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16. Abstract

This report documents the design, specifications and application of the protective coating for the Port Isabel Causeway Bridge on Park Road 100 in Cameron County. This bridge connects the mainland with South Padre Island over the Intracoastal Waterway and Laguna Madre. The system consists of two coats of epoxy-zinc primer, one intermediate coat of epoxy and an appearance coat of #742 grey-finish paint.

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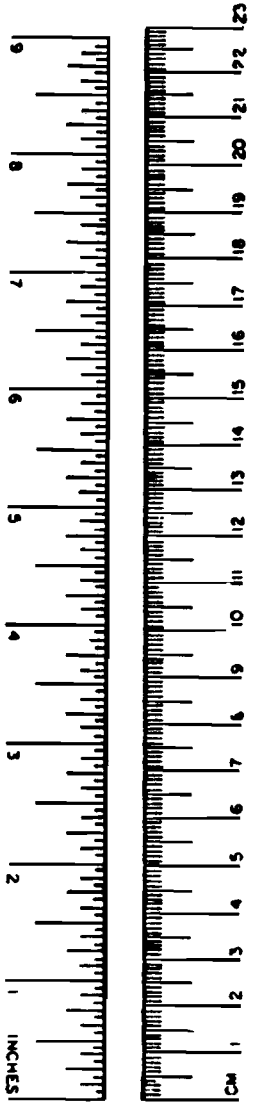
METRIC CONVERSION FACTORS

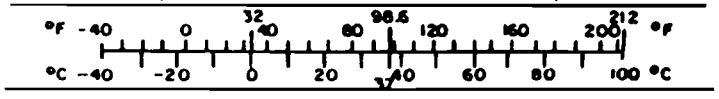
APPROXIMATE CONVERSIONS FROM METRIC MEASURES

SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
	LENGTH			
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
	AREA			
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.6	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
	MASS (weight)			
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons(2000 lb)	0.9	tonnes	t
	VOLUME			
tsp	teaspoons	5	milliliters	ml
tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
	TEMPERATURE (exact)			
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C



APPROXIMATE CONVERSIONS FROM METRIC MEASURES

SYMBOL	WHEN YOU KNOW	MULTIPLY BY	TO FIND	SYMBOL
	LENGTH			
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
	AREA			
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares(10,000 m^2)	2.5	acres	
	MASS (weight)			
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
	VOLUME			
ml	milliliters	8.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	36	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
	TEMPERATURE (exact)			
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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I. INTRODUCTION AND BACKGROUND

The use of structural steel in the wide variety of atmospheric conditions and environmental exposures has lead to an extensive search for suitable techniques of surface preparation, new paint systems, new equipment and better methods of application for specific conditions to which various structures are exposed. Equally as important are concerns for improved health and environmental conditions.

Many changes have been made in the past several years for coating specifications; not only for the paint, but also the cleaning and application methods. These changes have been made not only to improve the quality and durability of the coating system but also to decrease the drying time and to conform to new health, safety and environmental regulations.

As expected, it has been found that there is no one "best" coating system for all locations and conditions encountered. Large sums of money have been spent by transportation departments, research organizations and the paint industry to solve the problems of protective coatings for structural steel.

II. OBJECTIVE

Service life, cost and effectiveness of the various coating systems can only be judged by field experience detailed with accurate records and evaluations of each system.

The objective of this project is to evaluate one such coating system as it is applied in the Texas Gulf Coastal area, which is a geographical area with numerous atmospheric and environmental exposure problems. These problems, including sea water, humidity, salt spray, wind and highly chemical-laden air, are especially troublesome when attempting to design a coating system that is not only durable but also economical and acceptable from the health and environmental standpoint.

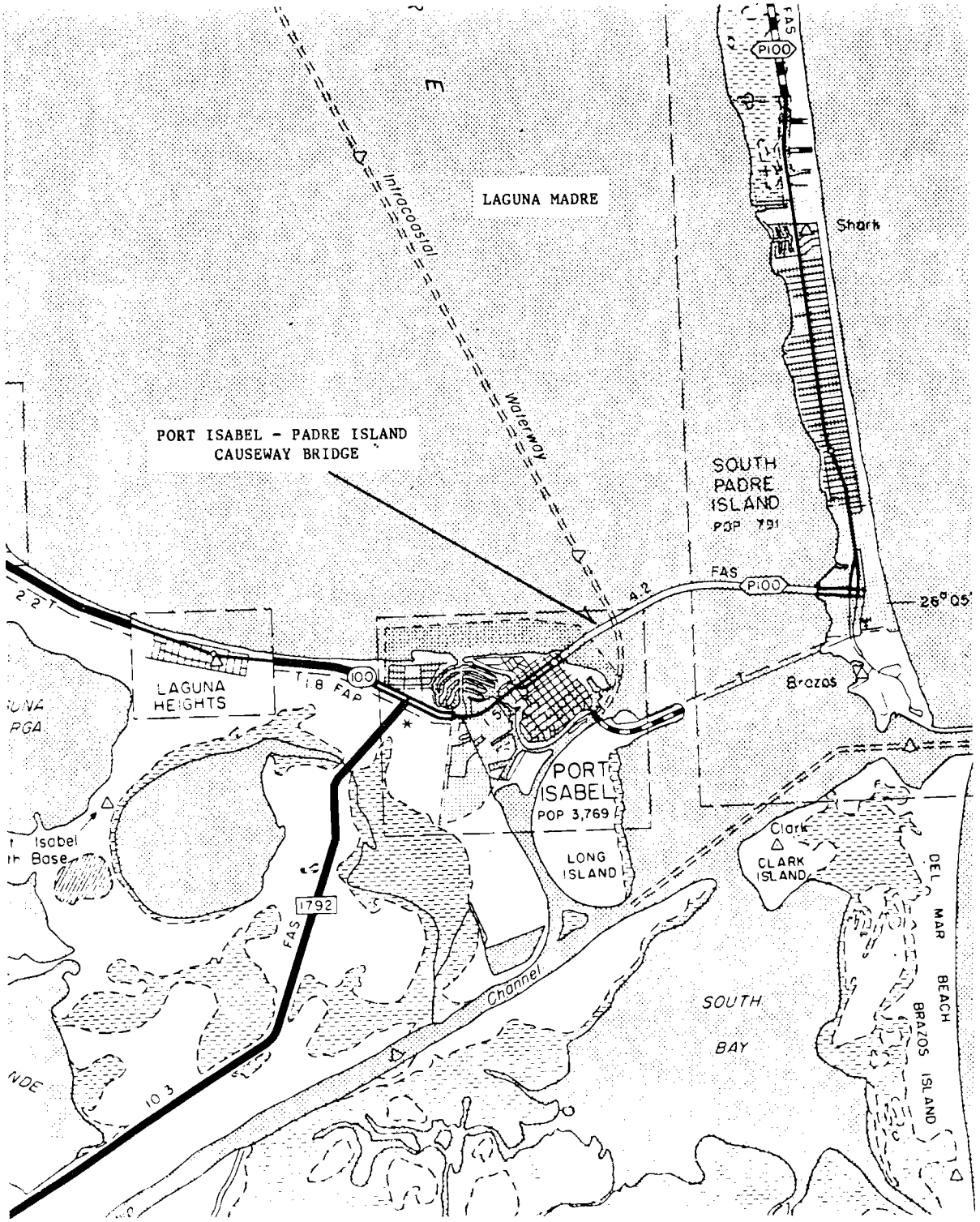
III. STRUCTURAL DETAILS

The coating system to be evaluated and analyzed was applied to the Port Isabel - Padre Island Causeway Bridge on Park Road 100 in Cameron County at Port Isabel, Texas. The bridge connects the mainland with South Padre Island over Laguna Madre. This is located near the southern tip of Texas just north of the Texas - Mexico border and serves a highly used recreational and tourist area along the Texas Gulf Coast. The annual average daily traffic is 13,500 vehicles with a high of near 30,000 during the peak season of May to September each year.

This structure is a three-span, 750' continuous-plate-girder design bridge with horizontal clearance of 275' between the fenders and a minimum calculated vertical clearance of 73' above mean high tide for boat passage on the Gulf Intracoastal Waterway. Overall width of the structure is 67'-9" with two travel lanes each for east and westbound traffic separated by a concrete median barrier.

FIGURE I - PORT ISABEL CAUSEWAY BRIDGE

FIGURE II - AREA MAP



The steel girders are hybrid type consisting of a mixture of A588 and A572 steel. The cost varied with the plate thickness; therefore, the most cost effective type was used for each application.

The environmental exposure at this location is probably one of the highest in the state. This is due to the high concentration of corrosive chemicals both in the air and in the waters of Laguna Madre. Evidence of some of these problem-causing chemicals such as chlorine, sulfur, sodium, phosphorus, fluorine and nitrate can be seen in the environmental data collected by the Texas Air Control Board at nearby sites in Brownsville and Harlingen. (See Appendix A.)

Previous studies have shown that the corrosion rate increases as you progress south along the Texas Gulf Coast line. Weathering steel tensile coupons have been exposed at High Island, Corpus Christi and Port Isabel in similar locations. In 30 months the tensile coupon at High Island lost 6.1% in strength, at Corpus Christi 6.1% in 21 months, and in Port Isabel 33% in 27 months. This indicates just how severe the atmosphere is and gives some idea of the problems related to structure coating in this area.

The test results of chlorine content of corrosion product samples taken from weathering steel at Port Isabel and High Island in 1982 are as shown in Table I.

TABLE I
TESTS SHOWING CHLORINE CONTENT OF CORROSION PRODUCT
SAMPLES TAKEN FROM WEATHERING STEEL COUPONS

Location	% Cl	PPM
Port Isabel		
Tensile coupon removed May 25, 1982	0.29	2885
Diaphragm near test rack	0.28	2812
Flange near middle of center span, north side of south stringer	0.73	7267
Flange near middle of center span, south side of north stringer	0.22	2228
High Island		
Short tensile coupon removed April 16, 1982	0.16	1603
Long tensile coupon removed April 16, 1982	0.15	1497
Scrapings from blasted area on north end of outside west girder	0.09	893
Scrapings from blasted area on south end of outside east girder	0.12	1185

The various structural members were originally primed at the contractor's shop with a 3-1/2 mil minimum dry film thickness of organic zinc shopcoat with a zinc dust pigment volume concentration (PVC) of 48. The structure was then coated after erection in 1974 with a 1-1/2 mil vinyl finish coat.

IV. PROBLEM DESCRIPTION

The original protective coating system described above lasted approximately 10 years. At the time this project was begun in January 1984, heavy rust had started, especially on the diaphragms and rockers. Most of the metal loss on the diaphragms was confined to the bottom cord and the inside of the slots. Some of the rockers were showing heavy scale rust. Most of the remainder of the structural members were either blistering or showing flake rust. More detailed reports of the inspection trips may be found in Appendix B.

FIGURE III - CAUSEWAY BRIDGE & INTRACOASTAL WATERWAY

V. CONSTRUCTION

Work was started by the contractor on this project in January of 1984, and continued until August of 1984. Naturally, over this extended period of time a wide range of weather conditions occurred. During the winter months the temperature ranged from lows of 35°F to highs of 87°F with the average around 59°F in January and February. In the summer months the lows were near 61°F and the highs from 96°F to 102°F on one day in April with the average around 82°F. For additional weather data see Appendix C.

Severe weather conditions such as heavy fog, rain and high wind delayed work on several occasions during the project. However, work was completed and the job accepted after 105 actual working days.

Surface preparation consisted of a light sandblasting of areas that were badly rusted followed by a complete flushing with clean, fresh potable water with sufficient pressure to remove all salt-like contaminants. The entire surface was then "white" sandblasted before the epoxy zinc primer was applied. If in the opinion of the engineer in charge of inspection, excessive time had elapsed between blasting and painting, such that any contaminants were evident, additional water flushing would be required before the prime coat application.

All surfaces were to be painted with a minimum dry film thickness of 5.0 mils of epoxy zinc prime coating, a minimum dry film thickness of 2.0 mils of epoxy intermediate coat and 1.5 mils minimum dry film thickness of #742 gray finish coat.

The epoxy zinc coating was applied in a minimum of 2 coats with time between coats not be to be less than 4 hours, nor more than 72 hours. All edges were to be double coated as each coat of primer was applied. In addition, immediately upon applying the first coat to the exterior surfaces of diaphragm members that were slotted, the slot was painted from the bottom side and then from the top side, until the coating began to run and drip from the slot over its entire length.

Application of the second coat of primer was to follow the application of the first coat in a timely manner, such that time sequence limitations could be met and no surface was to receive only one coat. Before application of the second coat, the contractor was required to take whatever steps necessary to remove any and all forms of contamination that might have occurred to the surface of the previously applied coat.

The epoxy intermediate coat was not to be applied before the second prime coat had cured a minimum of 72 hours and the minimum dry film thickness had been verified and approved. Any touchup of the epoxy intermediate coat necessary to meet thickness and other requirements had to be done within 96 hours of application of that coat.

Immediately prior to application of the #742 gray finish coat, all slotted diaphragms, inaccessible areas, etc. were pressure grouted with a grease type caulking grout furnished by the State. This grout was applied in such a manner that all voids were filled.

The #742 gray finish coat was then applied not less than 48 hours after any touchup of the intermediate coat on any given surface was completed. However, not more than 96 hours could lapse between the touchup and application of the finish coat.

The epoxy zinc coating had to be a polyamide-cured epoxy meeting these requirements:

Number of components	2 or 3
Pot life (mixed one gallon quant.)	10 hours min.
Solids by volume	56% min.
Drying time: At 70°F	
To touch	1-2 hours
To handle	5 hours
To recoat	24 hours
Zinc dust content, dry film	89% min.
Color	Green
Finish	Flat
Gallon weight, mixed paint	25 lb. min.
Flash point:	
Base	72°F min.
Converter	75°F min.
Mixed	70°F min.
Temperature resistance, dry	340°F

In addition, the supplier had to, at the request of the engineer, submit documentation that the proposed coating had a proven performance record in similar environments for a minimum of 5 years.

The epoxy intermediate coating had to be a polyamide-cured epoxy coating containing either or both zinc yellow or zinc oxide. Both the intermediate coating and the prime coating was required to be supplied by the same supplier, and to be manufactured by the same manufacturer. Furthermore, the two coatings had to be recommended by the manufacturer for service as a system in atmospheres normal to this location.

The #742 gray finish appearance coat was supplied by the State at $48.70 per 5-gallon bucket and meeting these requirements:

#742g, Gray Appearance Coat	Pounds
Vinyl-Toluene Acrylate Copolymer, Goodyear VTAC-L	190
Chlorinated Paraffin, Type I, Hercules, Chlorafin 40	65
Chlorinated Paraffin, Type II, Neville, Unichlor 70	85
Titanium Dioxide, Rutile, DuPont R-960	175
Lead-Free Zinc Oxide, ASARCO, AZO-33	50
Diatomaceous Silica, GREFCO, Dicalite WB-5	150
Bentone 38, N.L. Industries	3
Dipentene	15
Butyl Cellosolve	25
Methyl Iso-butyl Ketone	80
Xylene	245
	1083

Consistency: 85-95 KU
Grind prior to Diatomaceous Silica: 5 minimum
Grind of finished paint: 2-3
Gallon Weight: + 0.05 lb. of theoretical gallon weight
Color: Match Color Standard
Gloss, 85°: 5 maximum
Skinning: No skinning within 48 hours (Test Method Tex-811-B)

Labeling: Each container shall be labeled with the following:

"One gallon of thoroughly mixed unthinned paint should theoretically coat 775 mil (dry) square feet.

Aromatic or ketone solvents may be used for thinning and cleaning purposes."

The contractor was alerted to local ordinances and regulations as prescribed by municipal and county governments and the Texas Air Control Board which were applicable to this project.

One 6-ton sandblast pot, rigged with two hoses, was used for sandblasting. One - gallon water tank and air-powered pump was used for pressure flushing as per the specifications. One 5-gallon paint pot, rigged with two paint sprayers, and one 2-gallon paint pot with one sprayer were used for painting. A mechanical agitator was used for mixing paint, and one pickup truck and one flatbed truck were used for transporting materials and personnel. The compressed air for the equipment was supplied by pipe from a compressor station at the Port Isabel end of the bridge. Scaffolding was used for access to structural members and once set in place for cleaning and painting of an area, could not be removed until all cleaning and painting of that area was completed.

This project was bid at a total cost of $295,363.00. The final estimate of $295,248.00 was paid, consisting of $27,000.00 for mobilization; $4,500.00 for barricades, signs and traffic handling; $248,863.00 for cleaning and painting existing structures; and $14,885.00 for special grouting.

APPENDIX A

TEXAS AIR CONTROL BOARD

PARTICULATE AND METAL ELEMENTS

REPORTS

TABLE 11

PARTICULATE POLLUTANT INFORMATION

Retrieval #	Name	Symbol	Code	Methods Allowed	Decimal
1	Particulate	TSP	11101	91	0
2	*Nitrate	Nitrate	12306	92	1
3	*Sulfate	Sulfate	12403	91	1
4	*Lithium	Li	12138	92	3
5	Aluminum	Al	12101	96	2
6	Silicon	Si	12165	96	1
7	*Organics	Organics	11103	91	1
8	*Fluorine	F	12202	71, 91	1
9	Chlorine	Cl	12203	96, 91, 93	2
10	Arsenic	As	12103	96	3
11	Cadmium	Cd	12110	92, 96	1
12	Beryllium	Be	12105	92, 93	3
13	Iron	Fe	12126	92, 96	2
14	Lead	Pb	12128	92, 96	2
15	Chromium	Cr	12112	92, 96	3
16	Copper	Cu	12114	92, 96	3
17	Tin	Sn	12160	92, 96	3
18	Antimony	Sb	12102	92, 96	3
19	Manganese	Mn	12132	92, 96	3
20	Nickel	Ni	12136	92, ~~96~~	3
21	*Bismuth	Bi	12106	92, 96	1
22	Molybdenum	Mo	12134	92, 96	3
23	Vanadium	V	12164	92, 96	3
24	Titanium	Ti	12161	96	3
25	Zinc	Zn	12167	92, 96	3
26	Cobalt	Co	12113	92, 96	3
27	Calcium	Ca	12111	92, 96	2
28	*Sodium	Na	12124	92	3
29	Strontium	Sr	12168	92, 96	3
30	Potassium	K	12180	96	2
31	*Magnesium	Mg	12140	92	3
32	Barium	Ba	12107	92, 96	3
33	Phosphorus	P	12152	92, 96	3
34	*Cellulose	CELL	16320	91	1
35	Sulfur	S	12169	96	2
36	Germanium	Ge	12125	92, 96	3
37	Selenium	Se	12154	92, 96	3
38	Bromine	Br	12201	91, 96	3
39	Rubidium	Rb	12176	92, 96	3
40	Zirconium	Zr	12185	92, 96	3
41	*Niobium	Nb	12147	92	1
42	Iodine	I	12204	96	3
43	*Tungsten	W	12178	~~96~~	1
44	*Mercury	Hg	12142	92, ~~96~~	3
45	*Boron	B	12108	92	1
46	Thallium	Tl	12173	96	3
47	Lanthanum	La	12146	96	2
48	*pH field	pH	70001	91	
~~49~~	~~pH field~~	~~pH~~	~~70002~~	~~91~~	
50	ID numbers		70002	91	
*These pollutants are not XRF			70003	91	

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
BROWNSVILLE (PJRI)	ALUMINUM	47	4.20	-4.17	5.45	.536	6	1.91
450650003F01	ANTIMONY	47	.176	-.045	.120	.09	4	.128
NAVIGATION DISTRICT OFFICE PORT B	ARSENIC	47	.043	-.008	.026	.025	4	.040
COUNTY: CAMERON	BARIUM	47	2.524	.252	.609	.153	18	.840
	BR ION	47	.065	.016	.021	.013	28	.031
	CADMIUM	47	.246	-.017	.145	.094	12	.152
	CALCIUM	47	9.6	2.0	2.7	.057	31	3.3
	CHROMIUM	47	.073	-.012	.034	.017	9	.040
	CL ION	47	7.34	1.73	1.83	.049	39	2.27
	COBALT	47	.013	-.020	.020	.009	1	.013
	COPPER	47	.368	.088	.051	.007	47	.088

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
BROWNSVILLE (PORT)	GERMANIUM	47	.023	-.013	.019	.015	4	.021
450650003F01	IODINE	47	.486	-.014	.175	.112	10	.223
NAVIGATION DISTRICT OFFICE PORT B	IRON	47	4.23	1.02	.98	.013	44	1.09
COUNTY: CAMERON	LANTHANUM	47	.459	.004	.187	.176	10	.272
	LEAD	47	.23	.04	.07	.039	20	.09
	MANGANESE	47	.090	.010	.024	.013	17	.034
	MOLYBDENUM	47	.016	.002	.007	.003	24	.007
	NICKEL	47	.031	-.002	.013	.006	12	.015
	PHOSPHORUS	47	.334	-.736	.736	.075	7	.202
	POTASSIUM	47	.93	-.10	.45	.028	20	.30
	RUBIDIUM	47	.024	-.002	.013	.01	9	.016

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
BROWNSVILLE (PORT)	SELENIUM	47	.059	-.011	.028	.015	10	.028
450650003F01	SILICON	47	.0	.0	.0	.211	0	
NAVIGATION DISTRICT OFFICE PORT B	STRONTIUM	47	.263	.032	.100	.01	26	.094
COUNTY: CAMERON	SULFUR	47	3.38	1.34	.78	.095	45	1.40
	THALLIUM	47	.066	-.016	.037	.022	6	.040
	TIN	47	.375	.002	.126	.091	7	.239
	TITANIUM	47	.361	-.114	.350	.04	18	.159
	VANADIUM	47	.010	-.423	.671	.012	0	
	ZINC	47	.73	.097	.25	.007	26	.234
	ZIRCONIUM	47	.031	-.032	.054	.01	8	.019

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
BROWNSVILLE (700)	ALUMINIUM	60	2.95	-2.57	4.42	.536	11	1.17
450650004F01	ANTIMONY	60	.296	.004	.113	.09	14	.163
GLADYS PORTER ZOO AT 6TH AND PING	ARSENIC	60	.061	-.010	.029	.029	5	.042
COUNTY: CAMERON	BARIUM	60	.842	.227	.347	.153	31	.499
	BR ION	60	.138	.041	.028	.013	50	.047
	CADMIUM	60	.247	-.030	.113	.094	6	.187
	CALCIUM	60	9.3	1.4	2.1	.057	45	2.1
	CHROMIUM	60	.045	-.019	.030	.017	5	.034
	CL ION	60	7.03	1.75	1.48	.049	53	2.06
	COBALT	60	.012	-.018	.020	.009	1	.012
	COPPER	60	.793	.217	.151	.007	60	.216

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
BROWNSVILLE (700)	GERMANIUM	60	.021	-.008	.015	.015	4	.018
450650004F01	IODINE	60	.353	.006	.165	.112	15	.213
GLADYS PORTER ZOO AT 6TH AND RING	IRON	60	4.75	1.03	.99	.013	54	1.16
COUNTY: CAMERON	LANTHANUM	60	.316	-.004	.175	.176	7	.241
	LEAD	60	.58	.17	.10	.039	59	.17
	MANGANESE	60	.064	.006	.018	.013	20	.026
	MOLYBDENUM	60	.018	.000	.008	.003	24	.008
	NICKEL	60	.012	-.006	.008	.006	7	.010
	PHOSPHORUS	60	.309	-.717	.759	.075	7	.179
	POTASSIUM	60	.66	-.16	.41	.028	21	.23
	RUBIDIUM	60	.034	-.003	.012	.01	9	.018

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
BROWNSVILLE (7)0)	SELENIUM	60	.026	-.007	.019	.015	6	.021
450650004F01	SILICON	60	.0	.0	.0	.211	0	
GLADYS PORTER ZOO AT 6TH AND RING	STRONTIUM	60	.201	.011	.067	.01	29	.063
COUNTY: CAMERON	SULFUR	60	4.40	1.62	.77	.095	59	1.65
	THALLIUM	60	.039	-.012	.031	.022	7	.028
	TIN	60	.207	-.026	.121	.091	9	.133
	TITANIUM	60	.411	-.072	.228	.04	21	.150
	VANADIUM	60	.012	-.331	.360	.012	0	
	ZINC	60	.40	.087	.18	.007	37	.178
	ZIRCONIUM	60	.030	-.017	.043	.01	11	.017

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
HARLINGEN (WATER WORKS)	ALUMINIUM	48	2.63	-1.95	3.86	.536	6	1.26
452320001F01	ANTIMONY	48	.255	-.006	.110	.09	6	.160
WATER WORKS, 3RD & JEFFERSON, HAR	ARSENIC	48	.055	.001	.031	.029	11	.046
COUNTY: CAMERON	BARIUM	48	.485	-.114	.298	.153	7	.259
	BR ION	48	.056	.014	.021	.013	24	.031
	CADMIUM	48	.228	-.041	.129	.094	5	.157
	CALCIUM	48	4.5	.6	1.6	.057	27	1.7
	CHROMIUM	48	.062	-.015	.030	.017	6	.033
	CL ION	48	5.54	1.77	1.20	.049	47	1.80
	COBALT	48	.014	-.014	.017	.009	2	.012
	COPPER	48	.318	.108	.052	.007	48	.108

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
HARLINGEN (WATER WORKS)	GERMANIUM	48	.031	-.010	.014	.015	2	.030
452320001F01	IODINE	48	.402	-.079	.201	.112	9	.199
WATER WORKS, 3RD & JEFFERSON, HAR	IRON	48	4.21	.86	.91	.013	47	.88
COUNTY: CAMERON	LANTHANUM	48	.526	.010	.211	.176	8	.352
	LEAD	48	.18	.04	.07	.039	25	.08
	MANGANESE	48	.077	.009	.017	.013	18	.025
	MOLYBDENUM	48	.013	-.002	.009	.003	15	.007
	NICKEL	48	.020	-.006	.011	.006	5	.010
	PHOSPHORUS	48	.280	-.579	.716	.075	5	.195
	POTASSIUM	48	.57	-.15	.38	.028	14	.22
	RUBIDIUM	48	.034	-.005	.017	.01	7	.026

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
HARLINGEN (WATER WORKS)	SELENIUM	48	.026	-.015	.020	.015	3	.021
452320001F01	SILICON	48	.0	.0	.0	.211	0	
WATER WORKS, 3RD & JEFFERSON, HAR	STRONTIUM	48	.191	.041	.066	.01	29	.084
COUNTY: CAMERON	SULFUR	48	3.18	1.33	.72	.095	47	1.36
	THALLIUM	48	.039	-.018	.025	.022	2	.034
	TIN	48	.239	-.023	.119	.091	8	.165
	TITANIUM	48	.326	.025	.107	.04	17	.136
	VANADIUM	48	.009	-.067	.119	.012	0	
	ZINC	48	.05	-.033	.09	.007	25	.023
	ZIRCONIUM	48	.038	-.016	.041	.01	11	.022

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
HARLINGEN (DPS)	ALUMINIUM	53	2.37	-2.17	4.30	.536	8	1.47
452320002F01	ANTIMONY	53	.252	-.026	.110	.09	6	.144
DPS BUILDING	ARSENIC	53	.063	.001	.032	.029	12	.046
COUNTY: CAMERON	BARIUM	53	.380	-.120	.271	.153	8	.235
	BR ION	53	.058	.015	.022	.013	30	.030
	CADMIUM	53	.236	-.027	.116	.094	6	.179
	CALCIUM	53	4.7	.2	1.6	.057	25	1.6
	CHROMIUM	53	.042	-.016	.040	.017	11	.031
	CL ION	53	5.53	1.62	1.03	.049	51	1.68
	COBALT	53	.014	-.015	.020	.009	6	.011
	COPPER	53	.120	.048	.025	.007	53	.048

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
HARLINGEN (DPS)	GERMANIUM	53	.025	-.011	.015	.015	2	.023
452320002F01	IODINE	53	.383	-.063	.218	.112	12	.218
DPS BUILDING	IRON	53	4.51	.82	.99	.013	48	.90
COUNTY: CAMERON	LANTHANUM	53	.501	.079	.200	.176	15	.321
	LEAD	53	.25	.06	.07	.039	35	.09
	MANGANESE	53	.060	.004	.022	.013	16	.030
	MOLYBDENUM	53	.025	-.001	.009	.003	19	.006
	NICKEL	53	.023	-.007	.012	.006	4	.015
	PHOSPHORUS	53	.265	-.508	.672	.075	9	.169
	POTASSIUM	53	.81	-.11	.33	.028	16	.26
	RUBIDIUM	53	.031	-.003	.016	.01	11	.021

PARTICULATE DATA

FROM 01/01/84 TO 12/31/84

CONCENTRATIONS IN MICROGRAMS PER CUBIC METER

REGION 4		NUMBER OF SAMPLES	MAX 24 HOUR	ARITH MEAN	ARITH STD DEV	MDL	NO. OF SAMPLES > MDL	MEAN OF SAMPLES > MDL
HARLINGEN (DPS)	SELENIUM	53	.046	-.013	.021	.015	5	.026
452320002F01	SILICON	53	.0	.0	.0	.211	0	
DPS BUILDING	STRONTIUM	53	.220	.036	.073	.01	30	.085
COUNTY: CAMERON	SULFUR	53	3.45	1.21	.67	.095	51	1.26
	THALLIUM	53	.035	-.012	.027	.022	9	.028
	TIN	53	.197	-.054	.116	.091	7	.137
	TITANIUM	53	.425	.042	.117	.04	21	.153
	VANADIUM	53	.011	-.057	.105	.012	0	
	ZINC	53	.06	-.025	.09	.007	34	.021
	ZIRCONIUM	53	.031	-.013	.037	.01	11	.023

SITE : BROWNSVILLE (PORT)
LOC : 650
SITE : 3
AG : F
PC : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	EE	I	FE	LA	PB
840101	25	-6.22	-0.048	-0.023	0.753	0.038	0.071	-1.2	-0.003	2.32	-0.001	0.149	0.02	-0.107	-0.12	0.085	0.03
840107	22	-2.53	-0.009	-0.004	0.941	0.018	-0.049	-0.4	0.029	-0.87	0.001	0.125	-0.016	0.168	0	-0.14	0.03
840113	31	-2.82	0.024	-0.004	0.817	0.038	-0.119	-0.3	0.014	0.06	-0.001	0.081	-0.001	-0.028	0.13	0.156	0.06
840218	35	-2.09	-0.062	-0.018	0.549	0.022	-0.035	-0.8	-0.014	0.58	-0.011	0.046	0.003	-0.009	0.28	0.262	0.05
840224	62	-5.35	0.021	-0.001	1.377	0.024	0.037	3.2	0.042	-0.18	-0.009	0.059	-0.006	0.062	1.03	-0.036	0.07
840301	34	-2.34	0.046	0	0.976	-0.005	-0.164	-0.1	-0.052	-0.68	-0.007	0.079	-0.015	-0.109	0.1	-0.046	0
840307	43	-3.94	0.031	-0.025	1.34	0.065	0.075	2	0.017	-1.02	-0.015	0.154	0.014	-0.297	0.57	-0.268	0.23
840313	51	-14.98	0.034	0.041	2.524	-0.017	0.111	-0.1	-0.048	-3.36	-0.018	0.124	0.022	-0.206	0.72	-0.018	0.05
840319	89	-10.28	-0.055	-0.016	0.99	0.02	0.123	2.4	0.038	-0.69	-0.041	0.057	-0.017	-0.012	1.47	0.217	0.12
840325	41	-15.89	-0.063	0.043	1.027	-0.011	0.178	-0.9	-0.025	-0.71	-0.003	0.084	-0.02	0.012	0.58	-0.19	-0.01
840331	68	-7.38	0.013	-0.018	0.874	0.026	0.115	-0.9	-0.02	0.94	-0.027	0.096	0.001	0.486	0.72	0.135	0.04
840406	116	-8.74	-0.032	-0.021	-0.015	0.021	0.124	5.6	0.014	1.88	-0.031	0.368	-0.025	-0.144	1.61	-0.205	0.12
840412	67	-0.09	-0.105	0.014	-0.025	0.006	-0.199	2	-0.033	1.89	-0.011	0.078	-0.028	-0.09	0.93	-0.123	0.02
840418	106	-6.23	-0.1	0.018	0.059	-0.001	0.056	2.7	-0.024	4.96	-0.026	0.071	-0.013	-0.387	1.49	-0.402	-0.03
840424	117	-3	-0.015	-0.002	-0.013	0.005	0.038	9.6	-0.013	2.27	-0.016	0.078	0.006	0.033	1.27	0.075	0.04
840430	95	0.69	0.061	0.011	0.027	0.016	-0.019	0.9	0.047	7.34	0.015	0.127	-0.008	-0.086	0.89	-0.306	0.02
840506	139	-0.84	-0.024	0.018	-0.098	0.023	-0.111	6.1	-0.007	4.96	-0.012	0.047	0.001	0.055	1.25	0.105	-0.02
840512	34	-1.03	-0.275	-0.031	-0.065	0.022	0.008	0.5	-0.047	2.38	0.003	0.095	0.005	-0.114	0.26	0.125	0.02
840518	35	-4.19	0.034	0.013	-0.005	-0.009	0.054	1	-0.043	0.81	0.004	0.043	-0.016	-0.193	0.17	0.266	0.03
840524	41	-0.31	0.097	-0.012	-0.046	0.022	-0.148	0.8	-0.003	2.58	-0.004	0.079	-0.016	0.113	0.57	0.269	0.19
840530	63	-1.94	0.071	-0.038	0.501	0.034	-0.087	2.9	0.038	2.49	-0.024	0.07	0.023	0.137	0.76	-0.02	0.08
840605	65	0.37	-0.05	0.014	-0.144	-0.003	-0.082	6	0.03	2.29	-0.027	0.066	-0.008	-0.02	0.64	-0.074	-0.04
840611	86	1.97	-0.039	-0.043	0.106	0.038	-0.195	2.5	0.006	3.39	-0.044	0.085	-0.008	0.155	2.66	0.014	0.06
840617	25	1.18	0.176	-0.035	-0.067	0.043	-0.027	-0.9	0.034	1.74	-0.014	0.108	-0.007	0.069	0.38	-0.054	0.07
840623	97	4.2	0.11	-0.031	0.072	0.034	-0.108	-3.2	-0.012	2.85	-0.069	0.086	-0.013	0.089	4.04	-0.118	0.03
840629	91	1.43	0.083	0.003	0.2	0.007	-0.012	3.2	0.003	2.25	-0.035	0.073	-0.019	0.181	1.98	-0.112	-0.05
840705	86	0.52	-0.035	-0.022	-0.351	0.018	0.006	4.5	-0.018	3	-0.045	0.081	-0.033	-0.363	1.88	-0.12	0
840711	68	0.4	-0.111	-0.027	0.096	0.023	-0.239	-0.1	-0.042	3.55	-0.03	0.121	-0.02	0.149	1.72	-0.038	-0.02
840717	65	-2.96	-0.143	0.026	0.108	-0.02	0.063	-0.2	0.003	1.87	-0.017	0.096	-0.057	-0.107	2.48	-0.02	0
840723	107	2.04	-0.098	-0.022	0.134	0.035	-0.112	1.6	-0.002	2.49	-0.083	0.131	-0.017	-0.114	4.23	0.033	0.2
840729	56	0.12	0.026	0.011	0.134	-0.003	-0.16	0	0.073	0.88	-0.006	0.09	-0.01	-0.279	1.05	0.185	0.03
840804	50	-9.74	-0.241	-0.028	0.39	0.03	0.135	-0.8	-0.03	1.72	-0.036	0.119	-0.05	-0.065	1.53	0.09	0.04
840822	38	-1.15	-0.11	0.036	0.306	-0.015	-0.029	1.2	-0.034	0.57	-0.029	0.125	-0.01	-0.057	0.31	-0.123	-0.04
840828	116	0.2	-0.298	0.043	0	-0.02	-0.185	7.8	0.036	2.68	-0.069	0.082	-0.037	0.053	3.24	-0.073	-0.07
840903	40	-15.53	-0.036	-0.025	-0.024	0.006	0.216	-0.5	-0.056	1.4	-0.04	0.072	0	-0.012	1.29	-0.111	0.01
840909	26	-11.6	0.085	0.01	0.021	-0.02	0.161	-0.7	-0.021	1.46	-0.007	0.087	-0.013	-0.112	0.78	0.141	-0.02
840915	63	-4.73	-0.027	0.02	0.79	0.004	0.024	7.2	-0.046	-0.05	-0.021	0.069	0.021	0.033	1.08	-0.037	-0.06
841021	53	-1.13	-0.002	-0.032	0.285	0.035	-0.41	1.6	-0.052	2.22	0.005	0.023	-0.033	-0.079	0.4	0.389	-0.01
841102	39	-9.87	-0.251	-0.039	-0.598	0.03	0.129	3	-0.048	0.64	-0.037	0.099	-0.014	0.197	0.45	-0.109	0.17
841108	63	-0.07	0.13	-0.004	-0.144	0.042	-0.22	3	-0.048	4.6	-0.027	0.062	-0.03	-0.211	0.23	-0.157	-0.04
841114	72	-3.43	0.001	-0.037	-0.254	0.046	0.046	5.4	-0.053	2.85	-0.023	0.072	-0.033	0.045	0.61	0.195	-0.01
841120	52	-0.6	-0.006	-0.064	-0.951	0.043	-0.093	3.7	-0.07	1.42	-0.005	0.043	-0.012	0.172	0.65	0.292	0.13
841126	62	0.17	0.066	-0.01	-0.789	0.006	-0.352	3.5	-0.007	3.2	-0.014	0.062	0.008	0.029	0.54	-0.247	0.06
841202	26	-17.81	-0.278	0.016	0.063	-0.014	0.246	1.4	-0.035	0.43	0.004	0.035	-0.031	-0.077	0.25	-0.025	0.05
841214	85	-4.04	-0.106	-0.044	-0.112	0.043	0.051	5.1	-0.003	3.42	-0.005	0.035	-0.062	0.088	0.66	0.191	0.03

SITE (CONTINUED) : BROWNSVILLE (PORT)
LOC (CONTINUED) : 650
SITE (CONTINUED) : 3
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB
841220	34	-3.94	-0.173	0.016	-0.308	-0.009	0.061	1.8	0.014	1.4	-0.007	0.035	-0.023	0.478	0.37	-0.31	0
841226	61	-14.49	-0.412	-0.014	0.195	0.033	0.197	2.6	-0.08	0.95	-0.028	0.037	-0.031	-0.18	-0.09	0.459	0.06

SITE : BROWNSVILLE (200)
LOC : 650
SITE : 4
AG : F
PC : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB
840101	43	-1.4	-0.107	-0.026	0.617	0.111	-0.005	-0.8	0.033	4.2	-0.001	0.418	0.01	-0.072	-0.03	0.021	0.18
840107	33	-2.64	-0.046	-0.038	0.752	0.104	0.003	0	0.004	-0.45	-0.003	0.556	-0.005	-0.154	-0.03	0.046	0.27
840113	43	-2.1	0.068	-0.054	0.94	0.04	-0.071	-0.9	0.015	-0.34	-0.01	0.077	0	0.139	0.17	-0.046	0.17
840119	30	-2.11	-0.04	0.004	0.631	0.045	0.092	-0.3	-0.001	-0.95	-0.003	0.051	0.004	-0.291	-0.13	0.225	0.09
840125	9	-1.84	0.11	-0.024	0.678	0.031	-0.078	-2.5	0.001	-0.93	0	0.174	0.011	-0.134	-0.42	-0.025	0.11
840131	15	-6.78	-0.057	-0.037	0.686	0.044	0.078	-0.8	-0.005	-1.02	-0.002	0.049	0.016	-0.113	-0.15	-0.18	0.08
840206	55	-4.08	-0.106	-0.016	0.471	0.04	0.044	0.7	0.042	2.09	-0.015	0.149	0.015	-0.073	0.6	0.007	0.15
840212	53	-2.53	-0.001	0.017	0.72	0.049	-0.069	0.4	-0.039	-0.2	-0.01	0.323	0.001	-0.056	0.68	-0.012	0.26
840218	64	-2.56	-0.01	-0.015	0.634	0.04	-0.074	2.3	0.012	0.97	-0.001	0.183	-0.016	-0.14	0.75	0.112	0.11
840224	57	-1.79	-0.096	0.002	0.552	0.05	-0.097	0.9	0.005	1.28	-0.006	0.406	0.003	0.114	0.8	0.144	0.29
840301	41	-5.12	-0.079	-0.013	0.715	0.033	0.044	0.5	0.014	0.14	-0.029	0.255	0.003	-0.049	0.49	-0.009	0.19
840307	46	-1.22	-0.098	0.022	0.623	0.043	-0.003	0.2	-0.011	0.17	-0.008	0.442	-0.005	-0.17	0.48	0.017	0.31
840313	33	-6.43	-0.032	0.012	0.737	0.023	0.07	0.3	-0.012	-0.42	-0.021	0.391	0.005	-0.14	0.56	0.159	0.2
840319	76	-2.08	0.036	0.002	0.667	0.037	0.016	-0.5	-0.01	0.89	-0.066	0.221	-0.018	0.133	2.09	0.143	0.15
840325	49	-16.97	-0.046	-0.011	0.812	0.034	0.206	-0.5	-0.037	0.13	-0.002	0.793	-0.008	0.051	0.54	0.225	0.21
840331	63	-2.34	-0.039	-0.025	0.842	0.057	-0.003	-0.2	-0.076	1.15	-0.016	0.657	-0.001	0.136	0.58	0.241	0.26
840406	105	-3.09	-0.025	0.034	0.08	-0.004	0.026	9.3	-0.025	1.95	0.002	0.07	0.001	-0.274	1.13	-0.103	-0.04
840412	83	0.47	0.229	0.039	0.194	0.004	-0.011	1.4	-0.025	2.3	-0.025	0.41	0.011	-0.038	1.34	0.05	0.1
840424	113	-6.07	-0.103	-0.065	-0.006	0.061	0.086	3.3	0.021	2.4	-0.02	0.132	0.001	0.011	1.27	0.142	0.19
840430	107	-0.45	0.033	0.013	0.025	0.06	-0.191	1.3	0.005	1.03	-0.013	0.226	-0.014	0.095	0.92	0.162	0.17
840506	176	-0.7	0.07	-0.005	0.153	0.03	-0.118	3.9	-0.02	4.72	-0.028	0.06	-0.017	0.25	1.41	-0.095	0.11
840512	52	0.17	0.183	-0.039	-0.196	0.064	-0.034	-0.3	-0.017	3.25	-0.035	0.167	0.012	0.008	0.66	-0.076	0.26
840518	56	0.18	0.259	-0.053	0.223	0.078	-0.217	-1	-0.082	2.05	-0.009	0.263	0.004	0.102	0.37	0.316	0.31
840524	57	-0.8	0.056	-0.005	0.176	0.059	-0.128	0.5	-0.065	2.16	-0.001	0.352	0.005	0.076	0.61	0.107	0.27
840530	62	-1.15	0.102	-0.055	0.042	0.066	-0.183	-0.2	-0.031	3.25	-0.016	0.297	-0.017	0.072	0.48	0.168	0.34
840605	77	-1.04	0.013	-0.025	0.154	0.041	0.008	4.3	-0.023	2.88	-0.004	0.141	-0.018	0.207	0.95	0.029	0.18
840611	90	0.77	0.006	-0.061	0.274	0.073	-0.217	1.2	-0.007	3.12	-0.05	0.144	-0.019	-0.091	2.84	-0.111	0.27
840617	42	-1.91	-0.094	-0.009	0.292	0.035	0.017	1.6	-0.016	1.89	0.004	0.109	-0.019	-0.126	0.73	0.013	0.17
840623	117	2.95	0.092	-0.09	0.129	0.083	-0.181	-0.6	0.015	3.63	-0.07	0.084	-0.019	0.009	4.75	-0.255	0.19
840629	100	0.24	0.002	-0.028	0.272	0.053	-0.009	1.1	-0.046	1.95	-0.035	0.149	-0.004	0.346	2.1	-0.449	0.15
840705	71	0.74	0.003	-0.006	-0.197	0.032	-0.029	1.8	-0.039	2.91	-0.021	0.104	-0.022	-0.001	1.69	0.105	0.06
840711	73	0.95	0.097	-0.055	-0.101	0.092	-0.001	0.2	-0.006	3.43	-0.019	0.243	-0.033	-0.04	2.13	-0.339	0.2
840717	81	1.99	-0.088	0.015	-0.043	0.012	-0.099	1	0.013	2.2	-0.035	0.125	-0.005	0.208	2.72	-0.277	0.09
840723	108	1.89	0.033	0.012	0.01	0.032	-0.048	0.5	0.012	2.43	-0.062	0.358	-0.023	-0.084	3.88	0.031	0.26
840729	61	0.8	0.092	0.038	-0.346	0.02	-0.057	1.1	0.001	1.73	-0.009	0.289	-0.042	-0.347	0.87	-0.19	0.17

SITE (CONTINUED) : BROWNSVILLE (ZOO)
LOC (CONTINUED) : 650
SITE (CONTINUED) : 4
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB
840804	80	0.86	-0.079	0.028	0.111	0	-0.158	0.1	0.005	3.3	-0.064	0.172	-0.018	-0.011	2.48	0.126	0.15
840810	70	0.32	-0.202	-0.016	-0.102	0.021	-0.111	0.6	0.034	2.32	-0.036	0.197	-0.002	0.042	1.6	-0.034	0.19
840816	92	0.15	0.112	0.01	0.132	0.02	-0.035	0.4	-0.037	2.03	-0.051	0.256	0.017	0.004	2.36	-0.337	0.18
840822	59	-17.43	-0.134	0.019	-0.024	0.039	0.247	1.7	-0.014	0.55	-0.039	0.356	-0.021	0.244	0.74	-0.282	0.27
840828	120	-3.67	0.296	-0.006	0.485	0.03	0.063	-0.4	0.045	3.52	-0.069	0.194	-0.031	-0.132	3.66	-0.217	0.13
840903	60	0.63	0.276	0.039	0.021	0.018	-0.078	-1.5	-0.066	2.38	-0.026	0.275	-0.009	0.087	0.78	0.134	0.08
840909	33	0.67	-0.135	-0.003	-0.243	0.029	-0.073	1.1	-0.03	1.54	0.007	0.215	-0.01	0.111	0.23	-0.3	0.14
840915	56	-0.39	0.002	-0.031	0.215	0.064	-0.257	1.7	-0.026	0.81	-0.018	0.265	-0.005	0	0.78	-0.161	0.33
840921	71	-4.45	-0.131	-0.013	-0.234	0.028	0.06	2.9	-0.024	0.47	0.005	0.22	0.013	-0.073	0.61	0.199	0.12
840927	58	-0.65	-0.119	-0.002	-0.041	0.019	-0.057	1.8	-0.077	1.65	-0.015	0.263	-0.005	-0.108	0.54	0.065	0.12
841003	85	-1.88	0.167	-0.021	0.133	0.045	0.021	1.5	-0.062	0.97	-0.018	0.234	0.019	-0.479	0.85	0.077	0.28
841009	53	-11.69	0.001	-0.026	0.154	0.043	0.146	3.6	-0.028	0.68	0.012	0.242	-0.004	-0.036	0.68	-0.265	0.26
841015	87	-1.2	0.009	0.061	0.468	-0.006	-0.031	3.4	-0.032	2.13	0.005	0.079	-0.012	-0.059	1.01	0.105	0.05
841021	93	-3.73	-0.108	0.021	0.239	0.007	0.046	2.7	-0.059	2.66	0.001	0.04	-0.033	-0.007	0.84	-0.056	0.04
841027	54	0.17	-0.14	0.026	-0.386	0	-0.273	4.1	-0.059	1.84	-0.032	0.146	0.021	0.219	0.51	-0.003	0.06
841102	38	-12.02	0.098	0	-0.143	0.031	0.177	2	-0.024	0.87	-0.015	0.102	-0.024	0.269	0.33	0.25	0.09
841108	83	-14.94	-0.195	-0.023	-0.246	0.053	0.204	4.9	-0.076	3.4	-0.004	0.273	-0.035	-0.112	0.73	0.047	0.06
841114	62	-1.23	0.067	-0.018	0.382	0.052	-0.025	3.3	-0.013	2.25	-0.012	0.135	-0.005	-0.176	0.69	-0.315	0.13
841120	54	-9.95	0.055	-0.014	-0.452	0.009	0.146	1.6	-0.013	0.4	-0.022	0.015	0.008	0.085	0.42	0.166	0.07
841126	92	-0.86	0.042	-0.006	0.27	0.009	-0.084	5	-0.053	1.86	-0.009	0.079	-0.017	0.313	1.03	-0.014	0.08
841202	47	0.71	-0.041	-0.029	-0.019	0.047	-0.161	2.2	0.016	0.85	-0.009	0.169	-0.031	0.183	0.62	-0.08	0.16
841208	95	-0.91	-0.067	-0.05	-0.035	0.138	-0.192	8.2	-0.037	0.7	-0.031	0.188	-0.007	-0.099	1.44	-0.11	0.58
841214	92	-1.07	0.059	0.013	0.502	0.005	-0.126	3.4	0.008	2.08	-0.012	0.036	-0.034	-0.013	0.81	0.079	0.07
841220	50	0.31	0.171	-0.012	0.139	0.027	0.001	0.8	-0.036	2.36	0.007	0.099	-0.026	0.353	0.46	0.176	0.08
841226	48	-0.12	-0.153	-0.007	-0.034	0.031	-0.005	1.6	-0.052	1.48	-0.015	0.086	-0.032	0.166	-0.08	0.232	0.16
850101	42	-1.3	-0.064	-0.002	0.462	0.003	-0.142	1	0.069	2	0.019	0.117	-0.005	-0.235	0.3	-0.804	0.01
850107	104	0.92	0.43	-0.007	-0.25	0.066	-0.054	3.4	-0.024	1.71	-0.04	0.295	-0.05	-0.385	1.41	-0.143	0.6
850113	17	-17.31	0.202	-0.032	0.354	0.024	0.236	-2.8	-0.018	-0.14	0.013	0.018	-0.014	0.001	-0.14	0.514	0.09
850119	105	-1.61	0.114	0.052	0.605	-0.001	-0.012	7.8	0.066	0	-0.043	0.189	-0.005	-0.289	1.64	-0.468	0.18
850125	121	-26.72	0.062	0.042	-0.076	0.051	0.373	8.7	-0.032	-0.55	-0.014	0.257	-0.022	-0.598	1.42	-0.571	0.39
850131	64	-4.84	0.074	0.032	-0.271	0.002	0.068	1.8	0.062	0.36	-0.004	0.042	-0.037	-0.549	0.84	-0.01	-0.03
850206	51	-9.02	-0.214	-0.01	0.73	0.023	0.108	3.2	-0.014	-1.28	-0.007	0.107	-0.035	0.169	0.51	0.11	0.19

SITE : HARLINGEN (WATER WORKS)
LOC : 2320
SITE : 1
AG : F
PC : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB
840101	39	0.26	0.044	0.055	0.065	0.005	-0.053	-1.9	0.007	3.86	-0.009	0.135	-0.014	-0.084	0.25	-0.036	-0.01
840107	25	-5.4	0.01	0.051	0.003	-0.026	0.086	-1.1	0.013	0.26	0.002	0.12	-0.007	-0.052	0.13	0.088	0.03
840113	35	0.28	0.055	0.013	-0.007	0.009	-0.019	-1.4	0.023	0.69	-0.009	0.066	-0.014	0.124	0.36	-0.359	0.04
840119	22	0.52	0.042	0.02	0.051	-0.013	-0.028	-1.3	0.04	0.44	-0.003	0.084	-0.023	-0.041	0.2	-0.173	-0.03
840125	8	0.51	0.018	0.048	-0.059	-0.025	-0.079	-1.2	0.027	0.3	0.004	0.083	-0.016	-0.018	0.09	-0.008	-0.06

SITE (CONTINUED) : HAPLINGEN (WATER WORKS)
LOC (CONTINUED) : 2320
SITE (CONTINUED) : 1
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	AL	SS	AS	BA	BR	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB
840131	11	-0.99	0.079	0.045	0.046	-0.026	0.021	-1.5	0.033	0.32	-0.007	0.057	-0.001	0.04	0.2	-0.079	-0.04
840206	40	-1.34	-0.003	-0.02	-0.06	0.035	-0.019	1.1	-0.012	2.43	-0.022	0.085	-0.025	-0.155	0.53	-0.011	0.09
840212	39	-0.76	0.027	0.033	0.059	-0.01	-0.099	0.4	-0.012	0.61	-0.006	0.153	-0.012	-0.202	0.4	-0.017	0.02
840218	56	-1.33	0.062	-0.008	-0.017	0.026	-0.025	1.5	-0.025	1.7	-0.002	0.123	-0.005	-0.022	0.48	0.083	0.08
840224	30	-0.71	0.025	0.01	0.065	0.007	-0.156	0.5	0.019	1.44	-0.016	0.11	-0.001	-0.11	0.38	0.142	0.02
840313	27	-9.15	0.09	0	0.179	0.01	0.123	-1.2	-0.029	0.62	0	0.096	-0.008	-0.029	0.39	0.119	0.01
840319	57	0.41	0.091	0.002	0.179	0.01	-0.115	-2.4	-0.016	1.45	-0.043	0.085	-0.021	-0.094	1.92	-0.108	-0.04
840406	89	0.65	0.056	0.002	-0.025	0.014	-0.204	4.5	-0.023	2.25	-0.014	0.318	-0.009	0.121	1.72	-0.015	0.05
840412	77	-1.85	-0.158	-0.01	-0.146	0.024	0.031	0.4	-0.051	1.72	0.006	0.137	-0.015	-0.096	1.12	0.274	0.09
840418	133	0.19	-0.107	-0.027	0.112	0.044	-0.159	3.4	-0.066	4.77	-0.05	0.077	-0.031	0.087	2.21	0.2	0.09
840424	102	-0.03	-0.07	-0.049	-0.351	0.039	-0.067	2.8	-0.072	3.04	-0.015	0.114	-0.018	-0.115	1.32	0.006	0.14
840430	91	0.47	-0.002	-0.017	-0.153	0.048	-0.099	0	-0.043	5.54	-0.024	0.12	-0.001	0.108	0.79	-0.082	0.07
840506	149	-2.7	0.104	0.047	0.071	-0.019	0.047	1.2	-0.003	2.93	-0.031	0.047	-0.001	-0.09	1.33	0.034	-0.16
840512	37	-0.09	0.064	-0.038	0.104	0.035	-0.019	-0.4	-0.011	1.93	-0.013	0.092	0.006	-0.021	0.4	0.001	0.07
840524	31	-6.87	-0.139	0.014	-0.246	0.001	0.105	-1	0.007	1.58	-0.006	0.132	-0.01	-0.006	0.52	0.489	0.02
840530	43	-2.13	-0.04	0.007	-0.101	0	0.023	-0.8	-0.023	2.34	-0.04	0.112	0.009	-0.286	0.31	-0.016	-0.02
840605	42	-3.17	0.004	-0.039	0.098	0.038	0.042	0.6	0.007	2.51	-0.006	0.104	-0.016	-0.153	0.64	0.069	0.1
840611	67	-3.11	0.079	-0.033	-0.11	0.029	0.06	-1.2	-0.007	2.73	-0.044	0.102	-0.006	0.191	2.35	0	0.1
840617	28	0.49	-0.002	0.023	-0.179	-0.003	0.009	0.5	0.008	1.49	0.004	0.128	-0.014	0.147	0.49	-0.239	-0.02
840623	100	2.63	0.017	-0.014	0.176	0.019	-0.093	-1.2	-0.033	2.38	-0.053	0.088	-0.021	-0.161	4.21	-0.168	0.04
840629	64	-0.27	0.053	-0.01	0.075	0.025	0.025	-0.1	0.052	2.11	-0.051	0.109	-0.01	-0.235	2.39	0.102	0.05
840705	57	0.78	-0.208	-0.038	-0.231	0.029	-0.209	-0.1	-0.009	2.25	-0.015	0.098	0.014	0.036	1.49	0.09	0.18
840711	67	1.36	0.031	0.038	-0.385	0.002	-0.016	1.6	-0.009	2.77	-0.037	0.143	-0.026	-0.056	1.79	0.526	-0.03
840717	67	-0.6	-0.037	-0.024	0.405	0.024	0.01	-0.1	-0.008	0.96	-0.033	0.102	0.031	0.057	1.82	0.323	0.12
840723	87	1.47	-0.095	-0.031	0.209	0.056	-0.022	-0.4	-0.002	1.75	-0.041	0.211	0.031	-0.212	3.26	0.06	0.12
840816	80	-3.58	0.087	0.004	0.057	0.011	0.071	0.5	-0.033	1.75	-0.035	0.206	-0.011	-0.019	2.32	-0.094	0.07
840822	37	-2.47	-0.157	-0.02	-0.213	0.028	0.034	0.4	-0.025	0.93	-0.013	0.155	-0.001	0.245	0.4	-0.093	0.1
840903	28	-7	-0.082	-0.034	0.485	0.042	0.082	-0.4	-0.037	0.35	-0.006	0.106	0.004	-0.129	0.57	-0.174	0.05
841003	37	-0.06	-0.149	-0.029	-0.573	0.005	-0.08	3.3	0.01	0.45	-0.008	0.249	-0.021	-0.3	0.42	-0.049	0.16
841009	29	-1.63	-0.142	-0.006	-0.295	0.025	0.023	3.1	-0.011	0.73	-0.015	0.082	-0.012	0.117	0.48	0.247	0.04
841015	51	0.11	-0.228	-0.007	-0.622	0.007	-0.129	3.6	-0.014	2.13	-0.006	0.118	-0.011	-0.182	0.64	-0.167	0.03
841021	58	-0.21	0.255	-0.062	-0.462	0.034	-0.169	-0.3	-0.031	2.99	0	0.089	-0.022	-0.519	0.4	0.384	0.09
841027	36	0.69	0.195	0.038	-0.412	0.001	-0.127	0.2	-0.01	2.39	-0.002	0.099	-0.021	-0.406	0.4	0.022	0.05
841102	22	-16.36	0.021	0.009	-0.427	0.022	0.228	2	-0.072	0.06	0.014	0.066	-0.029	0.243	0.1	-0.05	0
841108	58	-15.17	0.188	0	-0.768	0.005	0.214	1.9	-0.053	3.16	0.002	0.073	0.007	0.202	0.34	-0.054	0.01
841114	38	-8.21	0.085	-0.04	-0.06	0.048	0.118	2.7	-0.083	2.17	-0.004	0.075	-0.002	0.402	0.3	0.094	0.1
841120	34	-6.89	-0.233	0	-0.684	0.024	0.093	0.8	-0.015	-0.16	-0.007	0.034	-0.026	-0.165	0.34	-0.489	-0.01
841126	59	-0.22	-0.026	-0.028	-0.875	0.021	-0.165	3.3	-0.066	2.05	-0.011	0.083	0.003	-0.551	0.41	0.018	0.11
841202	40	-0.12	-0.06	0.008	0.183	-0.024	-0.061	1	0.008	0.42	0.011	0.1	-0.1	-0.171	0.14	-0.553	-0.09
841208	38	-0.97	-0.051	0.055	0.134	0.028	-0.228	2	0.006	0.4	-0.008	0.092	-0.036	-0.242	0.28	-0.016	0.03
841214	60	-0.83	-0.023	0.053	-0.067	0	-0.243	1.4	-0.039	2.92	-0.014	0.042	-0.025	-0.55	0.23	0.381	-0.13
841220	29	-0.43	-0.203	-0.008	-0.008	-0.02	-0.233	1.4	-0.001	1.77	0.002	0.051	-0.021	-0.341	0.16	0.041	0.01
841226	32	-0.44	0.132	0.045	-0.706	0.008	-0.49	-1.2	-0.054	1.29	-0.003	0.058	-0.023	-0.087	-0.07	-0.264	-0.05
850101	19	-10.37	-0.082	0.021	-0.124	-0.006	0.148	0.5	-0.052	1.21	-0.017	0.055	-0.048	-0.09	0	0.337	-0.06
850107	39	0.1	0.121	0.013	-0.534	0.023	-0.134	0.9	-0.012	0.66	-0.003	0.079	0.014	0.061	0.49	0.172	0.09

SITE (CONTINUED) : HARLINGEN (WATER WORKS)
LOC (CONTINUED) : 2320
SITE (CONTINUED) : 1
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB
850113	12	-8.2	-0.229	-0.011	-0.459	-0.004	0.112	-1.1	-0.018	-0.01	-0.001	0.027	-0.015	0.003	-0.02	0.314	0.03
850119	37	0.5	0.211	-0.049	-0.19	0.002	-0.069	-1.2	-0.035	0.86	-0.007	0.083	-0.018	0.171	0.44	-0.04	0.13
850125	47	-9.27	0.203	0.048	-0.122	0.012	0.131	-0.4	-0.013	0.52	-0.026	0.077	-0.049	-0.117	0.3	-0.256	0.06
850131	31	-10.82	0.071	0.007	-0.224	0.03	0.147	-0.1	-0.033	-0.12	-0.017	0.046	-0.019	0.368	0.1	-0.28	-0.02

SITE : HARLINGEN (DPS)
LOC : 2320
SITE : 2
AG : F
PC : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB
840101	36	-1.2	0.033	0.04	0.21	0.002	0.014	-1.7	-0.014	3.4	-0.007	0.088	0.002	0.168	0.34	-0.044	-0.04
840107	29	0.46	0.022	0.056	0.019	-0.016	-0.011	-1.2	0.024	0.45	0.001	0.12	-0.016	-0.185	0.28	-0.148	0.01
840113	9	0.49	0.033	0.007	-0.039	-0.002	-0.149	-1.9	0.042	0.2	0	0.01	-0.001	-0.158	0.07	0.125	0.03
840206	40	-0.79	-0.011	-0.008	0.046	0.018	-0.072	1.2	0.014	2.29	-0.005	0.073	-0.004	-0.001	0.43	0.022	0.01
840212	44	-1.09	-0.027	0.02	-0.066	0.005	-0.093	1.1	0.017	0.54	-0.022	0.055	-0.025	0.18	0.59	0.256	0.11
840218	47	-12.12	0.004	0.013	0.213	0.012	0.156	0.5	0.03	0.62	-0.016	0.073	-0.019	-0.118	0.34	-0.025	0.09
840224	33	-9.05	-0.072	-0.005	0.009	0.014	0.11	0.3	-0.007	1.15	-0.022	0.05	-0.01	-0.065	0.24	0.176	0.04
840301	30	-0.36	0.113	0.009	-0.115	0.019	-0.179	-1.8	0.003	1.62	-0.011	0.046	-0.001	-0.348	0.47	-0.034	0.07
840313	26	-1.7	-0.079	-0.018	-0.113	0.021	0.02	-0.7	-0.02	2.14	-0.01	0.037	-0.008	-0.041	0.08	0.182	0.08
840319	69	-5.92	-0.102	0.046	0.184	-0.02	0.082	-1.6	-0.069	0.24	-0.017	0.059	-0.007	0.224	1.68	0.137	-0.01
840325	43	-0.44	0.004	-0.012	-0.278	0.022	-0.015	-0.8	-0.005	1.77	-0.018	0.05	0.01	0.042	0.46	-0.018	0.09
840331	62	-4.13	-0.077	-0.026	-0.027	0.043	0.059	-0.5	-0.012	1.62	-0.027	0.084	-0.005	0.05	0.87	-0.006	0.07
840406	74	-0.2	-0.101	-0.016	-0.197	0.018	-0.192	-0.3	-0.05	2.54	-0.023	0.099	-0.016	-0.184	1.22	0.118	0.04
840418	124	0.77	0.078	-0.03	0.007	0.046	-0.131	1.7	-0.047	3.53	-0.027	0.054	0.004	0.07	1.98	-0.289	0.12
840424	79	0.03	0.074	0.006	0.018	0.01	-0.106	0.6	-0.06	1.45	-0.016	0.067	-0.024	0.143	1.58	0.091	0
840430	118	-3.32	-0.074	-0.033	-0.212	0.045	0.048	1.9	-0.021	2.94	-0.013	0.079	-0.012	-0.291	1.25	-0.071	0.04
840506	116	-2.76	0.049	-0.015	-0.016	0.037	0.045	0.4	-0.014	1.28	-0.015	0.044	0	0.095	1.04	0.037	0.1
840512	33	-5.35	-0.154	-0.006	0.152	0.026	0.069	-1.4	-0.019	1.73	0.001	0.045	0.004	0.16	0.33	0.422	0.03
840524	28	0.3	0.002	0.001	-0.113	0.006	-0.04	-1.4	0.003	1.32	-0.023	0.109	0.003	-0.089	0.35	0.198	0.06
840530	44	-0.57	-0.055	-0.037	-0.103	0.025	-0.037	-0.9	0.042	2.2	-0.036	0.08	0.001	-0.132	0.41	-0.406	0.06
840605	38	-3.7	-0.024	0.008	-0.457	0.017	0.06	0.9	0.006	2.19	-0.002	0.03	-0.009	0.161	0.39	0.133	0.08
840611	61	2.07	0.071	-0.02	-0.305	0.032	-0.171	-0.6	0.041	2.96	-0.025	0.074	-0.02	-0.338	2.32	-0.12	0.07
840617	25	-0.72	0.079	-0.023	-0.205	0.02	0.024	-0.7	0.037	1.67	-0.002	0.056	-0.022	0.18	0.47	-0.195	0.07
840623	100	2.37	0.035	0.048	-0.147	0.002	-0.003	-1.1	0.032	2.58	-0.08	0.061	-0.026	-0.173	4.51	-0.061	-0.03
840629	82	2.26	0.102	-0.055	0.107	0.031	-0.012	-0.1	0.038	2.05	-0.04	0.089	-0.017	0.316	2.3	-0.189	0.17
840705	65	1	0.034	-0.062	0.095	0.058	-0.034	-1.4	-0.032	2.19	-0.032	0.03	0.025	-0.182	1.96	-0.086	0.18
840711	54	0.69	-0.105	-0.02	-0.057	0.049	-0.08	-0.6	0.007	2.47	-0.034	0.042	0.006	0.04	1.5	-0.002	0.05
840717	65	0.92	-0.081	0.025	-0.117	0.013	-0.185	-0.8	-0.04	1.71	-0.04	0.021	0.022	-0.185	2.21	0.357	0.02
840723	92	-1.29	0.017	-0.023	0.236	0.024	0.035	-0.3	-0.001	1.55	-0.064	0.044	-0.008	-0.155	3.62	0.49	0.1
840804	73	1.74	-0.034	-0.007	-0.033	0.025	-0.042	-1	-0.003	2.91	-0.053	0.018	-0.024	-0.097	2.34	-0.061	0.12
840810	63	-0.3	0.04	0.029	0.38	0.002	-0.03	-1.2	-0.022	1.39	-0.015	0.014	-0.009	-0.028	1.66	0.501	0.02
840816	77	-2.43	-0.154	0.025	0.144	-0.012	0.057	1.7	0.018	1.38	-0.05	0.028	-0.017	-0.106	2.48	0.094	0.14
840822	33	-0.72	-0.224	-0.046	-0.363	0.04	-0.008	1.9	-0.03	0.78	0.007	0.025	0.012	-0.264	0.39	0.164	0.25

SITE (CONTINUED) : HARLINGEN (DPS)
LOC (CONTINUED) : 2320
SITE (CONTINUE)) : 2
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	AL	SB	AS	BA	BE	CD	CA	CR	CL	CO	CU	GE	I	FE	LA	PB	
840903	25	-0.82	-0.029	-0.036	-0.016	0.027	-0.073	-0.9	-0.019	1.27	-0.011	0.04	0.005	0.099	0.48	-0.034	0.09	1
840909	20	-0.95	0.252	-0.02	0.055	0.036	0.014	-2.3	-0.023	1.96	0.003	0.03	-0.03	0.09	0.16	-0.072	0.1	1
840915	34	-2.03	-0.098	0.034	0.257	0.012	-0.092	-0.2	-0.052	0.37	-0.005	0.037	-0.017	0.216	0.44	0.092	0.01	1
840921	39	-0.09	-0.098	-0.033	-0.116	0.037	-0.011	0.3	-0.106	0.08	-0.01	0.035	-0.016	0.383	0.2	0.253	0.06	
840927	34	0.15	0.169	-0.044	0.206	0.047	-0.006	-2.4	-0.042	1.55	0.007	0.053	-0.034	0.23	0.02	-0.018	0.23	
841003	36	-0.6	-0.091	0.001	-0.785	0.003	-0.315	2.9	0.02	0.5	-0.006	0.066	-0.035	-0.342	0.25	0.186	0.05	
841009	34	-0.29	-0.104	-0.022	-0.722	0.018	-0.095	4.7	-0.006	0.56	-0.011	0.033	-0.034	-0.34	0.36	0.481	0.11	
841015	50	-0.93	-0.22	-0.011	-0.317	0.043	-0.016	1.8	-0.056	2.3	0	0.05	-0.026	-0.24	0.18	0.205	0.12	
841021	56	0.09	0.132	-0.045	-0.791	0.037	-0.026	1.9	0.018	2.7	-0.008	0.021	0.003	-0.435	0.41	0.418	0.08	
841027	35	-0.95	-0.028	0.039	-0.569	-0.004	-0.116	1.8	-0.028	1.57	-0.003	0.032	-0.041	0.102	0.08	0.023	0.05	
841102	18	-17.01	0.044	0.055	-0.273	-0.018	0.236	1.5	-0.021	0.03	0.012	0.024	-0.014	-0.141	-0.01	0.406	-0.07	
841108	43	-13.29	0.057	0.063	-0.514	-0.015	0.193	2.2	-0.062	2.59	-0.008	0.024	-0.025	-0.463	0.18	-0.152	0.02	
841114	36	-5.68	-0.037	0.007	-0.519	0.03	0.066	2.5	-0.038	2.29	-0.015	0.031	-0.002	0.26	0.23	-0.218	0.05	
841120	33	-0.22	-0.17	0.033	-0.485	-0.035	-0.038	2.4	-0.195	-0.06	0.01	0.022	-0.043	-0.635	0	0.077	-0.13	
841126	45	-15.73	0.101	0.049	-0.517	-0.036	0.192	2.1	-0.04	2.28	-0.025	0.039	0.001	-0.199	0.27	-0.097	0.05	
841202	41	0.48	-0.361	0.021	-0.134	-0.02	-0.064	1	0.006	0.37	0.011	0.054	-0.027	-0.32	0	0.193	0.03	
841208	47	-0.29	-0.252	0.059	0.048	0.024	-0.306	3.3	-0.049	0.49	0.011	0.026	-0.012	-0.062	0.04	0.111	0.1	
841214	54	-0.29	0.086	-0.01	-0.057	0.005	-0.225	0.7	-0.031	2.36	0.014	0.022	0.006	0.056	0.16	0.135	0	
841220	22	-12.49	-0.029	0.031	-0.181	-0.012	0.189	-0.8	0	1.31	-0.002	0.029	0.01	0.038	-0.12	0.148	0.03	
841226	33	-0.97	-0.137	-0.009	0.225	0.001	-0.144	-0.2	0.003	0.69	0.014	0.035	-0.035	-0.351	-0.18	0.281	0.02	
850101	20	-0.53	0.04	0.049	0.253	0.014	-0.197	-0.2	-0.024	1.47	0.009	0.035	-0.022	0.676	0.07	-0.041	-0.02	
850107	36	-6.61	0.26	-0.015	0.129	0.038	0.121	-0.6	-0.077	0.58	-0.011	0.043	-0.043	0.094	0.31	0.364	0.2	
850119	41	-14.16	0.395	-0.04	-0.029	0.001	0.282	-1.5	-0.01	0.85	-0.016	0.066	-0.022	-0.158	0.53	0.128	0.13	
850125	47	0.65	0.14	-0.024	-0.314	0.013	-0.179	0.6	0.014	0.56	-0.003	0.065	-0.005	0.699	0.49	-0.128	0.19	
850131	32	0.55	0.132	0.021	-0.318	-0.009	-0.191	-0.2	0	0.38	0.003	0.052	-0.009	-0.243	0.3	-0.619	-0.01	

SITE : BROWNSVILLE (PORT)
LOC : 650
STE : 3
AG : F
PC : 1

DATE	TSP	MN	MO	NI	P	K	Fe	SF	SI	SR	S	TL	SN	TI	V	ZN	ZR
840101	25	-0.008	0.005	0.016	-0.921	0.17	-0.003	0.002	--	0.098	1.06	-C.012	-0.062	-C.427	-0.886	0.38	-0.138
840107	22	0	-0.007	0.01	-0.625	0.22	-0.006	0.001	--	0.101	2.26	C.006	-0.048	-0.551	-1.105	0.41	-0.135
840113	31	0.007	-0.002	-0.008	-0.695	0.17	0.005	-0.012	--	0.096	2.32	0.003	-0.073	-0.446	-0.961	0.37	-0.111
840218	35	0.022	-0.015	0.001	-0.55	0.25	-0.009	-0.008	--	-0.049	1.4	0.03	-0.032	-0.459	-0.995	0.44	-0.044
840224	62	C.09	-0.016	0.031	-1.137	0.35	0.016	0.036	--	-0.048	2.43	C.004	-0.033	-C.727	-1.618	0.52	-0.026
840301	34	0.007	0.008	0.001	-0.852	0.32	0.02	C.032	--	0.206	1.52	0.034	-0.031	-C.623	-1.304	0.51	-0.126
840307	48	0.008	0	0.022	-1.647	0.17	-0.011	0.019	--	0.229	2.02	0.028	0.C8	-0.832	-1.789	0.62	-0.156
840313	51	0.048	0.005	0.014	-2.913	0.93	-0.003	0.02	--	0.244	3.38	C.C66	0.C12	-1.426	-3.36	0.73	-0.146
840319	89	0.029	0.004	0.01	-1.629	0.73	0.022	C.014	--	0.185	1.05	-C.002	0.007	-0.496	-1.328	0.58	-0.136
840325	41	0.014	-0.003	0.022	-1.948	0.36	0.011	-0.028	--	0.202	1.43	0.02	0.087	-C.652	-1.372	0.54	-0.156
840331	68	-0.001	0.008	0.008	-1.437	0.63	0.008	-0.042	--	-0.044	1.17	C.C06	-0.072	-C.485	-1.169	0.49	0.013
840406	116	0.014	-0.003	-0.014	-0.893	0.02	-0.002	-C.003	--	0.009	1.26	0.016	-0.061	0.181	-0.002	0	-0.017
840412	67	0.037	0.007	-0.008	0.334	0.18	-0.005	0.007	--	-0.018	3.34	-C.065	0.012	C.085	0.005	-0.02	-0.01
840418	106	0.004	0.005	-0.025	-0.417	0.19	-0.012	-0.03	--	-0.018	1.25	-C.026	0.042	C.124	-0.065	-0.02	-0.011
840424	117	0.014	0.004	-0.009	-0.28	-0.08	-0.001	-C.012	--	-0.018	0.81	-0.039	-0.095	0.154	-0.01	-0.02	-0.009
840430	95	0.023	0.001	-0.006	-0.3	-0.49	-0.021	-0.035	--	0.015	2.47	-C.012	0.13	0.028	-0.028	0	-0.019
840506	139	-0.019	0.006	-0.003	0.11	0.08	0.016	-0.01	--	0.007	2.85	-C.035	-C.091	C.115	-0.008	-0.02	-0.012
840512	34	0.007	0.007	0.003	-0.394	-0.07	-0.002	0.018	--	-0.003	1.25	-C.093	-0.004	C.025	0.003	0.03	0.021
840518	35	0.002	-0.003	-0.013	-0.946	-0.2	-0.004	-0.008	--	-0.015	0.39	-0.04	0.004	0.009	0.002	-0.03	-0.014
840524	41	0.016	0.005	-0.015	-1.165	-0.5	-0.004	-0.023	--	0.006	0.82	-0.C63	-0.002	0.076	0.001	-0.04	0.005
840530	63	0.021	0	0.001	-0.532	-0.37	-0.007	-0.031	--	-0.012	2.01	-C.078	-0.022	-C.218	-0.581	-0.01	-0.C3
840605	65	0.025	-0.007	-0.004	0.184	-0.06	0.008	-0.034	--	0.016	0.52	-0.051	-0.041	0.062	-0.007	0.03	-0.006
840611	86	0.055	0.008	-0.013	0.33	0.12	0.01	-0.023	--	-0.003	0.82	0.019	0.061	0.191	-0.126	-0.01	0.02
840617	25	-0.006	0.006	-0.001	-1.303	-0.77	-0.026	0.031	--	0.025	0.85	-C.034	0.034	-C.008	0.01	-0.03	-0.012
840623	97	0.061	0.016	-0.01	-0.56	-0.64	-0.003	-C.003	--	0.026	1.44	C.018	0.334	0.322	-0.063	-0.03	0.001
840629	91	-0.017	0.003	-0.013	-0.72	-0.3	0.015	-0.016	--	0.051	1.7	-0.001	0.062	0.045	-0.228	0.01	0.024
840705	86	0.012	0.003	-0.013	0.21	-0.51	-0.025	-0.018	--	C.105	0.97	C.02	0.217	0.231	-0.002	0.03	-0.009
840711	68	-0.002	-0.006	-0.013	0.148	0.24	-0.018	-C.054	--	0.109	1.35	C.007	-0.078	0.145	-0.111	0.08	-0.032
840717	65	0.036	-0.008	0.018	-0.448	0.35	-0.011	-0.037	--	0.084	0.81	-0.039	-0.048	0.229	-0.12	-0.01	-0.032
840723	107	0.057	-0.003	0.001	-0.145	0.48	0	-0.034	--	0.123	2.02	-C.035	-0.007	C.361	-0.144	0.07	-0.028
840729	56	0.003	-0.016	0.002	-0.058	-0.05	-0.022	C.008	--	0.057	0.65	-C.028	0.087	0.021	-0.147	0.02	-0.006
840804	50	-0.012	0.014	-0.001	-1.402	0.09	-0.023	-0.003	--	0	0.59	-0.057	-0.202	-0.088	-0.451	0.03	-0.03
840822	38	-0.01	-0.003	-0.02	-0.005	-0.27	-0.023	0.022	--	0.013	0.63	-C.072	-0.104	-0.182	-0.36	0.02	-0.016
840828	116	0.03	-0.018	0.005	0.1	0.13	-0.003	-C.042	--	0.011	1.74	-C.094	-0.105	0.348	-0.002	0.02	0.002
840903	40	-0.005	0.005	0.01	-1.861	-0.13	-0.005	-0.032	--	-0.031	-0.06	0.033	-0.087	0.072	0.01	0.02	0.011
840909	26	-0.012	0.011	-0.017	-2.16	-0.41	-0.005	-0.018	--	-0.058	-0.09	-0.034	-0.128	0.062	-0.015	0.02	-0.018
840915	63	0.001	0.008	-0.01	-0.574	-0.28	0.002	0.002	--	0.002	1.35	-0.034	-0.1	-C.41	-0.916	0.05	0.006
841021	53	0.009	0.011	0.01	-0.129	-0.17	-0.003	-C.037	--	-0.062	1.32	-C.005	0.021	-0.16	-0.332	0.02	0.008
841102	39	-0.012	0.006	-0.013	-1.045	-0.77	0.002	-0.049	--	0.042	1.16	0.051	0.182	0.01	-0.002	-0.25	-0.011
841108	63	-0.024	0.008	-0.017	-0.974	-1.22	0.005	0.02	--	0.014	1.96	-C.001	0.182	-C.056	0.005	-0.26	-0.006
841114	72	-0.023	0.005	-0.009	-0.278	-1.24	0.015	0.033	--	0.03	0.87	0.003	0.375	0.011	-0.003	-0.26	0.031
841120	52	-0.005	0.012	-0.027	0.007	-0.46	0.013	0	--	0.067	2	-C.025	0.02	0.008	-0.011	-0.27	0.011
841126	62	-0.018	0	0.016	-0.682	-0.45	-0.024	-0.06	--	0.034	1.4	-C.048	-0.111	-C.015	-0.006	-0.26	-0.002
841202	26	-0.002	0.003	-0.007	-2.024	-0.13	0.002	-C.053	--	-0.139	0.27	-C.005	-0.151	-C.017	-0.069	-0.02	0.026
841214	85	0.012	-0.01	-0.005	-0.314	-0.36	-0.011	-0.059	--	-0.226	0.95	-C.018	-0.055	0.07	-0.006	-0.01	-0.034

SITE (CONTINUED) : BROWNSVILLE (PORT)
LOC (CONTINUED) : 650
SITE (CONTINUED) : 3
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	MN	MO	NI	P	K	Pb	SE	SI	SR	S	TL	SN	TI	V	ZN	ZR
841220	34	-0.007	-0.001	0.004	-0.353	-0.76	-0.013	-0.018	--	-0.173	0.76	-C.C82	0.255	C.023	0.008	0	-0.002
841226	61	-0.017	C.01	-0.012	-1.597	-0.18	0.024	C.059	--	0.263	0.47	C.C09	-0.284	-C.095	-0.223	0.07	-0.131

SITE : BROWNSVILLE (ZOO)
LOC : 650
SITE : 4
AG : F
PC : 1

DATE	TSP	MN	MO	NI	P	K	Pb	SE	SI	SR	S	TL	SN	TI	V	ZN	ZR
840101	43	-0.018	-0.009	-0.006	-0.581	0.26	-0.007	0.012	--	0.118	1.77	-C.C17	-0.029	-0.315	-0.726	0.39	-0.134
840107	33	0.005	-0.004	0.003	-0.374	0.17	0	0.005	--	C.105	2.61	C.CC7	0	-C.422	-0.876	0.4	-0.129
840113	43	-0.013	-0.005	C.C11	-0.992	0.02	-0.009	0.007	--	C.119	2.85	C.016	-0.094	-C.478	-0.984	0.38	-0.124
840119	30	-0.012	-0.004	0.011	-1.232	0.14	-0.002	-0.026	--	0.103	1.98	0.019	0.016	-0.482	-0.977	0.37	-0.125
840125	9	-0.019	0.006	-0.005	-1.351	-0.2	-0.003	-0.012	--	0.112	1.07	C.C17	0.CC1	-C.416	-0.787	0.38	-0.143
840131	15	-0.018	-0.004	-0.004	-1.181	C.24	-0.007	-0.014	--	0.099	0.69	-C.C31	-0.039	-0.387	-0.809	0.36	-0.12
840206	55	0.012	-0.012	-0.004	-0.596	0.19	-0.008	-0.004	--	-0.003	0.96	C.C29	-0.003	-0.168	-0.556	0.35	-0.034
840212	53	0.018	-0.016	-0.004	-0.368	0.35	-0.001	0.011	--	-0.024	1.71	-C.C19	-0.02	-0.357	-0.844	0.35	0.002
840218	64	0.012	-0.018	0.007	-0.313	0.16	-0.01	0.024	--	-0.024	2.24	-C.C11	-0.041	-C.299	-0.745	0.37	-0.016
840224	57	0.005	-0.012	-0.006	-0.234	C.24	-0.011	-C.004	--	-0.016	2.04	-C.C31	-0.081	-C.222	-0.646	0.4	-0.024
840301	41	0.008	-0.003	-0.008	-0.728	0.32	0.002	-0.005	--	-0.02	1.55	-C.C41	-0.054	-0.435	-0.961	0.36	-0.005
840307	46	-0.012	0.006	-0.003	-0.341	0.07	-0.011	0.007	--	-0.025	1.7	0	0.088	-C.364	-0.834	0.35	-0.015
840313	38	-0.01	0.003	0.001	-0.966	0.15	-0.013	-0.011	--	-0.002	1.94	0.01	0.048	-C.462	-0.988	0.34	0.003
840319	76	-0.01	-0.001	0.001	-0.573	0.66	0.001	0.011	--	-0.028	1.56	0.015	-0.116	-0.242	-0.888	0.35	0
840325	49	0.001	0.01	0.012	-2.126	0.32	-0.003	0.01	--	-0.029	1.39	C.C28	0.019	-C.508	-1.09	0.36	-0.006
840331	63	-0.018	0.018	-0.017	-0.451	0.37	0.004	-C.009	--	-0.028	2.23	-C.012	0.018	-0.5	-1.125	0.35	0.009
840406	105	0.031	-0.004	0.001	0.01	-0.27	-0.006	-0.003	--	-0.02	1.37	0.02	0.088	0.071	-0.101	-0.02	-0.004
840412	85	0.046	0	-0.007	-1.942	-0.65	-0.004	0.005	--	0.02	4.4	-C.C22	-0.099	-0.025	-0.212	0.01	-0.003
840424	113	0.032	0.005	-0.004	-0.479	0.07	-0.007	0.017	--	0.032	0.93	-C.C14	-0.088	0.13	0.002	-0.01	-0.007
840430	107	0.017	-0.008	-0.002	-0.056	-0.16	-0.012	-0.017	--	0.047	2.65	C.015	0.042	0.074	-0.027	-0.02	-0.012
840506	176	0.001	0.006	-0.001	-0.542	-0.11	0.005	-0.015	--	0.027	2.53	-C.C54	-0.053	0.035	-0.175	0	0
840512	52	0.02	-0.001	-0.015	-1.561	-1	-0.009	0.026	--	-0.01	1.98	-C.C35	0.1	C.003	0.009	-0.02	-0.012
840518	56	-0.009	0.016	-0.012	-2.225	-1.16	0.022	-0.014	--	-0.004	1.82	-C.031	0.06	-0.148	-0.244	-0.02	-0.002
840524	57	0.032	0.004	-0.011	-0.567	-0.18	-0.008	-0.016	--	0.029	1.1	-0.038	-0.263	-0.061	-0.199	-0.01	0.002
840530	62	-0.003	0.016	-0.016	-0.862	-0.58	0.016	0.014	--	0.012	1.79	C.C25	0.026	0.01	-0.046	-0.02	0.013
840605	77	0.016	0.005	-0.006	-0.098	-0.1	0.012	0.004	--	0.001	0.85	-C.C01	0.029	-0.016	-0.183	-0.01	-0.017
840611	90	0.031	0.014	-0.019	-0.069	0.03	0.022	0.012	--	0.001	1.34	0.029	0.095	0.106	-0.315	-0.02	0.004
840617	42	0.019	-0.006	-0.002	-0.137	0	-0.018	0.021	--	-0.003	1.04	-0.05	-0.026	-C.109	-0.34	-0.02	-0.018
840623	117	0.064	0.015	-0.01	-0.94	0.17	0.019	-C.002	--	0.04	1.45	-C.CC3	-0.038	0.378	-0.151	-0.02	0.03
840629	100	0.017	0.003	-0.015	0.145	-0.11	0.005	-0.027	--	-0.031	1.74	0.02	0.103	0.041	-C.312	-0.03	-0.006
840705	71	0.026	-0.004	0.002	C.075	0.13	-0.006	-0.003	--	0.088	C.95	0	-0.16	C.197	0	-0.01	-0.024
840711	73	0.02	-0.018	0.012	-0.67	-0.13	-0.019	-0.03	--	0.088	1.42	C.C02	-0.055	0.198	0.012	0.01	0.011
840717	81	0.033	0.002	-0.001	0.164	C.32	-0.013	-0.039	--	0.045	1.55	0.026	-0.149	0.336	0.003	-0.01	-0.026
840723	108	0.025	-0.013	0.004	-0.09	0.2	-0.019	-0.037	--	0.052	2.19	0.014	0.145	C.411	-0.008	0.01	-0.007
840729	61	0.011	-0.007	0.012	-0.646	-0.15	-0.033	-0.048	--	0.091	1.15	C.C17	-0.097	C.071	0.007	0	-0.017

SITE (CONTINUED) : BROWNSVILLE (708)
LOC (CONTINUED) : 650
SITE (CONTINUED) : 4
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	MN	MG	NI	P	K	FE	SI	SI	SR	S	TL	SN	TI	V	ZN	ZR
840604	80	0.007	-0.004	-0.009	-0.062	0.28	-0.001	-0.005	--	-0.004	1.86	-0.054	-0.008	0.201	-0.124	0.08	0.011
840810	70	0.009	-0.007	-0.007	0.509	-0.13	-0.005	-0.038	--	-0.018	1.55	-0.097	-0.215	0.234	0.001	0.02	0
840816	92	0.014	-0.013	-0.006	-0.897	-0.69	0.002	-0.026	--	0.059	2.16	-0.067	0.202	0.101	-0.14	0.05	-0.013
840822	59	-0.007	-0.004	-0.012	-1.989	-0.19	-0.014	-0.021	--	0.04	-0.45	-0.012	0.034	0.078	0.002	0.12	-0.01
840828	120	0.026	-0.003	-0.005	-3.002	-0.97	0.004	-0.036	--	0.019	2.4	-0.093	0.134	-0.029	-0.547	0.04	-0.004
840903	60	0.017	0.013	-0.009	-2.223	-1.07	-0.014	0.004	--	-0.023	1.46	-0.012	0.033	0.003	-0.011	0.01	0.024
840909	33	-0.026	0.002	-0.025	-0.133	-0.15	-0.017	0.006	--	0.004	0.63	0.001	-0.293	0.034	0	0.02	0.011
840915	56	-0.011	0.004	-0.016	0.096	-0.03	0.013	0.021	--	-0.039	1.59	0.018	-0.181	-0.062	-0.246	0.04	0.009
840921	71	-0.001	-0.007	-0.02	-0.576	-0.34	-0.005	-0.045	--	-0.013	2.28	-0.054	0.044	0.082	-0.008	0.06	-0.024
840927	58	-0.018	0.005	-0.001	0.143	-0.14	0.009	0.012	--	0.034	1.84	-0.074	0	0.096	0	0.03	-0.022
841003	85	0.001	0.008	-0.01	-1.499	-1.19	0.007	0.021	--	-0.064	2.52	-0.007	0.207	-0.071	-0.148	0.04	0.023
841009	53	0.003	0.015	-0.013	-1.357	-0.27	-0.006	-0.041	--	-0.067	0.15	0.039	0.032	-0.029	-0.177	0.03	0.004
841015	87	0.01	0.002	-0.012	-0.013	-0.54	-0.017	0.011	--	-0.039	2.63	0.026	0.105	-0.253	-0.542	0.04	-0.001
841021	93	0	0.009	-0.008	-0.279	-0.2	0.012	-0.017	--	-0.031	1.59	-0.011	-0.126	-0.062	-0.273	0.03	-0.005
841027	54	-0.004	0.005	-0.011	-0.095	-0.16	0.034	-0.003	--	0.059	0.4	-0.033	-0.055	0	-0.009	-0.2	-0.035
841102	38	-0.023	0.01	-0.012	-2.224	-0.49	-0.009	0.003	--	0.036	0.65	0.022	-0.129	-0.042	-0.002	-0.21	0.007
841108	83	0.012	0.008	-0.017	-1.52	-0.26	0.01	-0.014	--	0.04	0.19	0.009	-0.118	0.074	-0.004	-0.19	0.006
841114	62	0.019	0.009	-0.017	-0.819	-0.32	0.018	0	--	0.048	1.56	0.003	-0.107	-0.212	-0.442	-0.18	0.002
841120	54	-0.002	0.002	-0.004	-1.641	-0.6	-0.004	-0.021	--	0.038	1.33	-0.039	0.111	-0.023	0.001	-0.2	0.027
841126	92	-0.007	-0.009	-0.002	-0.343	-0.28	0	-0.048	--	0.043	1.76	-0.023	-0.172	-0.142	-0.322	-0.19	0.014
841202	47	0.006	-0.003	-0.014	-0.004	-0.13	-0.012	-0.004	--	-0.14	2.36	-0.032	-0.011	0.063	-0.003	0	0.015
841208	95	0.001	0.005	-0.008	0.253	-0.4	-0.002	-0.022	--	-0.154	0.79	-0.003	0.045	0.171	-0.008	0.04	0.018
841214	92	-0.01	-0.008	-0.004	-0.671	-0.32	-0.014	-0.023	--	-0.151	1.62	-0.014	-0.001	-0.25	-0.582	0.01	-0.015
841220	50	-0.024	0	0.004	-1.554	-0.93	-0.032	-0.01	--	-0.158	1.56	-0.044	0.01	0.025	-0.155	0.01	0.01
841226	48	-0.002	0.004	-0.005	0.146	-0.16	-0.013	0.006	--	0.201	1.73	-0.042	-0.513	0.045	-0.001	0.06	-0.125
850101	42	0.002	-0.017	0.023	0.123	0.03	-0.024	-0.038	--	-0.15	1.35	-0.069	-0.458	-0.329	-0.536	0.01	-0.008
850107	104	0.027	-0.02	-0.005	-3.156	-2.28	-0.005	0.049	--	-0.124	2.42	0.07	0.163	-0.004	0.023	0.06	0.008
850113	17	0.013	-0.007	-0.012	-3.674	-0.93	-0.024	-0.038	--	-0.126	0.38	-0.02	-0.422	-0.317	-0.401	0	-0.024
850119	105	0.016	-0.019	0.017	-1.135	-0.4	-0.047	-0.017	--	-0.161	2.87	-0.031	-0.127	-0.32	-0.696	0.01	0.001
850125	121	0.005	0	-0.02	-3.135	-1.06	-0.013	0.01	--	-0.109	1.29	-0.039	0.212	0.14	0.007	0.06	-0.004
850131	64	0.011	-0.022	-0.01	-1.198	-0.58	-0.028	-0.014	--	-0.12	3.4	0.001	-0.241	0.051	0.008	0	-0.023
850206	51	-0.022	-0.01	-0.013	-1.257	0.11	-0.034	-0.022	--	-0.06	4.4	-0.095	-0.367	-0.485	-0.85	0	-0.012

SITE : HARLINGEN (WATER WORKS)
LOC : 2320
SITE : 1
AG : F
PC : 1

DATE	TSP	MN	MG	NI	P	K	FE	SI	SI	SR	S	TL	SN	TI	V	ZN	ZR
840101	39	0.001	-0.021	-0.011	-0.311	-0.08	-0.017	-0.011	--	-0.062	1.47	0	-0.052	-0.022	-0.073	0.01	-0.051
840107	25	-0.002	-0.018	0.003	-0.534	0.05	-0.044	-0.01	--	-0.063	0.82	-0.023	0.003	0.02	-0.003	0.02	-0.033
840113	35	0.004	-0.021	-0.01	-0.832	-0.06	-0.022	-0.004	--	-0.029	1.69	0.009	-0.013	0.037	0.007	0.03	-0.046
840119	22	-0.004	-0.014	0.005	-0.265	-0.06	-0.009	-0.034	--	-0.022	1.11	0.004	-0.12	-0.024	-0.059	0.02	-0.049
840125	8	-0.001	-0.02	0.007	-0.255	-0.06	-0.025	-0.021	--	-0.028	0.57	-0.016	-0.135	-0.001	0.002	0.01	-0.047

SITE (CONTINUED) : HARLINGEN (WATER WORKS)
LOC (CONTINUED) : 2320
SITE (CONTINUED) : 1
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	MN	MO	NI	P	K	RB	SE	SI	SN	S	TL	SN	TI	V	ZN	ZR
840131	11	0.02	-0.023	0.012	-0.789	-0.26	-0.034	-0.018	--	-0.06	0.76	-0.007	-0.128	-0.032	-0.051	0.01	-0.041
840206	40	0.006	0.005	0	-0.373	0.25	-0.003	-0.005	--	-0.033	0.97	-0.007	0.036	0.071	0.003	0.02	-0.007
840212	39	-0.003	-0.002	0.001	-0.646	0.17	0.001	-0.006	--	-0.034	1.05	0.003	0.057	0.006	-0.079	0.01	-0.018
840218	56	0.021	0.003	-0.005	-0.948	-0.11	-0.021	-0.013	--	-0.024	2.13	-0.003	0.032	0.029	0.006	0.02	-0.013
840224	30	0.004	-0.004	0.004	-0.514	0.23	-0.036	-0.001	--	-0.032	1.23	-0.001	0.002	-0.003	-0.089	-0.01	-0.016
840313	27	-0.007	-0.003	-0.003	-1.366	-0.18	-0.009	-0.021	--	-0.078	1.5	-0.02	0.009	-0.135	-0.239	0	-0.004
840319	57	-0.004	0.01	-0.001	-0.613	0.37	-0.028	-0.017	--	-0.049	1.07	-0.038	-0.043	0.024	-0.232	-0.01	-0.004
840406	89	0.01	0.003	-0.006	-0.192	-0.23	0	0.01	--	0.057	2.08	-0.021	0.005	0.171	-0.003	0.05	-0.009
840412	77	0.016	0.005	0.005	-0.002	-0.18	-0.006	-0.01	--	0.007	3.18	-0.002	0.114	0.11	0.002	0.01	0.019
840418	133	0.024	0.008	0.007	-0.004	0.33	0.004	-0.017	--	0.02	1.7	-0.007	0.026	0.137	-0.13	0.02	0.004
840424	102	0.01	-0.007	-0.023	-0.215	0.14	-0.013	-0.015	--	0.039	1.58	0.008	-0.173	0.138	0.003	0.03	0.014
840430	91	0.026	0.003	0	0.043	0.01	-0.001	-0.029	--	0.069	2.18	-0.07	-0.21	0.086	0.005	0.02	-0.009
840506	149	0.024	0.001	-0.009	-1.579	0.05	-0.006	-0.064	--	0.095	3.17	0.039	-0.079	0.044	-0.074	0.02	0.024
840512	37	0.003	-0.002	-0.018	-0.466	-0.18	-0.009	-0.037	--	0.073	1.22	-0.029	-0.099	-0.044	-0.12	0	0.017
840524	31	0.003	-0.002	-0.007	-0.514	-0.23	-0.009	-0.032	--	0.095	0.36	-0.031	0.104	0.037	0.005	0.01	-0.001
840530	43	0.001	0.004	-0.035	-0.216	-0.02	-0.018	-0.014	--	0.096	1.47	-0.007	-0.143	0.042	0.001	-0.01	0.003
840605	42	0.024	-0.007	0.005	-0.397	0.01	0.001	0.016	--	0.1	0.83	-0.026	-0.122	-0.016	-0.108	-0.01	0.016
840611	67	0.047	0.004	-0.007	-1.039	0.09	-0.01	0.002	--	0.068	0.95	-0.035	-0.043	0.194	0.009	-0.02	-0.011
840617	28	0.028	-0.001	-0.003	-0.041	0.08	-0.004	0.013	--	0.064	0.56	0.011	0.002	0.044	0	-0.02	0
840623	100	0.077	-0.003	0	-0.175	0.57	0.006	0.014	--	0.092	1.83	-0.043	-0.005	0.326	-0.196	-0.01	-0.004
840629	84	0.031	-0.002	-0.01	-0.534	-0.11	0.008	-0.027	--	0.12	2.42	-0.02	0.112	0.16	-0.08	-0.01	-0.007
840705	57	0.019	-0.008	-0.006	0.058	-0.25	-0.003	-0.013	--	-0.008	1.11	-0.025	0.119	0.16	0.005	0.01	0.003
840711	67	0.016	0.001	0.002	-0.017	-0.15	0.034	-0.006	--	-0.007	1.22	0.015	0.008	0.172	0.003	0.01	0
840717	67	0.02	0.008	-0.009	-0.27	0.24	0.025	-0.023	--	0.006	1.77	0.015	-0.015	-0.07	-0.465	0	-0.012
840723	87	0.017	0.002	0.004	-0.217	0.42	0.005	0.014	--	0.007	1.92	-0.044	-0.221	0.231	-0.239	0.02	0.016
840816	80	0.005	0	-0.008	-1.32	-0.07	0.015	0.023	--	0.033	1.5	-0.016	-0.212	0.191	-0.059	0.04	0.005
840822	37	0.013	0.007	-0.023	-0.16	-0.14	0.006	0.026	--	0.007	0.43	0.031	0.056	0.047	0.003	0	-0.003
840903	28	-0.039	0.003	-0.003	-1.006	0.15	-0.005	-0.002	--	0.007	0.16	-0.075	0.02	-0.293	-0.56	0	-0.019
841003	37	-0.012	0.007	-0.02	0.107	-0.1	-0.003	-0.046	--	0.046	2.12	-0.027	-0.091	-0.011	-0.006	-0.2	-0.007
841009	29	0.02	-0.001	-0.02	-0.056	-0.58	-0.013	-0.005	--	0.054	0.43	-0.034	0.228	-0.029	-0.001	-0.2	0.022
841015	51	0.016	-0.001	-0.018	0.203	-0.33	0.006	-0.027	--	0.062	2.05	-0.027	0.077	-0.002	-0.009	-0.21	0.014
841021	58	0.007	0.013	-0.034	-2.015	-1.25	0.026	-0.032	--	0.036	2.02	-0.041	-0.161	-0.086	0.005	-0.22	0.033
841027	36	0.004	0.011	-0.013	-1.684	-1.26	0.033	-0.02	--	0.075	1.07	-0.034	0.177	-0.109	0.004	-0.21	0.033
841102	22	0.012	0.005	-0.012	-2.025	-0.2	0.004	-0.022	--	0.104	-0.31	0.022	-0.072	-0.038	-0.004	-0.21	0.007
841108	58	0.008	0.005	-0.016	-3.144	-1	0.027	-0.032	--	0.064	0.75	-0.051	-0.078	-0.065	0.006	-0.19	-0.009
841114	38	-0.024	0.009	-0.022	-1.624	-0.55	0.023	0.01	--	0.079	0.36	0.012	-0.206	-0.039	-0.006	-0.21	0.038
841120	34	-0.004	0.007	-0.01	-0.563	-0.78	0.001	0.007	--	0.023	1.48	-0.038	0.239	-0.038	-0.003	-0.2	0.009
841126	59	0.003	0.003	0	-0.057	-0.04	-0.006	-0.025	--	0.049	1.22	-0.02	-0.209	-0.018	-0.011	-0.22	-0.008
841202	40	0.005	-0.014	0.006	-0.33	-0.05	-0.029	-0.059	--	0.156	2.05	0.004	-0.027	-0.112	-0.209	0.04	-0.126
841208	38	0.003	-0.012	-0.003	0.23	-0.64	-0.025	-0.049	--	0.152	1.3	-0.049	0.234	-0.09	-0.154	0.04	-0.116
841214	60	0.015	-0.017	0.009	0.271	-0.32	-0.014	-0.031	--	0.166	1.15	-0.035	0.091	0.03	0	0.04	-0.111
841220	29	0.002	-0.021	0.02	0.119	-0.06	-0.015	-0.047	--	0.191	0.51	-0.044	-0.162	0.009	-0.008	0.03	-0.113
841226	32	-0.018	-0.013	-0.012	-1.083	-0.64	-0.001	-0.021	--	0.168	1.54	-0.061	-0.046	-0.037	0.004	0.05	-0.127
850101	19	-0.01	0.003	-0.014	-1.02	-0.05	0.016	-0.002	--	-0.149	-0.14	0.03	-0.203	0.009	-0.003	-0.02	0.001
850107	39	-0.009	0.004	-0.005	-0.899	-0.67	0.013	-0.031	--	-0.144	1.39	-0.013	0.036	0.013	0.014	0	0.006

SITE (CONTINUED) : HARLINGEN (WATER WORKS)
LOC (CONTINUED) : 2320
SITE (CONTINUED) : 1
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	MN	MG	NI	P	K	Pb	SE	SI	SR	S	TL	SN	TI	V	ZN	ZR
850113	12	-0.005	-0.001	0.004	-0.591	-0.56	-0.003	-0.025	--	-0.126	0.29	-0.014	0.23	-0.012	0.008	-0.03	-0.009
850119	37	0.006	0.006	-0.004	-1.345	-1.25	0.004	-0.025	--	-0.113	1.83	-0.038	0.167	-0.02	0.021	-0.01	0.017
850125	47	0.028	-0.003	0.009	-2.773	-0.77	-0.001	-0.011	--	-0.114	1.69	0.052	-0.053	-0.012	0.008	0	0.02
850131	31	0.007	0.014	-0.002	-1.595	-0.24	-0.022	0.002	--	-0.103	1.22	0.038	-0.079	0.014	0.013	-0.01	-0.033

SITE : HARLINGEN (DPS)
LOC : 2320
SITE : 2
AG : F
PC : 1

DATE	TSP	MN	MG	NI	P	K	Pb	SE	SI	SR	S	TL	SN	TI	V	ZN	ZR
840101	36	0.007	-0.019	0.002	-0.425	-0.05	-0.025	-0.018	--	-0.017	1.32	0.009	-0.019	-0.109	-0.246	0.02	-0.042
840107	29	-0.003	-0.02	-0.001	-0.124	-0.08	-0.025	-0.015	--	-0.049	1.59	-0.018	-0.098	0.01	-0.016	0.03	-0.036
840113	9	0.03	-0.015	0.001	-0.343	-0.17	-0.023	-0.027	--	-0.044	0.63	-0.004	-0.028	-0.005	0.003	0.02	-0.033
840206	40	-0.015	0.002	-0.002	-0.357	0.26	-0.018	0.002	--	-0.054	0.82	0.023	-0.194	0.036	-0.062	0.01	-0.005
840212	44	0.006	-0.006	-0.01	-0.585	0.38	0.002	-0.032	--	-0.028	1.05	-0.008	-0.073	0.076	-0.003	0.01	-0.005
840218	47	-0.003	-0.002	0.005	-1.731	-0.01	-0.011	-0.019	--	-0.042	1.3	-0.02	0.076	-0.133	-0.281	0.01	-0.017
840224	33	-0.009	0.007	-0.011	-1.295	0.3	-0.024	-0.029	--	-0.042	0.51	0.032	-0.135	0.039	-0.009	0.02	-0.003
840301	30	-0.02	-0.002	-0.009	-0.931	-0.55	-0.005	-0.008	--	-0.063	1.36	-0.019	0.064	0.021	0.009	0.06	-0.019
840313	26	-0.019	-0.001	0.002	-0.153	-0.07	0.007	-0.015	--	-0.063	0.91	0.008	-0.064	0.05	0	0	-0.015
840319	69	-0.008	0.001	-0.026	-0.711	0.81	-0.013	-0.026	--	-0.052	0.46	-0.042	-0.102	0.058	-0.246	-0.01	-0.006
840325	43	-0.021	0.001	0.002	0.238	0.05	-0.007	-0.019	--	-0.036	1.63	-0.015	-0.105	0.056	0	0	-0.009
840331	62	0.008	-0.001	0	-0.35	0.18	-0.013	-0.033	--	-0.05	0.86	-0.024	-0.008	0.093	0.002	-0.01	-0.015
840406	74	0.02	0.01	0	-0.049	-0.16	-0.001	0.017	--	-0.005	1.14	-0.003	0.046	0.125	0.004	0.03	0.002
840418	124	0.01	0	0.002	-0.285	0.14	-0.012	0.006	--	0.037	1.9	-0.007	-0.222	0.172	-0.007	0.03	0.018
840424	79	0.022	0	0	-0.64	-0.31	0.008	-0.025	--	0.031	1.88	-0.038	0.105	0.145	-0.02	0.03	0.031
840430	118	-0.017	0.007	-0.011	-0.257	0.17	-0.028	0.006	--	0.049	2.16	0.035	0.06	0.141	0	0.02	0.025
840506	116	-0.008	0.013	-0.012	-0.875	0.13	-0.011	-0.024	--	0.105	3.45	-0.053	-0.044	0.076	0.005	0.03	-0.024
840512	33	0.034	-0.005	-0.012	-0.6	-0.26	-0.012	-0.024	--	0.094	0.84	-0.028	0.163	-0.071	-0.175	0	0.007
840524	28	0.001	-0.011	-0.02	0.09	-0.34	-0.018	-0.044	--	0.059	0.66	0.009	0.126	0.026	-0.002	0	0.01
840530	44	-0.022	-0.004	-0.011	0.243	-0.24	-0.012	-0.054	--	0.091	1.39	0.009	0.061	0.038	-0.001	0.01	-0.011
840605	38	0.013	-0.005	-0.003	-0.262	0.12	0.01	0.001	--	0.095	0.91	-0.021	-0.069	0.03	0.001	0	-0.012
840611	61	0.054	-0.009	0.005	-0.201	0.22	-0.015	0.046	--	0.129	1.03	-0.017	-0.159	0.211	0.006	0.01	-0.026
840617	25	0.017	-0.004	0.011	-0.596	-0.26	-0.009	0.006	--	0.109	0.68	-0.042	-0.143	0.013	0.003	-0.01	-0.021
840623	100	0.053	-0.006	0.023	-0.293	0.49	0.031	-0.011	--	0.098	1.68	-0.077	-0.022	0.425	0.011	-0.01	0.017
840629	82	0.014	-0.002	0	-0.799	-0.07	-0.01	-0.043	--	0.074	2.06	-0.019	0.068	0.124	-0.117	0.01	-0.013
840705	65	0.044	0.002	-0.01	-0.229	-0.49	0.009	0.005	--	-0.007	1.37	0.03	0.197	0.163	-0.107	0.02	-0.001
840711	54	0.003	0.006	-0.009	0.265	0.08	0.003	0.019	--	-0.015	1.03	0.026	-0.198	0.182	0.003	0.02	0
840717	65	0.025	-0.003	-0.001	0.082	0.14	0.009	-0.002	--	-0.029	1.34	0.023	0.03	0.281	0.007	0.01	0.031
840723	92	0.06	-0.001	-0.001	-0.479	0.34	0.005	-0.004	--	-0.002	2.03	-0.021	0.059	0.25	-0.265	0.01	0.023
840804	73	0.033	-0.012	-0.012	0.027	0.02	0.013	-0.013	--	0.005	1.85	-0.017	0.111	0.264	0.01	0.01	-0.006
840810	63	-0.006	0.003	-0.013	-0.542	-0.16	-0.009	0.031	--	0.022	1.74	0.016	0.094	-0.108	-0.434	0.01	0.031
840816	77	0.018	0.01	-0.015	-0.706	0.47	0.007	-0.001	--	0.038	1.37	0.027	-0.027	0.195	-0.166	0.01	0.006
840822	33	0.013	0.006	-0.014	0.006	-0.04	-0.007	0.02	--	0.021	0.45	-0.025	-0.122	0.071	-0.001	0.01	-0.005

SITE (CONTINUED) : HARLINGEN (DPS)
LOC (CONTINUED) : 2320
SITE (CONTINUED) : 2
AG (CONTINUED) : F
PC (CONTINUED) : 1

DATE	TSP	MN	MO	NI	P	K	PB	SE	SI	SR	S	TL	SN	TI	V	ZN	ZR
840903	25	-0.021	0.006	-0.01	0.087	0	-0.008	-0.018	--	-0.009	0.17	0.013	-0.131	0.064	0.001	0.01	-0.013
840909	20	-0.029	0.003	-0.003	-2.077	-1.08	-0.022	0.007	--	-0.018	1.17	-0.004	-0.103	-0.098	-0.049	0.01	-0.024
840915	34	-0.012	0.004	-0.011	-0.165	-0.09	-0.029	-0.016	--	-0.022	1.55	-0.012	-0.037	-0.111	-0.297	0.01	-0.001
840921	39	0.013	0.005	-0.01	0.047	-0.17	0.009	0.008	--	-0.036	1.57	-0.004	-0.156	0.023	0.001	0.02	-0.017
840927	34	-0.051	0.006	-0.01	-1.569	-0.68	-0.017	0	--	-0.001	1.75	0.024	-0.149	-0.19	-0.228	0.01	-0.015
841003	36	0.005	0.004	-0.014	0.159	-0.22	0.019	-0.025	--	0.046	2.19	-0.014	-0.307	-0.012	-0.006	-0.17	-0.004
841009	34	-0.001	0.012	-0.005	-0.072	-0.24	0.002	-0.038	--	0.017	0.35	-0.024	-0.123	-0.02	-0.01	-0.2	0.006
841015	50	0.004	0.025	-0.013	0.033	-0.36	0.028	0.001	--	0.059	1.78	-0.038	0.007	-0.009	-0.009	-0.22	0.015
841021	56	0.001	0.01	-0.008	-1.013	-0.66	0.026	-0.008	--	0.045	1.64	0.034	-0.157	-0.05	-0.006	-0.21	0.009
841027	35	-0.005	0.004	-0.006	0.109	-0.25	0.025	-0.009	--	0.065	0.44	-0.016	-0.105	-0.033	-0.005	-0.23	0.021
841102	18	-0.011	0.012	-0.019	-2.519	-0.33	0.019	-0.008	--	0.076	-0.26	-0.042	-0.11	-0.05	-0.003	-0.21	0.021
841108	48	0.025	0.005	-0.021	-1.832	-0.45	0.022	-0.035	--	0.089	0.39	-0.042	-0.301	-0.046	-0.002	-0.22	0.001
841114	36	-0.012	0.002	-0.008	-0.539	-0.22	0.015	0.003	--	0.053	0.5	0.002	0	-0.01	-0.001	-0.19	0.024
841120	33	-0.027	-0.037	-0.052	0.249	-0.21	-0.032	-0.055	--	0.03	1.81	-0.09	-0.064	-0.012	-0.005	-0.16	-0.049
841126	45	-0.022	0.01	-0.008	-2.166	-0.45	0.013	-0.052	--	0.042	0.67	-0.037	-0.09	-0.042	-0.005	-0.19	0.009
841202	41	0.018	-0.007	0.002	-0.05	-0.07	0	-0.042	--	0.174	1.75	-0.03	-0.088	0.018	0.001	0.03	-0.128
841208	47	-0.01	-0.006	-0.01	0.019	-0.16	-0.02	-0.029	--	0.215	0.93	-0.017	-0.169	0.014	-0.059	0.06	-0.13
841214	54	0.015	-0.011	0.011	-0.621	-0.5	0.023	-0.022	--	0.22	1.05	-0.012	-0.128	0.011	0	0.05	-0.101
841220	22	-0.002	-0.005	0.018	-1.666	-0.56	0.006	0.008	--	0.167	-0.2	0.005	0.168	-0.021	0.007	0.04	-0.097
841226	33	-0.005	-0.006	-0.006	-0.26	-0.08	-0.01	-0.029	--	0.217	1.33	-0.064	-0.183	-0.157	-0.259	0.05	-0.113
850101	20	-0.016	-0.007	-0.005	-0.413	-0.43	-0.018	-0.014	--	-0.126	1.01	-0.011	0.095	-0.183	-0.29	-0.03	-0.021
850107	36	0.008	0.007	0	-2.853	-1.02	0.006	-0.02	--	-0.13	1.27	0.031	0.065	-0.125	-0.134	0	-0.002
850119	41	-0.004	0.004	-0.004	-4.379	-1.56	0.003	0.023	--	-0.124	1.28	0.061	0.067	-0.064	0.026	-0.02	-0.004
850125	47	-0.006	0	-0.006	-0.947	-0.65	-0.007	-0.017	--	-0.143	2.52	-0.013	0.027	0.011	0.008	0	-0.025
850131	32	0.011	0	-0.001	-0.847	-0.5	-0.011	-0.039	--	-0.135	1.81	-0.008	0.026	-0.002	0.007	-0.02	-0.009

APPENDIX B

DETAILED INSPECTION REPORTS

ON ORIGINAL COATING OF STRUCTURE

PORT ISABEL - SOUTH PADRE CAUSEWAY - March 26, 1975

South side of structure going west, middle girder.

Bay 1 - Diafram has a few scattered specks of rust. 4th stiffener has a few specks close to the web. 5th stiffener has specks in repair area above waterline bracket and on the stiffener edge. 6th and 7th stiffeners have scattered specks on edge and close to web. Between 7th and 8th stiffeners there are 5 specks in the lower web section. Diafram and lateral brace welds and blockouts are in good condition.
Bay 2 - Diafram looks good. Few specks on top edge of 2nd stiffener. Stiffeners 4,5 have a few specks. Three specks on top of flange between stiffeners 4 and 5.
Bay 3 - Scattered specks on top edge of diafram bottom cord and in the slot between angle members. All stiffeners have scattered specks on the edges. Blockouts on #3 side are good. A few specks on web between stiffeners 2 and 3. Lateral bracing looks good. Few scattered specks on waterline brackets. Bay 3 end diafram and lateral brace blockout has 4 specks on weld.
Bay 4 - Specks of rust on stiffener and lateral brace welds and on web at brace weld repair due to blasting damage. Rust behind waterline bracket and on bracket back weld, also on bracket edges. Spot of specks on top of flange between stiffeners 1 and 2. Specks on top flange between stiffeners 3 and 4. Specks along weld on top flange and in web; appears to be from blasting damage. Very few specks on stiffener edges. Rust between bracket and stiffener. Some specks on end diafram weld.
Bay 5 - Diafram has few spots on angles and top edge of bottom T chord. Scattered specks along top fillet one inch or so out on the flange. Four specks from burrs on stiffener 2. Specks on edges of stiffeners 5 and 6. Specks on bottom flange out from stiffener 6. End lateral brace connection numerous specks. Scattered specks on waterline brackets. Scattered spots on lateral brace end 4 feet.
Bay 6 - Spots along bottom flanges of diafram T. Repair marked on diafram but not made. Lateral brace blockout good. Scattered strips of specks along edges of lateral brace. Scattered specks on top of bottom flange between stiffeners 2 and 3 and 4 and 5. Stiffener edges good. Few scattered specks along bracket edges. End diafram connection good.
Bay 7 - Scattered rust on flange of bottom diafram chord to middle of diafram. Spots on bolt heads in top diafram connection. Rust behind waterline bracket. Scattered specks on diafram edges, stiffener #1 edge and in repair in web. Six feet up, specks on edge of repair on stiffener #1 both sides. Between stiffeners 2 and 3 there are numerous specks on the top of the bottom flange from insufficient primer. Between stiffeners 3 and 4 spot marked for repair but missed, also scattered specks on stiffener edges and top flange. Specks of rust under gusset plate for lateral brace at end of Bay 7. Specks on waterline bracket edges. Scattered specks on lateral brace connection weld and diafram top weld.
Bay 8 - Specks on bottom chord of diafram; remainder of diafram looks good. Scattered specks on top of bottom flange over all area between stiffeners 2 and 3. Specks on edges of waterline brackets. Diafram connection at end of Bay 8 good.
Bay 9 - Few specks on bottom chord of diafram, otherwise in good shape. Specks on bottom flange. Some scattered specks between stiffeners 1 and 2 as a result of blasting damage during stiffener repair. Specks on edges of stiffeners 1 and 3 due to insufficient paint on the edges. Lateral brace connection at end of Bay 9 good. Rust between waterline bracket and stiffener.

Bay 10 - Diafram good, blockout good. Few specks on lateral brace weld. Scattered specks on bottom flange to stiffener 1 and then numerous specks on to haunch stiffener. Rust specks in stiffener repair areas. Rust stain around weld spatter on top flange between stiffeners 1 and 2 and specks of rust in web at blast damage about six inches above cable. All stiffeners show scattered specks. Web section between stiffeners 2 and 4 shows scattered specks in lower half. Haunch diafram bad along angle spacer area; this is in scaffolding area for painting top portion. Rocker has numerous specks on south side but scattered elsewhere.

Bay 11 - Numerous specks on bottom flange to stiffener 1. Scattered specks in web of panel 1 and 2 and on haunch and number 1 stiffeners. Few specks on bottom flange near stiffener 3 and around waterline bracket on stiffener 3. Blockout okay.

Bay 12 - A few scattered specks generally scattered throughout the bay. Numerous specks on bottom flange from last stiffener to end of bay; thin paint.

Bay 13 - Few scattered specks on diafram. Bay is generally good exhibiting very few specks. Last stiffener bad and one spot in last web panel due to blasting damage. End lateral brace weld bad; diafram weld good.

Bay 14 - Rust spots on east side of diafram bottom chord. Several spots on lateral brace weld. Poor edge repair on bottom flange in panel 2. Scattered specks on bottom flange in panels 4 and 5. Few specks on top flange near web in panels 3, 4 and 5.

Bay 15 - Few specks on diafram; diafram welds good. Few scattered spots of specks on bottom flange and few specks on stiffener edges. Waterline bracket weld exhibits slight rust.

Bay 16 - Very few specks on diafram. Lateral brace weld bad. Two-foot strip of low paint thickness showing specks on side near edge of stiffener 2. Several specks on bottom flange in panels 3, 4 and 5. Few specks in diafram blockout on 16 side of Bay 17 diafram; numerous spots on diafram.

Bay 17 - 17 side of diafram looks good. Spots on bottom flange from stiffener 1 to stiffener 6; same on stiffener edges. Scattered specks in diafram blockout, weld good. A few specks on lateral brace weld. Scattered specks on top of flange of diafram bottom chord on Bay 17.

Bay 18 - Diafram, lateral brace and blockout good. One spot on stiffener 2, five feet up from bottom. Diafram weld and blockout at end of Bay 18 good.

Bay 19 - Diafram good, only a couple of specks showing. A few specks on stiffener edges. Scattered specks from stiffener 1 to stiffener 3 on bottom flange along fillet. A few specks in panel 3 web just below cable due to rough metal. End brace weld area good; a few specks on bottom flange and on gusset plate. Bay 19 side of end diafram good.

Bay 20 - Diafram has a couple of specks; few specks on lateral brace and brace weld. Scattered specks on edges of stiffeners 1 and 3.

Bay 21 - Diafram weld on Bay 20 side good. A few specks on diafram and diafram stiffener. No specks on girder but couple of specks on brace.

Bay 22 - Few specks on diafram; lateral brace is good but does have few specks on end next to middle girder. Two stiffeners have a few specks on the edge. Numerous specks in web from two feet up to 5 feet in panel 6. Diafram connection at end of Bay 22 good.

Bay 23 - Few specks on diafram. Numerous specks on bottom of web in panels 1,2, 3 and 6 and on stiffeners. Spot on bottom flange, scattered specks elsewhere. Scattered spots on lateral brace. Lateral brace weld bad. Flange under 23-24 stiffener and lateral brace plate bad. Gusset plates good.

Bay 24 - Little or no primer on diafram bottom chord flange top Bay 24 side for about two feet. Lateral brace end bad. Numerous specks on bottom flange. Very few scattered spots and webs, 4 or 5 bad spots on webs.

Bay 25 - Numerous specks on bottom half of haunch stiffener. Scattered specks on bottom half of bay.

Bay 26 - Diafram scattered specks. Lateral brace connection good. One spot in web of panel 1. Scattered specks on bottom flange of panels 2, 3 and 4. Few spots on Bay 26 side of diafram and in diafram weld.

Bay 27 - Scattered spots on diafram. Poor edge repair on bottom flange in panels 1,3,4 and 5. Rust specks on field splice weld in panel 4 on top and bottom flanges; none in web. Bay 27 side of diafram good; lateral brace has few specks; welds good.

Bay 28 - Diafram has few specks. Lateral brace connection good, but scattered specks on brace edges. Panel 2 has bad edge repair scattered on bottom flange. Web and stiffeners are good. Few specks on Bay 28 side of diafram.

Bay 29 - Diafram good. Spots of specks on bottom flange at stiffeners 4, 5 and 6. Web and stiffeners good. Lateral brace weld rusty.

Bay 30 - Diafram and lateral brace connections good. Few scattered specks on brace and on flange under gusset plate. Few scattered specks on flange and poor edge repair on bottom flange in end panel. Numerous specks due to thin paint on end diafram plate. Web and stiffeners good.

Bay 31 - Diafram, web and stiffeners good. Scattered specks due to poor edge repair on bottom flange. A few specks on lateral brace, brace and diafram gusset plates and on flange under gusset plates.

Bay 32 - Scattered specks on diafram and lateral brace; two spots of specks on gusset plate. Very few spots on bottom flange (poor edge repair). Web and stiffeners good. End diafram connection good; six specks on weld.

Bay 33 - Scattered specks on diafram. Bottom edge of stiffeners 2 and 5 rusting. Numerous specks on bottom flange under gusset plate; few on plate and lateral brace. Some specks on far side of last stiffener two feet up from bottom.

Bay 34 - Scattered specks on diafram, upper part of diafram blockout, lateral brace gusset plate, flange under gusset plate and most stiffeners. Numerous specks on last two stiffeners and bottom flange at last stiffener.

Bottom of Mid Girder starting east end and going west.

Bay 1 - Good.

Bay 2 - Scattered specks around repair edges; poor clipping of loose edges. Five specks at area not repaired due to metal burrs.

Bay 3 - Scattered specks around repair edges.

Bay 4 - Bottom one stiffener rusting, no repair. Specks around repair edges.

Bay 5 - Two spots on bottom edge rusting and two spots of specks.

Bay 6 - Rust specks from metal burrs and rough metal; some bottom edge rust from blast damage.

Bay 7 - Numerous rust specks from metal burrs.

Bay 8 - Few rust specks in one area.

Bay 9 - Scattered specks all over; appears there is not enough primer to cover the rough metal.

Bay 10 - Scattered specks.

Bay 11 - Two strips of specks just past haunch.

Bay 12 - Two-foot strip of bottom edge rusting.

Bay 13 - Some bad repair edges near #14 diafram.

Bay 14 - Scattered loose edges; specks on lateral brace. Five-foot strip of rust on bottom edge.

Bay 15 - Scattered specks around repair spots due to loose edges. Some low spots at #16 diafram.

Bay 16 - Few specks at repair edges and field splice.

Inside of South Girder, east to west.

Bay 1 - Finger joint good. Some rust on top member of diafram and specks on vertical members. Specks on fourth stiffener near top on edge and a few on seventh stiffener near top. Ninth stiffener has rusty spot on edge about six feet high. Flanges look good. Cable between eighth and ninth stiffeners very rusty.

Bay 2 - Rust along top edge of bottom diafram chord next to stiffener, some rust between upright members. Specks on edge of stiffener 3 and on top weld. Specks on edge of stiffeners 4, 6 and 8 near top. Top flange good; rust specks on bottom flange between stiffeners 7 and 8. Lateral brace good.

Bay 3 - Some rust on edges of top chord and top of vertical members of diafram. Lateral brace and gusset plates good. Rust specks on edges of all stiffeners. Rusty area on top flange between stiffeners 1 and 2. Small amount of rust on outside edge along weld on bottom flange.

Bay 4 - Rust on bottom edges of top chord of diafram near end. Few scattered specks on edges of stiffeners 1, 2, 4 and 5. Small area in middle of web between stiffeners 5 and 6. Rust around bolt heads and weld on gusset plate. Flanges and lateral brace good.

Bay 5 - Small amount of specks on bottom edges of top diafram chord near middle and along edges of vertical members. Some rust around bolt heads on gusset plate. Lateral brace and top flange good. Specks along bottom flange and web fillet from stiffener 3 to stiffener 5, also specks on flange from stiffener 6 to end of bay. Specks on stiffeners 4 and 6 near top on edge and number 1 near bottom. Stiffener 5 has rust along fillet weld due to poor edge repair.

Bay 6 - Rust on bolt heads in top diafram connection. Specks on edges of stiffeners 2, 5, 6 and end. Specks on top corners of lateral brace about 6 feet out and along gusset plate weld. Top flange good, scattered specks throughout bay on bottom flange.

Bay 7 - Rust spots on top portion of vertical members, bottom of top chord and top of bottom chord near center. Gusset plate bolt heads rusty. Lateral brace and top flange good. Scattered rust specks on bottom flange between stiffeners 1 and 3 and 6 to end. Rust at joint between diafram stiffener and top flange and on bolts and slot welds in top diafram connection. Scattered specks on stiffeners 2, 4 and 6. Rust in web section at repair edge near bottom along end stiffener.

Bay 8 - Rust on diafram bolt heads (top and bottom connections), along weld at bottom corner of top connection, along bottom chord and along bottom of diagonal diafram member. Few scattered specks on edges of stiffeners 2,3,4 and 5; also some on 4 near bottom along edge of repair. Rusty bolt heads in end gusset plate. Lateral brace good. Few specks on top flange around repair spots between stiffeners 1 and 2 and 4 and 5. Rust on bottom flange between stiffeners 1 and 2, 4 and 5 and a few specks under gusset plate.

Bay 9 - Scattered specks on east side of diafram bottom chord and end of top chord. Gusset plate good. Rusty area on lateral brace east side about six foot out at lap mark; thin paint. Specks on side at top of stiffener 2 and bottom of 3 on east side along edge of repair (edges not clipped). Bad repair spot in web at top between stiffeners 4 and 5. Few scattered specks on top flange around stiffener 2 and numerous specks on bottom flange from stiffener 2 to end of bay.

Bay 10 - Few specks on lateral brace weld and top of bottom flange under gusset plate. Scattered specks on top of bottom flange throughout bay. Specks around lower repair on stiffener 3. Rust stain around weld spatter at stiffener 2 and haunch stiffener. Bad repair at top of web between diafram stiffener and stiffener 1 (a 3-foot strip) and a spot on top flange above stiffener 1. Scattered specks on diafram.

Bay 11 - Specks along edges of vertical members of diafram and a few specks on top edge of bottom chord. Some specks on stiffener edges. Web good except for large area near top between stiffener 4 and end of bay. Small amount of specks on top flange near west end of bay. Scattered specks all over bottom flange due to mill roll indentations.

Bay 12 - Some spots on bottom diafram chord in fillet. Scattered specks along edges of stiffeners. Web good except for a small area near top in end panel. Two small spots on top flange. Numerous specks on bottom flange and bad edge repair.

Bay 13 - Rust on bottom diafram chord in fillet area and on edges of vertical member. Scattered specks on top flange, on one stiffener and bottom flange. Rust on lateral brace about six feet out.

Bay 14 - Stiffeners, top flange and web good. Scattered specks along welds on gusset plate. Rusty specks throughout bay on bottom flange.

Bay 15 - Rust in fillet of bottom diafram chord. A few specks on each end of bottom flange in bay. Stiffeners, web, top flange and gusset plates good. Small rusty area on lateral brace about six feet out.

Bay 16 - Rust along bottom diafram connection welds and in fillet of bottom chord. Rust at bottom of stiffeners 2 and 3. Quite a bit of rust specks on bottom flange. One small area of specks on top flange near west end of bay. Web good. Scattered specks on lateral brace and lateral brace gusset plate welds.

Bay 17 - Some specks on bottom diafram chord and one vertical member. Scattered specks on stiffener edges. Isolated specks on top flange. Web good. Rusty area about half way out on west side of lateral brace. Numerous specks on bottom flange near end of bay.

Bay 18 - Scattered specks on vertical members of diafram and stiffener edges. Web, top flange and lateral brace good. Two small areas near east end of bay on bottom flange where rust stain is barely beginning to show.

Bay 19 - Looks good, few scattered specks on stiffeners and diafram. Two spots beginning to show on bottom flange.

Bay 20 - Rust on one vertical brace of diafram and few isolated specks on stiffeners and top flange. Bottom flange has two spots of specks near middle of bay. Web looks good.

Bay 21 - Some rust spots on top flange in center of bay; rest of bay looks good.

Bay 22 - A few areas on top flange around repairs; one spot on bottom flange between stiffeners 2 and 3; remainder of bay looks good.

Bay 23 - Small amount of rust in fillet of diafram bottom chord. Rust area under gusset plate along lateral brace weld. Top flange has several loose edges. Numerous specks on bottom flange from stiffener 2 to stiffener 5. Isolated specks on stiffeners. Rusty area on lateral brace about 10 feet out (west side).

Bay 24 - Two-foot area on top of lateral brace near center. Some rust on diafram edges and on edge of top flange. Numerous specks on bottom flange. Quite a few specks on haunch diafram vertical and diagonal members and top of bottom chord. End stiffener has lots of rust on east edge due to thin paint.

Bay 25 - Lateral brace has a lot of rust about 8 feet out on top side. Scattered specks on top flange. Bottom flange, stiffeners and web look good.

Bay 26 - Rust spots on lateral brace about two feet from end and 5 feet from center. Scattered specks on top flange, bottom flange, stiffeners and diafram.

Bay 27 - Scattered specks on diafram, top flange and stiffeners. Numerous specks on bottom flange. Web good.

Bay 28 - Isolated specks on stiffeners, lateral brace and diafram. Some rust on weld of lower diafram connection. Top flange and web good. Bottom flange has scattered isolated specks. Rust on bottom slant edge of stiffener 4.

Bay 29 - Isolated specks on diafram, lateral brace and stiffeners. Top flange and web good. Bottom flange good except for one six-inch diameter spot of specks near west end of bay.

Bay 30 - Small amount of rust specks on diafram, stiffener edges from cable down, and bottom flange. Slight rust on gusset plate and top edge of lateral brace about 3 to 4 feet out. Top flange and web good.

Bay 31 - Rust on bottom diafram chord near girder. Small amount of specks on stiffeners below cable. Numerous specks on bottom flange and a lot near web fillet between stiffeners 5 and 6. Top flange, web and lateral brace good.

Bay 32 - Small amount of rust on bottom diafram chord, quite a bit on bottom flange. Isolated specks on one stiffener below cable.

Bay 33 - Rust along weld on top diafram connection. East side of bottom diafram has quite a bit of rust; very little on west side along fillet. One foot long strip of rust on top corners of lateral brace about eight feet out. Scattered rust specks on bottom flange in mill roll indentations. Isolated spots on stiffeners.

Bay 34 - Some specks on end diafram. A few specks on bottom flange due to rough steel. One spot of specks on web in panel 6.

South Girder (bottom, east to west)

Bay 1 - Few scattered specks.

Bay 2 - Same as above.

Bay 3 - Few scattered specks and rust on inside edge under diafram from thin paint.

Bay 4 - Few scattered specks.

Bay 5 - Same as above.

Bay 6 - Rust on inside edge under diafram; thin primer.

Bay 7, 8, 9 - Few scattered specks.

Bay 10 - Few scattered small areas of specks.

Bay 11 - Scattered rust specks.

Bay 12 - Rust along inside edge; scattered specks on remainder.

Bay 13, 14 - Rust along inside edge; few loose edges and some thin primer; small amount of specks on weld.

Bay 15 - Rust specks on bottom of gusset plate at east diafram. Rust on inside edge and two rusty repair spots due to thin paint.

Bay 16 - Several loose edges around repairs.

Bay 17 - Scattered isolated specks. Top coated strip on inside flange edge and primer wrinkled; no rust.

Bay 18 - Rust on bottom of diafram.

Bay 19, 20 - Good.

Bay 21 - West end inside edge thin primer.

Bay 22 - Good; one spot east of splice.

Bay 23 - Numerous specks on east end and along inside edge. Rust along edge of one repair spot.

Bay 24 - Scattered specks increasing to numerous near haunch.

Bay 25 - Numerous rust specks on east half of bay; some on inside edge near west end.

Bay 26 - Rust specks on outside at east end. Some along inside edge to center of span.

Bay 27 - Rust underside of gusset plate. Lots of scattered rust on whole bay.

Bay 28 - Rust on bottom of diafram; scattered rust on flange.

Bay 29 - Rust along inside edge.

Bay 30 - Scattered on west end near outside. Rust under gusset plate.

Bay 31 - Scattered specks.

Bay 32 - Small amount of scattered specks at center near outside.

Bay 33 - Rust under windbrace, diafram and on inside edge near center.

Bay 34 - Some rust in center of flange six feet from end. Small amount of scattered specks.

North Side of Structure - west to east
Center Girder:

Bay 1 - Top flange good, bottom flange good except for two spots near end of bay. Rust under gusset plate. Scattered specks on non-repair surfaces of web. Rust under original primer on end diafram along back edges. Lateral brace good.

Bay 2 - Scattered specks around repairs in web. Top flange good, bottom flange good except under gusset plate.

Bay 3 - Some specks on diafram edges and scattered in web. Rust under east end gusset plate on bottom flange.

Bay 4 - Specks on diafram edges. Scattered specks on non-field repaired areas on bottom flange. Small amount of specks on top edge of horizontal stiffener with isolated specks in web section. Top flange and lateral brace good.

Bay 5 - Isolated specks in web; two spots on top flange near web. Scattered specks mostly in non-repair areas. Diafram and lateral brace good.

Bay 6 - Specks on top west flange of diafram top chord and on edges. Two spots on lateral brace; one spot on top flange and isolated scattered specks on web. Bottom flange good.

Bay 7 - Some specks on edges of diafram vertical member. Bottom flange good except under gusset plate on east end. Scattered specks on web, horizontal stiffener on west end, and on sway brace.

Bay 8 - Scattered specks on west end to field splice on bottom flange. Lots of specks on top of horizontal stiffener from west end to field splice. Specks on gusset plate edges and welds, and on edge of top horizontal stiffener. Bottom horizontal stiffener and top flange good.

Bay 9 - Top flange, web and bottom flange good except on bottom flange under gusset plate on east end. Some rust on underside of horizontal stiffener and specks on diafram edges and top of gusset plate.

Bay 10 - Bottom flange good. Scattered specks in web, three spots on top flange, spots on underside of horizontal stiffeners. Specks around repair edges on diafram connection plate on west end. Scattered specks on lateral brace corners, weld and top of diafram vertical member.

Bay 11 - Scattered specks on bottom flange, top flange and horizontal stiffener edges. Quite a few spots on top portion of haunch diafram.

Bay 12 - Top flange, web and lateral brace good. Scattered specks along edges of bottom flange, horizontal stiffener and east diafram members.

Bay 13 - Scattered specks on diafram edges, field splice in bottom and top flange, lateral brace, and top and bottom horizontal stiffeners. Web looks good.

Bay 14 - Just a few specks on bottom edge of horizontal stiffener and some edges of diafram members.

Bay 15 - Small amount of specks on diafram edges and stiffener at west end. Rest of bay good.

Bay 16 - Small amount of diafram edges, horizontal stiffener and bottom corner of lateral brace.

Bay 17 - Small amount on lateral brace weld on gusset plate, diafram edges, and west end stiffener. Spot about three feet out on lateral brace.

Bay 18 - Small amount on edges of diafram members. Almost no specks on other surfaces.

Bay 19 - Small amount of specks on west stiffener, diafram, bottom of horizontal stiffener, under gusset plate and lateral brace welds.

Bay 20 - Scattered specks on diafram edges, west vertical stiffener, bottom of horizontal stiffener and bottom flange. Top flange, web and lateral brace good.

Bay 21 - Scattered specks on diafram edges, west vertical stiffener, bottom of horizontal stiffener on east end, horizontal stiffener edges, lateral brace weld on bottom of gusset plate, and bottom gusset plate edges.

Bay 22 - Some specks on diafram edges, diafram edges, top diafram weld, spliced area on top horizontal stiffener. Few isolated specks on bottom of both horizontal stiffeners and web. Flanges look good.

Bay 23 - Some specks on diafram edges, west vertical stiffener, and along edge of horizontal stiffener. Numerous specks on top of vertical stiffener at east end of bay. Top flange good, bottom flange good except under gusset plate on east end.

Bay 24 - Some on diafram west end. Quite a bit under west end gusset plate. Spots on vertical stiffeners where scaffolding was attached. Bottom flange good. Top flange few scattered specks near middle of bay. One area of specks in web about halfway up near east end. Haunch diafram has quite a bit of rust on top half of vertical members.

Bay 25 - Considerable amount of specks on bottom flange near west end. Specks along edges of horizontal stiffener; isolated specks in web and on east vertical stiffener near top. One spot of specks on lateral stiffener about 10 feet out.

Bay 26 - Scattered specks along diafram edges and on bottom of horizontal stiffener. Quite a few specks under gusset plate and around repair edges on bottom flange. Web and top flange good.

Bay 27 - Small amount of rust on diafram edges and on bottom flange along edge near east end and under gusset plate. Isolated specks on bottom horizontal stiffener and on bottom of top stiffener near center of bay. Few specks on web field splice.

Bay 28 - Specks along diafram edges, bottom flange under gusset plate, and along edge of one repair spot, east side of lateral brace about eight feet out and scattered specks on top of horizontal stiffener. Web and top flange good.

Bay 29 - Some specks on diafram edges and on top chord around repair spots. Few scattered specks on bottom flange near east end, on lateral brace, and top of horizontal stiffener. Web and top flange good.

Bay 30 - Scattered specks on diafram edges, top and edge of horizontal stiffener on east end, and bottom edge of lateral brace on east side. Both flanges and web are good.

Bay 31 - Few spots on top diafram chord and quite a few in fillet area of bottom diafram chord on east side. Numerous specks on top of horizontal stiffener and top edges of lateral brace close to gusset plate. Some scattered specks on bottom flange, particularly under gusset plate. Top flange and web look good.

Bay 32 - Scattered specks on top edge of diafram bottom chord, top of horizontal stiffener at field splice, and on vertical stiffener on west end (particularly under gusset plate). Rest of surface looks good.

Bay 33 - Specks near top of diafram vertical members. A few isolated specks on web and horizontal stiffener. Top flange has several repair areas outlined by rust specks and a few isolated specks. One spot on bottom flange near gusset plate about one-inch square where primer is chipped off the steel. Lateral brace has a rusty strip on top edge about 3-4 feet out and a few specks near connecting weld to gusset plate.

Bay 34 - Small amount of rust along west diafram edges and top connection welds. Rust around repair spot under gusset plate on west end. Scattered specks on bottom of horizontal stiffener, top flange, and just a few on web and bottom flange.

North Girder - bottom (west to east)

Bay 1 - Okay

Bay 2 - Okay, one spot at start of Bay 3.

Bay 3 - Specks on bottom edge, several specks start at middle of bay.

Bay 4 - Numerous specks all over.

Bay 5 - Scattered specks.

Bay 6 - Few scattered specks to middle, then edge specks.

Bay 7 - Okay, except near Bay 6 and one spot near Bay 8.

Bay 8 - One spot near Bay 7 and one in middle.

Bay 9 - Very few specks.

Bay 10 - Same as above.

Bay 11 - Few loose edges.

Bay 12 - Scattered specks on flange edge and at loose edges.

Bay 13 - Numerous specks on edges.

Bay 14 - Spots from metal burrs and a few loose edges.

Bay 15 - Few specks mid-span.

Bay 16 - Scattered specks, numerous in mid-section.

Bay 17 - Scattered specks, some loose edges.

Bay 18 - Good, one speck near 19.

Bay 19 - Good, specks on edge at panel 2.

Bay 20 - Good, two edge specks.

Bay 21 - Good, few loose edge specks along edge, about 12 inches.

Bay 22 - Good, one edge strip at gusset plate.

Bay 23 - Good.

Bay 24 - Strip of specks 14 inches wide across flange width about 15 feet from haunch. A few about two feet from haunch.

Bay 25 - Good.

Bay 26 - Few specks on edge at end, some on bottom from loose edges and metal scale.

Bay 27 - Metal burr rust four feet out, then at splice, and some edge rust.

Bay 28 - Scattered specks from metal burrs.

Bay 29 - Scattered metal burr spots and loose edges along outside flange edge.

Bay 30 - Few scattered specks from burrs and loose edges.

Bay 31 - Lots of specks from metal burrs; last two panels fairly clean.

Bay 32 - Strip under diafram; rest good, only a couple of specks on edge.

Bay 33 - One group of specks from burrs and an occasional speck on flange edge.

Bay 34 - Occasional metal burr specks and edge specks.

North Girder - Outside (east to west)

Numerous specks on top and bottom flanges and horizontal stiffeners to stiffener 5; appears to be blast damage not repaired. From stiffener 5 to haunch, scattered spots on bottom flange but none on top flange. Spot on top flange at haunch and on east side of haunch stiffener at web and bottom flange conjunction. Numerous spots on bottom flange for two bays. Spot on first stiffener past haunch, damage. Bad repair spot on top flange Bay 13 at stiffener and weld. Bottom flange good from middle Bay 12 to end Bay 13. Bad repair in weld on horizontal stiffener. Bay 14 good. Bay 15 bad on top flange for 3 feet. Stiffener 16 bad repair, thin paint. Splice in Bay 17 bad at top weld. Bad repair on bottom flange just west of center light. Numerous specks on bottom flange of Bays 19, 20 and 21. Blast damage specks on top flange in Bay 28, then scattered through Bay 32. Remainder good.

South Girder - Outside (east to west)

Bay 1 - Few specks at beginning on top flange.

Bay 2 - Occasional speck on horizontal stiffener.

Bay 3 - Few specks on 2-3 stiffener and on horizontal stiffener.

Bay 4 - Loose edge on top flange at 3-4 stiffener.

Bays 5, 6 and 7 - Good.

Bay 8 - Some specks on bottom flange.

Bay 9 - Occasional specks on top fillet and bottom flange.

Bay 10 - Occasional loose edge on top flange. Rust spot top of haunch stiffener and an occasional speck on bottom flange.

Bay 11 - Several spots on bottom flange at web appears to be sand in paint. Few loose edges.

Bay 12 - Good.

Bay 13 - Specks along bottom fillet on flange. Specks on top flange at splice and on stiffener at splice.

Bay 14 - Few specks on flanges and horizontal stiffener.

Bay 15 - One spot on top flange and several on horizontal stiffener.

Bay 16 - Occasional specks on flanges and near top of stiffener.

Bays 17 through 22 - Good, except speck on end stiffener in Bay 20.

Bay 23 - Three metal burrs on top flange and loose edge on end stiffener.

Bay 24 - Scattered specks at beginning of top flange, horizontal stiffener, and bottom flange close to web.

Bay 25 - Few specks at beginning on top flange and on web above horizontal stiffener. A few loose edges.

Bay 26 - Scattered specks at beginning on top flange and top web section.

Bay 27 - One loose edge on top flange.

Bay 28 - Loose edges along bottom fillet on flange and one bad strip 14 inches long near outside edge of bottom flange.

Bay 29 - Good.

Bay 30 - Few loose edges on bottom flange.

Bays 31 and 32 - Few loose edges on bottom flange.

Bays 33 and 34 - Good.

PORT ISABEL CAUSEWAY

September 9, 1975

After a slow walk over the entire structure, it is my impression that there is very little, if any, change in the condition of the coating. In certain places, as in the haunch sections, there appears to be a little more stain than I remembered, but in other areas it appears some of the stain may have been washed away. Several spots were checked at various points or locations on the structure and all exhibit only a very minute speck of rust on the steel surface.

On the inspection in March 1975, it appeared that minute slivers of steel protruded in the paint film, as well as damage to paint film in blasting operations, was the cause of most rusty specks but that possibly corrosion of steel had ceased in most of these locations. This inspection verifies that corrosion in these specks has been arrested, or at least the rate of corrosion has been greatly reduced by the zinc primer since there is still no indication of corrosion spreading or undercutting the paint film.

Detail inspection at this time only consisted of selected bays with no regard to previous inspection results. Every seventh bay was selected for a more detailed description, and several other bays were generally described.

Outside faces of exterior girders look good and no change in condition was noted.

South Side of Structure (between exterior and middle girder):

Bays 1 & 2: A few occasional specks - good bays.

Bay 3: A few specks on stiffeners of exterior girder and on bottom flange of middle girder.

Bay 4: Very good. Only an occasional speck.

Bay 5: Good. Few scattered specks on flanges and diaphragms.

Bay 6: Diaphragm 6-7 has several bad spots all along bottom diaphragm chord, scattered spots on rest of diaphragm. Scattered specks on bottom flange of exterior girder. Numerous specks on bottom flange of mid-girder in area of panels 3,4,5 and 6. Webs, stiffeners, and top flanges are good. Scattered specks down lateral edges and weld connections.

Bay 7: Several spots of numerous specks on bottom flange.

Bay 8: Several spots on bottom flanges.

Bay 9: Little worse than Bay 8 on bottom flanges.

Bay 10: Lots of specks on bottom flanges and haunch diaphragm.

Bay 11: Lots of specks on bottom flanges.

Bay 12: A lot of specks on stiffeners of outside girder.

Bay 13: Specks on diaphragm edges and top of bottom diaphragm chord and outside girder bottom flange. Lots of specks on lateral brace end next to middle girder. Very few on webs, stiffeners and top flanges.

Bay 14: Few specks on top of bottom flanges.

Bay 15: Few scattered specks on middle girder.

Bay 16: Quite a few specks on diaphragm and a few on lower part of stiffeners.

Bay 17: Quite a few specks on bottom flanges, diaphragm and lateral.

Bay 18 through 22: Very good, just an occasional speck.

Bay 23: Rust specks on bottom flanges and in haunch. Haunch sections have numerous scattered specks in lower portions, diaphragms fairly bad. A lot of spots on first 10 feet of outside girder, then scattered to west end. Middle girder - scattered all the way in haunch section.

Diaphragms 26-27 and 27-28: Few scattered specks on bottom chord and weld connections.

Bay 27: Lots of specks on bottom flanges of both girders. Very few specks on stiffeners and webs, none on top flanges. Scattered specks on lateral corners.

Bays 32, 32, 33: Numerous specks on bottom flanges.

Bay 34: Middle girder has scattered specks on web near bottom in last 3 panels on bottom stiffeners. Scattered specks in end 3 panels of outside girder, and edges and slots in diaphragms.

North Side of Structure (between outside and middle girder):

Bay 1: Lots of rust specks on outside web and on vertical stiffeners. Middle web has lots of rust specks. Lateral looks good. Some rust on edges of east diaphragm. Scattered specks on flanges.

Bay 8: Small amount of scattered speck rust on outside web (mostly on west end of bay). Vertical stiffeners look good. Scattered specks on flanges. Middle girder web is very good. Field welds for haunch member look good and so does the

lateral. Both diaphragms have a lot of rust along edges.

Bay 15: Scattered rust on bottom flange of outside girder and along corners of lateral brace. Center girder looks good. Small amount of specks on web and vertical stiffeners of outside beam. Some rust on diaphragm edges and fillets of diaphragm bottom chord (concentration is heaviest on bottom chord).

Bay 22: Scattered rust specks on web stiffeners, and along top half of stiffener edges on east end on outside girder. Scattered specks on east end of web and along edge of top horizontal stiffener of middle girder. Flanges and bottom horizontal stiffener of middle girder look good. Small amount of scattered specks along top corner of east side of lateral and diaphragm edges.

Bay 29: Top flanges look good on both girders. Scattered specks, mostly on bottom half, in web of outside girder and on vertical stiffeners. Quite a bit of rust along outside edge and also along fillet weld on inside edge on outside girder. Very few specks on bottom flange of inside girder, remainder of girder good. Lateral brace has rust along top edge at west end of bay. East diaphragm has rust on fillet of bottom chord on north side.

Bays 17, 18, 19, 20: Look very good, only small amount of scattered specks.

Port Isabel Causeway
May 1977

First of all, a general walk-through and picture-taking of the structure was carried out. After making a closer inspection, I feel the impression gained on the walk-through can better describe the condition of the structure. The first impression involved various members such as sway braces, diaphragms, stiffeners, webs and flanges, rather than bays or complete members. Therefore, each type of member will be described as a group.

Sway braces: Most members have scattered specks of rust on corners with a few having patches of rust on flat areas. Most of the specks are along edges where it is difficult to keep from getting a coat of semi-dry paint when painting the adjacent side of the member.

Paint block-outs for field connections: As a rule, these are in good condition. A few have rust specks showing and several of the welds are rusting.

Diaphragms: Most diaphragms show distress along edges, between members, and on top side of bottom chords.

Girder top flanges: Most are in excellent condition. A few sections exhibit speck rust.

Girder webs: Most web sections are in excellent condition. Several have a few specks of rust. Also, several exhibit numerous specks such as the haunch sections of the middle girder over the west pier and several sections in the northside bay

on the west end of the structure. A review of notes shows that these bad areas exhibited numerous failures in the shop coat during field painting operations. It is now obvious that we did not get all failures repaired during field painting.

Girder bottom flanges: Tops of bottom flanges on a number of the members show considerable failure. Careful analysis shows failure to coincide with the various pieces of plate the flange was made of in fabrication. Some of the plate exhibited a rather rough surface with considerable mill scale rolled into the steel surface. It is apparent that all of the mill scale embedded into the steel surface was not removed, in fact, it is so obvious in places that one can distinguish the center of the blast pattern produced by the blasting nozzle from the edges. The coating is in good condition in the center, but a total failure on the edges. This makes it easy to identify each pass in the blasting operation. Some of these failures are in areas of field repair to the shop coat and some are not. In several instances, it was noted that the failure on the bottom flange stopped abruptly. Examination showed that there was a shop or field splice at this location.

The bottoms of bottom flanges are spotty and, to some extent, the amount of failure coincides with flange pieces, though nowhere near as definite as exhibited by the top side.

Outside girder faces: The faces of both outside girders are in excellent condition and exhibit only an occasional speck, patch of specks, or spots of rust.

General Observation: Except for the few bad web sections where numerous problems existed in the shop coat, the degree and frequency of failure increase as one's observation angle drops below horizontal, thus making it difficult to see due to glare off the water. This was proven by the condition of the outside faces where lighting was no problem and glare from the water had minimum effect.

Recommendations: A considerable amount of surface on the interior is unsightly at present and will continue to spread for some time. We recommend that observation continue on at least a yearly basis and allow the failures to run their course as long as possible. That is, until the structure becomes too unsightly or pitting of steel begins to occur. In this manner all existing problems that have not truly broken out should be well exposed and the natural corrosion process should eliminate all of the mill scale embedded in the surface of the steel.

Based on the failure progression rate to date, it is anticipated that it will be a minimum of four years before all hidden problems are well exposed. We have no corrosion data for that part of the Gulf Coast, but based on the corrosion rates at Sabine Pass, Rockport and Corpus Christi, the increase in corrosion rate as one moves south along the Gulf Coast, and the corrosion rate on this structure to date, it is estimated another three to four years will pass before pitting becomes of any significance.

Considerations: The following thoughts keep running through my mind every time I look at this particular structure and keep coming back when I look down the road to maintenance painting.

1. The diaphragms are of such construction that they are extremely difficult to clean to a very high degree of cleanliness. Therefore, it seems to me that maybe they should be considered separately and possibly use a coating system on them that is more compatible with their configuration.
2. The sway bracing is a rather small box to be cleaning and painting completely in one step without getting overspray or a partially dry film on parts of it. Therefore, it seems that sequence of cleaning and painting should be considered. For example: Clean and paint opposite sides. After primer dries, clean and paint remaining opposite sides.

3. Numerous interior web sections, top flange and exterior of girders will probably only require spotting in four or five years. But remaining interior web sections and bottom flanges will necessitate total stripping. Obviously, if only spotting is required on a significant amount of area, then the existing coating system should be considered for such. But where total stripping is required, perhaps another system should be considered. For example: inorganic zinc.

Port Isabel Causeway
Inspection 5-25-82

An indepth inspection of the paint on the causeway was undertaken for the purpose of painting recommendations. Along with the inspection of the paint on the structure, four experimental locations were evaluated and approximately 50 test panels.

Results:
Test Panels: All test panels are of sign blank steel cut to 6 inches by 12 inches. The panels were carried to Port Isabel, sandblasted, dipped in bay water and allowed to rust for approximately one year. Half of the panels were then sandblasted to white metal and allowed to stand until flash rusting began, at which time the other half was sandblasted to white metal. All panels were then painted, using 12 different primers. This allowed the same primer to be placed on white metal blasted steel and then steel that was beginning to flash rust. It was anticipated that this might simulate cleaning and painting conditions encountered on the structure. Some two weeks later half of the panels were top coated and placed on a test rack mounted on the pier for the western haunch of the plate girder span. The panels were placed in exposure on May 11, 1979. That gives almost exactly three years exposure.

All of the primers tested were zinc rich primers except one that was an experimental primer. Four of the zinc primers were inorganics. Two were produced by Standard Universal, one by Briner, and one by Mobil. The rest were organic zinc primers, some by Briner and some by Napko. Department specification 810 Prime Coat was used as a control. 810 is the primer now on the structure. At the present time, the two inorganic zincs produced by Standard, the inorganic produced by Briner, and the organic produced by Napko are rated best, with less than 1% corrosion. Department specification 810 is rated second, with approximately 2% failure along the panel edges. The rest of the primers are rated at 5% failure to total failure.

Spraying characteristics of the inorganic primers eliminates their use on configurated steel under wind conditions normally encountered at Port Isabel. That leaves only Napko's epoxy zinc and 810 as possible primers.

Experimental Locations on Structure: In November 1979, four locations were selected on the structure for experimental painting. These locations are on the inside of the outside girder on the south side. All locations are west of the western haunch. All locations are where two wind braces, a diafram, and a stiffener connect; these are locations of highest steel configuration. These locations were painted with four different primers. One was a commercial epoxy zinc, the others were Department Specification paints 810, 800 and 720 modified. At this time, the epoxy zinc is best with the only failure being where it was applied too thin. The Department Specification paints show some rust at this time, but are judged at being caused by misapplication.

The Structure: The paint on the structure, 810 primer with 742 finish coat, exhibits mixed results. Considering just the interior, one finds several characteristics. There are locations where the shop applied primer was in excellent condition and no field touch up was required. These locations are primarily on the bottom of the top flange, and are in excellent condition at this time. In fact, they appear as if they are freshly painted. This same characteristic was noted during all inspections. On the north side of the middle stringer in a haunch section, two rectangular patterns were noted that exhibited paint failure during the construction phase. These two areas were blasted out and repaired. The first inspection revealed that the pattern of these areas was evident. Today, there is a distinct sharp outline of these areas, as evidenced by paint failure. The cause of this phenomenon is unknown. It appears as if pieces of plywood or other material two feet by eight feet were on the surface at these areas, but why. To the best of our knowledge, the members were painted upright. However, this one member could have been painted on it's side and pieces of plywood were used as footing and some sort of contamination occurred or collected at the edges. If one makes the assumption that there was some sort of contamination at the time of shop coat application, most other characteristics can be explained. Contamination is possible, as the girders were shop painted on the Houston Ship Channel. Contamination appears logical, because areas that exhibited the most severe failures in the shop coat are exhibiting the most severe failure today. If contamination is a factor, then it has possibly run it's course, as the failures on the test areas are not the same type of failures exhibited on the remainder of the structure.

Contamination does not appear logical if one considers the diaframs and sway braces. Severe failure in the shop coat was noted on these members during field painting, and they now exhibit severe failure. These members were painted in Mosher's shop in Houston. However, failure or problems were noted in the shop coat before they were shipped to the ship channel where the girders were painted. It is possible that the problems noted in the shop coat of these members allowed the contaminants to penetrate the shop coat and react with the steel.

The only thing on the structure that does not lend itself to the contamination assumption, is the facials of the outside stringers. The south facial is in excellent condition, exhibiting very little paint failure. The north facial evidences more paint failure, but is still in pretty good shape. There was more repair to the shop coat on the north facial during construction field painting. The repair areas are the primary areas of failure today. These failure frequency characteristics are the same as on the remainder of the structure, but then why would one side of a member be more contaminated than the other. The only explanation known for this characteristic is that the interior is more subject to dampness than the outside and the north side is more subject to dampness than the south side. In conclusion, it is difficult to single out some cause for the coating failure being experienced on this structure. In all probability it is several minor causes coupled with the extreme harsh atmosphere at this particular location.

We have not run any bare steel corrosion rate studies at this site, but previous studies show that as you progress south along the coast line, the corrosion rate increases; Corpus Christi being three to four times as corrosive as Sabine Pass.

However, we have exposed some weathering steel tensile coupons at High Island, Corpus Christi, and Port Isabel. In 30 months at High Island, the tensile coupon lost 6.1 percent in strength, at Corpus Christi 6.1 percent in 21 months, and 33.0 percent in 27 months at Port Isabel. This gives one an idea as to just how harsh the atmosphere is at Port Isabel.

Irregardless of the cause of failure and the harsh atmosphere to which the structure is exposed, the structure is in need of repainting. Very little significant metal loss is occurring except on some of the diaframs. Most of the metal loss on the diaframs is confined to the bottom cord and the inside of slots. A couple rockers are showing heavy scale rust. The remainder of the structure where there is total paint failure exhibits very light flake rust.

Based on previous experience on this structure, painting of weathering steel on other structures, and techniques used in painting the four experimental areas, the following general painting recommendations are offered.

1. Water blast with fresh water to remove scaly material and flush contaminants.
2. Sandblast to remove all traces of paint, corrosion products, and contaminants.
3. Apply 5 mils minimum dry of an epoxy zinc in at least two coats.
4. Apply 3 mils minimum dry of 800 prime coat.
5. Apply 2 mils minimum dry of 742 finish coat.

The above would apply to all interior members, bottom of bottom flanges, and all rockers.

The following would apply to the exterior facials of the girders.

1. Waterblast with fresh water containing a wetting agent to remove flaky material and chalky residue on coating surface.
2. Blast to white metal all areas showing evidence of corrosion.
3. Feather edges of remaining existing paint into sound tightly adhering paint.
4. Apply 5 mils minimum dry of an epoxy zinc in a minimum of two coats to all exposed metal areas blasted.
5. Apply 3 mils minimum dry of 800 prime coat to entire surface.
6. Apply 2 mils minimum dry of 742 finish coat.

The above painting recommendations are very general in nature. It is felt that detailed sequence requirements would be necessary to achieve desired results. Sequence would include starting point and minimum and maximum time lapse between each phase.

As for paint specifications, the 800 prime coat and the 742 finish coat are, or will be,SDHPT General Warehouse stock items. The epoxy zinc could be handled two ways: 1) specify commercially available materials with testing to ensure compliance, or 2) supply a formulae type specification with Department inspection and testing. On a one job basis, as this, we would favor a commercial coating. Either way, we could supply the specification to ensure quality control.

APPENDIX C

LOCAL CLIMATOLOGICAL DATA

JANUARY 1984 TO AUGUST 1984

JAN 1984
BROWNSVILLE, TEXAS
NAT'L WEA SER OFC
BROWNSVILLE INT'L AP

ISSN 0198-4950

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

INTERNATIONAL AIRPORT

LATITUDE 25°54' LONGITUDE 097°26' ELEVATION (GROUND) 00019 FEET TIME ZONE CENTRAL 12919

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JULY)	COOLING (SEASON BEGINS WITH JAN)	WEATHER TYPES 1 FOG 2 HEAVY FOG 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 0600 INCHES	PRECIPITATION WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)	AVERAGE STATION PRESSURE IN INCHES ELEV. 00020 FEET ABOVE M.S.L.	WIND (M.P.H.) RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	FASTEST MILE SPEED	FASTEST MILE DIRECTION	SUNSHINE MINUTES	PERCENT OF TOTAL POSSIBLE	SKY COVER (TENTHS) SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT	DATE
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	68	55	62	1	54	3	0		0	T	0.0	30.320	13	9.2	9.7	14	12	0	0	10	9	01
02	75	59	67	6	56	0	2		0	T	0.0	30.320	08	6.6	7.5	20	09	1	0	10	10	02
03	70	58	64	3	55	1	0		0	T	0.0	30.310	05	6.8	7.6	15	06	0	0	10	10	03
04	73	55	64	4	55	1	0	1 8	0	0.00	0.0	30.260	36	2.6	6.3	12	08	36	6	9	9	04
05	70	55	63	3	55	2	0	1	0	0.00	0.0	30.160	01	2.3	6.2	12	05	0	0	10	8	05
06	81*	54	68	8	59	0	3	2	0	0.00	0.0	30.000	18	7.1	7.5	17	17	224	35	6	7	06
07	77	62	70	10	63	0	5	2 8	0	T	0.0	30.070	05	4.5	5.5	13	06	76	12	10	10	07
08	75	66	71*	11	65	0	6	2	0	0.20	0.0	29.990	14	8.7	10.4	21	15	82	13	8	9	08
09	78	62	70	10	59	0	5	1	0	0.18	0.0	29.870	27	5.0	12.3	25	18	406	64	2	4	09
10	62	45	54	-6	40	11	0		0	0.00	0.0	30.230	33	15.6	16.0	23	32	111	17	8	7	10
11	56	36	46	-14	32	19	0		0	0.00	0.0	30.240	35	5.4	7.4	12	01	362	57	2	1	11
12	76	38	57	-3	47	8	0		0	0.00	0.0	30.030	21	2.3	6.0	16	19	317	50	3	2	12
13	58	48	53	-7	44	12	0		0	0.00	0.0	30.240	35	11.7	12.0	16	36	228	36	8	6	13
14	51	43	47	-13	43	18	0	1	0	0.05	0.0	30.240	34	13.8	14.2	18	34	0	0	10	10	14
15	45	40	43	-17	41	22	0	1	0	T	0.0	30.230	34	12.1	12.5	16	33	0	0	10	10	15
16	48	43	46	-14	45	19	0	1	0	0.02	0.0	30.080	34	13.1	13.2	18	35	0	0	10	10	16
17	52	46	49	-11	49	16	0	2	0	T	0.0	29.970	33	10.6	11.0	16	34	0	0	10	10	17
18	49	43	46	-14	40	19	0	1	0	0.04	0.0	30.240	34	14.6	14.8	21	34	0	0	10	10	18
19	44	35	40	-20	32	25	0		0	T	0.0	30.420	35	13.3	13.5	16	35	0	0	10	10	19
20	38	36	37*	-23	34	28	0	1	0	0.07	0.0	30.340	34	17.4	17.6	23	34	0	0	10	10	20
21	43	35*	39	-21	26	26	0		0	T	0.0	30.490	34	14.0	14.3	18	34	0	0	10	10	21
22	54	39	47	-13	44	18	0	1	0	0.04	0.0	30.150	34	3.1	6.6	14	32	0	0	10	10	22
23	66	52	59	-1	55	6	0	2	0	T	0.0	30.000	03	2.0	8.9	14	17	0	0	10	10	23
24	69	56	63	3	59	2	0	23	0	1.62	0.0	29.940	03	5.6	7.7	13	05	0	0	10	10	24
25	62	52	57	-3	54	8	0	1 3	0	1.67	0.0	30.030	34	10.4	11.3	15	33	0	0	10	10	25
26	68	51	60	-1	49	5	0	1	0	0.10	0.0	30.010	36	5.6	7.7	13	31	452	69	2	5	26
27	70	47	59	-2	52	6	0	1	0	0.00	0.0	30.090	02	4.4	5.4	13	36	265	41	8	6	27
28	74	46	60	-1	50	5	0	2	0	0.00	0.0	30.070	15	2.9	4.8	10	12	524	80	1	3	28
29	78	57	68	7	61	0	3	1	0	0.00	0.0	29.990	14	8.1	9.0	17	14	198	30	9	8	29
30	76	49	63	2	56	2	0		0	0.01	0.0	30.110	02	9.3	11.7	24	01	43	7	10	9	30
31	49	46	48	-13	45	17	0	1	0	0.79	0.0	30.240	34	14.8	15.0	18	35	0	0	10	10	31
	SUM	SUM				TOTAL	TOTAL	NUMBER OF DAYS		TOTAL	TOTAL	FOR THE MONTH:						TOTAL	%	SUM	SUM	
	1955	1509				299	24			4.79	0.0	30.150	35	5.4	10.1	25	18	3325	FOR	256	253	
	AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	PRECIPITATION		DEP.						DATE:	9	POSSIBLE	MONTH	AVG.	AVG.	
	63.1	48.7	55.9	-4.4	48.9	83	-46	> .01 INCH	12	3.54								19958	17	8.3	8.2	

NUMBER OF DAYS				SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		TOTAL	TOTAL	> 1.0 INCH	0	PRECIPITATION	SNOW, ICE PELLETS		0
> 90°	< 32°	< 32°	< 0°	686	24	THUNDERSTORMS	2	2.73	24-25	0.0	
0	0	0	0	DEP. 265	DEP. -46	HEAVY FOG	7				
						CLEAR 5	PARTLY CLOUDY 1	CLOUDY 25			

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. ONE OF THREE WIND SPEEDS IS GIVEN UNDER FASTEST MILE: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED (A / APPEARS IN THE DIRECTION COLUMN). ERRORS WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL PUBLICATION.

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L. Ray Hoxit

ACTING DIRECTOR
NATIONAL CLIMATIC DATA CENTER

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J. 1984
BROWNSVILLE, TEXAS

OBSERVATIONS AT 3-HOUR INTERVALS

JAN 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
JAN 1st											
03	10	34	15			60	52	75	17	6	
06	10	34	15			61	53	75	14	9	
09	10	31	10			62	54	75	14	6	
12	10	38	7		L	64	56	75	16	8	
15	10	44	10			68	54	61	14	11	
18	9	65	10			66	54	65	11	9	
21	10	65	10			65	54	68	14	9	
24	10	70	10			65	55	70	10	6	
JAN 2nd											
03	10	70	10			63	55	75	00	0	
06	10	70	10			61	55	81	10	4	
09	10	80	10			62	57	84	00	0	
12	10	36	15			73	57	57	05	8	
15	10	80	15			70	59	68	08	15	
18	10	65	7			67	57	70	07	10	
21	10	70	7			63	56	78	06	8	
24	10	50	7			62	55	78	07	5	
JAN 3rd											
03	10	90	7			62	56	81	06	7	
06	10	200	7			61	54	78	05	7	
09	10	40	7		R	60	53	78	36	7	
12	10	100	7		R	70	55	59	06	11	
15	10	100	7		R	67	57	70	06	10	
18	10	90	7		R	65	57	76	04	6	
21	10	100	7			60	55	84	01	3	
24	10	90	7			58	55	90	31	6	
JAN 4th											
03	10	90	4		F	56	54	93	31	6	
06	10	110	3		F	55	54	97	31	7	
09	10	110	2		F	57	54	90	32	5	
12	10	110	4		H	66	56	70	01	7	
15	10	29	7			73	57	57	08	10	
18	5	UNL	7			69	56	63	13	6	
21	8	40	7			64	57	78	03	4	
24	3	UNL	7			59	55	87	00	0	
JAN 5th											
03	10	44	7			60	55	84	28	4	
06	10	46	7			59	54	84	31	4	
09	10	44	5		F	60	55	84	34	7	
12	10	42	10			69	56	63	30	6	
15	10	40	10			68	56	66	05	10	
18	10	40	10			68	56	66	06	5	
21	2	UNL	10			58	55	90	15	7	
24	0	UNL	7			55	54	97	16	3	
JAN 6th											
03	8	UNL	1	8	F	56	54	93	12	3	
06	10	1	0		F	54	53	96	00	0	
09	10	250	0	2	F	56	56	100	19	4	
12	10	250	10			74	63	69	19	14	
15	2	UNL	15			81	61	51	18	14	
18	5	UNL	15			74	60	62	17	9	
21	4	UNL	15			66	62	87	14	5	
24	10	250	0	2	F	63	61	93	15	3	
JAN 7th											
03	10	2	0	2	F	64	62	93	00	0	
06	10	2	0	1	F	63	61	93	09	4	
09	10	1	0	1	F	63	62	97	36	4	
12	9	250	6		H	72	64	76	02	6	
15	10	100	7			76	66	71	04	10	
18	10	110	7			71	64	79	05	9	
21	10	25	7			69	63	81	06	5	
24	10	110	6		RF	67	63	87	00	0	
JAN 8th											
03	10	110	6		F	66	63	90	04	4	
06	10	2	1		F	67	65	93	01	4	
09	10	3	0	4	RF	66	64	93	00	0	
12	10	110	5		RF	68	66	93	14	15	
15	9	13	7			73	65	76	15	18	
18	5	UNL	7			71	65	81	14	14	
21	10	26	7			70	66	87	15	13	
24	10	19	3		RF	70	67	90	17	12	
JAN 9th											
03	10	60	7			70	66	87	18	18	
06	10	30	7			69	65	87	20	9	
09	10	19	5		F	69	65	87	30	10	
12	0	UNL	15			75	61	62	32	11	
15	0	UNL	15			78	51	39	31	12	
18	0	UNL	15			73	54	52	31	6	
21	0	UNL	15			63	52	68	33	6	
24	2	UNL	15			62	53	73	33	9	
JAN 10th											
03	7	25	7			60	53	78	33	12	
06	8	20	7			54	45	72	35	20	
09	10	26	10			51	41	69	33	17	
12	10	40	10			55	38	53	32	15	
15	7	38	10			57	38	49	33	17	
18	8	200	10			53	34	49	36	15	
21	9	40	10			50	34	54	34	10	
24	2	UNL	10			45	35	68	32	8	
JAN 11th											
03	0	UNL	7			40	34	79	33	7	
06	0	UNL	7			37	30	76	31	7	
09	7	110	15			40	30	68	35	10	
12	1	UNL	25			52	27	38	03	7	
15	1	UNL	25			55	25	31	36	7	
18	1	UNL	20			48	35	61	06	8	
21	0	UNL	15			41	34	76	00	0	
24	0	UNL	10			40	36	86	00	0	
JAN 12th											
03	0	UNL	7			38	37	96	00	0	
06	6	40	7			45	43	93	00	0	
09	0	UNL	10			53	46	77	18	6	
12	7	45	15			69	49	49	24	9	
15	4	UNL	15			76	53	45	19	14	
18	3	UNL	15			63	52	68	05	10	
21	0	UNL	10			55	51	87	36	4	
24	0	UNL	7			52	50	93	32	7	
JAN 13th											
03	0	UNL	7			51	48	90	33	11	
06	0	UNL	7			50	47	90	35	12	
09	9	20	7			51	45	80	34	11	
12	7	120	7			56	43	62	36	13	
15	8	250	7			58	43	58	35	12	
18	10	250	7			51	43	74	36	11	
21	10	75	7			49	40	71	33	9	
24	10	14	7			51	41	69	34	11	
JAN 14th											
03	10	12	7			50	42	74	02	11	
06	10	3	1	8	RF	47	45	93	34	11	
09	10	7	2	8	LF	47	45	93	34	12	
12	10	5	1	8	RF	45	44	96	35	15	
15	10	5	1	8	RLF	44	42	93	33	14	
18	10	4	2		LF	45	44	96	35	11	
21	10	5	2		LF	45	44	96	34	10	
24	10	5	2		LF	44	42	93	33	12	
JAN 15th											
03	10	4	1	8	LF	42	41	96	34	14	
06	10	4	2	8	RLF	41	40	96	34	11	
09	10	5	3		LF	41	40	96	32	10	
12	10	7	2		F	43	42	96	31	9	
15	10	10	4		F	45	41	86	01	6	
18	10	14	4		F	45	41	86	36	11	
21	10	9	4		F	44	40	86	32	9	
24	10	5	1	8	LF	43	42	96	33	10	
JAN 16th											
03	10	2	1		LF	43	43	100	34	12	
06	10	2	1		RLF	44	43	96	33	12	
09	10	3	1		LF	44	44	100	35	10	
12	10	4	1	8	LF	46	46	100	34	11	
15	10	4	2		LF	48	48	100	33	8	
18	10	3	1		F	48	47	96	36	11	
21	10	2	1		LF	47	46	96	34	12	
24	10	4	0	12	LF	48	47	96	34	11	
JAN 17th											
03	10	3	0	8	LF	47	47	100	34	12	
06	10	3	1		F	47	46	96	33	9	
09	10	2	0	12	F	48	48	100	34	7	
12	10	1	0	8	F	49	49	100	30	8	
15	10	2	0	12	F	52	51	96	31	7	
18	10	0	0	3	F	52	51	96	32	8	
21	10	0	0	8	LF	50	49	96	32	7	
24	10	2	1	8	LF	49	47	93	35	10	
JAN 18th											
03	10	5	1		LF	47	47	100	32	12	
06	10	7	4		LF	46	44	93	34	14	
09	10	8	5		F	44	42	93	34	13	
12	10	12	7			44	41	89	33	10	
15	10	10	7			43	38	83	34	15	
18	10	44	6		F	45	37	74	35	11	
21	10	50	10			44	36	74	34	11	
24	10	49	15			44	34	68	33	10	

WEATHER CODES

*	TORNADO	ZL	FREEZING DRIZZLE	IPW	ICE PELLET SHOWERS
T	THUNDERSTORM	S	SNOW	A	HAIL
Q	SQUALL	SW	SNOW SHOWERS	F	FOG
R	RAIN	SG	SNOW GRAINS	IF	ICE FOG
RW	RAIN SHOWERS	SP	SNOW PELLETS	GF	GROUND FOG
ZR	FREEZING RAIN	IC	ICE CRYSTALS	BD	BLOWING DUST
L	DRIZZLE	IP	ICE PELLETS		

BN	BLOWING SAND
BS	BLOWING SNOW
BY	BLOWING SPRAY
K	SMOKE
H	HAZE
D	DUST

CEILING: UNL INDICATES UNLIMITED

WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM

SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.15).

OBSERVATIONS AT 3-HOUR INTERVALS

JAN 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
JAN 19th											
03	10	49	15			41	34	76	36	12	
06	10	46	15			38	31	76	35	12	
09	10	49	15			38	31	76	35	13	
12	10	46	15			40	32	73	36	12	
15	10	80	15			41	32	70	35	14	
18	10	22	15			39	32	76	34	10	
21	10	40	15			39	32	76	36	12	
24	10	27	7		L	38	33	82	33	11	
JAN 20th											
03	10	10	5		LF	38	34	86	34	11	
06	10	4	2		RLF	38	37	96	32	14	
09	10	4	1		RLF	37	35	93	34	16	
12	10	5	1		LF	37	36	96	32	16	
15	10	5	1		LF	38	37	96	33	17	
18	10	19	7			37	31	79	35	20	
21	10	20	10			36	30	79	35	18	
24	10	36	15			36	29	76	34	16	
JAN 21st											
03	10	42	15			36	26	67	32	15	
06	10	26	15			35	23	62	33	13	
09	10	26	15			36	21	55	34	10	
12	10	28	15			40	24	53	34	13	
15	10	24	15			43	23	45	01	12	
18	10	20	15			41	28	60	33	11	
21	10	22	10			40	31	70	34	10	
24	10	12	10			41	33	73	33	10	
JAN 22nd											
03	10	7	2	8	RF	40	38	93	30	8	
06	10	3	1	8	LF	40	39	96	31	6	
09	10	3	2		LF	41	40	96	29	4	
12	10	3	2		F	43	42	96	29	3	
15	10	3	3		F	47	46	96	10	5	
18	10	150	4		F	52	50	93	09	8	
21	10	24	5		F	52	50	93	04	4	
24	10	28	5		F	54	52	93	01	3	
JAN 23rd											
03	10	250	5		F	55	54	97	17	6	
06	10	26	5		LF	59	57	93	16	6	
09	10	26	3		F	60	59	97	16	5	
12	10	34	2	8	F	59	55	87	31	10	
15	10	6	3		F	58	54	87	01	8	
18	10	5	1	8	LF	52	50	93	01	10	
21	10	3	1	8	F	54	53	96	02	7	
24	10	1	0	6	LF	56	55	97	35	10	
JAN 24th											
03	10	1	0	4	RF	56	56	100	01	6	
06	10	1	0	3	F	56	56	100	32	9	
09	10	19	0	12	RF	57	57	100	34	5	
12	10	3	1		F	63	61	93	09	5	
15	10	2	1		RF	66	63	90	09	5	
18	10	3	2		RF	61	58	90	01	8	
21	10	4	3		RF	61	59	93	04	8	
24	10	25	4		RF	62	60	93	05	8	
JAN 25th											
03	10	2	3		RWF	58	56	93	06	4	
06	10	3	1	8	RF	54	53	96	33	7	
09	10	3	5		RF	54	53	96	34	9	
12	10	4	6		F	55	53	93	32	10	
15	10	6	2	8	RF	55	54	97	33	10	
18	10	4	3		RF	55	54	97	31	10	
21	10	5	3		RF	52	51	96	34	12	
24	10	21	3		RF	52	50	93	34	11	
JAN 26th											
03	10	40	3		F	51	50	96	33	7	
06	10	150	5		F	51	49	93	31	11	
09	8	45	10			54	50	86	34	6	
12	0	UNL	15			65	48	54	35	8	
15	0	UNL	15			68	51	55	09	7	
18	7	UNL	15			62	45	54	05	8	
21	5	UNL	15			52	49	90	36	4	
24	6	UNL	7			51	49	93	05	5	
JAN 27th											
03	6	UNL	7			51	49	93	00	0	
06	6	UNL	7			49	47	93	01	4	
09	6	250	7			56	54	93	36	6	
12	9	250	10			68	56	66	36	11	
15	9	250	10			70	56	61	01	7	
18	5	UNL	10			64	53	68	06	6	
21	4	UNL	10			55	51	87	12	5	
24	0	UNL	10			49	47	93	00	0	
JAN 28th											
03	0	UNL	3		F	47	46	96	20	5	
06	3	UNL	1	8	F	46	46	100	00	0	
09	4	UNL	1		F	56	55	97	25	4	
12	0	UNL	10			70	47	44	16	7	
15	0	UNL	15			74	45	36	16	5	
18	1	UNL	15			69	53	57	15	8	
21	5	UNL	15			57	54	90	13	5	
24	9	50	10			61	57	87	12	3	
JAN 29th											
03	7	50	7			57	56	97	07	4	
06	9	50	10			59	57	93	12	5	
09	10	UNL	10			64	60	87	15	7	
12	10	19	15			75	63	66	18	12	
15	6	250	15			78	63	60	14	14	
18	9	250	15			71	64	79	15	9	
21	5	UNL	10			66	62	87	14	9	
24	4	UNL	10			65	61	87	16	9	
JAN 30th											
03	8	60	7			62	60	93	10	4	
06	9	65	7			63	61	93	09	3	
09	10	60	7			65	62	90	02	5	
12	10	65	7			76	62	62	07	10	
15	10	7	7			62	56	81	03	14	
18	10	20	10			60	50	70	02	18	
21	10	29	10			56	47	72	36	12	
24	10	34	7		R	49	43	80	32	11	
JAN 31st											
03	10	40	6		R	48	43	83	33	13	
06	10	26	7			48	42	80	34	11	
09	10	26	6		R	47	43	86	33	12	
12	10	7	6		R	47	45	93	35	16	
15	10	14	7			48	47	96	36	13	
18	10	5	6		R	49	47	93	34	14	
21	10	9	7		R	47	45	93	33	13	
24	10	5	7		R	46	44	93	34	11	

SUMMARY BY HOURS

HOUR L.S.T.	AVERAGES SKY COVER (TENTHS)	AVERAGES STATION PRESSURE (INCHES)	AVERAGES TEMPERATURE AIR TEMP °F	AVERAGES TEMPERATURE WET BULB °F	AVERAGES TEMPERATURE DEW POINT °F	AVERAGES REL HUMIDITY %	AVERAGES WIND SPEED (MPH)	RESULTANT WIND DIRECTION	RESULTANT WIND SPEED (MPH)
03	8	30.140	52	50	49	89	8.7	34	4.8
06	9	30.140	52	50	48	89	9.1	34	6.0
09	9	30.190	53	51	49	88	9.1	34	6.6
12	8	30.190	59	54	50	74	11.7	34	5.5
15	8	30.120	61	55	49	70	12.7	02	5.1
18	8	30.120	58	53	49	75	11.5	02	6.6
21	8	30.160	54	51	49	83	9.3	36	5.0
24	8	30.160	53	51	49	86	8.6	34	5.4

FEB 1984
BROWNSVILLE, TEXAS
NAT'L WEA SER OFC
BROWNSVILLE INT'L AP

ISSN 0198-4950

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

INTERNATIONAL AIRPORT

LATITUDE 25°54' LONGITUDE 097°26' ELEVATION (GROUND) 00019 FEET TIME ZONE CENTRAL 12919

FEB, 1984
BROWNSVILLE, TEXAS

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS 7TH JUL)	COOLING (SEASON BEGINS 1ST JAN)	WEATHER TYPES 1 FOG 2 HEAVY FOG 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 0600 INCHES	PRECIPITATION WATER EQUIVALENT INCHES	SNOW, ICE PELLETS INCHES	AVERAGE STATION PRESSURE IN INCHES ELEV. 00020 FEET ABOVE M.S.L.	WIND (M.P.H.) RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	FASTEST MILE SPEED	FASTEST MILE DIRECTION	SUNSHINE MINUTES	SUNSHINE PERCENT OF TOTAL POSSIBLE	SKY COVER (TENTHS) SUNRISE TO SUNSET	SKY COVER (TENTHS) MIDNIGHT TO MIDNIGHT	DATE
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	56	45	51	-10	48	14	0	1	0	0.14	0.0	30.180	35	9.9	10.4	14	33	0	0	10	10	01
02	66	55	61	0	57	4	0	1	0	0.01	0.0	29.990	32	4.9	5.4	9	33	11	2	10	9	02
03	66	47	57	-4	44	8	0	1	0	0.00	0.0	30.030	35	8.4	11.5	21	36	640	97	1	1	03
04	71	43	57	-4	46	8	0		0	0.00	0.0	30.020	04	6.0	6.9	15	04	469	71	6	4	04
05	71	46	59	-2	45	6	0		0	0.00	0.0	30.185	35	4.3	5.4	13	05	133	20	8	6	05
06	57	44	51	-10	43	14	0		0	0.00	0.0	30.310	01	8.8	9.4	17	03	8	1	9	6	06
07	69	44	57	-5	49	8	0		0	T	0.0	30.260	07	5.2	8.3	15	10	167	25	8	9	07
08	74	59	67	5	59	0	2		0	T	0.0	30.140	14	7.5	9.3	21	16	121	18	8	8	08
09	79	61	70	8	61	0	5	2	0	T	0.0	30.080	16	8.6	9.2	18	18	125	19	8	5	09
10	80	60	70	8	63	0	5	2	0	0.00	0.0	29.970	17	16.2	16.3	25	16	361	54	5	3	10
11	81	67	74	12	66	0	9		0	0.00	0.0	29.790	17	20.4	20.6	31	18	244	36	6	7	11
12	82	54	68	6	59	0	3	1	0	0.02	0.0	29.820	07	2.1	11.2	18	36	238	35	7	6	12
13	80	47	64	2	48	1	0		0	0.00	0.0	29.960	08	3.8	6.9	14	10	655	97	1	1	13
14	82	50	66	3	58	0	1	1	0	0.00	0.0	29.910	15	12.8	13.1	23	16	590	87	3	2	14
15	81	67	74	11	66	0	9	2	0	0.00	0.0	29.860	16	14.1	15.1	26	18	149	22	10	8	15
16	79	67	73	10	66	0	8	2	0	0.00	0.0	30.000	07	6.1	8.1	15	10	189	28	6	8	16
17	78	68	73	10	68	0	8	1 8	0	0.00	0.0	29.910	15	16.1	16.6	25	16	16	2	10	10	17
18	83	66	75*	12	65	0	10		0	0.00	0.0	29.800	17	16.8	17.4	25	20	305	45	6	7	18
19	69	53	61	-2	60	4	0	2	0	0.15	0.0	29.940	01	10.0	11.7	20	03	0	0	10	10	19
20	53	48	51	-13	46	14	0	1	0	0.10	0.0	30.060	33	17.0	17.3	23	34	0	0	10	10	20
21	64	45	55	-9	41	10	0		0	0.00	0.0	30.070	35	8.1	10.9	17	34	431	63	0	3	21
22	75	42	59	-5	42	6	0	1 8	0	0.00	0.0	29.990	18	5.1	7.3	17	14	687	100	0	1	22
23	77	48	63	-1	55	2	0	1	0	0.00	0.0	29.855	15	11.1	12.0	23	16	310	45	4	3	23
24	73	58	66	2	58	0	1	2 8	0	0.00	0.0	29.960	04	7.5	8.5	17	04	133	19	7	6	24
25	79	53	66	1	61	0	1	2	0	0.00	0.0	29.840	15	14.1	14.5	24	15	331	48	5	5	25
26	87*	59	73	8	56	0	8		0	0.00	0.0	29.590	17	10.4	19.7	31	19	434	63	5	5	26
27	66	46	56	-9	29	9	0		0	0.00	0.0	30.110	32	20.1	20.5	31	32	629	91	1	0	27
28	62	37	50	-15	29	15	0		0	0.00	0.0	30.360	01	4.5	8.9	16	02	640	92	1	0	28
29	63	37*	50*	-15	40	15	0		0	0.00	0.0	30.300	05	5.8	9.5	16	07	403	58	10	7	29

SUM	2103	SUM	1516				TOTAL	138	TOTAL	70	NUMBER OF DAYS		TOTAL	0.42	TOTAL	0.0	FOR THE MONTH:	30.010	12	2.3	11.8	31	32	TOTAL	8419	% FOR MONTH	SUM	175	SUM	160
AVG.	72.5	AVG.	52.3	AVG.	62.4	DEP.	-0.4	AVG.	52.7	DEP.	0	DEP.	-7	PRECIPITATION		DEP.	-1.13						DATE:	27+	POSSIBLE		AVG.		AVG.	
																									19662	43	6.0		5.5	

NUMBER OF DAYS				SEASON TO DATE TOTAL	SEASON TO DATE TOTAL	SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		824	94	> 1.0 INCH	0				
≥ 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	THUNDERSTORMS	0	PRECIPITATION		SNOW, ICE PELLETS	
0	0	0	0	265	-53	HEAVY FOG	7	0.88	31-01	0.0	0
						CLEAR 7	PARTLY CLOUDY 10		CLOUDY 12		

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. ONE OF THREE WIND SPEEDS IS GIVEN UNDER FASTEST MILE: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED (A / APPEARS IN THE DIRECTION COLUMN). ERRORS WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL PUBLICATION.

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 DATA CENTER, ASHEVILLE, NORTH CAROLINA, 28801

L. Ray Hoxit

ACTING DIRECTOR
NATIONAL CLIMATIC DATA CENTER

noaa

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

OBSERVATIONS AT 3-HOUR INTERVALS

FEB 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
FEB 1st											
03	10	5	7		R	45	45	44	96	33	10
06	10	10	7			46	45	44	93	34	10
09	10	18	10			46	45	44	93	33	9
12	10	21	10			51	50	48	90	34	10
15	10	20	15			54	52	51	90	36	8
18	10	19	15			56	54	52	87	01	9
21	10	20	15			55	53	52	90	01	9
24	10	21	5		LF	56	55	54	93	31	4
FEB 2nd											
03	10	22	5		F	55	55	54	97	00	0
06	10	6	3		LF	55	54	53	93	29	5
09	10	2	1	8	LF	56	55	55	97	30	4
12	10	6	5		F	61	59	57	87	33	8
15	10	12	7			65	62	59	81	31	5
18	10	13	10			66	62	60	81	35	5
21	10	7	4		LF	65	63	61	87	35	7
24	0	UNL	4		GF	59	58	58	97	31	6
FEB 3rd											
03	0	UNL	4		GF	57	56	55	93	31	8
06	0	UNL	7			53	50	47	80	33	10
09	4	UNL	15			55	48	41	60	34	15
12	0	UNL	15			63	51	38	40	35	16
15	1	UNL	15			66	51	36	33	36	13
18	1	UNL	15			61	50	38	43	04	8
21	0	UNL	10			48	47	45	89	15	6
24	0	UNL	10			48	48	47	96	14	4
FEB 4th											
03	0	UNL	10			47	45	43	86	07	4
06	0	UNL	10			45	44	43	93	00	0
09	3	UNL	15			52	51	49	90	35	4
12	7	UNL	15			69	54	39	34	06	9
15	10	UNL	15			71	57	45	40	04	13
18	8	300	15			63	54	45	52	03	8
21	6	300	10			55	53	52	90	36	4
24	2	UNL	10			53	51	50	90	02	4
FEB 5th											
03	0	UNL	7			49	49	48	96	32	5
06	0	UNL	7			47	47	46	96	35	6
09	9	250	10			49	49	48	96	28	5
12	5	UNL	15			69	55	43	39	33	8
15	10	90	15			65	55	47	52	05	11
18	10	90	15			60	51	42	52	34	3
21	8	90	10			56	50	44	64	31	2
24	8	90	10			53	50	46	77	00	0
FEB 6th											
03	7	90	10			51	49	47	86	31	6
06	3	UNL	10			51	49	47	86	36	8
09	10	110	10			53	49	44	72	02	9
12	9	100	10			56	48	39	53	03	15
15	7	100	10			57	48	38	49	03	12
18	7	100	10			55	48	40	57	03	10
21	2	UNL	10			46	44	42	86	35	5
24	8	110	10			44	43	42	93	34	5
FEB 7th											
03	8	110	10			46	46	45	96	02	6
06	10	80	10			47	47	46	96	34	5
09	9	100	10			49	49	49	100	35	6
12	6	100	15			66	56	48	53	11	9
15	8	130	15			68	58	49	51	08	12
18	10	90	15			64	56	50	61	09	10
21	10	65	15			61	57	53	75	08	6
24	10	42	10		R	60	57	55	84	15	5
FEB 8th											
03	10	44	10			59	57	56	90	00	0
06	10	40	10			59	57	56	90	03	6
09	8	44	10			61	59	58	90	07	6
12	10	30	10			70	64	60	71	14	10
15	4	UNL	10			74	66	61	64	15	17
18	6	21	10			70	65	62	76	15	12
21	6	50	10			65	63	62	90	15	10
24	7	50	10			66	64	62	87	17	7
FEB 9th											
03	5	UNL	10			62	61	60	93	16	6
06	4	UNL	0	2	F	62	61	60	93	15	5
09	10	2	0	6	F	63	62	61	93	10	4
12	10	40	10			73	67	64	74	17	11
15	10	44	10			77	67	61	58	18	16
18	1	UNL	10			73	66	62	69	13	11
21	0	UNL	10			64	62	60	87	15	6
24	0	UNL	10			61	60	60	97	17	6
FEB 10th											
03	0	UNL	6		F	62		60	93	17	9
06	0	UNL	5		F	61	60	59	93	17	7
09	10	3	2		F	63	62	62	97	17	12
12	4	UNL	10			78	70	65	64	18	18
15	7	20	10			78	70	65	64	15	21
18	1	UNL	10			74	68	65	74	16	19
21	0	UNL	10			69	67	65	87	17	14
24	6	16	10			69	67	65	87	17	15
FEB 11th											
03	9	7	7			67	66	65	93	17	12
06	10	29	7			68	66	65	90	16	15
09	8	40	7			69	66	64	84	16	17
12	5	UNL	10			79	70	65	62	17	26
15	5	UNL	10			80	71	66	63	18	27
18	7	13	10			74	70	67	79	17	19
21	6	19	10			70	68	66	87	17	14
24	8	23	10			70	68	66	87	17	14
FEB 12th											
03	3	UNL	7			68	66	65	90	16	11
06	10	2	0	12	F	68	67	66	93	17	13
09	10	6	4		LF	68	67	67	97	27	8
12	10	10	4		F	69	68	67	93	32	8
15	5	UNL	50			82	62	48	31	02	13
18	5	UNL	15			71	60	52	51	04	10
21	0	UNL	15			60	55	51	72	06	6
24	0	UNL	15			54	51	49	83	16	3
FEB 13th											
03	2	UNL	10			51	50	49	93	31	5
06	4	UNL	10			50	50	49	96	34	6
09	2	UNL	15			57	55	53	87	35	3
12	0	UNL	15			75	55	35	23	05	4
15	0	UNL	15			80	59	42	26	08	7
18	0	UNL	15			71	57	45	40	12	11
21	0	UNL	7			58	57	56	93	12	9
24	0	UNL	7			55	54	53	93	14	4
FEB 14th											
03	0	UNL	10			50	50	50	100	17	6
06	2	UNL	3		F	52	52	52	100	14	5
09	10	3	1		F	60	60	60	100	17	8
12	7	250	10			78	66	59	52	14	20
15	0	UNL	15			80	66	57	45	16	20
18	0	UNL	15			72	66	62	71	14	16
21	5	UNL	10			67	64	62	84	13	12
24	0	UNL	10			67	65	63	87	14	10
FEB 15th											
03	0	UNL	10			67	66	65	93	14	12
06	10	6	10			67	66	65	93	16	14
09	10	8	7			69	67	66	90	18	12
12	10	12	7			76	71	68	76	18	20
15	10	250	7			81	72	67	63	18	20
18	8	250	7			75	70	68	79	14	10
21	10	2	0	4	F	69	68	67	93	10	8
24	10	1	0	2	F	68	67	67	97	13	8
FEB 16th											
03	10	1	0	2	F	68	67	67	97	30	5
06	10	6	1	8	F	68	67	67	97	33	4
09	10	2	1		F	68	67	67	97	04	5
12	10	6	7			70	67	65	84	04	8
15	5	UNL	7			78	70	65	64	07	8
18	3	UNL	7			70	66	64	81	07	9
21	10	4	5		F	68	67	66	93	08	11
24	10	13	5		F	70	68	67	90	10	8
FEB 17th											
03	10	4	4		F	69	68	67	93	13	9
06	10	2	4		F	69	68	68	97	14	8
09	9	5	5		F	71	70	69	93	15	14
12	10	14	6		H	76	72	70	82	15	16
15	10	15	7			78	71	68	72	16	20
18	10	13	7			74	70	68	82	16	18
21	8	17	7			71	68	66	84	15	17
24	8	25	7			72	68	66	82	17	16
FEB 18th											
03	10	28	7			70	68	66	87	17	19
06	7	15	7			69	67	65	87	17	16
09	3	UNL	7			70	68	66	87	17	19
12	6	19	10			79	70	65	62	20	20
15	8	150	10			83	71	65	55	18	17
18	8	300	10			75	69	65	71	16	15
21	5	UNL	10			67	65	64	90	16	7
24	4	UNL	7			66	64	63	90	13	5

WEATHER CODES

*	TORNADO	ZL	FREEZING DRIZZLE	IPW	ICE PELLET SHOWERS
T	THUNDERSTORM	S	SNOW	A	HAIL
Q	SQUALL	SW	SNOW SHOWERS	F	FOG
R	RAIN	SG	SNOW GRAINS	IF	ICE FOG
RW	RAIN SHOWERS	SP	SNOW PELLETS	GF	GROUND FOG
ZR	FREEZING RAIN	IC	ICE CRYSTALS	BD	BLOWING DUST
L	DRIZZLE	IP	ICE PELLETS		

BN	BLOWING SAND		
BS	BLOWING SNOW		
BY	BLOWING SPRAY		
K	SMOKE		
H	HAZE		
D	DUST		

CEILING: UNL INDICATES UNLIMITED

WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM

SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.151).

OBSERVATIONS AT 3-HOUR INTERVALS

FEB 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
FEB 19th											
03	10	1	0	2	F	68	67	67	97	13	4
06	10	2	0	6	F	68	67	67	97	03	8
09	10	2	1	4	F	67	66	66	97	02	7
12	10	12	5		LF	63	60	58	84	02	13
15	10	10	5		F	62	59	57	84	02	16
18	10	4	2		LF	59	58	57	93	36	12
21	10	3	1	4	RF	58	57	57	97	34	12
24	10	4	1	8	LF	53	53	52	96	34	13
FEB 20th											
03	10	9	5		F	50	49	48	93	33	16
06	10	6	2	8	LF	48	47	46	93	32	18
09	10	7	2		RF	48	47	46	93	31	18
12	10	6	2		LF	48	48	47	96	35	15
15	10	7	4		LF	48	48	47	96	34	15
18	10	17	4		F	48	47	46	93	33	14
21	10	23	7			49	47	45	86	34	14
24	10	28	7			49	47	44	83	35	13
FEB 21st											
03	10	90	7			49	46	42	77	33	11
06	10	90	7			49	46	42	77	34	10
09	0	UNL	7			50	45	40	69	34	13
12	1	UNL	10			59	49	39	48	34	12
15	1	UNL	10			63	51	38	40	35	11
18	1	UNL	10			58	50	41	53	07	8
21	0	UNL	10			51	47	43	74	09	4
24	2	UNL	10			47	45	43	86	21	4
FEB 22nd											
03	6	130	5		FK	46	45	44	93	24	3
06	0	UNL	7			44	43	42	93	25	4
09	0	UNL	10			54	50	46	75	20	7
12	0	UNL	20			68	53	37	32	23	6
15	0	UNL	20			73	54	35	25	08	6
18	0	UNL	25			66	53	40	39	14	13
21	0	UNL	25			52	50	47	83	14	7
24	0	UNL	15			50	49	48	93	14	6
FEB 23rd											
03	0	UNL	10			50	49	48	93	17	6
06	0	UNL	10			51	51	50	96	14	6
09	1	UNL	15			62	60	58	87	16	10
12	8	31	20			73	63	56	55	16	20
15	7	34	20			77	65	57	50	16	18
18	3	UNL	20			72	64	59	64	15	12
21	5	UNL	15			60	59	58	93	07	6
24	6	UNL	5		F	59	58	58	97	10	4
FEB 24th											
03	10	20	10			61	60	60	97	08	4
06	8	UNL	0	4	F	59	58	58	97	03	4
09	7	UNL	0	12	F	64	63	63	97	04	8
12	10	12	7			69	64	61	76	01	11
15	7	90	10			73	64	58	60	07	14
18	3	UNL	10			68	61	55	63	07	8
21	2	UNL	10			60	58	56	87	05	5
24	0	UNL	10			58	57	56	93	11	4
FEB 25th											
03	0	UNL	4		I	55	55	54	97	00	0
06	10	49	1		F	57	56	56	97	10	5
09	0	UNL	10			66	64	63	90	15	10
12	5	UNL	20			79	69	63	58	15	20
15	9	26	20			79	69	63	58	16	21
18	9	16	20			73	69	66	79	15	17
21	0	UNL	10			70	67	65	84	14	14
24	5	UNL	10			70	67	65	84	16	18
FEB 26th											
03	10	34	7			69	67	65	87	16	17
06	5	UNL	7			69	67	65	87	17	20
09	10	11	7			70	68	66	87	17	25
12	3	UNL	15			80	71	66	63	18	26
15	2	UNL	15			85	72	66	53	18	13
18	8	UNL	10			77	61	49	37	02	11
21	4	UNL	15			69	50	29	23	34	13
24	3	UNL	15			62	47	29	29	32	20
FEB 27th											
03	0	UNL	7			54	44	32	43	33	20
06	0	UNL	7			51	43	33	50	32	18
09	2	UNL	10			55	44	30	39	32	24
12	2	UNL	7			61	47	29	30	31	25
15	0	UNL	7			66	49	29	25	31	20
18	0	UNL	15			64	47	24	22	32	20
21	0	UNL	10			50	41	27	41	33	6
24	0	UNL	10			47	39	27	46	01	7
FEB 28th											
03	0	UNL	15			42	37	28	58	28	6
06	0	UNL	15			39	34	27	62	29	7
09	0	UNL	15			52	42	28	40	32	10
12	0	UNL	15			59	45	25	27	02	14
15	2	UNL	15			62	47	27	27	08	9
18	0	UNL	15			58	45	29	33	07	9
21	0	UNL	15			46	41	35	66	17	3
24	0	UNL	15			43	39	34	71	21	5
FEB 29th											
03	0	UNL	15			38	36	34	86	24	7
06	0	UNL	15			39	37	35	86	34	7
09	10	UNL	15			50	45	38	64	32	7
12	10	UNL	15			63	51	39	41	04	13
15	10	UNL	15			63	52	41	45	07	14
18	10	75	7			57	50	42	58	06	11
21	10	70	7			57	51	46	67	09	7
24	10	38	7			58	53	48	70	11	7

SUMMARY BY HOURS

HOUR L.S.T.	SKY COVER (TENTHS)	STATION PRESSURE (INCHES)	AVERAGES TEMPERATURE AIR TEMP °F	AVERAGES TEMPERATURE WET BULB °F	AVERAGES TEMPERATURE DEW POINT °F	AVERAGES REL HUMIDITY %	AVERAGES WIND SPEED (MPH)	RESULTANT WIND DIRECTION	RESULTANT WIND SPEED (MPH)
03	5	30.000	56	54	53	89	9.0	21	1.3
06	6	30.000	56	54	52	90	9.9	30	0.5
09	7	30.050	59	57	54	85	11.9	25	0.8
12	6	30.050	68	60	52	60	16.3	13	2.4
15	6	29.970	71	61	52	54	16.5	12	5.4
18	5	29.970	66	59	52	63	13.4	10	5.7
21	5	30.010	60	56	53	81	9.7	10	3.7
24	5	30.020	58	56	53	85	8.9	15	2.8

MAR 1984
BROWNSVILLE, TEXAS
NAT'L WEA SER OFC
INTERNATIONAL AIRPORT

ISSN 0198-4950

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

INTERNATIONAL AIRPORT

LATITUDE 25°54' LONGITUDE 97°26' ELEVATION (GROUND) 19 FEET TIME ZONE CENTRAL 12919

MAR 1984
BROWNSVILLE, TEXAS

DATE	TEMPERATURE °F					DEGREE DAYS BASE 65°F		WEATHER TYPES	SNOW ICE PELLETS OR ICE ON GROUND AT 0600	PRECIPITATION		AVERAGE STATION PRESSURE IN INCHES ELEV. 20 FEET ABOVE M.S.L.	WIND (M.P.H.)					SUNSHINE		SKY COVER (TENTHS)		DATE
	MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	HEATING (SEASON BEGINS WITH JULY)	COOLING (SEASON BEGINS WITH JAN)	1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW	INCHES	WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)		RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	FASTEST MILE SPEED	FASTEST MILE DIRECTION	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT	
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	69	58	64	-1	57	1	0	1	0	0.05	0.0	30.070	14	10.4	10.7	17	13	76	11	9	7	01
02	79	55	67	1	60	0	2		0	0.00	0.0	29.970	17	14.6	14.8	24	17	510	73	3	2	02
03	79	62	71	.5	63	0	6		0	0.00	0.0	29.880	15	16.9	17.3	29	16	156	22	8	8	03
04	76	68	72	6	67	0	7		0	0.00	0.0	29.750	15	16.3	16.6	23	16	1	0	10	8	04
05	70	50	60	-6	54	5	0	1 8	0	0.02	0.0	29.800	35	10.1	15.1	23	34	0	0	10	10	05
06	61	44	53#	-13	34	12	0		0	0.00	0.0	30.120	36	11.3	13.3	22	34	218	31	10	9	06
07	72	38#	55	-12	42	10	0		0	0.00	0.0	30.240	11	5.0	6.5	16	13	653	92	0	1	07
08	75	49	62	-5	52	3	0		0	0.00	0.0	30.200	14	11.0	11.5	22	16	522	74	4	2	08
09	77	55	66	-1	57	0	1		0	0.00	0.0	30.120	12	11.0	11.5	18	15	103	15	9	7	09
10	80	63	72	5	62	0	7		0	0.00	0.0	30.035	13	9.4	9.9	16	14	35	5	10	9	10
11	77	61	69	1	65	0	4	1	0	T	0.0	29.980	12	10.8	12.5	20	14	28	4	10	9	11
12	84	68	76	8	67	0	11	2	0	0.00	0.0	29.840	16	12.9	13.8	21	17	265	37	7	7	12
13	84	69	77	9	68	0	12	2	0	0.00	0.0	30.000	11	8.0	9.2	14	11	204	28	8	8	13
14	83	71	77	9	69	0	12	1	0	T	0.0	30.035	13	13.2	13.9	22	16	65	9	10	10	14
15	84	73	79	11	69	0	14	1	0	0.00	0.0	29.990	15	18.6	18.9	24	15	497	69	8	9	15
16	84	73	79	10	69	0	14		0	0.00	0.0	30.000	15	17.3	17.6	23	14	451	63	4	7	16
17	84	72	78	9	68	0	13		0	0.00	0.0	29.950	16	19.8	20.1	29	14	277	38	7	8	17
18	83	71	77	8	67	0	12		0	0.00	0.0	29.760	16	24.5	24.8	36	16	384	53	7	8	18
19	78	52	65	-4	58	0	0	1	0	0.06	0.0	29.800	02	2.7	13.2	24	16	265	37	8	6	19
20	74	48	61	-8	43	4	0		0	0.00	0.0	30.040	02	3.9	7.6	15	06	667	92	0	0	20
21	77	49	63	-7	52	2	0		0	0.00	0.0	29.930	15	11.7	12.1	23	15	728	100	0	0	21
22	80	61	71	1	62	0	6		0	0.00	0.0	29.740	15	15.3	15.5	25	15	255	35	8	6	22
23	90	66	78	8	66	0	13	1	0	0.00	0.0	29.730	14	10.9	12.9	22	18	515	70	3	4	23
24	78	57	68	-2	58	0	3	2	0	T	0.0	29.890	02	9.0	10.4	20	02	524	71	4	4	24
25	81	53	67	-4	60	0	2	1	0	0.00	0.0	29.830	14	8.9	9.3	16	12	417	57	9	6	25
26	89	69	79	8	67	0	14		0	0.00	0.0	29.640	17	14.9	16.0	23	16	487	66	10	10	26
27	106#	70	88#	17	62	0	23	1	0	0.00	0.0	29.400	19	12.8	14.8	21	18	618	84	8	5	27
28	84	57	71	0	33	0	6		0	0.00	0.0	29.750	34	16.8	17.2	25	34	676	91	1	1	28
29	74	52	63	-8	38	2	0		0	0.00	0.0	30.020	03	5.8	7.9	14	09	593	80	5	4	29
30	77	58	68	-4	54	0	3		0	0.00	0.0	30.000	11	9.4	10.0	16	11	324	44	6	6	30
31	80	60	70	-2	61	0	5		0	0.00	0.0	29.940	14	8.5	9.5	18	17	364	49	4	2	31
	SUM	SUM				TOTAL	TOTAL			TOTAL	TOTAL	FOR THE MONTH:						TOTAL	%	SUM	SUM	
	2469	1852				39	190	NUMBER OF DAYS		0.13	0.0	29.920	14	8.2	13.4	36	16	10878	FOR MONTH	200	183	
	AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	PRECIPITATION		DEP.						DATE:	18	POSSIBLE		AVG.	AVG.	
	79.6	59.7	69.7	1.1	58.1	-14	26	> .01 INCH.	3	-0.37								22341	49	6.5	5.9	

NUMBER OF DAYS				SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		TOTAL	TOTAL	> 1.0 INCH	0				
> 90°	< 32°	< 32°	< 0°	DEP.	DEP.	THUNDERSTORMS	0	PRECIPITATION	SNOW, ICE PELLETS		
2	0	0	0	254	-23	HEAVY FOG	3	0.06	19	0.0	0
						CLEAR 6	PARTLY CLOUDY 9	CLOUDY 16			

\# EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

MAXIMUM TEMP. IS NEW MONTHLY & ALL TIME RECORD.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. ONE OF THREE WIND SPEEDS IS GIVEN UNDER FASTEST MILE: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED (A / APPEARS IN THE DIRECTION COLUMN). ERRORS WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL PUBLICATION.

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 DATA CENTER, ASHEVILLE, NORTH CAROLINA, 28801

L. Ray Hoxit

ACTING DIRECTOR
NATIONAL CLIMATIC DATA CENTER

noaa

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

OBSERVATIONS AT 3-HOUR INTERVALS

MAR 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
MAR 1st											
03	10	30	7			58	55	52	81	13	7
06	10	30	7			58	56	54	87	14	8
09	10	30	2	8	RF	60	59	58	93	13	8
12	10	7	7			62	61	61	97	17	10
15	8	20	7			68	63	60	76	12	12
18	4	UNL	7			66	62	59	78	13	15
21	2	UNL	7			62	60	59	90	15	9
24	0	UNL	7			61	59	58	90	16	8
MAR 2nd											
	0	UNL	7			60	59	58	93	17	8
	0	UNL	7			57	56	56	97	17	6
	0	UNL	7			65	63	62	90	17	14
	4	UNL	10			77	67	61	58	17	20
	4	UNL	10			79	68	61	54	17	21
	1	UNL	10			73	66	61	66	16	19
	3	UNL	10			66	63	61	84	15	11
	2	UNL	10			65	62	60	84	16	10
MAR 3rd											
	8	UNL	7			64	62	61	90	17	10
	8	UNL	7			63	61	60	90	16	9
	5	UNL	10			67	64	62	84	17	11
	9	120	15			79	67	60	52	16	24
10		29	15			77	68	62	60	16	23
10		14	10			74	68	65	74	14	18
	6	49	7			71	68	66	84	14	15
10		13	7			70	68	67	90	15	14
MAR 4th											
03	1	UNL	7			69	67	66	90	15	12
06	3	UNL	7			69	67	66	90	14	14
09	10	31	7			71	68	67	87	14	16
12	10	14	7			75	70	68	79	16	20
15	10	14	7			76	71	68	76	15	17
18	10	10	7			75	70	68	79	15	13
21	8	250	7			71	68	67	87	15	12
24	10	19	7			70	68	67	90	18	10
MAR 5th											
	10	19	5		FH	70	68	67	90	17	9
	10	19	4		FH	70	68	67	90	18	6
	10	4	2		FH	69	67	66	90	36	7
	10	4	2		LF	56	55	54	93	35	17
	10	20	7			54	51	48	80	35	18
	10	27	7			53	48	42	66	35	19
	10	25	7			50	46	41	71	35	14
	10	26	7			50	45	38	64	34	18
MAR 6th											
	10	38	7			50	43	35	57	34	17
	10	80	7			50	41	28	43	34	16
	10	230	15			52	43	30	43	34	16
	10	230	15			58	45	29	33	35	14
	10	230	15			61	48	32	34	03	10
	10	230	15			57	47	36	46	08	9
	8	230	15			51	45	39	64	18	3
	3	UNL	15			44	42	39	83	00	0
MAR 7th											
03	3	UNL	15			41	40	39	93	00	0
06	3	UNL	15			39	38	37	93	00	0
09	0	UNL	15			55	49	43	64	06	6
12	0	UNL	15			67	53	39	36	00	0
15	0	UNL	15			71	54	37	29	10	8
18	0	UNL	15			66	55	44	45	13	14
21	0	UNL	15			53	51	49	86	12	7
24	0	UNL	15			52	52	52	100	15	6
MAR 8th											
	0	UNL	15			49	49	49	100	14	6
	2	UNL	15			50	50	50	100	00	0
	0	UNL	10			67	60	54	63	14	15
	6	36	15			73	61	54	52	17	16
	5	UNL	15			74	61	52	46	15	15
	4	UNL	15			70	60	53	55	14	14
	0	UNL	25			62	58	54	75	13	8
	0	UNL	25			58	56	55	90	11	5
MAR 9th											
	6	40	10			59	58	57	93	10	8
10		42	10			62	60	58	87	10	6
	9	55	10			69	63	58	68	13	11
	8	60	15			77	65	58	52	15	16
	9	70	15			75	64	57	54	13	15
	7	70	15			71	62	56	59	11	13
	2	UNL	15			65	61	58	78	12	8
	2	UNL	15			63	60	57	81	14	8
MAR 10th											
03	10	60	10			66	62	59	78	14	8
06	6	65	10			64	62	60	87	14	5
09	9	65	15			70	65	62	76	16	8
12	10	28	15			76	67	62	62	14	8
15	9	28	15			79	69	63	58	14	14
18	9	90	15			73	67	63	71	13	12
21	7	90	10			69	66	64	84	12	11
24	3	UNL	10			63	62	61	93	00	0
MAR 11th											
	10	60	0	12	F	62	61	61	97	35	5
	10	11	5		F	64	63	63	97	03	5
	10	100	7			69	67	66	90	09	8
	10	18	7			75	69	65	71	13	15
	10	18	7			77	69	65	67	13	16
	10	16	10			73	69	66	79	13	15
	10	10	7			71	68	67	87	13	12
	10	8	7			71	68	67	87	13	12
MAR 12th											
	10	7	7			70	68	67	90	14	10
	10	4	7			70	69	68	93	15	14
	10	7	7			71	69	68	90	19	14
	9	27	7			77	71	68	74	17	14
	6	29	10			82	72	67	61	14	14
	0	UNL	10			77	71	67	71	15	13
10		3	4		F	69	68	67	93	10	5
10		1	0	3	F	69	68	68	97	15	9
MAR 13th											
03	10	1	0	6	F	69	68	68	97	14	8
06	10	2	4		F	69	68	68	97	08	4
09	10	9	3		F	70	69	68	93	10	6
12	10	20	7			78	71	68	72	14	9
15	7	23	10			82	72	67	61	10	12
18	4	UNL	10			77	71	68	74	09	11
21	1	UNL	7			70	68	67	90	09	6
24	10	4	4		F	71	70	69	93	09	9
MAR 14th											
	10	18	4		F	72	69	68	87	09	8
	10	5	3		F	71	69	68	90	11	7
	10	5	5		F	72	70	69	90	12	12
	10	13	7			76	71	69	79	14	16
	9	28	10			80	72	68	67	16	19
	9	250	10			78	71	67	69	13	15
	10	7	7			74	71	69	85	14	9
	10	5	6		F	73	71	70	90	14	15
MAR 15th											
	10	4	7			73	71	70	90	15	13
	10	17	7			73	70	68	84	15	17
	10	16	7			73	70	68	84	16	14
	10	UNL	10			84	73	68	59	16	21
	5	UNL	15			84	73	68	59	15	16
	8	UNL	15			79	72	68	69	15	16
	10	6	10			74	71	69	85	14	15
	10	6	10			73	70	69	87	17	16
MAR 16th											
03	10	6	7			73	70	69	87	16	16
06	10	9	7			73	70	68	84	15	12
09	10	13	10			73	69	67	82	17	14
12	2	UNL	15			83	73	68	61	13	16
15	0	UNL	15			84	73	68	59	14	20
18	5	UNL	15			78	71	68	72	14	18
21	10	10	7			75	72	70	85	15	13
24	10	6	7			74	71	70	87	15	17
MAR 17th											
	10	9	7			74	71	70	87	17	14
	10	18	7			74	71	69	85	16	14
	10	18	7			74	71	69	85	16	16
	3	UNL	15			82	72	67	61	17	23
	4	UNL	15			82	72	67	61	15	25
	8	UNL	15			77	71	67	71	15	20
	8	UNL	10			72	69	67	84	15	14
	8	8	7			72	69	68	87	15	16
MAR 18th											
	10	250	7			72	69	68	87	14	18
	10	250	7			71	68	66	84	15	18
	10	UNL	10			74	70	68	82	17	23
	4	UNL	15			81	72	67	63	17	27
	4	UNL	15			82	72	67	61	17	27
	9	17	15			76	70	67	74	16	24
	10	UNL	10			72	68	65	79	15	20
	10	9	7			71	68	67	87	15	20

WEATHER CODES

*	TORNADO	ZL	FREEZING DRIZZLE	IPW	ICE PELLET SHOWERS
T	THUNDERSTORM	S	SNOW	A	HAIL
Q	SQUALL	SW	SNOW SHOWERS	F	FOG
R	RAIN	SG	SNOW GRAINS	IF	ICE FOG
RW	RAIN SHOWERS	SP	SNOW PELLETS	GF	GROUND FOG
ZR	FREEZING RAIN	IC	ICE CRYSTALS	BD	BLOWING DUST
L	DRIZZLE	IP	ICE PELLETS		

BN	BLOWING SAND
BS	BLOWING SNOW
BY	BLOWING SPRAY
K	SMOKE
H	HAZE
D	DUST

CEILING: UNL INDICATES UNLIMITED

WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM

SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.151).

OBSERVATIONS AT 3-HOUR INTERVALS

MAR 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
MAR 19th											
03	9	10	7			72	69	68	87	17	19
06	10	13	7			72	69	68	87	29	5
09	10	40	7			73	69	67	82	05	6
12	10	6	7		R	64	62	60	87	34	18
15	9	250	10			74	61	52	46	36	15
18	0	UNL	25			72	59	49	44	01	14
21	0	UNL	25			62	56	50	65	01	7
24	0	UNL	25			52	51	50	93	24	4
MAR 20th											
03	0	UNL	7			50	47	43	77	30	5
06	0	UNL	7			48	46	43	83	29	5
09	0	UNL	15			61	52	44	54	33	7
12	0	UNL	15			70	55	41	35	36	10
15	0	UNL	15			73	57	43	34	07	10
18	0	UNL	15			70	54	39	32	09	7
21	0	UNL	15			56	51	46	69	09	4
24	0	UNL	15			53	50	48	83	13	4
MAR 21st											
03	0	UNL	7			52	51	49	90	21	3
06	0	UNL	7			50	50	49	96	00	0
09	0	UNL	15			67	61	57	70	17	9
12	0	UNL	15			77	61	49	37	16	18
15	0	UNL	15			77	60	46	33	14	19
18	0	UNL	15			71	61	53	53	15	18
21	0	UNL	10			65	60	57	76	16	9
24	0	UNL	10			63	60	58	84	15	9
MAR 22nd											
03	2	UNL	10			64	61	59	84	16	11
06	5	UNL	10			63	61	59	87	14	7
09	10	32	10			69	65	62	79	15	12
12	10	32	10			77	66	60	56	15	21
15	8	35	10			80	68	61	52	16	16
18	4	UNL	10			76	68	63	64	15	16
21	0	UNL	10			70	68	66	87	14	12
24	10	8	7			70	68	67	90	15	13
MAR 23rd											
03	5	UNL	7			70	68	66	87	17	12
06	5	UNL	7			70	68	67	90	15	12
09	10	17	7			72	69	67	84	15	18
12	0	UNL	10			82	71	66	59	17	15
15	0	UNL	15			90	73	65	44	18	6
18	0	UNL	7			77	71	67	71	08	12
21	0	UNL	7			69	67	66	90	09	7
24	10	7	5		F	69	68	67	93	09	7
MAR 24th											
03	10	2	0	4	F	68	68	68	100	32	3
06	10	34	5		F	67	66	66	97	35	10
09	10	10	7			68	63	59	73	36	12
12	0	UNL	15			76	60	48	37	02	15
15	1	UNL	15			76	63	53	45	04	14
18	0	UNL	15			69	59	51	53	04	9
21	0	UNL	15			61	57	54	78	09	7
24	0	UNL	15			57	55	54	90	16	3
MAR 25th											
03	0	UNL	15			55	55	54	97	00	0
06	0	UNL	15			54	54	54	100	00	0
09	10	UNL	10			71	65	62	73	15	10
12	8	UNL	15			79	68	62	56	15	12
15	10	250	10			77	68	62	60	12	14
18	10	250	10			72	66	63	73	13	13
21	5	UNL	10			70	66	63	79	13	9
24	3	UNL	10			69	67	65	87	14	9
MAR 26th											
03	5	UNL	10			70	68	67	90	16	11
06	10	7	10			71	69	68	90	18	15
09	10	20	7			77	71	68	74	17	14
12	9	UNL	15			84	73	68	59	21	17
15	10	UNL	15			89	75	68	50	20	10
18	10	UNL	15			80	71	66	63	15	16
21	10	250	10			71	68	67	87	14	14
24	10	10	7			72	69	68	87	17	18
MAR 27th											
03	2	UNL	7			71	68	67	87	18	12
06	3	UNL	7			70	68	67	90	18	16
09	10	UNL	7			75	70	68	79	18	15
12	3	UNL	10			96	74	63	34	26	15
15	6	UNL	15			106	68	42		24	12
18	6	300	10			88	73	65	47	15	14
21	0	UNL	7			78	66	58	50	17	9
24	1	UNL	10			78	66	58	50	18	9
MAR 28th											
03	0	UNL	7			80	57	37	21	36	12
06	0	UNL	2	8	BD	72	52	31	22	34	19
09	2	UNL	15			68	52	34	29	34	18
12	0	UNL	15			75	55	35	23	33	22
15	0	UNL	15			80	56	33	18	34	22
18	0	UNL	15			78	55	30	17	33	17
21	0	UNL	15			65	48	28	25	34	6
24	0	UNL	15			58	45	29	33	33	5
MAR 29th											
03	0	UNL	7			55	44	29	37	32	6
06	3	UNL	7			55	44	31	40	34	5
09	2	UNL	15			64	51	38	38	35	7
12	4	UNL	15			72	55	39	30	04	10
15	6	250	15			74	56	40	29	06	8
18	2	UNL	15			69	54	40	35	09	12
21	5	UNL	10			59	53	47	65	06	8
24	10	150	10			59	54	49	70	08	3
MAR 30th											
03	10	180	10			59	54	50	72	06	5
06	10	180	10			59	55	51	75	10	7
09	7	70	10			70	60	53	55	11	11
12	4	UNL	10			75	63	55	50	11	12
15	5	UNL	10			77	63	54	45	11	14
18	8	40	10			70	62	56	61	12	13
21	9	44	10			66	60	56	70	12	8
24	0	UNL	10			65	60	57	76	14	9
MAR 31st											
03	0	UNL	10			63	60	57	81	12	5
06	1	UNL	10			60	58	57	90	14	6
09	1	UNL	10			74	67	62	66	17	16
12	6	31	10			80	69	62	54	20	6
15	6	40	10			79	69	63	58	14	14
18	2	UNL	15			75	67	63	66	11	11
21	0	UNL	10			68	66	64	87	11	6
24	0	UNL	7			63	62	61	93	00	0

SUMMARY BY HOURS

HOUR L.S.T.	AVERAGES SKY COVER (TENTHS)	AVERAGES STATION PRESSURE (INCHES)	AVERAGES TEMPERATURE AIR TEMP °F	AVERAGES TEMPERATURE WET BULB °F	AVERAGES TEMPERATURE DEW POINT °F	AVERAGES REL HUMIDITY %	AVERAGES WIND SPEED (MPH)	RESULTANT WIND DIRECTION	RESULTANT WIND SPEED (MPH)
03	6	29.910	64	61	58	84	10.4	15	6.2
06	6	29.920	63	60	58	85	9.9	15	4.8
09	7	29.960	69	64	60	75	13.9	15	7.7
12	6	29.960	76	65	58	57	17.7	16	8.8
15	6	29.880	78	65	57	51	17.7	14	10.8
18	5	29.870	73	64	58	61	16.7	13	12.0
21	5	29.920	66	62	59	78	11.1	13	8.5
24	5	29.930	64	61	59	84	10.6	15	8.1

APR 1984
BROWNSVILLE, TEXAS
NAT'L WEA SER OFC
INTERNATIONAL AIRPORT

ISSN 0198-4950

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

INTERNATIONAL AIRPORT

LATITUDE 25°54' LONGITUDE 97°26' ELEVATION (GROUND) 19 FEET TIME ZONE CENTRAL 12919

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JUL)	COOLING (SEASON BEGINS WITH JAN)	WEATHER TYPES 1 FOG 2 HEAVY FOG 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 0600 INCHES	PRECIPITATION WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)	AVERAGE STATION PRESSURE IN INCHES ELEV. 20 FEET ABOVE M.S.L.	WIND (M.P.H.) RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	FASTEST MILE SPEED	FASTEST MILE DIRECTION	SUNSHINE MINUTES	PERCENT OF TOTAL POSSIBLE	SKY COVER (TENTHS) SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT	DATE
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	82	59	71	-1	63	0	6	1 8	0	T	0.0	29.915	12	8.8	9.2	18	15	332	45	7	6	01
02	87	70	79	7	68	0	14	1	0	0.00	0.0	29.700	16	13.6	14.1	20	19	339	45	10	9	02
03	87	59	73	0	61	0	8	1 8	0	0.00	0.0	29.780	03	6.8	9.0	20	02	486	65	6	6	03
04	76	57	67	-6	51	0	2		0	0.00	0.0	30.010	03	7.5	9.5	16	03	630	84	5	4	04
05	75	51	63*	-10	53	2	0		0	0.00	0.0	30.055	07	6.4	9.2	17	10	557	74	9	9	05
06	80	60	70	-3	61	0	5		0	0.00	0.0	29.905	14	14.0	14.2	21	16	142	19	9	8	06
07	83	71	77	4	66	0	12		0	0.00	0.0	29.630	16	17.6	18.6	33	17	212	28	9	8	07
08	93	62	78	4	54	0	13	2	0	0.00	0.0	29.770	34	6.7	9.8	17	33	523	69	2	2	08
09	89	57	73	-1	56	0	8		0	0.00	0.0	29.790	15	10.7	11.3	20	16	697	92	1	1	09
10	90	67	79	5	65	0	14		0	0.00	0.0	29.670	16	14.4	15.1	25	19	667	88	1	2	10
11	90	66	78	4	65	0	13	1	0	0.00	0.0	29.690	14	6.9	9.7	15	13	626	82	2	4	11
12	87	70	79	5	68	0	14		0	0.00	0.0	29.690	15	11.0	13.7	21	18	485	64	3	3	12
13	88	67	78	3	66	0	13		0	0.00	0.0	29.790	09	4.6	5.9	18	08	405	53	5	5	13
14	82	59	71	-4	58	0	6		0	0.00	0.0	29.900	02	9.5	10.5	21	02	369	48	9	8	14
15	84	56	70	-5	46	0	5		0	0.00	0.0	30.040	01	4.2	7.8	14	03	640	84	5	4	15
16	82	50*	66	-9	47	0	1		0	0.00	0.0	30.050	09	1.8	6.2	13	11	767	100	0	0	16
17	90	57	74	-1	56	0	9		0	0.00	0.0	29.950	18	11.1	12.6	24	16	769	100	0	0	17
18	87	70	79	4	65	0	14		0	0.00	0.0	29.780	17	21.6	21.8	31	17	576	75	5	5	18
19	90	70	80	4	67	0	15		0	0.00	0.0	29.710	17	19.1	19.5	26	18	750	97	0	3	19
20	92	72	82	6	70	0	17	8	0	0.00	0.0	29.560	17	23.3	23.6	32	18	683	88	6	6	20
21	98	73	86	10	68	0	21	8	0	0.00	0.0	29.610	20	1.3	14.2	25	16	561	72	10	8	21
22	82	64	73	-3	57	0	8	8	0	0.00	0.0	29.880	03	11.3	11.9	21	03	106	14	10	8	22
23	85	59	72	-4	54	0	7		0	0.00	0.0	29.930	08	5.3	7.6	15	11	699	90	1	3	23
24	85	60	73	-3	60	0	8		0	0.00	0.0	29.845	14	16.2	16.3	29	14	637	82	2	1	24
25	87	71	79	2	69	0	14		0	0.00	0.0	29.670	16	20.0	20.2	26	18	387	50	6	6	25
26	97	75	86	9	72	0	21	8	0	0.00	0.0	29.570	16	14.8	15.5	21	17	615	79	8	7	26
27	102*	75	89*	12	72	0	24	8	0	0.00	0.0	29.650	12	5.3	12.8	18	15	571	73	4	6	27
28	92	77	85	8	72	0	20	8	0	0.00	0.0	29.745	15	12.5	12.9	21	14	230	29	7	8	28
29	93	77	85	8	73	0	20	8	0	0.00	0.0	29.745	16	17.2	18.3	28	16	367	47	8	8	29
30	88	75	82	5	72	0	17	8	0	0.00	0.0	29.910	10	8.1	9.1	16	09	18	2	10	10	30
	SUM 2623	SUM 1956				TOTAL 2	TOTAL 349	NUMBER OF DAYS		TOTAL trace	TOTAL 0.0	FOR THE MONTH: 29.800	15	7.7	13.0	33	17	TOTAL 14846	% FOR MONTH	SUM AVG. 160	SUM AVG. 158	
	AVG. 87.4	AVG. 65.2	AVG. 76.3	DEP. 1.4	AVG. 62.4	DEP. 2	DEP. 52	PRECIPITATION > .01 INCH. 0		DEP.						DATE: 7		POSSIBLE 22991	65	5.3	5.3	
	NUMBER OF DAYS					SEASON TO DATE TOTAL 865	SEASON TO DATE TOTAL 633	SNOW, ICE PELLETS > 1.0 INCH 0		-1.57												
	MAXIMUM TEMP. ≥ 90° 11	MAXIMUM TEMP. ≤ 32° 0	MINIMUM TEMP. ≤ 32° 0	MINIMUM TEMP. ≤ 0° 0		DEP. 256	DEP. 29	THUNDERSTORMS 0		GREATEST IN 24 HOURS AND DATES						GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE						
								HEAVY FOG 1		PRECIPITATION trace		SNOW, ICE PELLETS 01 0.0				0						
								CLEAR 10 PARTLY CLOUDY 10 CLOUDY 10																

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

MAX TEMP IS NEW RECORD FOR MONTH.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. ONE OF THREE WIND SPEEDS IS GIVEN UNDER FASTEST MILE: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED (A / APPEARS IN THE DIRECTION COLUMN). ERRORS WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL PUBLICATION.

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 DATA CENTER, ASHEVILLE, NORTH CAROLINA, 28801

Kenneth D Wadell

DIRECTOR
NATIONAL CLIMATIC DATA CENTER

noaa
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

Apr 1984
BROWNSVILLE, TEXAS

OBSERVATIONS AT 3-HOUR INTERVALS

APR 1984 — BROWNSVILLE, TEXAS — 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY: WHOLE MILES	VISIBILITY: 16THS MILE	WEATHER	TEMPERATURE: AIR °F	TEMPERATURE: WET BULB °F	TEMPERATURE: DEW POINT °F	REL HUMIDITY %	WIND: DIRECTION	WIND: SPEED (KNOTS)
APR 1st											
03	1	UNL	7			60	59	59	97	00	0
06	1	UNL	5		FH	59	58	58	97	00	0
09	4	UNL	10			74	67	62	66	14	12
12	5	UNL	10			81	68	60	49	12	14
15	10	23	10			75	67	63	66	10	14
18	10	11	7			71	69	68	90	11	13
21	10	13	7			71	69	68	90	10	12
24	10	11	7			72	70	69	90	10	8
APR 2nd											
03	6	7	5		F	70	69	68	93	13	7
06	10	9	7			71	69	68	90	17	10
09	10	40	10			77	70	66	69	17	14
12	10	UNL	10			84	72	66	55	17	15
15	10	UNL	10			86	74	68	55	18	16
18	10	16	7			78	72	69	74	15	14
21	10	250	7			74	71	69	85	14	10
24	10	250	7			72	70	69	90	17	8
APR 3rd											
03	10	13	3		F	74	71	69	85	00	0
06	10	5	2		F	73	70	69	87	03	6
09	10	7	5		F	75	72	70	85	03	5
12	10	21	6		H	82	73	69	65	02	17
15	2	UNL	10			87	63	46	24	02	15
18	4	UNL	25			80	62	49	34	05	11
21	0	UNL	25			66	61	58	76	04	3
24	0	UNL	25			59	57	56	90	20	6
APR 4th											
03	0	UNL	10			58	56	55	90	34	7
06	6	UNL	15			61	58	56	84	01	5
09	6	UNL	15			72	62	54	53	04	12
12	2	UNL	15			76	62	52	43	03	14
15	7	250	15			75	59	46	36	06	11
18	9	250	15			70	58	48	46	05	10
21	6	250	7			60	55	50	70	16	4
24	3	UNL	7			57	54	51	81	00	0
APR 5th											
03	10	UNL	10			52	51	50	93	33	4
06	10	250	15			53	51	50	90	03	5
09	8	UNL	10			68	62	57	68	03	6
12	9	UNL	15			74	62	54	50	04	14
15	8	UNL	15			74	62	53	48	10	15
18	10	250	15			69	60	53	57	09	10
21	10	UNL	15			63	58	54	73	11	6
24	10	UNL	15			63	60	58	84	10	6
APR 6th											
03	10	UNL	15			61	59	57	87	13	5
06	1	UNL	15			62	60	59	90	12	6
09	9	250	15			73	66	62	69	14	16
12	10	27	15			77	68	62	60	14	16
15	9	29	15			80	68	61	52	16	16
18	9	28	15			74	67	62	66	14	14
21	6	23	10			71	66	63	76	14	15
24	9	44	10			72	66	63	73	16	16
APR 7th											
03	3	UNL	10			71	67	64	79	17	11
06	10	40	10			71	67	64	79	16	17
09	9	40	10			73	68	65	76	17	27
12	10	20	10			74	69	66	76	16	24
15	8	180	10			81	71	65	58	16	20
18	5	UNL	7			78	71	68	72	16	15
21	3	UNL	7			75	71	69	82	15	8
24	2	UNL	7			72	70	69	90	01	5
APR 8th											
03	6	21	5		F	70	69	68	93	06	4
06	0	UNL	1	8	F	66	65	65	97	33	7
09	0	UNL	10			74	66	61	64	34	10
12	0	UNL	20			89	62	41	19	33	12
15	0	UNL	20			92	63	40	16	34	13
18	0	UNL	20			90	62	39	17	33	11
21	0	UNL	10			67	60	55	66	12	5
24	0	UNL	10			62	59	56	81	17	6
APR 9th											
03	0	UNL	10			60	58	57	90	21	5
06	0	UNL	10			58	57	57	97	16	3
09	0	UNL	20			79	66	58	49	19	10
12	0	UNL	20			87	65	51	29	14	14
15	2	UNL	20			88	65	50	27	14	15
18	2	UNL	15			80	64	53	39	16	15
21	0	UNL	10			70	65	62	76	14	10
24	0	UNL	10			69	66	64	84	14	10
APR 10th											
03	0	UNL	7			68	65	63	84	15	9
06	1	UNL	7			67	65	64	90	15	10
09	0	UNL	20			78	70	65	64	17	19
12	0	UNL	20			86	70	62	45	18	21
15	0	UNL	15			89	74	66	47	19	11
18	0	UNL	10			82	72	67	61	14	17
21	1	UNL	7			73	70	69	87	14	10
24	9	9	7			72	70	69	90	18	10
APR 11th											
03	6	7	7			68	67	66	93	23	4
06	10	9	7			70	68	67	90	20	8
09	0	UNL	7			76	70	67	74	09	5
12	0	UNL	10			88	73	66	48	10	10
15	0	UNL	7			90	71	60	37	17	12
18	0	UNL	7			84	68	58	41	13	13
21	0	UNL	7			71	68	67	87	15	9
24	5	UNL	7			72	69	68	87	17	12
APR 12th											
03	0	UNL	7			71	68	66	84	17	16
06	10	13	7			72	69	67	84	17	18
09	0	UNL	7			79	72	68	69	17	16
12	1	UNL	7			86	74	68	55	15	6
15	4	UNL	7			87	74	68	53	12	11
18	3	UNL	7			78	71	67	69	10	9
21	1	UNL	7			71	68	67	87	05	6
24	3	UNL	7			70	69	68	93	08	5
APR 13th											
03	8	27	7			69	68	67	93	00	0
06	10	31	7			70	69	68	93	06	4
09	6	200	7			76	71	69	79	08	7
12	8	31	10			82	70	64	55	27	4
15	2	UNL	10			86	73	67	53	08	16
18	0	UNL	10			78	70	66	67	08	8
21	2	UNL	10			71	68	66	84	09	6
24	4	UNL	10			67	65	64	90	10	4
APR 14th											
03	3	UNL	7			65	63	62	90	04	5
06	8	UNL	7			64	63	63	97	35	4
09	10	30	10			74	70	68	82	01	11
12	10	38	25			80	70	64	58	03	16
15	10	UNL	7			80	69	63	56	03	17
18	10	250	15			77	59	43	30	03	15
21	7	UNL	15			66	57	50	57	00	0
24	7	UNL	15			59	55	51	75	32	6
APR 15th											
03	10	80	15			60	54	49	67	30	5
06	8	UNL	15			56	52	49	78	32	6
09	10	250	25			71	58	48	44	34	8
12	3	UNL	25			81	57	35	19	35	11
15	1	UNL	25			81	59	41	24	08	10
18	1	UNL	25			77	59	44	31	06	10
21	0	UNL	25			64	56	49	58	13	6
24	0	UNL	25			57	53	50	78	00	0
APR 16th											
03	0	UNL	10			55	52	50	83	00	0
06	0	UNL	10			50	50	49	96	34	5
09	0	UNL	15			74	60	50	43	32	4
12	0	UNL	15			80	60	43	27	32	5
15	0	UNL	15			81	59	41	24	10	10
18	0	UNL	15			75	58	44	33	11	10
21	0	UNL	15			61	53	46	58	17	4
24	0	UNL	15			59	54	50	72	13	4
APR 17th											
03	0	UNL	15			59	57	56	90	19	5
06	0	UNL	15			59	58	57	93	22	5
09	0	UNL	15			75	65	58	56	21	16
12	0	UNL	15			87	63	45	23	23	12
15	0	UNL	15			89	65	49	25	16	15
18	0	UNL	15			81	68	60	49	16	21
21	0	UNL	15			72	67	64	76	16	11
24	0	UNL	15			71	68	66	84	16	12
APR 18th											
03	0	UNL	10			71	68	66	84	17	13
06	0	UNL	10			70	67	65	84	18	13
09	0	UNL	10			79	70	65	62	18	20
12	0	UNL	10			86	71	63	46	18	21
15	0	UNL	15			86	72	64	48	17	27
18	0	UNL	15			79	70	65	62	19	24
21	10	300	7			75	70	68	79	17	15
24	10	150	10			73	70	68	84	16	13

WEATHER CODES

*	TORNADO	ZL	FREEZING DRIZZLE	IPW	ICE PELLET SHOWERS	BN	BLOWING SAND
T	THUNDERSTORM	S	SNOW	A	HAIL	BS	BLOWING SNOW
Q	SQUALL	SW	SNOW SHOWERS	F	FOG	BY	BLOWING SPRAY
R	RAIN	SG	SNOW GRAINS	IF	ICE FOG	K	SMOKE
RW	RAIN SHOWERS	SP	SNOW PELLETS	GF	GROUND FOG	H	HAZE
ZR	FREEZING RAIN	IC	ICE CRYSTALS	BD	BLOWING DUST	D	DUST
L	DRIZZLE	IP	ICE PELLETS				

CEILING: UNL INDICATES UNLIMITED
WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM
SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.15).

OBSERVATIONS AT 3-HOUR INTERVALS

APR 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
APR 19th											
03	3	UNL	10			70	68	67	90	17	7
06	1	UNL	10			71	68	67	87	17	11
09	0	UNL	10			81	72	67	63	18	21
12	0	UNL	10			89	72	64	44	19	22
15	0	UNL	10			90	73	65	44	18	23
18	0	UNL	10			82	73	68	63	15	18
21	10	13	7			76	72	70	82	16	22
24	6	13	7			75	71	69	82	17	15
APR 20th											
03	9	17	7			74	70	68	82	17	15
06	1	UNL	7			73	70	69	87	16	17
09	10	UNL	7			81	73	69	67	17	23
12	10	UNL	5		H	89	76	70	54	18	28
15	4	UNL	4		H	90	76	70	52	16	26
18	1	UNL	5		H	81	74	71	72	16	22
21	6	11	5		H	76	73	71	85	16	19
24	2	UNL	5		H	75	72	71	87	16	18
APR 21st											
03	0	UNL	5		H	75	72	70	85	16	18
06	4	UNL	4		H	75	72	70	85	17	17
09	10	UNL	3		H	84	74	69	61	22	13
12	10	250	4		H	92	76	69	47	30	11
15	10	UNL	3		H	98	72	58	27	35	14
18	10	UNL	5		H	86	74	68	55	04	13
21	10	UNL	5		H	78	72	69	74	02	5
24	10	UNL	5		H	73	70	68	84	31	4
APR 22nd											
03	10	UNL	5		H	72	69	68	87	00	0
06	10	150	10			75	63	54	48	02	15
09	10	150	15			76	63	53	45	03	18
12	10	250	15			81	64	53	38	02	15
15	10	180	15			78	63	52	41	04	15
18	9	250	15			72	62	55	55	05	14
21	3	UNL	15			67	60	54	63	02	6
24	2	UNL	15			64	59	55	73	02	5
APR 23rd											
03	8	150	10			60	57	55	84	00	0
06	10	150	10			59	57	55	87	33	4
09	2	UNL	10			74	64	58	58	01	5
12	0	UNL	15			84	63	48	29	06	8
15	0	UNL	15			85	65	51	31	08	12
18	0	UNL	15			79	64	53	41	11	13
21	0	UNL	15			67	61	57	70	12	8
24	0	UNL	10			63	60	57	81	13	7
APR 24th											
03	0	UNL	7			61	59	57	87	15	5
06	4	UNL	7			61	59	58	90	11	3
09	3	UNL	15			78	67	61	56	15	12
12	3	UNL	15			84	68	58	41	14	23
15	2	UNL	15			85	68	58	40	14	20
18	0	UNL	15			79	68	62	56	15	16
21	0	UNL	10			73	67	63	71	14	14
24	0	UNL	10			73	67	63	71	14	13
APR 25th											
03	4	UNL	7			72	68	65	79	16	10
06	10	24	7			73	69	67	82	16	16
09	10	19	7			79	72	69	72	16	16
12	4	UNL	10			86	74	69	57	17	20
15	0	UNL	10			87	75	69	55	18	23
18	10	14	7			80	73	70	72	15	21
21	3	UNL	7			76	73	71	85	15	13
24	10	13	7			77	73	71	82	17	18
APR 26th											
03	10	10	7			76	73	71	85	15	12
06	10	13	7			77	73	71	82	17	14
09	10	220	7			84	76	73	70	18	14
12	9	230	7			92	77	71	50	18	12
15	8	250	7			96	79	73	48	17	15
18	4	UNL	10			86	77	73	65	15	14
21	0	UNL	4		H	76	73	72	88	14	12
24	0	UNL	3		H	75	73	72	90	15	10
APR 27th											
03	10	7	3		H	75	73	72	90	14	16
06	9	250	3		H	75	74	73	94	15	15
09	8	250	5		H	84	76	73	70	19	13
12	0	UNL	6		H	96	80	74	49	23	10
15	1	UNL	7			101	79	71	38	06	15
18	7	250	5		H	85	75	71	63	04	14
21	10	250	5		H	78	73	71	79	06	6
24	10	9	5		H	77	74	72	85	07	5
APR 28th											
03	10	16	5		H	77	74	72	85	14	7
06	10	15	5		H	77	74	72	85	15	5
09	10	11	5		H	80	75	72	77	16	8
12	8	250	5		H	90	77	71	54	18	11
15	6	250	5		H	91	78	72	54	15	14
18	1	UNL	5		H	84	77	74	72	14	18
21	10	11	5		H	79	76	74	85	15	13
24	10	13	5		H	79	75	73	82	17	13
APR 29th											
03	5	UNL	5		H	77	74	72	85	16	17
06	9	150	3		H	77	74	73	88	17	13
09	9	160	4		H	82	76	73	74	18	17
12	7	250	5		H	91	78	72	54	19	21
15	7	250	5		H	90	77	71	54	16	24
18	10	250	4		HD	85	76	72	65	16	17
21	10	250	5		H	79	75	73	82	14	10
24	10	10	4		H	78	75	74	88	07	5
APR 30th											
03	10	11	4		H	77	74	73	88	07	6
06	10	17	3		H	77	74	73	88	10	10
09	10	20	4		H	80	75	73	79	11	12
12	10	28	5		H	85	75	71	63	14	6
15	10	27	5		H	87	77	72	61	13	9
18	10	17	6		H	81	74	71	72	07	9
21	10	10	7			77	74	72	85	07	6
24	10	7	4		H	75	73	72	90	12	6

SUMMARY BY HOURS

HOUR L.S.T.	AVERAGES SKY COVER (TENTHS)	AVERAGES STATION PRESSURE (INCHES)	AVERAGES TEMPERATURE AIR TEMP °F	AVERAGES TEMPERATURE WET BULB °F	AVERAGES TEMPERATURE DEW POINT °F	AVERAGES REL HUMIDITY %	AVERAGES WIND SPEED (MPH)	RESULTANT WIND DIRECTION	RESULTANT WIND SPEED (MPH)
03	5	29.790	68	65	63	87	8.2	16	5.9
06	6	29.800	67	65	63	87	10.4	16	5.7
09	6	29.840	77	69	64	65	15.0	16	8.2
12	5	29.830	85	70	61	47	16.6	16	6.8
15	5	29.765	86	70	60	43	18.2	13	10.7
18	5	29.750	79	68	61	56	16.4	13	11.0
21	5	29.800	71	67	64	77	10.5	14	8.7
24	5	29.810	69	66	64	84	9.6	15	7.1

MAY 1984
BROWNSVILLE, TEXAS
NAT'L WEA SER OFC
INTERNATIONAL AIRPORT

ISSN 0198-4950

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

INTERNATIONAL AIRPORT

LATITUDE 25°54 ' LONGITUDE 97°26 ' ELEVATION (GROUND) 19 FEET TIME ZONE CENTRAL 12919

DATE 1	TEMPERATURE °F: MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEPARTURE FROM NORMAL 5	AVERAGE DEW POINT 6	DEGREE DAYS BASE 65°F: HEATING (SEASON BEGINS WITH JUL) 7A	COOLING (SEASON BEGINS WITH JAN) 7B	WEATHER TYPES (1 FOG, 2 HEAVY FOG, 3 THUNDERSTORM, 4 ICE PELLETS, 5 HAIL, 6 GLAZE, 7 DUSTSTORM, 8 SMOKE, HAZE, 9 BLOWING SNOW) 8	SNOW ICE PELLETS OR ICE ON GROUND AT 0600 INCHES 9	PRECIPITATION: WATER EQUIVALENT (INCHES) 10	SNOW, ICE PELLETS (INCHES) 11	AVERAGE STATION PRESSURE IN INCHES ELEV. 20 FEET ABOVE M.S.L. 12	WIND (M.P.H.): RESULTANT DIR. 13	RESULTANT SPEED 14	AVERAGE SPEED 15	FASTEST MILE: SPEED 16	DIRECTION 17	SUNSHINE: MINUTES 18	PERCENT OF TOTAL POSSIBLE 19	SKY COVER (TENTHS): SUNRISE TO SUNSET 20	MIDNIGHT TO MIDNIGHT 21	DATE 22
01	87	75	81	4	70	0	16	8	0	0.00	0.0	29.850	15	16.8	17.1	23	16	369	47	10	10	01
02	96	77	87*	10	72	0	22	8	0	0.00	0.0	29.635	17	15.9	16.3	22	20	418	53	6	7	02
03	98*	71	85	7	70	0	20	1 8	0	0.00	0.0	29.590	13	5.4	8.6	20	16	530	67	1	2	03
04	92	72	82	4	72	0	17	2 8	0	0.00	0.0	29.680	14	10.7	11.3	20	14	600	76	1	3	04
05	91	75	83	5	73	0	18	1 8	0	0.00	0.0	29.595	15	17.8	18.0	25	15	415	52	2	4	05
06	93	77	85	7	74	0	20	1 8	0	0.00	0.0	29.620	16	20.0	20.2	30	17	329	41	9	9	06
07	94	78	86	8	75	0	21	8	0	0.00	0.0	29.750	15	16.1	16.8	23	17	379	48	9	9	07
08	81	61	71	-7	58	0	6	8	0	T	0.0	30.140	01	13.4	14.6	23	01	305	38	9	8	08
09	84	57	71	-7	53	0	6		0	0.00	0.0	30.150	06	6.1	7.8	15	06	745	93	1	2	09
10	84	58	71	-7	57	0	6		0	0.00	0.0	29.990	13	10.2	10.8	20	16	686	86	1	2	10
11	89	64	77	-2	65	0	12		0	0.00	0.0	29.900	14	12.1	12.6	21	14	698	87	1	1	11
12	89	74	82	3	70	0	17		0	T	0.0	29.960	12	12.3	12.6	18	12	482	60	8	7	12
13	82	75	79	0	71	0	14		0	T	0.0	30.040	11	10.1	11.8	18	11	0	0	10	10	13
14	84	73	79	0	70	0	14		0	0.01	0.0	30.020	10	7.6	8.0	16	10	4	0	10	10	14
15	88	72	80	1	68	0	15		0	0.01	0.0	29.960	11	8.8	9.2	16	12	213	26	9	9	15
16	85	69	77	-2	70	0	12	3	0	2.81	0.0	29.940	11	10.6	11.5	18	12	291	36	8	8	16
17	86	71	79	0	72	0	14	3	0	0.24	0.0	29.970	11	8.1	8.9	18	11	267	33	9	9	17
18	84	69	77	-2	72	0	12	3	0	2.60	0.0	29.990	13	7.0	10.3	20	14	313	39	7	8	18
19	88	74	81	1	73	0	16		0	T	0.0	29.860	16	15.0	15.1	23	17	610	75	3	3	19
20	93	69	81	1	71	0	16	3	0	0.45	0.0	29.770	19	7.9	10.6	20	21	568	70	7	8	20
21	91	76	84	4	74	0	19		0	0.00	0.0	29.690	17	16.3	16.4	23	17	664	82	3	2	21
22	91	78	85	5	76	0	20		0	0.00	0.0	29.720	16	19.1	19.6	28	17	507	63	4	6	22
23	90	76	83	3	75	0	18		0	0.00	0.0	29.950	09	9.8	11.5	20	04	279	34	8	7	23
24	87	70	79	-1	70	0	14		0	0.00	0.0	29.940	07	5.6	6.5	15	06	660	81	3	2	24
25	89	71	80	0	71	0	15		0	0.00	0.0	29.820	13	8.0	8.2	16	12	621	76	3	3	25
26	90	75	83	3	73	0	18		0	0.00	0.0	29.870	13	12.0	12.3	21	12	571	70	4	3	26
27	88	72	80	-1	73	0	15		0	0.06	0.0	29.930	13	12.5	12.7	21	14	533	65	4	4	27
28	89	73	81	0	71	0	16		0	0.00	0.0	30.015	09	8.0	9.0	15	05	611	75	5	5	28
29	80	72	76	-5	69	0	11		0	0.00	0.0	30.120	01	11.3	12.5	21	02	22	3	10	8	29
30	81	62	72	-9	60	0	7		0	0.00	0.0	30.140	02	9.5	10.2	21	02	497	61	5	3	30
31	82	56*	69*	-12	57	0	4		0	0.00	0.0	30.080	09	5.2	7.1	15	09	711	87	1	1	31
	SUM 2726	SUM 2192				TOTAL 0	TOTAL 451			TOTAL 6.18	TOTAL 0.0	FOR THE MONTH: 29.890	13	8.5	12.2	30	17	TOTAL 13898	% FOR MONTH 56	SUM 171	SUM 173	
	AVG. 87.9	AVG. 70.7	AVG. 79.3	DEP. 0.1	AVG. 69.1	DEP. 0	DEP. 11			DEP. 4.03						DATE: 6		POSSIBLE 24949		AVG. 5.5	AVG. 5.6	

NUMBER OF DAYS

MAXIMUM TEMP. ≥ 90°	MAXIMUM TEMP. ≤ 32°	MINIMUM TEMP. ≤ 32°	MINIMUM TEMP. ≤ 0°
11	0	0	0

SEASON TO DATE

	HEATING	COOLING
TOTAL	865	1084
DEP.	256	40

NUMBER OF DAYS

PRECIPITATION ≥ .01 INCH	7
SNOW, ICE PELLETS ≥ 1.0 INCH	0
THUNDERSTORMS	4
HEAVY FOG	1

CLEAR 11 PARTLY CLOUDY 8 CLOUDY 12

GREATEST IN 24 HOURS AND DATES

PRECIPITATION		SNOW, ICE PELLETS	
2.84	17-18	0.0	

GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE

0	

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. ONE OF THREE WIND SPEEDS IS GIVEN UNDER FASTEST MILE: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED (A / APPEARS IN THE DIRECTION COLUMN). ERRORS WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL PUBLICATION.

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 DATA CENTER, ASHEVILLE, NORTH CAROLINA, 28801

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

Kenneth D Hadeen
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

MAY 19
BROWNSVILLE, TEXAS

OBSERVATIONS AT 3-HOUR INTERVALS

MAY 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
MAY 1st											
03	10	26	5		H	76	73	72	88	16	11
06	10	29	5		H	76	72	70	82	15	11
09	10	250	7			80	71	66	63	15	18
12	10	UNL	7			86	73	67	53	14	18
15	10	250	7			87	74	68	53	14	17
18	10	250	7			80	73	70	72	15	17
21	10	250	7			78	73	71	79	16	16
24	10	11	7			79	74	72	79	16	18
MAY 2nd											
03	10	12	7			77	74	72	85	16	15
06	10	13	7			77	73	71	82	15	14
09	10	19	7			81	74	71	72	18	17
12	10	23	5		H	89	77	72	57	19	15
15	3	UNL	4		H	96	79	73	48	21	12
18	0	UNL	4		H	89	78	73	59	15	16
21	0	UNL	4		H	78	75	73	85	17	10
24	10	10	5		H	79	75	73	82	16	17
MAY 3rd											
03	7	11	5		H	77	73	71	82	18	13
06	0	UNL	1	8	FH	72	70	69	90	14	8
09	5	UNL	4		H	79	74	71	77	17	6
12	0	UNL	5		H	92	77	70	49	10	5
15	0	UNL	4		H	96	79	72	46	02	8
18	0	UNL	4		H	91	76	69	49	10	12
21	0	UNL	5		H	76	73	71	85	06	5
24	0	UNL	3		FH	72	70	69	90	16	4
MAY 4th											
03	10	2	0	1	F	72	72	72	100	14	4
06	10	7	0	2	F	74	73	72	94	00	0
09	0	UNL	7			83	75	71	67	12	12
12	0	UNL	10			91	75	68	47	14	17
15	0	UNL	6		H	92	78	72	52	15	13
18	0	UNL	6		H	85	76	72	65	15	15
21	0	UNL	6		H	77	74	73	88	15	10
24	0	UNL	5		FH	75	74	73	94	15	8
MAY 5th											
03	10	9	6		FH	76	74	73	91	15	11
06	7	10	5		F	76	73	72	88	15	13
09	10	13	4		H	80	75	72	77	15	16
12	0	UNL	5		H	89	77	72	57	15	21
15	0	UNL	6		H	91	78	73	56	14	18
18	0	UNL	5		H	85	76	72	65	15	18
21	0	UNL	4		H	80	75	73	79	15	14
24	6	250	5		H	79	75	73	82	17	13
MAY 6th											
03	6	250	5		H	78	75	74	88	16	15
06	8	250	3		FH	78	75	74	88	15	12
09	10	250	4		H	86	78	74	68	16	22
12	10	UNL	6		H	93	78	72	51	16	24
15	3	UNL	6		H	92	79	74	56	15	25
18	10	UNL	6		H	85	77	74	70	15	15
21	10	250	6		H	80	76	74	82	16	12
24	10	10	6		H	80	77	75	85	16	16
MAY 7th											
03	10	7	5		H	79	76	75	88	15	15
06	10	250	4		H	78	76	75	91	15	12
09	10	UNL	5		H	86	78	75	70	16	16
12	10	250	6		H	92	80	75	58	17	20
15	8	250	6		H	91	80	75	60	15	18
18	10	250	6		H	83	77	75	77	15	14
21	5	UNL	6		H	79	76	75	88	16	13
24	9	13	5		H	79	76	75	88	02	5
MAY 8th											
03	10	120	7			76	70	66	71	04	7
06	10	130	7			74	68	64	71	01	13
09	10	31	10			75	64	57	54	34	14
12	10	38	15			76	64	55	48	36	15
15	5	UNL	15			81	64	51	35	35	20
18	5	UNL	15			77	63	53	43	02	16
21	1	UNL	15			66	59	54	65	05	4
24	10	UNL	10			61	58	55	81	00	0
MAY 9th											
03	0	UNL	10			57	56	55	93	35	5
06	5	UNL	15			59	56	54	84	02	6
09	2	UNL	15			78	63	53	42	06	11
12	0	UNL	20			82	64	51	34	04	10
15	0	UNL	20			82	63	50	33	06	13
18	0	UNL	20			78	63	53	42	07	7
21	0	UNL	10			66	60	55	68	09	6
24	0	UNL	10			62	58	54	75	11	6
MAY 10th											
03	0	UNL	10			61	58	55	81	10	6
06	10	UNL	15			58	56	54	87	00	0
09	1	UNL	15			77	65	57	50	11	11
12	0	UNL	15			83	67	57	41	14	12
15	0	UNL	15			84	67	57	40	16	17
18	0	UNL	15			79	67	59	51	12	13
21	3	UNL	15			72	65	61	69	14	8
24	0	UNL	15			71	66	63	76	14	7
MAY 11th											
03	0	UNL	10			67	64	62	84	14	7
06	0	UNL	10			64	62	60	87	13	4
09	1	UNL	10			82	71	65	57	16	12
12	0	UNL	10			88	71	62	42	15	17
15	1	UNL	15			89	71	62	41	14	18
18	1	UNL	15			83	72	66	57	13	15
21	1	UNL	15			75	72	70	85	10	7
24	1	UNL	10			76	73	71	85	13	10
MAY 12th											
03	1	UNL	10			74	72	71	90	13	6
06	10	UNL	10			75	73	72	90	11	7
09	10	19	10			81	74	70	69	14	13
12	10	250	10			88	74	68	52	12	15
15	10	UNL	10			88	73	66	48	12	16
18	5	UNL	10			83	74	69	63	10	15
21	9	13	7			77	73	71	82	11	9
24	10	UNL	7			76	73	72	88	12	9
MAY 13th											
03	10	9	7			76	74	73	91	10	8
06	10	UNL	7			75	73	72	90	12	8
09	10	13	10			80	74	71	74	13	12
12	10	18	10			82	74	70	67	11	16
15	10	250	10			79	71	67	67	16	5
18	10	14	10			78	73	70	77	08	12
21	10	11	7			76	73	71	85	09	10
24	10	250	7			76	73	72	88	11	8
MAY 14th											
03	10	110	7		R	74	73	72	94	00	0
06	10	110	7			74	73	72	94	05	5
09	10	120	7			79	74	71	77	13	9
12	10	120	7			83	74	69	63	10	12
15	10	120	7			82	73	69	65	12	11
18	10	120	7			78	72	69	74	09	11
21	10	110	7			75	72	70	85	13	6
24	10	130	7			74	71	70	87	00	0
MAY 15th											
03	10	130	7		R	72	71	70	94	00	0
06	10	110	7			73	71	70	90	06	4
09	10	100	10			79	72	69	72	11	9
12	8	250	15			86	73	66	51	10	12
15	10	180	15			84	72	66	55	12	12
18	10	180	15			79	70	65	62	12	9
21	10	130	10			77	71	67	71	11	8
24	10	130	10			76	71	69	79	12	9
MAY 16th											
03	10	33	10		TRW	73	70	69	87	11	6
06	10	250	10			70	69	68	93	11	5
09	7	22	10			80	73	70	72	11	14
12	10	22	10			84	75	70	63	09	14
15	10	20	2		TRW	75	74	73	94	11	13
18	8	120	10			76	73	71	85	10	14
21	7	250	10			74	71	70	87	10	11
24	5	UNL	10			73	71	70	90	13	8
MAY 17th											
03	7	120	10			72	71	70	94	00	0
06	10	UNL	10			71	70	70	97	04	4
09	9	250	10			80	75	73	79	14	7
12	9	150	7		T	84	75	71	65	13	11
15	10	250	7			79	76	74	85	09	9
18	7	250	10			81	74	71	72	11	16
21	10	250	10			77	74	72	85	10	8
24	10	250	10			76	73	72	88	14	8
MAY 18th											
03	10	8	5		TRW	75	74	74	97	21	6
06	10	55	5		RW	69	68	67	93	36	5
09	7	70	7			72	70	69	90	06	4
12	8	20	10			80	75	72	77	12	12
15	9	20	10			84	76	73	70	14	12
18	3	UNL	15			81	75	72	74	14	14
21	10	13	7			76	74	73	91	14	10
24	8	16	7			77	74	73	88	15	9

WEATHER CODES

*	TORNADO	ZL	FREEZING DRIZZLE	IPW	ICE PELLET SHOWERS	BN	BLOWING SAND
T	THUNDERSTORM	S	SNOW	A	HAIL	BS	BLOWING SNOW
Q	SQUALL	SW	SNOW SHOWERS	F	FOG	BY	BLOWING SPRAY
R	RAIN	SG	SNOW GRAINS	TF	ICE FOG	K	SMOKE
RW	RAIN SHOWERS	SP	SNOW PELLETS	GF	GROUND FOG	H	HAZE
ZR	FREEZING RAIN	IC	ICE CRYSTALS	BD	BLOWING DUST	D	DUST
L	DRIZZLE	IP	ICE PELLETS				

CEILING: UNL INDICATES UNLIMITED
WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM
SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.15).

OBSERVATIONS AT 3-HOUR INTERVALS

MAY 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
MAY 19th											
03	3	UNL	7			75	73	72	90	17	7
06	1	UNL	7			74	73	72	94	15	7
09	5	UNL	10			81	76	74	79	16	16
12	4	UNL	10			87	77	73	63	17	18
15	5	UNL	15			88	78	74	63	16	16
18	0	UNL	15			84	76	73	70	15	16
21	2	UNL	15			77	75	74	91	16	14
24	2	UNL	10			76	74	73	91	15	8
MAY 20th											
03	7	180	7			76	74	73	91	14	4
06	7	180	7			69	67	66	90	17	5
09	9	250	15			80	72	68	67	18	12
12	5	UNL	15			88	76	71	57	23	15
15	8	250	15			92	76	69	47	23	11
18	10	UNL	15			91	75	68	47	20	6
21	10	250	15			80	77	76	88	16	11
24	8	7	7			77	76	75	94	17	8
MAY 21st											
03	0	UNL	7			76	75	74	94	18	10
06	5	UNL	7			76	74	73	91	18	6
09	7	250	10			83	77	75	77	16	17
12	2	UNL	10			88	79	75	66	16	18
15	2	UNL	10			91	80	75	60	16	18
18	2	UNL	10			85	79	76	75	16	19
21	1	UNL	10			78	76	75	91	16	14
24	0	9	10			78	76	75	91	16	15
MAY 22nd											
03	10	13	10			78	76	75	91	15	18
06	7	10	10			78	76	75	91	17	17
09	3	UNL	10			84	78	75	75	17	24
12	0	UNL	15			89	80	76	66	17	22
15	2	UNL	10			90	81	77	66	16	18
18	9	15	10			83	79	77	82	14	16
21	9	13	10			81	78	77	88	13	10
24	10	17	10			81	78	77	88	14	13
MAY 23rd											
03	10	29	10			81	78	76	85	13	10
06	10	6	7			79	78	77	94	12	11
09	9	34	7			84	78	76	77	11	10
12	9	34	7			87	79	76	70	12	8
15	7	28	7			88	78	74	63	06	12
18	5	UNL	10			83	76	73	72	05	12
21	2	UNL	7			78	75	73	85	07	8
24	0	UNL	7			76	73	72	88	00	0
MAY 24th											
03	0	UNL	7			72	71	70	94	00	0
06	4	UNL	7			71	70	70	97	32	3
09	5	UNL	7			80	73	70	72	07	3
12	4	UNL	10			86	74	69	57	08	4
15	3	UNL	15			87	75	70	57	04	9
18	0	UNL	15			83	73	68	61	05	7
21	0	UNL	7			75	72	70	85	09	6
24	0	UNL	7			74	71	70	87	09	6
MAY 25th											
03	0	UNL	7			73	71	70	90	00	0
06	2	UNL	7			71	70	69	93	00	0
09	3	UNL	10			80	75	72	77	17	3
12	3	UNL	15			87	76	71	59	10	11
15	1	UNL	15			89	76	70	54	13	14
18	3	UNL	15			84	74	70	63	12	12
21	9	250	15			78	73	71	79	13	7
24	0	UNL	15			77	73	71	82	13	8
MAY 26th											
03	0	UNL	15			75	73	72	90	13	6
06	1	UNL	15			75	73	72	90	12	4
09	5	UNL	15			85	77	74	70	17	10
12	4	UNL	15			89	77	72	57	12	15
15	4	UNL	15			89	78	74	61	12	17
18	4	UNL	15			84	76	73	70	12	13
21	0	UNL	15			79	76	74	85	11	9
24	5	UNL	15			78	76	75	91	12	9
MAY 27th											
03	3	UNL	15			78	75	74	88	13	8
06	1	UNL	15			72	70	69	90	15	5
09	5	UNL	15			84	78	75	75	13	11
12	5	UNL	15			88	78	74	63	13	14
15	4	UNL	15			88	77	73	61	13	13
18	5	UNL	15			85	77	73	67	12	12
21	4	UNL	15			79	75	73	82	12	8
24	0	UNL	15			77	74	73	88	14	9
MAY 28th											
03	0	UNL	15			76	73	72	88	13	6
06	0	UNL	15			73	72	71	94	10	5
09	7	20	15			84	76	72	67	12	9
12	7	250	15			88	76	71	57	10	11
15	4	UNL	15			88	75	69	53	05	10
18	5	UNL	15			84	75	70	63	07	12
21	7	UNL	15			76	73	71	85	07	4
24	8	UNL	15			75	72	71	87	07	4
MAY 29th											
03	2	UNL	10			73	71	70	90	32	6
06	10	250	10			73	71	70	90	33	8
09	10	20	10			79	73	70	74	36	14
12	10	19	10			79	72	69	72	02	15
15	10	20	10			79	72	69	72	36	16
18	10	21	10			77	71	68	74	03	13
21	10	34	10			75	70	67	76	02	12
24	3	UNL	10			73	68	65	76	04	8
MAY 30th											
03	0	UNL	10			68	65	63	84	03	4
06	5	UNL	10			66	64	62	87	33	5
09	7	UNL	50			77	67	60	56	01	14
12	7	250	50			81	67	59	47	04	15
15	5	UNL	50			81	68	60	49	03	15
18	2	UNL	15			76	65	57	52	04	14
21	0	UNL	15			67	61	57	70	03	3
24	0	UNL	15			62	59	57	84	34	4
MAY 31st											
03	0	UNL	10			60	58	57	90	33	3
06	0	UNL	10			58	57	56	93	33	3
09	2	UNL	25			76	65	57	52	06	9
12	2	UNL	50			80	65	55	42	12	9
15	1	UNL	50			81	66	56	42	09	12
18	1	UNL	15			79	66	57	47	09	13
21	1	UNL	15			68	62	58	71	12	3
24	0	UNL	10			64	61	58	81	15	3

SUMMARY BY HOURS

HOUR L.S.T	AVERAGES SKY COVER (TENTHS)	AVERAGES STATION PRESSURE (INCHES)	AVERAGES TEMPERATURE AIR TEMP °F	AVERAGES TEMPERATURE WET BULB °F	AVERAGES TEMPERATURE DEW POINT °F	AVERAGES REL HUMIDITY %	AVERAGES WIND SPEED (MPH)	RESULTANT WIND DIRECTION	RESULTANT WIND SPEED (MPH)
03	5	29.880	73	71	70	89	8.0	15	5.9
06	7	29.890	72	70	69	90	7.0	13	4.2
09	7	29.930	80	73	69	69	13.9	14	9.4
12	6	29.920	86	74	68	56	16.4	13	11.5
15	5	29.870	87	74	69	56	16.2	13	10.1
18	5	29.850	82	73	69	64	15.4	12	11.8
21	5	29.890	76	72	70	82	10.2	13	8.1
24	5	29.910	74	71	70	85	9.3	14	7.8

JUN 1984
BROWNSVILLE, TEXAS
NAT'L WEA SER OFC
INTERNATIONAL AIRPORT

ISSN 0198-4950

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

INTERNATIONAL AIRPORT

LATITUDE 25°54' LONGITUDE 97°26' ELEVATION (GROUND) 19 FEET TIME ZONE CENTRAL 12919

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JUL)	COOLING (SEASON BEGINS WITH JAN)	WEATHER TYPES 1 FOG 2 HEAVY FOG 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 0600 INCHES	PRECIPITATION WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)	AVERAGE STATION PRESSURE IN INCHES ELEV. 20 FEET ABOVE M.S.L.	WIND (M.P.H.) RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	FASTEST MILE SPEED	FASTEST MILE DIRECTION	SUNSHINE MINUTES	PERCENT OF TOTAL POSSIBLE	SKY COVER (TENTHS) SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT	DATE
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	84	61*	73*	-8	60	0	8		0	0.00	0.0	30.000	14	9.7	10.1	20	13	670	82	3	2	01
02	86	64	75	-6	62	0	10		0	0.00	0.0	29.980	12	9.4	10.1	18	13	528	64	3	3	02
03	86	66	76	-5	67	0	11		0	0.00	0.0	29.910	13	12.1	12.3	23	12	396	48	8	7	03
04	89	76	83	1	72	0	18		0	0.00	0.0	29.800	15	15.7	16.0	22	14	454	55	6	8	04
05	87	77	82	0	74	0	17		0	0.00	0.0	29.820	15	13.5	13.8	20	14	46	6	10	9	05
06	91	79	85	3	76	0	20		0	0.00	0.0	29.830	15	17.3	17.5	25	16	576	70	5	6	06
07	90	79	85	3	76	0	20		0	0.00	0.0	29.840	15	17.8	18.0	23	15	432	52	5	5	07
08	90	80	85	3	75	0	20		0	T	0.0	29.850	14	16.8	17.1	24	14	288	35	7	7	08
09	90	79	85	3	74	0	20		0	0.02	0.0	29.830	13	16.3	16.5	21	13	451	55	7	7	09
10	91	78	85	3	74	0	20		0	T	0.0	29.870	13	13.8	14.0	21	13	560	68	6	5	10
11	92	76	84	2	74	0	19		0	T	0.0	29.910	13	13.0	13.2	22	13	486	59	6	5	11
12	90	76	83	1	73	0	18		0	0.04	0.0	29.950	13	12.6	13.1	23	13	473	57	4	4	12
13	90	77	84	1	74	0	19		0	T	0.0	29.980	12	11.7	12.1	20	10	440	53	7	6	13
14	90	73	82	-1	74	0	17		0	0.16	0.0	29.990	12	9.5	9.6	17	12	405	49	6	5	14
15	88	73	81	-2	73	0	16	3	0	2.08	0.0	29.970	12	7.7	9.0	20	13	294	36	5	3	15
16	90	72	81	-2	72	0	16		0	0.00	0.0	29.960	13	10.5	10.7	18	13	519	63	3	2	16
17	90	72	81	-2	72	0	16		0	0.00	0.0	29.930	14	11.9	12.1	20	13	650	79	3	2	17
18	91	75	83	0	73	0	18		0	T	0.0	29.930	13	10.8	11.1	20	11	582	71	3	2	18
19	90	74	82	-1	72	0	17		0	0.14	0.0	29.960	12	9.7	10.3	21	17	226	27	7	5	19
20	91	76	84	1	73	0	19		0	0.00	0.0	29.980	12	11.3	11.5	21	11	548	66	5	5	20
21	92	74	83	0	72	0	18		0	0.00	0.0	29.960	14	10.2	10.5	18	14	687	83	3	2	21
22	92	75	84	1	72	0	19		0	0.00	0.0	29.900	14	11.6	11.9	18	14	594	72	2	2	22
23	94	75	85	2	72	0	20		0	0.00	0.0	29.905	15	12.4	12.7	18	13	621	75	1	1	23
24	95	74	85	2	72	0	20		0	0.00	0.0	29.970	14	9.0	9.5	18	12	714	87	2	1	24
25	96	73	85	2	72	0	20		0	0.00	0.0	29.950	15	7.3	7.9	20	14	545	66	3	2	25
26	95	73	84	1	72	0	19		0	0.00	0.0	29.860	15	11.3	11.7	23	13	664	80	6	4	26
27	95	77	86	3	72	0	21		0	0.00	0.0	29.820	16	14.6	16.0	24	17	629	76	1	1	27
28	94	76	85	1	73	0	20		0	0.00	0.0	29.880	14	11.9	12.3	20	16	558	68	4	3	28
29	96	77	87	3	75	0	22		0	0.00	0.0	29.870	15	12.4	12.9	21	14	528	64	6	6	29
30	96*	80	88*	4	75	0	23		0	0.00	0.0	29.810	16	13.6	14.0	22	14	521	63	6	7	30

SUM	2731	SUM	2237				TOTAL	0	TOTAL	541	NUMBER OF DAYS		TOTAL	2.44	TOTAL	0.0	FOR THE MONTH:	29.910	14	11.9	12.6	25	16	TOTAL	15085	% FOR	SUM	143	SUM	127
AVG.	91.0	AVG.	74.6	AVG.	82.8	DEP.	0.2	AVG.	72.2	DEP.	0	DEP.	13	PRECIPITATION > .01 INCH.	5	DEP.	-0.26						DATE:	6	POSSIBLE	24718	MONTH	61	AVG.	4.8	AVG.	4.2

NUMBER OF DAYS				SEASON TO DATE		SNOW, ICE PELLETS		GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		TOTAL	TOTAL	> 1.0 INCH	0				
> 90°	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	THUNDERSTORMS	1	PRECIPITATION	SNOW, ICE PELLETS		
24	0	0	0	865	1625	HEAVY FOG	0	2.08	15	0.0	0
				256	53	CLEAR 11	PARTLY CLOUDY 17		CLOUDY 2		

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. ONE OF THREE WIND SPEEDS IS GIVEN UNDER FASTEST MILE: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED (A / APPEARS IN THE DIRECTION COLUMN). ERRORS WILL BE CORRECTED AND CHANGES IN SUMMARY DATA WILL BE ANNOTATED IN THE ANNUAL PUBLICATION.

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 DATA CENTER, ASHEVILLE, NORTH CAROLINA, 28801

Kenneth D Hadeen
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

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JN 1984
BROWNSVILLE, TEXAS

OBSERVATIONS AT 3-HOUR INTERVALS

JUN 1984 — BROWNSVILLE, TEXAS — 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY: WHOLE MILES	VISIBILITY: 16THS MILE	WEATHER	TEMPERATURE: AIR °F	TEMPERATURE: WET BULB °F	TEMPERATURE: DEW POINT °F	REL HUMIDITY %	WIND: DIRECTION	WIND: SPEED (KNOTS)
JUN 1st											
03	0	UNL	10			62	60	58	87	00	0
06	2	UNL	10			63	60	58	84	09	5
09	3	UNL	15			70	66	59	52	15	13
12	3	UNL	15			83	69	60	46	15	11
15	3	UNL	15			84	69	61	46	13	11
18	4	UNL	10			79	68	61	54	15	16
21	2	UNL	10			71	65	61	71	13	8
24	4	UNL	7			68	63	60	76	14	6
JUN 2nd											
03	2	UNL	7			66	64	62	87	14	4
06	7	36	7			67	63	61	81	09	6
09	3	UNL	15			81	69	62	53	11	11
12	4	UNL	15			84	70	63	49	15	13
15	2	UNL	15			84	69	61	46	09	11
18	1	UNL	15			82	69	62	51	13	13
21	0	UNL	15			72	68	65	79	13	5
24	3	UNL	15			69	66	64	84	10	7
JUN 3rd											
03	1	UNL	15			67	64	62	84	11	5
06	2	UNL	15			67	64	62	84	09	5
09	8	38	15			81	72	68	65	13	10
12	6	34	15			85	74	68	57	13	9
15	9	30	15			85	74	69	59	13	19
18	8	250	10			83	73	68	61	13	17
21	8	250	10			78	73	70	77	13	11
24	10	250	10			78	73	70	77	15	12
JUN 4th											
03	10	UNL	10			76	73	71	85	15	10
06	10	250	10			77	73	71	82	15	11
09	5	UNL	10			84	76	72	67	16	16
12	5	UNL	10			88	77	72	59	15	16
15	7	250	10			88	77	72	59	15	16
18	10	250	10			83	75	71	67	14	15
21	8	250	10			80	75	73	79	13	15
24	10	100	10			79	76	74	85	15	11
JUN 5th											
03	10	250	10			79	76	74	85	15	13
06	10	150	10			77	75	74	91	17	5
09	10	150	10			82	77	75	79	15	7
12	10	23	10			85	77	74	70	17	13
15	10	28	10			86	77	73	65	14	17
18	10	15	10			83	77	74	74	14	17
21	7	UNL	10			80	77	75	85	14	11
24	10	UNL	10			79	76	75	88	15	13
JUN 6th											
03	8	200	10			79	77	76	91	14	11
06	5	UNL	10			79	77	76	91	15	12
09	5	UNL	10			85	77	74	70	16	20
12	8	24	15			90	80	76	64	16	17
15	3	UNL	15			90	79	75	61	14	18
18	4	UNL	15			87	79	75	68	14	17
21	2	UNL	10			80	77	75	85	14	15
24	8	29	10			80	77	76	88	15	15
JUN 7th											
03	0	UNL	10			80	77	76	88	16	13
06	3	UNL	10			80	77	76	88	16	11
09	5	UNL	15			85	78	75	72	15	19
12	7	23	15			89	79	75	63	15	17
15	6	25	15			89	80	76	66	14	16
18	5	UNL	15			86	79	76	72	14	15
21	9	13	10			82	78	76	82	16	16
24	9	16	10			82	78	76	82	15	15
JUN 8th											
03	6	25	10			82	78	76	82	15	15
06	5	UNL	10			80	77	76	88	15	13
09	7	20	10			86	78	75	70	14	15
12	9	25	10			89	78	74	61	15	17
15	8	34	10			89	78	74	61	13	16
18	6	17	15			84	78	75	75	14	15
21	10	15	10			81	78	76	85	12	11
24	10	14	7			81	78	76	85	13	16
JUN 9th											
03	8	11	7			80	77	76	88	15	13
06	7	250	7			79	76	75	88	15	13
09	9	23	7			83	77	74	74	13	16
12	8	29	10			88	77	73	61	14	15
15	7	28	10			90	79	74	59	14	16
18	7	20	15			84	76	73	70	12	14
21	10	20	15			81	76	74	79	12	15
24	3	UNL	7			79	76	74	85	13	10
JUN 10th											
03	2	UNL	7			79	76	74	85	14	9
06	5	UNL	7			78	76	75	91	14	7
09	4	UNL	10			86	78	75	70	13	18
12	7	28	10			89	79	75	63	13	15
15	6	250	10			90	78	73	58	13	14
18	6	250	10			84	76	73	70	12	14
21	6	250	10			79	75	73	82	12	7
24	4	UNL	7			78	75	73	85	13	11
JUN 11th											
03	7	13	7			78	75	74	88	13	6
06	2	UNL	7			76	74	73	91	13	5
09	5	UNL	10			85	77	73	67	15	15
12	7	250	10			86	78	75	70	12	10
15	8	250	10			89	78	73	59	12	11
18	7	250	10			85	77	73	67	12	15
21	2	UNL	10			80	75	73	79	12	10
24	10	UNL	10			79	76	74	85	15	7
JUN 12th											
03	10	UNL	6		RW	76	73	71	85	15	10
06	3	UNL	7			76	75	74	94	15	6
09	7	100	15			84	78	75	75	16	10
12	3	UNL	15			88	78	73	61	13	18
15	3	UNL	15			90	78	73	58	13	19
18	3	UNL	15			85	75	71	63	13	14
21	2	UNL	15			80	75	73	79	12	8
24	2	UNL	10			79	76	74	85	12	7
JUN 13th											
03	2	UNL	7			77	74	73	88	13	6
06	4	UNL	7			77	74	73	88	11	6
09	6	23	10			85	77	73	67	14	12
12	7	28	10			89	78	73	59	11	14
15	7	29	10			88	78	73	61	12	17
18	10	UNL	15			80	77	76	88	09	11
21	10	UNL	15			80	77	75	85	09	8
24	9	250	10			79	76	75	88	13	7
JUN 14th											
03	5	UNL	7			77	75	74	91	12	5
06	4	UNL	7			73	72	72	97	00	0
09	5	UNL	7			84	78	75	75	14	12
12	4	UNL	7			90	79	75	61	11	10
15	7	250	7			88	78	73	61	11	12
18	8	250	15			85	76	72	65	11	11
21	5	UNL	15			79	76	74	85	10	7
24	0	UNL	15			76	74	73	91	13	5
JUN 15th											
03	1	UNL	10			74	73	72	94	11	4
06	1	UNL	7			74	73	72	94	07	2
09	4	UNL	15			85	77	74	70	16	8
12	8	250	15			81	77	75	82	02	10
15	7	100	15			87	78	74	65	12	10
18	3	UNL	15			85	77	73	67	13	17
21	0	UNL	15			78	74	72	82	13	7
24	6	18	10			75	73	72	90	15	5
JUN 16th											
03	0	UNL	7			74	73	72	94	00	0
06	1	UNL	10			72	71	70	94	00	0
09	4	UNL	10			85	77	73	67	14	13
12	5	UNL	10			88	76	71	57	14	14
15	4	UNL	15			88	76	71	57	13	16
18	2	UNL	15			85	75	71	63	12	14
21	0	UNL	15			79	75	73	82	13	8
24	0	UNL	10			77	74	72	85	15	8
JUN 17th											
03	0	UNL	10			74	72	71	90	14	5
06	0	UNL	10			72	71	70	94	14	4
09	5	UNL	15			86	77	73	65	15	15
12	4	UNL	15			89	77	72	57	13	15
15	2	UNL	15			90	77	72	56	13	14
18	2	UNL	15			87	77	72	61	13	13
21	0	UNL	15			80	75	73	79	13	10
24	0	UNL	15			79	75	73	82	14	10
JUN 18th											
03	0	UNL	10			76	74	73	91	14	6
06	8	UNL	10			75	73	72	90	11	4
09	3	UNL	15			84	76	73	70	14	15
12	3	UNL	15			91	77	71	52	15	13
15	3	UNL	25			90	78	73	58	11	12
18	3	UNL	20			86	76	72	63	12	16
21	1	UNL	15			79	75	73	82	14	7
24	0	UNL	15			76	74	73	91	11	6

WEATHER CODES

*	TORNADO	ZL	FREEZING DRIZZLE	IPW	ICE PELLET SHOWERS
T	THUNDERSTORM	S	SNOW	A	HAIL
Q	SQUALL	SW	SNOW SHOWERS	F	FOG
R	RAIN	SG	SNOW GRAINS	IF	ICE FOG
RW	RAIN SHOWERS	SP	SNOW PELLETS	GF	GROUND FOG
ZR	FREEZING RAIN	IC	ICE CRYSTALS	BD	BLOWING DUST
L	DRIZZLE	IP	ICE PELLETS		

BN	BLOWING SAND
BS	BLOWING SNOW
BY	BLOWING SPRAY
K	SMOKE
H	HAZE
D	DUST

CEILING: UNL INDICATES UNLIMITED

WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM

SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.151).

OBSERVATIONS AT 3-HOUR INTERVALS

JUN 1984 BROWNSVILLE, TEXAS 12919

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR °F	TEMPERATURE WET BULB °F	TEMPERATURE DEW POINT °F	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
JUN 19th											
03	0	UNL	15			75	72	71	87	13	5
06	4	UNL	15		RW	76	73	72	88	14	11
09	7	UNL	10			84	76	73	70	13	13
12	10	UNL	10			89	77	72	57	12	15
15	10	30	7		RW	78	73	70	77	17	18
18	4	UNL	10			85	76	72	65	11	10
21	3	UNL	10			78	75	74	88	07	6
24	5	UNL	10			80	77	75	85	10	7
JUN 20th											
03	9	90	10			80	77	75	85	12	8
06	8	90	10			79	76	75	88	13	6
09	8	100	15			85	78	75	72	12	13
12	5	UNL	15			90	78	73	58	11	18
15	2	UNL	15			90	77	72	56	12	14
18	4	UNL	15			85	77	73	67	11	13
21	1	UNL	10			78	75	73	85	09	6
24	1	UNL	10			76	74	73	91	13	6
JUN 21st											
03	0	UNL	10			75	73	72	90	13	4
06	1	UNL	10			75	73	72	90	13	6
09	3	UNL	15			86	76	71	61	13	12
12	3	UNL	15			90	77	72	56	14	11
15	3	UNL	15			92	78	72	52	14	11
18	3	UNL	15			87	77	72	61	13	14
21	0	UNL	15			79	74	72	79	14	8
24	2	UNL	15			76	73	72	88	14	4
JUN 22nd											
03	0	UNL	15			75	73	72	90	13	5
06	0	UNL	15			75	72	71	87	14	5
09	2	UNL	15			86	76	72	63	18	12
12	3	UNL	15			91	77	71	52	15	12
15	2	UNL	15			92	77	71	50	14	16
18	3	UNL	15			86	76	72	63	13	13
21	6	18	10			81	76	74	79	13	12
24	0	UNL	10			80	76	74	82	14	9
JUN 23rd											
03	0	UNL	10			77	74	72	85	16	6
06	0	UNL	10			75	72	71	87	14	6
09	1	UNL	10			86	76	72	63	17	14
12	0	UNL	15			92	77	70	49	15	14
15	3	UNL	15			93	79	73	52	14	15
18	3	UNL	15			87	77	73	63	13	15
21	1	UNL	10			81	76	73	77	13	10
24	0	UNL	10			79	75	73	82	15	10
JUN 24th											
03	0	UNL	10			76	73	72	88	15	5
06	0	UNL	10			75	72	71	87	14	4
09	2	UNL	15			86	77	73	65	15	12
12	3	UNL	15			93	78	71	49	13	8
15	4	UNL	15			93	78	72	51	12	14
18	2	UNL	15			88	77	72	59	14	14
21	1	UNL	10			80	75	73	79	13	7
24	0	UNL	10			76	73	72	88	00	0
JUN 25th											
03	0	UNL	10			75	73	72	90	00	0
06	6	UNL	10			73	72	71	94	00	0
09	2	UNL	15			85	77	74	70	15	5
12	1	UNL	15			92	76	68	46	13	7
15	1	UNL	15			94	78	71	47	14	17
18	3	UNL	15			89	76	70	54	13	12
21	1	UNL	10			81	75	72	74	13	7
24	0	UNL	7			78	75	73	85	17	6
JUN 26th											
03	0	UNL	7			75	72	71	87	16	5
06	3	UNL	10			74	72	71	90	17	3
09	10	UNL	15			87	77	72	61	17	10
12	8	UNL	15			94	77	70	46	13	15
15	7	UNL	15			93	78	71	49	13	20
18	3	UNL	15			88	77	72	59	14	16
21	2	UNL	10			81	76	73	77	15	10
24	0	UNL	10			80	75	73	79	16	10
JUN 27th											
03	2	UNL	10			79	75	73	82	17	8
06	0	UNL	10			77	74	73	88	15	7
09	3	UNL	10			87	77	73	63	17	14
12	2	UNL	15			91	78	72	54	16	17
15	1	UNL	7			94	77	70	46	17	21
18	0	UNL	7			89	76	70	54	16	18
21	1	UNL	7			81	75	72	74	14	12
24	1	UNL	7			80	75	73	79	16	10
JUN 28th											
03	2	UNL	7			79	76	74	85	16	8
06	0	UNL	7			76	74	73	91	16	5
09	7	25	7			87	77	72	61	17	13
12	6	30	10			92	78	72	52	15	17
15	2	UNL	10			94	78	72	49	15	13
18	3	UNL	10			88	77	73	61	13	14
21	3	UNL	7			82	76	74	77	12	9
24	0	UNL	7			79	76	75	88	14	5
JUN 29th											
03	0	UNL	7			77	73	71	82	16	5
06	4	UNL	7			78	76	75	91	17	7
09	8	17	7			88	79	75	66	17	15
12	6	30	10			95	82	78	58	16	12
15	3	UNL	10			95	81	75	53	14	15
18	5	UNL	10			89	79	75	63	14	18
21	10	250	10			83	77	75	77	16	10
24	10	230	10			82	78	76	82	15	10
JUN 30th											
03	10	230	10			82	78	76	82	18	9
06	9	120	10			81	78	77	88	15	9
09	9	120	10			87	79	75	68	19	15
12	7	120	15			94	78	72	49	18	13
15	4	UNL	15			95	79	73	49	14	19
18	3	UNL	15			89	77	71	55	15	16
21	4	UNL	7			82	77	75	79	16	12
24	10	100	7			82	78	77	85	15	9

SUMMARY BY HOURS

HOUR L.S.T.	AVERAGES SKY COVER (TENTHS)	AVERAGES STATION PRESSURE (INCHES)	AVERAGES TEMPERATURE AIR TEMP °F	AVERAGES TEMPERATURE WET BULB °F	AVERAGES TEMPERATURE DEW POINT °F	AVERAGES REL HUMIDITY %	AVERAGES WIND SPEED (MPH)	RESULTANT WIND DIRECTION	RESULTANT WIND SPEED (MPH)
03	3	29.900	76	73	72	87	7.8	15	7.5
06	4	29.910	75	73	72	89	7.1	14	6.6
09	5	29.940	85	76	73	67	15.1	15	14.3
12	5	29.930	89	77	72	57	15.6	14	14.3
15	5	29.890	90	77	72	56	17.6	14	16.9
18	5	29.865	85	76	72	64	16.8	13	16.3
21	4	29.900	80	75	73	80	11.0	13	10.5
24	4	29.920	78	75	73	85	9.9	14	9.5

JUL 1984
BROWNSVILLE, TEXAS
NAT'L WEA SER OFC
INTERNATIONAL AIRPORT

ISSN 0198-4950

LOCAL CLIMATOLOGICAL DATA

Monthly Summary

INTERNATIONAL AIRPORT

LATITUDE 25°54 ' LONGITUDE 97°26 ' ELEVATION (GROUND) 19 FEET TIME ZONE CENTRAL 12919

DATE	TEMPERATURE °F MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	DEGREE DAYS BASE 65°F HEATING (SEASON BEGINS WITH JUL)	COOLING (SEASON BEGINS WITH JAN)	WEATHER TYPES 1 FOG 2 HEAVY FOG 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 0600 INCHES	PRECIPITATION WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)	AVERAGE STATION PRESSURE IN INCHES ELEV. 20 FEET ABOVE M.S.L.	WIND (M.P.H.) RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	FASTEST MILE SPEED	FASTEST MILE DIRECTION	SUNSHINE MINUTES	PERCENT OF TOTAL POSSIBLE	SKY COVER (TENTHS) SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT	DATE
1	2	3	4	5	6	7A	7B	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
01	95	80	88*	4	74	0	23	1 8	0	0.00	0.0	29.850	16	12.6	13.6	21	16	624	76	4	4	01
02	95	77	86	2	72	0	21	8	0	0.00	0.0	29.940	14	11.1	11.7	22	14	340	41	5	4	02
03	94	74	84	0	70	0	19		0	T	0.0	29.970	15	12.2	13.1	32	18	513	62	6	3	03
04	94	77	86	2	72	0	21		0	0.00	0.0	29.900	15	16.1	16.2	25	15	664	81	3	2	04
05	94	76	85	1	72	0	20		0	0.00	0.0	29.880	14	12.9	13.1	22	14	635	77	4	3	05
06	95	75	85	1	71	0	20		0	0.00	0.0	29.900	15	9.7	10.2	21	14	523	64	10	8	06
07	96	75	86	2	71	0	21		0	0.00	0.0	29.940	14	9.2	9.5	16	14	664	81	5	4	07
08	95	74	85	1	71	0	20		0	0.00	0.0	29.960	13	8.8	9.1	18	13	662	81	4	3	08
09	95	77	86	2	72	0	21		0	0.00	0.0	29.960	13	11.6	11.9	18	14	472	58	8	8	09
10	94	77	86	2	72	0	21		0	0.01	0.0	29.960	15	12.4	12.7	20	16	446	54	8	8	10
11	95	76	86	2	72	0	21		0	T	0.0	29.930	11	7.1	7.9	18	12	301	37	9	8	11
12	87	75	81	-3	71	0	16	3	0	0.23	0.0	29.930	14	5.8	7.2	25	16	314	38	9	9	12
13	94	72	83	-1	71	0	18		0	0.00	0.0	29.960	12	8.4	9.1	18	10	608	74	4	3	13
14	92	72	82	-2	70	0	17		0	0.15	0.0	30.030	14	7.3	8.7	29	17	281	34	8	6	14
15	90	73	82	-2	73	0	17	3	0	0.36	0.0	30.040	12	5.4	8.4	17	14	249	30	10	8	15
16	93	74	84	0	71	0	19	1	0	0.00	0.0	29.970	16	10.3	10.4	21	15	640	79	3	4	16
17	95	75	85	1	72	0	20		0	0.00	0.0	29.880	16	13.6	14.2	21	19	743	91	2	2	17
18	95	74	85	1	72	0	20		0	0.00	0.0	29.920	15	12.4	12.6	21	15	722	89	0	1	18
19	95	75	85	1	72	0	20		0	0.00	0.0	29.950	15	10.2	11.0	18	13	734	90	2	1	19
20	95	75	85	1	73	0	20		0	0.00	0.0	29.910	15	11.0	11.6	18	12	630	78	2	1	20
21	96*	76	86	2	73	0	21		0	0.00	0.0	29.910	14	9.3	9.8	18	13	530	65	3	2	21
22	94	75	85	1	71	0	20		0	T	0.0	29.930	13	7.4	8.1	16	10	431	53	6	4	22
23	95	72	84	0	71	0	19		0	0.00	0.0	29.930	11	5.0	5.7	15	10	484	60	4	3	23
24	95	74	85	1	70	0	20	3	0	0.00	0.0	29.950	14	8.5	9.5	18	13	506	63	4	3	24
25	92	74	83	-1	72	0	18	3	0	0.05	0.0	29.990	12	4.7	7.4	16	09	258	32	7	5	25
26	92	73	83	-1	72	0	18	3	0	T	0.0	30.000	07	4.7	5.9	15	09	357	44	8	5	26
27	95	72*	84	0	71	0	19	1 8	0	0.00	0.0	29.955	09	6.4	7.0	16	12	678	84	3	2	27
28	95	73	84	0	71	0	19		0	0.00	0.0	29.950	05	4.4	5.9	15	07	465	58	7	6	28
29	93	74	84	-1	72	0	19		0	0.05	0.0	29.950	03	7.4	8.3	16	04	612	76	4	3	29
30	95	74	85	0	71	0	20	1 8	0	T	0.0	29.890	35	9.0	10.2	20	32	420	52	4	3	30
31	89	73	81*	-4	73	0	16		0	0.74	0.0	29.860	04	5.1	6.1	15	05	261	33	8	6	31
	SUM	SUM				TOTAL	TOTAL			TOTAL	TOTAL	FOR THE MONTH:						TOTAL	%	SUM	SUM	
	2909	2313				0	604			1.59	0.0	29.940	14	7.5	9.9	32	18	15767	FOR	164	132	
	AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.			DEP.						DATE:	3	POSSIBLE	MONTH	AVG.	AVG.	
	93.8	74.6	84.2	0.1	71.6	0	12			0.08								25249	62	5.3	4.3	

NUMBER OF DAYS				SEASON TO DATE		NUMBER OF DAYS		GREATEST IN 24 HOURS AND DATES			GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE
MAXIMUM TEMP.		MINIMUM TEMP.		TOTAL	TOTAL	PRECIPITATION	7		PRECIPITATION	SNOW, ICE PELLETS	
> 90 °	≤ 32°	≤ 32°	≤ 0°	DEP.	DEP.	> .01 INCH.			0.74	31	0.0	0
29	0	0	0	0	65	SNOW, ICE PELLETS > 1.0 INCH	0				
				0	2229	THUNDERSTORMS	5				
						HEAVY FOG	0				
						CLEAR 8	PARTLY CLOUDY 14	CLOUDY 9			

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. ONE OF THREE WIND SPEEDS IS GIVEN UNDER FASTEST MILE: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED (A / APPEARS IN THE DIRECTION COLUMN). ERRORS WILL BE CORRECTED AND NOTED IN SUBSEQUENT 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 DATA CENTER, ASHEVILLE, NORTH CAROLINA, 28801

Kenneth D Hadeen
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

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JUL 1984
BROWNSVILLE, TEXAS

OBSERVATIONS AT 3-HOUR INTERVALS

JUL 1984 12919
BROWNSVILLE, TEXAS

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY WHOLE MILES	VISIBILITY 16THS MILE	WEATHER	TEMPERATURE AIR OF	TEMPERATURE WET BULB OF	TEMPERATURE DEW POINT OF	REL HUMIDITY %	WIND DIRECTION	WIND SPEED (KNOTS)
JUL 1st											
03	9	9	5		F	81	78	77	88	34	5
06	7	150	7			80	78	77	91	16	12
09	3	UNL	10			89	78	73	59	16	14
12	5	UNL	10			94	78	71	47	19	11
15	2	UNL	10			94	78	72	49	16	16
18	0	UNL	10			90	78	73	58	14	15
21	0	UNL	10			82	77	75	79	13	11
24	0	UNL	10			81	77	75	82	15	11
JUL 2nd											
03	0	UNL	10			79	76	75	88	14	6
06	3	UNL	7			77	76	75	94	09	4
09	5	UNL	10			87	79	75	68	15	8
12	10	UNL	15			93	77	70	47	15	18
15	3	UNL	15			91	76	70	50	12	15
18	4	UNL	15			89	76	70	54	15	17
21	4	UNL	15			79	74	71	77	17	4
24	3	UNL	15			77	73	71	82	14	3
JUL 3rd											
03	0	UNL	15			74	71	70	87	15	4
06	7	UNL	15			76	73	72	88	11	5
09	5	UNL	15			88	77	72	59	15	14
12	2	UNL	15			90	74	67	47	19	18
15	6	100	15			94	73	62	35	15	18
18	9	100	15			84	75	71	65	12	10
21	0	UNL	15			80	75	72	77	14	8
24	0	UNL	15			79	74	72	79	15	9
JUL 4th											
03	2	UNL	15			79	75	73	82	15	9
06	3	UNL	15			77	74	73	88	15	6
09	3	UNL	10			88	77	72	59	15	16
12	5	UNL	15			90	76	70	52	14	18
15	3	UNL	15			92	77	70	49	15	22
18	2	UNL	15			89	77	71	55	14	18
21	0	UNL	15			81	75	72	74	14	15
24	0	UNL	10			80	75	73	79	15	10
JUL 5th											
03	0	UNL	10			79	75	73	82	15	8
06	0	UNL	10			76	73	72	88	15	4
09	5	UNL	10			86	76	71	61	15	15
12	5	UNL	15			92	77	71	50	13	13
15	4	UNL	15			93	77	70	47	12	16
18	3	UNL	15			87	77	72	61	15	18
21	3	UNL	15			81	76	73	77	13	8
24	4	UNL	15			79	75	73	82	14	7
JUL 6th											
03	0	UNL	15			76	73	72	88	18	5
06	6	UNL	15			75	73	72	90	12	4
09	8	250	10			88	77	72	59	17	7
12	10	UNL	15			93	76	69	46	14	10
15	10	250	15			95	77	69	43	14	18
18	10	250	15			88	76	71	57	15	14
21	9	250	15			81	76	73	77	15	8
24	9	250	15			79	75	73	82	14	5
JUL 7th											
03	3	UNL	15			76	73	72	88	15	5
06	6	UNL	15			75	72	71	87	12	5
09	8	250	15			86	76	72	63	16	8
12	6	250	15			94	76	68	43	16	12
15	4	UNL	15			94	76	68	43	15	12
18	2	UNL	15			89	75	69	52	12	13
21	3	UNL	15			82	76	73	74	13	8
24	0	UNL	15			78	74	72	82	14	6
JUL 8th											
03	0	UNL	15			76	73	71	85	13	4
06	0	UNL	15			74	71	70	87	00	0
09	5	UNL	10			85	76	72	65	16	9
12	5	UNL	10			92	77	70	49	11	11
15	4	UNL	15			94	76	68	43	11	13
18	5	UNL	15			89	75	69	52	12	14
21	3	UNL	15			82	76	73	74	12	7
24	10	UNL	15			79	76	74	85	14	6
JUL 9th											
03	10	250	10			78	75	74	88	14	6
06	10	250	15			77	74	73	88	14	4
09	9	250	10			86	77	73	65	13	14
12	6	250	10			92	77	70	49	12	12
15	6	250	10			92	77	70	49	11	12
18	10	250	10			88	77	72	59	14	15
21	9	250	10			83	75	72	70	14	10
24	3	UNL	10			80	75	73	79	15	10
JUL 10th											
03	8	UNL	15			78	74	72	82	15	8
06	8	250	10			77	74	73	88	16	9
09	7	21	10			87	77	73	63	14	12
12	6	250	15			92	77	70	49	17	15
15	8	250	15			90	76	70	52	16	17
18	10	250	15			86	76	72	63	13	14
21	10	250	15			83	76	73	72	13	9
24	10	250	15			81	76	73	77	14	8
JUL 11th											
03	10	UNL	10			77	74	73	88	00	0
06	4	UNL	15			76	73	72	88	17	4
09	7	250	10			84	76	72	67	07	5
12	10	UNL	10			94	77	70	46	08	10
15	10	250	10			89	77	71	55	10	13
18	10	250	15			86	76	72	63	12	16
21	6	250	15			81	76	73	77	12	7
24	4	UNL	15			77	74	73	88	13	5
JUL 12th											
03	9	250	10			75	73	72	90	00	0
06	10	UNL	10			76	73	72	88	08	4
09	10	250	10			85	75	71	63	12	10
12	10	28	7		RW	77	72	70	79	16	22
15	10	100	10			83	75	71	67	16	6
18	10	UNL	10			86	74	69	57	18	7
21	10	UNL	10			77	72	69	76	11	4
24	8	250	10			75	72	70	85	00	0
JUL 13th											
03	3	UNL	10			73	71	70	90	00	0
06	2	UNL	10			73	71	70	90	04	4
09	5	UNL	7			86	77	73	65	16	9
12	5	UNL	10			92	77	71	50	14	11
15	5	UNL	10			94	76	67	41	10	16
18	5	UNL	15			89	75	69	52	12	15
21	0	UNL	15			80	74	71	74	12	9
24	0	UNL	15			77	74	72	85	14	7
JUL 14th											
03	0	UNL	15			74	72	71	90	00	0
06	6	17	15			73	71	70	90	15	6
09	7	250	15			82	75	71	69	04	3
12	10	40	15			91	75	67	45	15	15
15	9	40	15			90	76	69	50	09	17
18	10	80	15			76	73	72	88	14	13
21	5	UNL	15			75	72	70	85	15	5
24	6	250	15			74	71	70	87	17	5
JUL 15th											
03	7	70	15			73	71	70	90	03	4
06	10	26	7		RW	74	73	72	94	36	6
09	10	40	7			75	73	72	90	01	6
12	10	80	7			84	78	76	77	14	8
15	10	200	10			90	79	75	61	14	13
18	9	250	10			88	79	75	66	14	14
21	0	UNL	10			80	77	75	85	14	6
24	0	UNL	10			77	75	74	91	17	5
JUL 16th											
03	0	UNL	10			76	74	73	91	16	5
06	3	UNL	1	8	F	74	73	72	94	14	4
09	9	170	7			82	76	73	74	17	10
12	0	UNL	10			91	75	68	47	16	12
15	0	UNL	10			92	74	66	42	16	13
18	4	UNL	10			88	74	67	50	15	17
21	10	UNL	7			77	73	71	82	15	6
24	3	UNL	7			75	73	72	90	14	7
JUL 17th											
03	3	UNL	7			75	72	71	87	15	7
06	1	UNL	7			75	73	72	90	18	10
09	2	UNL	7			86	76	72	63	18	15
12	2	UNL	15			92	77	70	49	18	14
15	1	UNL	15			95	77	69	43	18	12
18	4	UNL	15			88	77	72	59	15	14
21	4	UNL	10			81	76	74	79	15	11
24	3	UNL	10			79	76	74	85	15	12
JUL 18th											
03	0	UNL	10			77	75	74	91	17	8
06	2	UNL	10			75	73	72	90	15	5
09	2	UNL	15			86	77	73	65	17	11
12	1	UNL	25			94	78	71	47	15	12
15	0	UNL	25			95	78	70	44	13	15
18	0	UNL	15			89	77	72	57	16	15
21	1	UNL	15			81	76	73	77	15	10
24	0	UNL	10			79	76	74	85	15	6

WEATHER CODES

*	TORNADO	ZL	FREEZING DRIZZLE	IPW	ICE PELLET SHOWERS	BN	BLOWING SAND
T	THUNDERSTORM	S	SNOW	A	HAIL	BS	BLOWING SNOW
Q	SQUALL	SW	SNOW SHOWERS	F	FOG	BY	BLOWING SPRAY
R	RAIN	SG	SNOW GRAINS	IF	ICE FOG	K	SMOKE
RW	RAIN SHOWERS	SP	SNOW PELLETS	GF	GROUND FOG	H	HAZE
ZR	FREEZING RAIN	IC	ICE CRYSTALS	BD	BLOWING DUST	D	DUST
L	DRIZZLE	IP	ICE PELLETS				

CEILING: UNL INDICATES UNLIMITED
WIND DIRECTION: 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. AN ENTRY OF 00 INDICATES CALM
SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.15).

OBSERVATIONS AT 3-HOUR INTERVALS

JUL 1984 — 12919 — BROWNSVILLE, TEXAS

HOUR L.S.T.	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	VISIBILITY: WHOLE MILES	VISIBILITY: 16THS MILE	WEATHER	TEMPERATURE: AIR °F	TEMPERATURE: WET BULB °F	TEMPERATURE: DEW POINT °F	REL HUMIDITY %	WIND: DIRECTION	WIND: SPEED (KNOTS)
JUL 19th											
03	0	UNL	10			76	74	73	91	16	7
06	2	UNL	10			75	73	72	90	16	3
09	3	UNL	10			86	77	73	65	20	11
12	1	UNL	10			94	77	69	44	15	10
15	2	UNL	10			95	78	70	44	14	13
18	0	UNL	15			89	77	71	55	13	16
21	2	UNL	15			82	76	74	77	14	10
24	0	UNL	15			79	76	74	85	18	8
JUL 20th											
03	0	UNL	10			77	75	74	91	14	6
06	0	UNL	10			75	73	72	90	14	5
09	3	UNL	10			87	77	73	63	17	14
12	3	UNL	10			94	78	72	49	18	12
15	2	UNL	10			94	78	72	49	16	14
18	1	UNL	10			89	78	73	59	14	14
21	0	UNL	10			82	76	74	77	14	10
24	0	UNL	7			80	76	74	82	15	6
JUL 21st											
03	1	UNL	7			76	74	73	91	00	0
06	1	UNL	7			76	74	73	91	09	5
09	2	UNL	7			87	77	73	63	17	10
12	6	40	10			94	78	72	49	15	12
15	5	UNL	10			94	78	71	47	15	16
18	2	UNL	15			88	77	73	61	13	16
21	0	UNL	10			81	76	73	77	14	7
24	7	17	7			78	75	73	85	14	4
JUL 22nd											
03	2	UNL	7			76	73	72	88	16	4
06	2	UNL	7			75	73	72	90	00	0
09	8	UNL	10			86	77	73	65	15	10
12	7	250	10			92	76	68	46	18	8
15	7	250	10			94	76	68	43	11	12
18	3	UNL	15			87	76	71	59	10	11
21	0	UNL	10			80	75	72	77	14	6
24	0	UNL	10			75	72	71	87	00	0
JUL 23rd											
03	0	UNL	7			74	72	71	90	00	0
06	1	UNL	7			74	72	71	90	00	0
09	3	UNL	10			84	76	72	67	25	3
12	6	30	10			94	76	67	41	08	7
15	8	250	10			94	78	71	47	10	10
18	2	UNL	10			89	76	70	54	11	11
21	4	UNL	10			80	75	73	79	14	5
24	0	UNL	7			76	73	72	88	19	4
JUL 24th											
03	0	UNL	7			76	74	73	91	11	4
06	2	UNL	7			74	70	68	82	13	4
09	1	UNL	10			86	76	72	63	19	10
12	4	UNL	10			91	76	69	49	19	10
15	4	UNL	10			93	76	68	44	12	15
18	8	250	10			86	76	71	61	11	12
21	6	250	10			81	74	71	72	12	6
24	0	UNL	10			77	73	71	82	14	5
JUL 25th											
03	1	UNL	10			75	72	71	87	00	0
06	3	UNL	10			74	72	71	90	08	3
09	4	UNL	10			84	77	74	72	18	7
12	9	38	7			89	77	71	55	21	7
15	10	250	7			91	76	69	49	09	14
18	8	250	10			87	75	70	57	12	13
21	5	UNL	10			81	76	73	77	11	6
24	0	UNL	10			77	74	73	88	13	4
JUL 26th											
03	0	UNL	10			75	73	72	90	00	0
06	4	UNL	10			73	72	71	94	00	0
09	8	30	10			86	77	73	65	31	4
12	10	31	7		T	92	77	71	50	02	9
15	9	250	10			90	77	71	54	09	13
18	9	250	10			86	76	71	61	10	10
21	4	UNL	10			79	74	72	79	14	4
24	0	UNL	10			77	74	72	85	12	3
JUL 27th											
03	0	UNL	10			74	72	71	90	00	0
06	1	UNL	10			73	72	71	94	00	0
09	2	UNL	10			86	76	72	63	05	6
12	4	UNL	15			94	77	70	46	06	12
15	4	UNL	15			93	78	71	49	09	9
18	2	UNL	15			88	74	68	52	12	14
21	2	UNL	15			81	75	72	74	10	9
24	0	UNL	15			78	74	72	82	10	3
JUL 28th											
03	0	UNL	15			75	72	71	87	00	0
06	4	UNL	15			73	71	70	90	35	5
09	5	UNL	15			86	76	71	61	34	2
12	8	38	15			91	77	71	52	36	8
15	8	250	15			93	76	69	46	04	12
18	10	250	15			87	76	71	59	09	10
21	8	UNL	15			80	75	72	77	00	0
24	7	UNL	15			77	74	72	85	00	0
JUL 29th											
03	3	UNL	15			75	72	71	87	33	4
06	3	UNL	15			74	73	72	94	32	4
09	3	UNL	15			85	77	74	70	36	7
12	5	UNL	15			90	76	70	52	01	8
15	3	UNL	15			93	76	69	46	05	14
18	2	UNL	15			88	76	71	57	04	14
21	2	UNL	15			80	75	73	79	06	6
24	2	UNL	15			77	74	73	88	34	4
JUL 30th											
03	2	UNL	15			76	73	72	88	30	3
06	2	UNL	5		F	75	73	72	90	31	5
09	7	14	6		H	84	77	74	72	34	11
12	4	UNL	7			94	74	64	37	32	17
15	4	UNL	7			92	74	66	42	36	13
18	2	UNL	7			88	76	71	57	02	12
21	1	UNL	7			81	75	72	74	04	7
24	1	UNL	7			79	74	72	79	03	4
JUL 31st											
03	1	UNL	10			76	73	72	88	00	0
06	7	250	10			73	72	71	94	00	0
09	7	250	10			84	76	73	70	34	6
12	7	250	7			87	78	74	65	01	6
15	10	250	7			85	77	73	67	03	12
18	8	250	7			85	77	74	70	05	13
21	3	UNL	7			79	76	74	85	09	4
24	0	UNL	10			76	74	73	91	00	0

SUMMARY BY HOURS

HOUR L.S.T.	AVERAGES: SKY COVER (TENTHS)	AVERAGES: STATION PRESSURE (INCHES)	AVERAGES: TEMPERATURE: AIR TEMP °F	AVERAGES: TEMPERATURE: WET BULB °F	AVERAGES: TEMPERATURE: DEW POINT °F	AVERAGES: REL HUMIDITY %	AVERAGES: WIND SPEED (MPH)	RESULTANT WIND: DIRECTION	RESULTANT WIND: SPEED (MPH)
03	2	29.930	76	73	72	88	4.2	15	3.0
06	4	29.935	75	73	72	90	4.8	13	2.8
09	5	29.970	85	76	73	66	10.6	16	6.9
12	6	29.960	91	76	70	50	13.7	15	8.6
15	6	29.920	92	76	70	48	16.0	12	12.5
18	5	29.900	87	76	71	59	15.8	13	13.6
21	4	29.930	80	75	73	77	8.4	13	7.7
24	3	29.955	78	74	73	84	6.2	15	5.5