M. Eastern Standard Time or at such other hour as Buyer and Seller agree upon.
2. "Month" -- A period beginning on the first day of the calendar month and ending on the first day of the next succeeding calendar month.
3. "Year" -- A period of 365 days commencing with the day of first delivery of gas hereunder and each 365 days thereafter except that in a year having a date of February 29th such year shall consist of 366 days.
4. "Cubic foot of gas" -- The amount of gas necessary to fill a cubic foot of space when the gas is at a temperature of sixty degrees Fahrenheit (60° F.) and under an absolute pressure of fourteen and seventy-three hundredths pounds per square inch (14.73 psia).
5. "Mcf" -- One thousand (1,000) cubic feet of gas.
6. "Btu" -- A British Thermal Unit.
7. "Therm" -- One hundred thousand (100,000) British Thermal Units.

8. "Interruptible gas" -- Natural gas which Seller purchases from Supplier under Supplier's FPC Gas Tariff, Volume No. 1, Rate Schedule I., as the same exists now or hereafter, or hereafter may be legally amended or superseded.

ARTICLE III

Subject to the terms and conditions of this Agreement, Seller agrees to sell and deliver to Buyer and Buyer agrees to purchase and receive from Seller the following daily quantities of interruptible natural gas;

<u>Year</u>	<u>Minimum Daily Quantity (Therms)</u>	<u>Maximum Daily Quantity (Therms)</u>
First Year	49,000	118,000
Second Year	49,000	118,000
Third Year and Subsequent Years	49,000	118,000

The maximum hourly quantity of gas available to Buyer under this contract shall be 7,000 therms (based on natural gas with a nominal heating value of 1,000 BTU per cubic foot). Seller may deliver to Buyer from time to time hourly quantities of gas in excess of the foregoing maximum on an if and when available basis, provided Seller's Supplier makes such gas available to Seller at Seller's points of purchase in Lake Worth; and provided further that such excess hourly quantities do not jeopardize deliverability of gas to Seller's other customers. The delivery of excess hourly quantities at any time shall not in any way set precedent that excess quantities will be made available at other times by Seller.

The total quantity of gas which will be available to Buyer under this contract (subject to interruption provisions thereof) during each service

year is 28,310,000 therms."

ARTICLE IV

Notice of Proposed Increase in Service

If the Buyer desires to purchase increased quantities of natural gas under this contract, the Buyer shall submit to the Seller at least sixty days in advance of the first day of the month it is proposed to purchase such increased quantities of natural gas, estimates of the increased annual and monthly gas requirements, the maximum daily and peak hour increased gas requirements, and if continuous operation of the Buyer's facilities is required, a description of standby facilities to be used during interruption or curtailment of gas deliveries. If, in the opinion of the Seller and the Supplier, these proposed increases in preferred interruptible deliveries warrant an increase in the Buyer's minimum daily purchase quantity, then the Seller shall notify the Buyer in writing of the increase in minimum daily purchase quantity. If the Seller's notice states that it will furnish the additional deliveries of preferred interruptible gas, the minimum daily purchase quantity shall be increased to the new quantity stated in the Seller's notice or to such other quantity as the Buyer and the Seller mutually agree upon, and the additional deliveries of preferred interruptible gas will become effective on such first day of the month as both parties agree upon. The request by the Buyer for increased deliveries shall not preclude it from making any subsequent requests for increased deliveries it desires.

ARTICLE V

Type of Service

Seller shall be liable to Buyer for damages sustained by Buyer if

the supply of gas is interrupted by accident or any other cause attributable to negligence of Seller, or curtailed or cut off by Seller because of a matter or matters resulting from the negligence of Seller; but in case the supply of gas is interrupted by accident or any other cause not attributable to negligence of Seller, or curtailed or cut off by Seller because of a matter or matters not resulting from the negligence of Seller, then the Seller shall not be held liable for damages on account of such interruption, curtailment or cut-off of service or any consequences resulting therefrom or from the restoration of service thereafter.

ARTICLE VI

Offering of Interruptible Gas

Seller agrees that it will not discriminate against Buyer in the offering of interruptible gas to Seller's customers and that if at any time Seller does not have interruptible gas available in quantities desired by Buyer and other customers who have contracted for the purchase thereof, it will offer its available supply of interruptible gas to all such customers, without discrimination, and pro rata in reasonable proportions to their Maximum Daily Quantities, provided that if any customer rejects his share of such interruptible gas Seller may offer such share to other customers in any manner Seller may elect. Whenever possible, Seller will endeavor to give Buyer notice two hours in advance of the time interruptible gas is available or must be curtailed or interrupted; provided, however, that if curtailment or interruption is occasioned by an event of force majeure affecting Seller's or its Supplier's system (as provided in Article XVII), Seller shall be obligated to give only such notice, if any, as is practicable in the circumstances.

ARTICLE VII

Unauthorized Over-Run Gas

If Buyer fails to curtail use of interruptible gas as requested by Seller, the quantity of gas so taken by Buyer by reason of its failure to comply with such order shall be considered as unauthorized over-run gas. Seller shall bill and Buyer shall pay for such unauthorized over-run gas at the rate of \$1.50 per therm in addition to the charge otherwise payable hereunder. The payment of an over-run penalty shall not, under any circumstances, be considered as giving Buyer the right to take unauthorized over-run gas, nor shall such payment be considered to exclude or limit any other remedies available to Seller or another Customer of Seller against Buyer for failure to comply with its obligation to stay within the provisions of all offering or curtailment orders.

ARTICLE VIII

Rate

1. Subject to the provisions of 3 (a) below in this Article VIII and to the provisions of Article XXI hereof, Buyer agrees to pay Seller for all natural gas delivered to Buyer hereunder up to the maximum daily quantity at the following specified rate:

First	7,500	therms	consumed	per	month	@	5.5¢	per	therm
Next	7,500	"	"	"	"	@	4.0¢	per	therm
Next	525,000	"	"	"	"	@	3.8¢	per	therm
Over	540,000	"	"	"	"	@	3.6¢	per	therm

2. (a) Buyer agrees to take and pay for each month, or pay for each month whether actually taken during such month or not, at the rate hereinabove specified, from the date of first delivery of gas hereunder, the quantity of gas equal to the Minimum Daily Quantity specified in the Service

Agreement multiplied by the number of days in the month. In the event, however, that Seller is unable on any day or days within the month to deliver the quantity of gas designated as the Minimum Daily Quantity, Buyer's minimum purchase obligation on such day or days shall be the actual quantity of gas delivered by Seller on such day or days.

(b) If, in any month, the quantity of gas purchased hereunder by Buyer should be less than the applicable minimum purchase obligation as above provided and as a consequence Buyer is required to pay for gas not taken, then and in that event Buyer shall be entitled to receive delivery from Seller of such gas paid for but not taken without further charge at any time within the following eleven months by taking gas in such months in excess of the minimum purchase obligation.

(c) If and when, during any successive twelve-month period beginning on the anniversary date of the first delivery of gas to Buyer, Buyer has actually received (and paid for) that quantity of gas which is equal to the minimum purchase quantity multiplied by the number of days in such twelve-month period, Buyer shall have no minimum take-or-pay obligation during the remaining months in such twelve-month period.

3. It is understood and agreed that the above rate per therm is based on conditions at the time of the delivery of this executed contract. It is further agreed that Seller shall have the right to increase or decrease said rate per therm, and Buyer agrees to pay such increases or decreases as set forth in the following provisions, taken to the nearest mill (\$0.001):

(a) The above rate for interruptible gas service is based upon the cost to Seller for natural gas purchased by Seller from Supplier under Rate Schedule I, Florida Gas Transmission Company, F.P.C. Gas Tariff, Original Volume No. 1 as submitted to the F.P.C. in revised form on June 15,

1962 and accepted for filing by order of the F.P.C. issued September 13, 1962 in F.P.C. Docket Nos. G-9262, G-9960, and G-18338. In the event that the Supplier makes effective, under the jurisdiction of a duly constituted regulatory body, any increase, decrease or change in rate affecting the cost to the Seller of gas purchased by Seller for sale by it on an interruptible basis, the price per therm in each subsequent billing period (beginning not earlier than the effective date of such increase or decrease or change in rate) shall be correspondingly changed.

(b) The rates herein shall be adjusted for the proportionate part of any directly allocable tax, impost or assessment imposed or levied by any governmental authority which may after January 1, 1963, be assessed or levied against the Seller or directly affect the Seller's cost of operation and which the Seller is legally obligated to pay on the basis of meters, customers or revenues from gas as a service or as a commodity or the volume of gas produced, purchased for sale or sold, or any other basis where direct allocation is possible.

ARTICLE IX

Point of Delivery

The point of delivery of all natural gas purchased under this Agreement shall be at the outlet of Seller's meter installed at Buyer's Plant. The Buyer hereby reaffirms the right of Seller to use all existing utility easements and the streets, alleys, parkways, parks and other property of the City in carrying said natural gas from the city limits of said City to the point of delivery over the most direct and economical route available at no additional cost to Seller for the use thereof.

ARTICLE X

Pressures

Seller shall deliver natural gas to Buyer at such uniform pressure as Buyer may reasonably require, and Seller may agree to up to but not exceeding fifty (50) pounds per square inch gauge at the point of delivery.

ARTICLE XI

Quality

Natural gas delivered by Seller to Buyer shall be natural gas as received by Seller from Supplier provided Seller, at its option, may mix natural gas purchased from Supplier with propane-air or other manufactured gas prior to delivery to Buyer, and provided, further, that the gas as delivered to Buyer shall be of an equivalent quality to the natural gas purchased from Supplier.

ARTICLE XII

Measurement

The volume and total heating value of the gas shall be determined as follows:

1. Sales Unit. The sales unit of the gas shall be the therm, consisting of one hundred thousand (100,000) British thermal units. The number of therms delivered shall be determined by multiplying the number of cubic feet of gas delivered, measured on the measurement basis hereinafter specified, by the total heating value of such gas, in British thermal units per cubic foot, and by dividing the product by one hundred thousand (100,000).

2. Unit of Volume. The unit of volume, for the purpose of

measurement and for the determination of total heating value, shall be one cubic foot of gas at a temperature of sixty (60) degrees Fahrenheit and an absolute pressure of 14.73 psi.

3. Assumed Atmospheric Pressure. The average absolute atmospheric pressure shall be assumed to be fourteen and sixty-five hundredths (14.65) pounds to the square inch, irrespective of actual elevation or location of the point of delivery above sea level or variations in such atmospheric pressure from time to time.

4. Flowing Temperature. The arithmetical average of the temperature of the gas, flowing through the meters, as recorded by a recording thermometer, shall be used in computing gas volumes; where such installation is not provided, the temperature of the gas shall be assumed to be sixty (60) degrees Fahrenheit.

5. Orifice Meters. When orifice meters are used, volumes delivered shall be computed in accordance with the joint Bureau of Standards, A.G.A., A.S.M.E. specifications published in April 1955 and reprinted with revisions in January 1956, as Gas Measurement Committee Report No. 3 of the American Gas Association, and any other modifications and amendments thereof.

6. Specific Gravity. Specific gravity of the gas delivered shall be determined with an Edwards or other standard type gravity balance by test made as near the first of each month as practicable; or by a recording gravitometer of standard manufacture installed at a suitable location.

7. Total Heating Value. The total heating value of the gas delivered to Buyer shall be the total heating value of the natural gas as received by Seller and as measured by Seller's Supplier.

8. Saturation. The degree of saturation by water vapor of the gas delivered shall be as measured by Seller's Supplier.

ARTICLE XIII

Measuring Equipment

1. Installation and Operation. Seller will install, maintain and operate, at its own expense, at or near point of delivery, a meter or meters and other necessary measuring equipment by which the volume of gas delivered to Buyer shall be measured.

2. Check Measuring Equipment. Buyer may install, maintain and operate such check measuring equipment as it shall desire, provided that such equipment shall be so installed as not to interfere with the operation of Seller's measuring equipment. Seller shall have access to such check measuring equipment at all reasonable hours, but the reading, calibrating and adjusting thereof and the changing of charts shall be done only by Buyer.

3. Access to Equipment and Records. Both Seller and Buyer shall have the right to be present at the time of any installing, reading, cleaning, changing, repairing, inspecting, calibrating or adjusting done in connection with the other's measuring equipment used in measuring deliveries hereunder. The records from such measuring equipment shall remain the property of the owner, who upon request will submit to the other such records and charts, together with calculations therefrom, for the other's inspection and verification, subject to return within ten (10) days after receipt thereof.

4. Failure of Meters. In the event a meter is out of service or registering inaccurately, the volume of gas delivered hereunder shall be estimated:

- (1) by using the registration of any check meter or meters if installed and accurately registering, or
- (2) by correcting the error if the percentage of error is ascertainable by calibration, test or mathematical calculation, or
- (3) by estimating the volume of delivery by deliveries during periods under similar conditions when the meter was registering accurately.

5. Test of Meters. The accuracy of the Seller's measuring equipment

preceding month. When information necessary for billing purposes is in the control of Buyer, Buyer shall furnish such information to Seller on or before the fifth (5th) day of each month.

2. Examination of Records. Both Seller and Buyer shall have the right to examine at reasonable times, books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge or computation made under or pursuant to any of the provisions of this Agreement.

3. Error in Billing. In the event an error is discovered in the amount billed in any statement rendered by Seller, such error shall be adjusted within thirty (30) days of the determination thereof, provided that claim therefor shall have been made within sixty (60) days from the date of discovery of such error, but in any event within twelve (12) months from the date of such statement.

4. Monthly Payment: Buyer shall pay Seller, at its designated office on or before the twentieth (20th) day of each month, for the natural gas delivered during the preceding month and billed by Seller in the statement for said month, according to such statement.

5. Interest on Unpaid Amounts. Should Buyer fail to pay the amount of any bill for service as herein provided when such amount is due, interest thereon shall accrue at the rate of six percent (6%) per annum from the due date until the day of payment. If such failure to pay continues for thirty (30) days after payment is due, Seller in addition to any other remedy it may have hereunder, may, without liability or damage and without terminating this agreement, suspend further delivery of gas until such amount is paid; provided, however, that if Buyer, in good faith, shall dispute the amount of any such bills or parts thereof and shall pay Seller

preceding month. When information necessary for billing purposes is in the control of Buyer, Buyer shall furnish such information to Seller on or before the fifth (5th) day of each month.

2. Examination of Records. Both Seller and Buyer shall have the right to examine at reasonable times, books, records and charts of the other to the extent necessary to verify the accuracy of any statement, charge or computation made under or pursuant to any of the provisions of this Agreement.

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5. Interest on Unpaid Amounts. Should Buyer fail to pay the amount of any bill for service as herein provided when such amount is due, interest thereon shall accrue at the rate of six percent (6%) per annum from the due date until the day of payment. If such failure to pay continues for thirty (30) days after payment is due, Seller in addition to any other remedy it may have hereunder, may, without liability or damage and without terminating this agreement, suspend further delivery of gas until such amount is paid; provided, however, that if Buyer, in good faith, shall dispute the amount of any such bills or parts thereof and shall pay Seller

such amounts as it concedes to be correct and at any time thereafter within thirty (30) days of a demand made by Seller, shall furnish a good and sufficient surety bond, in amount and with sureties satisfactory to Seller, conditioned upon the payment of any amounts ultimately found due upon such bills after a final determination, which may be reached either by agreement or judgment of the courts as may be the case, Seller shall not be entitled to suspend further delivery of gas unless and until default be made in the conditions of such bond.

ARTICLE XV

Warranty of Title to Gas

Seller agrees that it will and it hereby does warrant for itself, its successors and assigns, that at the time of delivery it will have good title to all natural gas delivered by it to Buyer hereunder, free and clear to all liens, encumbrances and claims whatsoever.

ARTICLE XVI

Possession of Gas and Indemnification

1. As between Buyer and Seller, Seller shall be deemed to be in control and possession of the gas deliverable hereunder until it shall have been delivered to Buyer at the point of delivery after which Buyer shall be deemed to be in control and possession thereof.

2. Buyer shall have no responsibility with respect to any gas deliverable hereunder until it is delivered to Buyer or on account of anything which may be done, happen or arise with respect to said gas before such delivery, and Seller shall have no responsibility with respect to such

gas after its delivery to Buyer or on account of anything which may be done, happen or arise with respect to said gas after such delivery.

3. Buyer shall indemnify and hold harmless the Seller from any and all loss or damage sustained, and from any and all liability to any persons or for any property incurred, by the Seller by reason of any act of the Buyer, its agents or employees, in the receiving, use or application of said gas on the Buyer's side of the point of delivery unless the same shall be due to the sole negligence of the Seller, its agents or employees; and the Seller shall indemnify and hold harmless the Buyer from any and all loss or damage sustained, and from any and all liability to any persons or for any property incurred, by the Buyer by reason of any act on the part of the Seller, its agents or employees, in the transmission, use or delivery of said gas on the Seller's side of the point of delivery unless the same shall be due to the sole negligence of the Buyer, its agents or employees; provided, however, that each party agrees to indemnify and hold harmless the other party in respect of any injury or damage suffered by its own employees and arising out of the relationships created by execution of this Agreement.

ARTICLE XVII

Force Majeure

1. In the event of either party, Seller or Buyer, being rendered unable wholly or in part by force majeure to carry out its obligations under this Agreement, other than to make payments due thereunder, it is agreed that on such party giving notice and full particulars of such force majeure to the other party as soon as possible after the occurrence of the cause relied on,

then the obligations of the party giving such notice, so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused but for no longer period, and such cause shall as far as possible be remedied with all reasonable dispatch.

2. The term "force majeure" as employed herein shall mean acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, wars, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, arrest and restraints of governments and people, civil disturbances, explosions, breakage or accidents to machinery or lines or pipe, the necessity for making repairs or alterations to machinery or lines or pipe, freezing of wells or lines or pipe, partial or entire failure of Supplier to deliver natural gas to Seller in the quantities required by Seller, and any other cause, whether of the kind herein enumerated or otherwise, not within the control of the party claiming suspension and which by the exercise of due diligence such party is unable to prevent or overcome; such term shall likewise include (a), in those instances where either party is required to obtain servitudes, rights-of-way grants, permits or licenses to enable such party to fulfill its obligations hereunder, the inability of such party to acquire or the delays on the part of such party in acquiring, at reasonable cost and after the exercise of reasonable diligence, such servitudes, rights-of-way grants, permits or licenses; and (b), in those instances where either party is required to furnish materials and supplies for the purpose of constructing or maintaining facilities or is required to secure grants or permissions from any governmental agency to enable such party to fulfill its obligations hereunder, the inability of such party to acquire, or the delays on the part of such

party in acquiring, at reasonable cost and after the exercise of reasonable diligence, such materials and supplies, permits and permissions.

3. It is understood and agreed that the settlement of strikes or lockouts shall be entirely within the discretion of the party having the difficulty and that the above requirement that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes or lockouts by acceding to the demands of opposing party when such course is inadvisable in the discretion of the party having the difficulty.

ARTICLE XVIII

Term of Agreement

This Agreement shall be effective on the date that Seller's contract with Supplier for the gas to be purchased and delivered hereunder becomes effective and shall continue in effect for a period of ten years from the date of first delivery of gas hereunder, and from year to year thereafter unless and until terminated either by Seller or Buyer upon twelve (12) months' prior written notice to the other specifying a termination date at the end of such period or any yearly period thereafter.

ARTICLE XIX

Notices

All notices hereunder shall be given in writing at the addresses specified from time to time, except that notices with respect to curtailment, limitations, or restoration of deliveries of gas or with respect to force majeure shall be sufficient if given in writing or by telegram or orally in person or by telephone or radio to the person or persons designated from time to time as authorized to receive the same.

ARTICLE XX

Rules and Regulations

The sale and purchase of all natural gas hereunder shall be subject to and governed by Seller's Rules and Regulations as filed with the Florida Public Service Commission of the State of Florida and which are made a part hereof and incorporated herein by reference, and except as otherwise herein defined or supplemented below all of the terms therein defined are used herein with the meanings therein defined.

ARTICLE XXI

Regulatory Authority

This Agreement is made and entered into, and shall, at all times, be subject to the valid orders, rules and regulations of all duly constituted authorities having jurisdiction over Seller and Seller's business of purchasing and selling natural gas.

ARTICLE XXII

Miscellaneous

1. No waiver by either party of any one or more defaults by the other in the performance of any provisions of this Agreement shall operate or be construed as a waiver of any future default or defaults, whether of a like or a different character.
2. This Agreement shall be interpreted, performed and enforced in accordance with the laws of the State of Florida.
3. No modification of the terms and provisions of this Agreement shall be or become effective except by the execution of a new agreement.

5. This instrument (with portions included by reference) constitutes the entire contract between the parties.

IN WITNESS WHEREOF, the parties hereunto have caused this Agreement to be duly executed by their respective officers as of the day and year first above written.

FLORIDA PUBLIC UTILITIES COMPANY

By

President

Attest:

Secretary

(CORPORATE SEAL)

LAKE WORTH UTILITIES AUTHORITY

By

Chairman

Attest:

Secretary

(CORPORATE SEAL)