NOAA Technical Memorandum NWS WR-194

ANNUAL DATA AND VERIFICATION TABULATION EASTERN NORTH PACIFIC TROPICAL STORMS AND HURRICANES 1985

Salt Lake City, Utah
March 1986

U.S. DEPARTMENT OF COMMERCE / National Oceanic and Atmospheric Administration / National Weather Service

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NOAA Technical Memoranda (NWS WR)

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80 Estimation of Number of Days Above or Below Selected Temperatures. Clarence M. Sakamoto, October 1972. (COM-72-10021)
81 An Aid for Forecasting Summer Maximum Temperatures at Seattle, Washington. Edgar G. Johnson, November 1972. (COM-73-10150)
82 Flash Flood Forecasting and Warning Program in the Western Region. Philip Williams, Jr., Chester L. Glenn, and Roland L. Raetz, December 1972, (revised March 1978). (COM-73-10251)
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91 Arizona "Eddy" Tornadoes. Robert S. Ingram, October 1973. (COM-73-10465)
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93 An Operational Evaluation of 500-mb Type Regression Equations. Alexander E. MacDonald, June 1974. (COM-74-11407/AS)
94 Conditional Probability of Visibility Less than One-Half Mile in Radiation Fog at Fresno, California. John D. Thomas, August 1974. (COM-74-11555/AS)
96 Map Type Precipitation Probabilities for the Western Region. Glenn E. Rasch and Alexander E. MacDonald, February 1975. (COM-75-10428/AS)
97 Eastern Pacific Cut-Off Low of April 21-28, 1974. William J. Alder and George R. Miller, January 1976. (PB-250-711/AS)
98 Study on a Significant Precipitation Episode in Western United States. Ira S. Brenner, April 1976. (COM-75-10719/AS)
99 A Study of Flash Flood Susceptibility--A Basin in Southern Arizona. Gerald Williams, August 1975. (COM-75-11360/AS)
102 A Set of Rules for Forecasting Temperatures in Napa and Sonoma Counties. Wesley L. Tuft, October 1975. (PB-246-902/AS)
103 Application of the National Weather Service Flash-Flood Program in the Western Region. Gerald Williams, January 1976. (PB-253-053/AS)
104 Objective Aids for Forecasting Minimum Temperatures at Reno, Nevada, During the Summer Months. Christopher D. Hill, January 1976. (PB-252-866/AS)
105 Forecasting the Mono Wind. Charles P. Ruscha, Jr., February 1976. (PB-254-650)
106 Use of MOS Forecast Parameters in Temperature Forecasting. John C. Plankinton, Jr., March 1976. (PB-254-649)
107 Map Types as Aids in Using MOS PoPs in Western United States. Ira S. Brenner, August 1976. (PB-259-594)
108 Other Kinds of Wind Shear. Christopher D. Hill, August 1976. (PB-260-437/AS)
109 Forecasting North Winds in the Upper Sacramento Valley and Adjoining Forests. Christopher E. Fontana, September 1976. (PB-273-677/AS)
110 Cool Inflow as a Weakening Influence on Eastern Pacific Tropical Cyclones. William J. Denney, November 1976. (PB-264-655/AS)
112 The MAN/MOS Program. Alexander E. MacDonald, February 1977. (PB-265-941/AS)
113 Winter Season Minimum Temperature Formula for Bakersfield, California, Using Multiple Regression. Michael J. Oard, February 1977. (PB-273-694/AS)
114 Tropical Cyclone Kathleen. James R. Fors, February 1977. (PB-273-676/AS)
116 A Study of Wind Gusts on Lake Mead. Bradley Colman, April 1977. (PB-268-847)
117 The Relative Frequency of Cumulonimbus Clouds at the Nevada Test Site as a Function of K-Value. R. F. Quiring, April 1977. (PB-272-831)
118 Moisture Distribution Modification by Upward Vertical Motion. Ira S. Brenner, April 1977. (PB-268-740)
119 Relative Frequency of Occurrence of Warm Season Echo Activity as a Function of Stability Indices Computed from the Yucca Flat, Nevada, Rawinsonde. Darryl Randerson, June 1977. (PB-271-290/AS)

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E. B. Gunther and R. L. Cross

Eastern Pacific Hurricane Center
San Francisco, California
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UNITED STATES
DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary

National Oceanic and
Atmospheric Administration
John V. Byrne, Administrator

National Weather
Service
Richard E. Hallgren, Director

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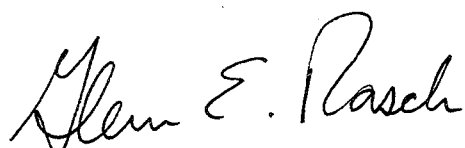

Glenn E. Rasch, Chief
Scientific Services Division
Western Region Headquarters
Salt Lake City, Utah

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EASTERN NORTH PACIFIC TROPICAL STORMS AND HURRICANES 1985

I. INTRODUCTION

This is the seventh report of an annual series covering eastern North Pacific tropical cyclone activity. Data are provided by the National Weather Service, the National Earth Satellite Service Field Station - San Francisco, California, and the Chief, Aerial Reconnaissance Coordination, all Hurricanes (CARCAH), Miami, Florida.

II. OBJECTIVE FORECAST TECHNIQUES

Tropical cyclone prediction models used by Eastern Pacific Hurricane Center (EPHC) forecasters include:

1. EPHC77 (Leftwich and Neumann, 1977). A statistical-synoptic model.

2. EPHC81 (Leftwich, 1981). A statistical-dynamic model.

3. EPCLIPER (Neumann, 1982). A simulated analog model based on persistence and climatology.

4. EPANALOG (Jarrell, Mauck, and Renard, 1975). An analog model.

5. SANBAR (Sanders and Burpee, 1968). A filtered barotropic model.

In addition to the above models, forecasters also make use of NMC analyses and prognoses.

III. VERIFICATION

Verification statistics for the 1985 season are shown in Table 1. The forecast displacement error is the vector difference between the forecast displacement and the actual displacement computed from operational advisory positions. Depressions are not verified.

IV. DATA SUMMARIES

A summary of the 1985 eastern North Pacific tropical cyclone statistics is given in Table 2. Best-track, operational positions, and position errors are given in Tables 3-24.

U. S. Air Force reconnaissance aircraft flew into two of the eastern North Pacific tropical cyclones during the 1985 season. Three flights were made, all during the month of September, while cyclones were three to four hundred nautical miles west-southwest of the tip of Baja California. The first flight, with one penetration, was made into Hurricane Sandra on 12 September by aircraft returning from standby reconnaissance in Hawaii. The second and third flights were made into Hurricane Terry on 21 and 22 September, with two penetrations of the cyclone each day.

Even as satellite imagery continues to improve and is one of the more important tools used by tropical forecasters, aircraft reconnaissance and ship reports are invaluable in providing comparative observations.

V. REFERENCES

(1) Jarrell, J. D., C. M. Mauck, and R. J. Renard, 1985: "The Navy's Analog Scheme for Forecasting Tropical Cyclone Motion Over the Northeastern Pacific Ocean". Technical Paper No. 6-75, Environmental Prediction Research Facility, Naval Postgraduate School, Monterey, Calif., 27 pp.

(2) Leftwich, P. W., and C. J. Neumann, 1977: "Statistical Guidance on the Prediction of Eastern North Pacific Tropical Cyclone Motion". NOAA Technical Memorandum NWS WR-125, National Oceanic and Atmospheric Administration, U. S. Department of Commerce, National Weather Service Western Region, 15 pp.

(3) Neumann, C. J., 1972: "An Alternate to the HURRAN Tropical Cyclone Forecast System. NOAA Technical Memorandum NWS SR-62, National Oceanic and Atmospheric Administration, U. S. Department of Commerce, National Weather Service Southern Region, 24 pp.

(4) J. R. Hope, and B. I. Miller, 1972: "A Statistical Method of Combining Synoptic and Empirical Cyclone Prediction Systems". NOAA Technical Memorandum NWS SR-63, National Oceanic and Atmospheric Administration, U. S. Department of Commerce, National Weather Service Southern Region, 32 pp.

(5) Sanders, F., and R. W. Burpee, 1968: "Experiments in Barotropic Hurricane Track Forecasting. Journal of Applied Meteorology, Vol. 7, No. 3, 313-323.

(6) Leftwich, P. W., 1981: "A Statistical-Dynamical Model for Prediction of Tropical Cyclone Motion in the Eastern North Pacific Ocean". Firts draft of Manuscript. NOAA National Weather Service, National Hurricane Center, Coral Gables, Florida.

TABLE 1

1985 FORECAST ERRORS*

	FORECAST PERIOD 24 HR	48 HR	72 HR
EPHC FORECASTERS	167(90)/346	293(158)/291	417(225)/224
EPANALOG	161(87)/321	293(158)/275	411(222)/209
EPHC77	163(88)/317	274(148)/272	374(202)/206
CLIPER	163(88)/323	293(158)/276	402(217)/210
EPHC81	161(87)/144	315(170)/115	447(241)/88

* Average error in kilometers (nautical miles)/number of cases.

TABLE 2

Summary of Eastern North Pacific Tropical Cyclones of 1985
(Includes only those cyclones that reached hurricane HU or tropical storm TS)

NO.	NAME	CLASS	DATES	MAX(KTS)	DAMAGE ($MILLION)	DEATHS
1	Andres	TS	5-12 Jun	60	Unknown	Unknown
2	Blanco	HU	6-16 Jun	105	"	"
3	Carlos	TS	7-10 Jun	35	"	"
4	Dolores	HU	26 Jun - 5 Jul	100	"	"
5	Enrique	TS	27 Jun - 1 Jul	35	"	"
6	Fefa	TS	2-6 Jul	60	"	"
7	Guillermo	TS	7-12 Jul	50	"	"
8	Hilda	TS	18-20 Jul	35	"	"
9	Jimena	HU	20-29 Jul	115	"	"
10	Ignacio	TS	21-22 Jul	60	"	"
11	Kevin	TS	29 Jul - 6 Aug	55	"	"
12	Linda	TS	29 Jul - 4 Aug	45	"	"
13	Marty	HU	6-13 Aug	65	"	"
14	Nora	TS	19-23 Aug	40	"	"
15	Olaf	HU	22-31 Aug	75	"	"
16	Pauline	HU	27 Aug - 5 Sep	75	"	"
17	Rick	HU	1-9 Sep	125	"	"
18	Sandra	HU	5-17 Sep	110	"	"
19	Terry	HU	15-24 Sep	110	"	"
20	Vivian	TS	18-21 Sep	35	"	"
21	Waldo	HU	7-9 Oct	90	"	"
22	Xina	HU	25 Oct - 5 Nov	100	"	"

ANDRES.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
6 500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 506	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 512	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 518	15.7	100.1	15.7	100.3	11.5	16.5	103.9	86.	17.3	106.7	262.	17.9	109.5	329.
6 600	16.0	101.7	16.0	101.5	11.5	17.0	105.2	75.	18.0	108.6	241.	20.0	111.4	390.
6 606	16.2	103.0	16.1	102.2	46.3	17.3	105.4	132.	18.4	108.1	299.	19.6	110.9	387.
6 612	16.4	104.1	16.5	103.8	18.3	17.2	107.3	145.	18.0	110.5	278.	18.8	113.7	302.
6 618	16.7	105.3	16.6	105.4	8.3	16.8	109.5	98.	17.0	113.0	182.	17.1	116.5	153.
6 700	16.9	106.5	17.0	106.5	6.0	18.0	110.8	133.	18.5	114.2	270.	18.7	118.0	229.
6 706	17.2	108.0	17.4	107.7	20.9	18.7	112.0	222.	20.0	116.0	357.	20.7	118.5	330.
6 712	17.0	109.8	17.6	109.8	36.0	18.4	115.1	283.	19.4	119.5	404.	20.3	123.7	356.
6 718	16.6	110.9	16.6	111.2	17.2	16.0	116.1	193.	17.0	120.0	272.	18.1	123.4	219.
6 800	16.0	111.8	16.5	112.5	50.3	16.3	116.0	180.	16.3	118.6	121.	16.3	118.6	216.
6 806	15.2	112.4	15.0	111.9	31.3	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 812	14.5	112.8	14.1	113.1	29.6	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 818	14.1	113.3	14.0	113.5	13.0	12.6	116.3	121.	12.9	119.6	163.	14.8	122.1	211.
6 900	13.9	113.9	14.0	114.0	8.3	14.0	117.2	61.	14.3	120.1	136.	14.6	123.2	204.
6 906	13.9	114.5	14.2	114.6	18.9	15.1	117.0	87.	16.2	119.4	232.	17.7	122.3	0.
6 912	14.0	115.2	14.0	115.3	5.8	14.1	117.9	147.	14.6	120.6	254.	15.5	123.8	0.
6 918	14.5	116.0	14.6	116.0	6.0	15.2	118.7	139.	15.2	121.4	249.	14.5	123.7	0.
61000	15.2	117.0	15.0	117.0	12.0	15.3	119.8	139.	15.2	122.4	240.	15.3	124.9	0.
61006	15.5	118.3	15.2	118.5	21.4	13.9	122.2	73.	15.8	125.5	0.	15.6	128.9	0.
61012	15.4	119.6	15.6	119.9	21.1	15.2	125.2	21.	14.6	128.5	0.	13.6	131.7	0.
61018	15.3	120.9	15.2	121.1	13.0	14.8	126.1	38.	14.8	129.4	0.	15.0	132.8	0.
61100	15.3	122.1	15.3	122.2	5.8	15.7	126.6	8.	16.0	130.2	0.	16.2	133.8	0.
61106	15.4	123.3	15.3	123.3	6.0	15.6	127.8	0.	15.6	132.4	0.	15.4	137.0	0.
61112	15.5	124.3	15.4	124.9	35.3	15.3	130.0	0.	15.4	134.6	0.	15.7	138.8	0.
61118	15.6	125.4	15.3	125.7	25.0	15.3	130.2	0.	15.4	135.1	0.	15.7	140.2	0.
61200	15.7	126.5	15.8	126.5	6.0	16.2	130.6	0.	16.5	133.1	0.	16.8	136.9	0.
61206	15.8	127.7	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
61212	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
61218	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								119.			247.			277.
NUMBER OF CASES								20			16			12

TABLE 3

BLANCA.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
6 600	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 606	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 612	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 618	10.2	92.8	10.0	92.0	48.3	11.1	97.3	141.	11.7	100.5	121.	12.3	103.8	145.
6 700	10.3	93.5	10.5	93.0	31.6	11.5	97.0	83.	12.2	100.2	64.	12.6	104.0	126.
6 706	10.6	94.1	10.3	93.7	24.1	11.2	96.8	48.	11.8	100.4	72.	12.3	104.0	109.
6 712	10.8	94.8	10.6	94.4	26.3	11.0	97.2	87.	11.4	100.0	118.	11.8	102.8	132.
6 718	11.2	95.7	11.1	94.9	46.9	12.3	98.3	34.	13.3	101.9	19.	13.8	103.6	90.
6 800	11.6	96.6	11.7	95.6	58.4	12.8	99.4	21.	13.9	103.1	61.	14.3	106.7	107.
6 806	12.0	97.6	12.0	96.7	52.1	13.5	100.5	30.	14.7	105.2	152.	15.5	110.1	255.
6 812	12.3	98.6	12.4	97.6	58.1	13.5	101.4	39.	14.9	105.2	116.	16.0	109.2	159.
6 818	12.7	99.6	12.7	98.7	51.8	13.9	102.5	60.	15.1	106.4	125.	17.0	110.0	185.
6 900	12.9	100.5	13.1	99.6	53.3	14.3	103.3	82.	15.4	105.7	47.	16.3	110.4	162.
6 906	13.1	101.2	13.0	100.5	41.0	13.5	104.4	94.	14.0	107.8	142.	14.6	112.1	281.
6 912	13.3	101.8	13.2	100.8	58.3	13.6	103.3	21.	14.0	106.0	95.	14.7	109.3	48.
6 918	13.4	102.4	13.4	101.6	46.1	14.4	104.5	17.	15.5	107.5	17.	16.7	111.0	104.
61000	13.7	103.0	13.6	102.1	52.4	14.2	104.8	49.	14.6	107.5	45.	15.0	110.1	48.
61006	13.9	103.7	13.7	102.8	53.4	14.1	105.4	68.	14.8	108.3	63.	15.4	111.8	50.
61012	14.3	104.5	13.9	103.5	62.4	14.7	105.8	63.	15.4	108.5	23.	16.2	111.2	41.
61018	14.6	105.3	14.6	104.3	57.4	15.9	107.2	24.	17.0	110.3	93.	17.9	113.4	112.
61100	15.0	106.0	15.0	105.0	57.3	16.5	107.9	72.	17.5	111.1	114.	17.9	114.5	96.
61106	15.3	106.7	15.2	105.7	57.6	16.4	108.4	96.	17.4	111.1	90.	18.1	113.9	101.
61112	15.4	107.5	15.5	106.5	57.6	16.5	109.5	75.	17.3	112.2	74.	17.9	114.9	77.
61118	15.5	108.2	15.5	107.2	57.4	15.8	110.2	37.	16.2	113.2	35.	16.8	116.3	11.
61200	15.3	108.7	15.3	107.8	51.7	15.3	107.8	142.	15.3	113.0	83.	16.5	116.7	49.
61206	15.4	109.3	15.2	107.3	115.7	15.1	109.3	115.	15.4	113.2	113.	16.2	116.6	117.
61212	15.6	109.9	15.4	108.9	58.6	15.9	111.1	48.	16.4	113.6	105.	17.3	116.3	184.
61218	15.7	110.6	15.6	109.6	57.5	16.3	112.2	24.	17.2	114.8	100.	18.5	117.2	209.
61300	15.9	111.3	15.8	110.2	63.3	16.2	113.0	44.	16.5	115.7	105.	17.3	118.5	155.
61306	16.0	112.1	15.9	111.1	57.6	16.1	114.9	32.	16.4	118.3	32.	17.3	120.4	87.
61312	16.2	112.8	16.1	111.9	51.8	16.6	115.0	24.	17.2	117.8	98.	18.4	120.5	121.
61318	16.3	113.7	16.2	112.6	63.2	16.7	115.7	46.	17.3	118.4	122.	18.2	121.1	119.
61400	16.5	114.6	16.5	113.7	51.4	17.2	117.2	30.	18.0	120.2	79.	19.9	123.6	0.
61406	16.6	115.5	16.6	114.7	45.7	17.0	118.3	13.	17.3	122.1	17.	17.5	125.8	0.
61412	16.7	116.4	16.7	115.4	57.2	17.3	118.8	42.	18.0	122.1	48.	18.8	126.0	0.
61418	16.8	117.4	16.8	116.5	51.4	17.1	120.2	18.	17.7	123.6	50.	18.5	126.6	0.
61500	16.9	118.5	16.8	117.5	57.5	17.0	121.5	18.	17.2	124.8	0.	17.2	128.0	0.
61506	17.0	119.5	16.9	118.5	57.5	17.2	122.2	18.	17.5	125.6	0.	17.8	129.0	0.
61512	17.1	120.4	17.1	119.5	51.4	17.5	123.4	71.	18.1	127.2	0.	18.8	130.7	0.
61518	17.1	121.4	17.0	120.5	51.8	17.2	124.2	75.	17.5	127.5	0.	18.1	130.9	0.
61600	17.1	122.1	17.1	121.2	51.4	17.4	124.4	0.	17.6	127.6	0.	18.8	130.7	0.
61606	17.2	122.7	17.1	121.9	46.1	17.3	124.9	0.	0.0	0.0	0.	17.8	130.5	0.
61612	17.2	123.3	17.2	122.2	62.9	17.2	123.9	0.	0.0	0.0	0.	0.0	0.0	0.
61618	17.2	123.8	17.2	122.9	51.4	17.2	124.6	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								54.			80.			120.
NUMBER OF CASES								37			33			29

TABLE 4

CARLOS.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
6 700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 706	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 712	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
6 718	8.7	119.0	8.7	119.0	0.0	9.1	121.1	31.	9.5	123.5	182.	10.0	126.0	0.
6 800	8.8	119.5	8.7	119.5	6.0	8.9	121.5	24.	9.4	124.7	274.	10.0	126.0	0.
6 806	8.7	119.9	8.8	119.9	6.0	9.3	122.0	54.	10.0	124.6	210.	10.5	127.6	0.
6 812	8.7	120.3	8.7	120.3	0.0	8.7	121.9	55.	8.7	123.7	196.	8.8	125.3	0.
6 818	8.6	120.7	8.6	121.0	17.8	8.5	124.5	231.	9.0	129.0	0.	0.0	0.0	0.
6 900	8.5	120.9	8.5	121.5	35.5	8.5	124.1	238.	9.1	126.3	0.	0.0	0.0	0.
6 906	8.4	121.0	8.5	121.6	36.1	8.6	122.6	86.	9.0	123.6	0.	0.0	0.0	0.
6 912	8.3	120.8	8.5	121.0	16.9	8.6	121.3	72.	8.7	122.0	0.	8.8	123.0	0.
6 918	8.4	120.6	8.5	120.6	6.0	9.0	121.0	0.	9.2	122.0	0.	0.0	0.0	0.
61000	8.8	120.5	8.9	120.1	24.4	9.5	119.7	0.	10.0	120.3	0.	10.1	121.7	0.
61006	9.3	120.5	9.0	121.2	45.2	10.1	122.6	0.	0.0	0.0	0.	0.0	0.0	0.
61012	9.8	120.4	9.5	120.5	19.0	11.7	121.3	0.	0.0	0.0	0.	0.0	0.0	0.
61018	11.0	120.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								99.			215.			0.
NUMBER OF CASES								8			4			0

TABLE 5

DOLORES

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
62600	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
62606	9.6	102.5	9.7	102.5	6.0	10.3	106.5	12.	11.1	110.3	79.	12.0	114.0	138.
62612	9.7	103.5	9.7	103.5	0.0	10.2	107.3	12.	10.7	111.2	85.	11.5	115.7	210.
62618	9.8	104.3	9.8	104.5	11.7	10.3	108.6	72.	10.9	112.6	137.	11.7	117.5	214.
62700	9.9	105.1	9.9	105.6	29.1	10.4	109.6	80.	11.1	113.5	161.	12.0	117.5	210.
62706	10.1	105.9	10.1	106.5	34.9	10.7	110.5	89.	11.5	114.2	168.	12.1	117.5	225.
62712	10.3	106.7	10.2	107.5	47.0	10.6	111.6	109.	11.4	115.5	216.	12.0	119.8	240.
62718	10.5	107.5	10.5	107.4	5.8	11.2	110.8	120.	11.9	114.5	222.	13.5	118.4	211.
62800	10.9	108.4	10.8	108.3	8.3	11.5	112.1	138.	12.6	115.9	200.	13.7	119.7	227.
62806	11.5	109.4	10.8	109.0	47.9	11.6	112.2	193.	12.6	115.5	259.	13.5	119.5	307.
62812	12.3	110.5	11.5	110.0	56.0	12.5	113.3	197.	13.7	116.9	209.	14.6	120.4	295.
62818	13.0	111.7	13.0	111.7	0.0	14.7	116.6	27.	15.8	120.6	30.	16.4	124.4	151.
62900	13.6	112.8	13.7	112.8	6.0	16.3	116.8	67.	17.4	120.7	70.	18.0	125.0	142.
62906	14.3	114.0	14.3	114.0	0.0	16.3	118.8	38.	17.6	123.4	35.	18.5	127.0	144.
62912	14.7	115.2	15.0	115.5	24.8	16.4	120.4	52.	17.2	125.2	87.	17.7	129.3	180.
62918	15.1	116.4	15.1	116.4	0.0	16.3	121.0	23.	17.6	126.5	103.	17.9	129.9	190.
63000	15.5	117.4	15.5	117.6	11.3	16.8	122.2	24.	17.6	126.5	138.	18.0	130.8	206.
63006	15.7	118.5	15.7	118.6	5.6	16.7	123.0	49.	17.7	127.0	190.	18.3	131.2	223.
63012	16.0	119.6	16.0	119.6	0.0	17.0	123.7	68.	17.8	127.7	194.	18.3	131.9	252.
63018	16.4	120.7	16.3	120.6	8.2	17.0	124.5	115.	17.5	128.3	247.	17.8	132.4	306.
7 100	16.8	121.8	16.9	121.8	6.0	18.2	126.1	104.	19.5	129.5	169.	20.3	133.1	194.
7 106	17.5	122.8	17.5	122.8	0.0	19.0	126.6	125.	19.9	130.0	191.	20.7	133.1	223.
7 112	18.1	124.1	18.1	124.0	5.5	20.4	128.3	54.	21.1	133.3	67.	21.1	137.8	195.
7 118	18.9	125.3	18.8	125.2	8.1	21.4	130.0	41.	22.4	134.2	18.	23.0	138.4	118.
7 200	19.9	126.5	19.9	126.5	0.0	23.1	131.2	113.	24.8	134.5	111.	25.7	137.7	57.
7 206	20.5	127.9	20.8	127.7	21.0	23.9	132.9	132.	24.3	136.2	53.	24.8	139.4	121.
7 212	20.8	129.2	20.7	129.2	6.0	21.4	134.8	57.	21.4	139.8	253.	0.0	0.0	0.
7 218	21.0	130.5	21.0	130.6	5.5	22.0	135.9	83.	22.5	140.2	218.	22.5	144.4	460.
7 300	21.4	131.6	21.3	131.8	12.4	22.2	137.2	131.	22.6	141.3	277.	22.6	145.3	0.
7 306	21.8	132.8	21.7	132.8	6.0	22.7	136.9	90.	23.5	141.2	246.	24.2	145.3	0.
7 312	22.2	133.6	22.0	134.0	24.9	23.3	138.7	144.	24.3	143.3	346.	24.9	148.1	0.
7 318	22.5	134.4	22.5	134.5	5.5	23.8	137.4	45.	24.6	140.7	221.	25.1	145.4	0.
7 400	23.0	135.0	23.0	135.0	0.0	24.0	137.6	68.	24.6	140.0	0.	24.2	141.5	0.
7 406	23.4	135.6	23.6	135.6	12.0	26.9	136.7	81.	0.0	0.0	0.	0.0	0.0	0.
7 412	23.8	136.2	24.0	136.2	12.0	26.0	139.1	96.	0.0	0.0	0.	0.0	0.0	0.
7 418	24.2	136.6	24.2	136.7	5.5	25.4	139.0	121.	0.0	0.0	0.	0.0	0.0	0.
7 500	24.9	137.0	25.0	137.0	6.0	27.9	137.9	0.	0.0	0.0	0.	0.0	0.0	0.
7 506	25.6	137.3	25.7	137.4	8.1	29.3	138.3	0.	0.0	0.0	0.	0.0	0.0	0.
7 512	26.4	137.4	26.7	137.5	18.8	30.1	136.1	0.	0.0	0.0	0.	0.0	0.0	0.
7 518	26.9	137.6	26.9	137.5	5.5	29.5	136.5	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								85.			161.			209.
NUMBER OF CASES								35			31			26

TABLE 6

ENRIQUE

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
62700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
62706	9.8	123.8	9.5	124.0	21.5	9.7	128.0	86.	10.1	131.8	180.	10.3	135.4	229.
62712	10.0	124.7	9.6	125.0	29.7	10.0	129.0	91.	10.7	132.3	140.	11.3	136.1	192.
62718	10.3	125.5	9.5	126.0	56.2	9.8	129.6	137.	10.1	133.1	200.	10.5	136.9	211.
62800	10.7	126.4	10.2	126.2	32.2	10.9	129.3	106.	10.9	131.3	244.	10.8	133.4	333.
62806	11.0	127.3	11.0	127.4	5.8	12.2	131.1	48.	12.8	135.0	78.	13.1	138.3	76.
62812	11.5	128.2	11.3	128.2	12.0	12.2	131.6	51.	12.7	135.0	123.	12.7	138.7	0.
62818	11.9	129.0	12.0	129.0	6.0	13.1	133.0	29.	13.8	136.9	26.	14.4	141.0	0.
62900	12.9	129.9	12.6	129.8	18.9	14.1	132.8	70.	14.6	136.2	102.	14.9	139.5	0.
62906	13.0	131.0	13.0	131.0	0.0	14.5	134.9	25.	14.6	139.2	34.	14.4	143.0	0.
62912	13.2	132.0	13.0	131.9	13.3	13.4	135.9	66.	13.6	140.0	0.	13.7	144.0	0.
62918	13.6	133.0	13.4	132.6	26.2	14.5	136.4	31.	15.2	140.2	0.	15.5	143.8	0.
63000	13.8	134.0	14.0	134.0	12.0	15.3	138.2	68.	16.4	142.6	0.	17.0	146.6	0.
63006	14.0	135.0	14.1	135.0	6.0	14.5	139.2	31.	14.7	143.0	0.	14.9	146.5	0.
63012	14.0	136.0	14.5	136.0	30.0	15.4	139.9	0.	15.9	143.8	0.	0.0	0.0	0.
63018	14.1	136.9	14.0	136.5	24.1	14.0	140.0	0.	14.2	144.0	0.	14.7	148.2	0.
7 100	14.2	137.8	14.2	137.9	5.8	14.7	141.6	0.	15.0	145.1	0.	16.0	148.6	0.
7 106	14.3	138.7	14.3	138.7	0.0	14.7	142.0	0.	14.9	145.0	0.	15.2	148.0	0.
7 112	14.4	139.5	0.0	0.0	0.0	14.8	143.3	0.	15.0	147.0	0.	15.6	149.9	0.
7 118	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								65.			125.			208.
NUMBER OF CASES								13			9			5

TABLE 7

FEFA.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
7 200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
7 206	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
7 212	14.8	102.2	15.0	101.0	67.5	16.4	105.2	88.	20.0	107.0	112.	0.0	0.0	0.
7 218	15.1	103.2	14.6	103.6	37.5	15.5	108.4	171.	17.0	112.6	282.	20.0	115.8	229.
7 300	15.5	104.4	15.4	104.3	8.2	16.6	109.0	176.	17.6	113.0	265.	19.0	117.1	320.
7 306	16.2	105.6	15.8	105.3	29.3	17.5	109.6	197.	19.0	113.8	205.	20.3	117.7	289.
7 312	17.0	106.5	16.7	106.7	21.2	18.6	110.9	231.	19.0	114.8	222.	20.2	118.8	304.
7 318	18.1	107.2	18.1	107.2	0.0	21.4	109.7	29.	23.3	112.0	91.	24.5	114.3	102.
7 400	19.3	107.8	19.3	107.8	0.0	22.1	109.8	61.	23.4	113.2	95.	23.7	117.1	0.
7 406	20.1	108.5	20.5	108.2	29.1	25.0	109.4	238.	0.0	0.0	0.	0.0	0.0	0.
7 412	20.6	109.0	21.5	108.2	69.6	25.2	108.2	302.	0.0	0.0	0.	0.0	0.0	0.
7 418	20.9	109.7	21.0	110.0	17.5	21.7	113.0	45.	22.0	115.9	171.	22.2	118.8	0.
7 500	21.2	110.3	21.2	110.3	0.0	22.1	113.1	39.	22.8	116.1	0.	22.9	119.1	0.
7 506	21.4	110.9	21.4	111.2	16.5	22.4	114.5	83.	23.4	117.4	0.	0.0	0.0	0.
7 512	21.6	111.5	21.4	111.8	20.4	21.7	114.7	61.	0.0	0.0	0.	0.0	0.0	0.
7 518	21.8	112.0	21.8	112.2	11.0	22.5	114.8	103.	0.0	0.0	0.	0.0	0.0	0.
7 600	22.0	112.4	22.0	112.4	0.0	22.8	114.4	0.	0.0	0.0	0.	0.0	0.0	0.
7 606	22.4	112.8	22.3	113.0	12.5	23.6	114.9	0.	0.0	0.0	0.	0.0	0.0	0.
7 612	22.8	113.0	22.4	113.9	54.9	23.0	116.7	0.	0.0	0.0	0.	0.0	0.0	0.
7 618	23.3	113.1	23.2	113.1	6.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								130.			180.			249.
NUMBER OF CASES								14			8			5

TABLE 8

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
7 700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
7 706	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
7 712	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
7 718	12.1	99.8	12.2	100.0	12.8	13.7	104.8	26.	14.7	109.0	332.	15.3	112.6	510.
7 800	12.5	101.1	12.4	101.3	12.8	13.7	106.3	102.	14.9	111.0	390.	16.0	115.1	472.
7 806	13.0	102.4	12.8	101.7	41.3	13.9	105.6	201.	15.0	109.4	888.	15.7	113.6	592.
7 812	13.8	103.8	13.2	103.1	53.5	14.4	107.6	240.	15.2	111.7	511.	15.8	115.8	554.
7 818	14.6	105.1	13.9	104.4	57.6	15.5	108.9	287.	16.5	112.8	443.	16.8	116.8	500.
7 900	15.5	106.4	15.4	106.4	6.0	17.4	111.3	240.	18.5	115.3	335.	19.0	118.7	0.
7 906	16.7	107.9	16.7	107.5	22.6	20.0	111.9	626.	21.2	115.7	276.	22.0	119.8	0.
7 912	18.2	109.3	18.0	109.4	13.3	21.8	114.2	106.	22.8	117.4	214.	23.5	120.3	0.
7 918	19.6	110.5	20.1	110.3	32.1	25.5	114.0	247.	27.7	116.9	414.	28.6	119.6	0.
71000	20.6	111.9	21.4	111.3	58.7	24.4	115.3	202.	25.5	120.5	0.	25.9	125.0	0.
71006	21.5	113.7	22.8	122.7	513.6	26.1	116.9	230.	27.5	118.9	0.	28.0	120.0	0.
71012	22.0	115.6	23.5	113.7	139.9	26.3	118.5	223.	28.6	121.9	0.	0.0	0.0	0.
71018	22.6	117.2	22.6	117.2	0.0	24.3	123.6	91.	0.0	0.0	0.	0.0	0.0	0.
71100	23.1	118.6	23.1	118.7	5.6	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
71106	23.3	119.9	23.5	120.0	13.3	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
71112	23.3	121.2	23.5	121.2	12.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
71118	23.1	123.8	23.1	122.6	67.7	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								217.			423.			525.
NUMBER OF CASES								13			9			5

TABLE 9

HILDA

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
71800	17.7	112.0	17.5	112.5	30.3	19.6	116.4	198.	21.5	120.5	237.	23.4	124.4	0.
71806	18.5	112.5	18.5	112.5	0.0	21.5	114.0	54.	0.0	0.0	0.	0.0	0.0	0.
71812	19.5	112.8	19.5	112.5	16.7	22.9	113.9	85.	0.0	0.0	0.	0.0	0.0	0.
71818	20.5	113.1	20.6	113.0	8.2	24.7	114.2	166.	0.0	0.0	0.	0.0	0.0	0.
71900	21.5	113.5	21.4	113.6	8.2	25.4	115.5	203.	29.2	117.3	0.	0.0	0.0	0.
71906	22.0	114.1	22.4	113.9	26.5	25.4	116.2	203.	27.6	119.6	0.	0.0	0.0	0.
71912	22.2	114.9	22.3	115.3	23.1	25.3	118.5	192.	0.0	0.0	0.	0.0	0.0	0.
71918	22.3	115.7	22.3	115.7	0.0	22.3	118.2	0.	0.0	0.0	0.	0.0	0.0	0.
72000	22.2	116.5	22.1	116.3	12.7	21.7	119.0	0.	21.8	121.9	0.	22.2	125.4	0.
72006	22.2	117.3	22.2	117.4	5.6	22.3	120.7	0.	22.7	124.0	0.	0.0	0.0	0.
72012	22.1	118.4	22.1	118.4	0.0	21.9	122.4	0.	22.0	126.4	0.	0.0	0.0	0.
72018	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								157.			237.			0.
NUMBER OF CASES								7			1			0

TABLE 10

JIMENA.....

DATE/TIME (GMT)	BEST TRACK LAT.	LONG.	OPERATIONAL POSITION LAT.	LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	LONG.	ERROR (N.MI)	48 HOUR FORECAST LAT.	LONG.	ERROR (N.MI.)	72 HOUR FORECAST LAT.	LONG.	ERROR (N.MI.)
72000	11.5	103.7	11.5	103.6	5.8	11.9	106.0	12.	12.5	109.0	129.	13.2	112.9	159.
72006	11.5	104.5	11.5	104.4	5.8	11.8	108.1	56.	12.6	112.0	150.	13.5	116.0	243.
72012	11.6	105.4	11.4	105.3	13.3	11.5	108.8	93.	12.0	112.0	176.	12.9	116.2	262.
72018	11.8	106.3	11.3	105.7	46.0	11.1	108.8	174.	11.3	112.0	233.	12.0	116.0	310.
72100	12.2	107.2	11.9	106.2	60.6	12.2	109.1	144.	12.7	111.6	180.	13.3	115.6	243.
72106	12.8	107.7	12.3	107.3	37.8	13.0	110.7	102.	14.0	114.6	163.	15.0	118.4	216.
72112	13.4	108.2	12.7	107.8	47.9	13.4	111.2	92.	14.5	115.0	143.	15.1	118.9	237.
72118	13.9	109.0	14.0	108.9	8.3	15.6	112.9	103.	16.6	116.4	122.	17.3	120.2	209.
72200	14.3	109.8	14.5	109.8	12.0	16.1	113.4	84.	17.3	117.0	120.	18.3	120.6	194.
72206	14.6	110.3	14.7	110.6	18.1	15.8	114.1	82.	16.8	118.1	144.	17.5	122.3	275.
72212	14.9	110.8	14.9	111.5	39.7	15.8	115.3	110.	16.8	119.3	197.	17.8	123.2	298.
72218	15.2	111.4	15.1	111.2	12.8	16.2	113.6	58.	17.3	116.4	62.	18.3	120.4	136.
72300	15.7	112.0	15.7	112.0	0.0	17.1	114.7	17.	18.4	117.7	48.	19.4	121.1	99.
72306	16.0	112.7	16.0	112.7	0.0	17.6	115.8	8.	19.0	119.4	87.	19.6	123.1	156.
72312	16.4	113.4	16.4	113.5	5.6	17.5	116.7	46.	18.5	120.6	149.	19.3	123.9	186.
72318	16.8	114.2	16.9	114.3	8.2	18.6	117.7	60.	20.0	121.3	125.	20.6	125.2	201.
72400	17.2	115.0	17.3	114.9	8.2	18.9	118.1	47.	20.2	121.3	82.	21.1	125.0	124.
72406	17.6	115.6	17.5	115.7	8.2	18.8	118.9	70.	19.9	122.2	104.	20.2	125.9	177.
72412	18.0	116.1	18.0	116.1	0.0	19.3	119.8	85.	20.5	121.9	54.	21.4	125.1	73.
72418	18.5	116.7	18.3	116.7	12.0	19.4	119.0	48.	20.4	121.7	54.	20.9	124.5	144.
72500	19.0	117.3	19.1	117.3	6.0	21.3	119.6	45.	22.9	122.5	61.	23.9	125.1	150.
72506	19.5	117.9	19.6	118.0	8.1	21.7	120.8	48.	23.1	123.9	42.	23.9	127.4	133.
72512	19.9	118.5	20.0	118.5	6.0	21.5	121.0	25.	22.8	123.8	62.	23.3	126.8	221.
72518	20.2	119.2	20.2	119.1	5.5	21.3	121.5	11.	21.9	124.6	101.	22.0	128.2	212.
72600	20.6	119.9	20.6	119.9	0.0	21.5	122.8	32.	22.3	126.1	91.	22.9	129.5	0.
72606	20.9	120.7	20.9	120.7	0.0	22.1	124.0	21.	23.7	127.5	123.	23.1	130.9	0.
72612	21.3	121.5	21.2	121.3	12.6	22.0	124.2	53.	22.5	127.5	186.	22.7	130.8	0.
72618	21.6	122.2	21.3	121.7	33.0	22.0	124.2	119.	22.0	126.7	292.	21.6	129.3	0.
72700	22.0	123.0	22.0	123.0	0.0	23.1	126.2	78.	24.2	129.5	0.	24.9	133.1	0.
72706	22.3	123.8	22.4	123.8	6.0	23.8	127.2	141.	24.6	130.4	0.	24.9	133.8	0.
72712	22.6	124.9	22.6	124.9	0.0	23.6	129.0	104.	24.2	133.2	0.	24.9	137.4	0.
72718	22.7	126.1	22.7	126.2	5.5	23.1	130.7	61.	23.0	135.0	0.	0.0	0.0	0.
72800	22.9	127.6	22.9	127.6	0.0	23.3	133.3	0.	23.6	138.4	0.	23.8	143.6	0.
72806	23.0	129.2	23.0	129.6	22.2	22.8	136.4	0.	23.0	142.7	0.	23.4	149.0	0.
72812	23.1	130.6	23.1	130.8	11.1	23.2	136.2	0.	23.0	140.0	0.	0.0	0.0	0.
72818	23.2	131.8	23.2	131.8	0.0	23.0	135.5	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								70.			124.			194.
NUMBER OF CASES								32			28			24

TABLE 11

IGNACIO

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI.)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
72100	13.2	134.4	13.2	134.4	0.0	13.5	138.9	19.	13.7	142.3	0.	13.6	146.5	0.
72106	13.2	135.5	13.1	135.5	6.0	13.4	139.7	8.	13.7	144.2	0.	14.5	148.6	0.
72112	13.3	136.5	13.3	136.5	0.0	13.5	141.1	0.	14.0	144.9	0.	14.2	149.2	0.
72118	13.3	137.4	13.3	137.5	5.8	13.5	141.5	0.	13.8	145.6	0.	14.2	149.9	0.
72200	13.4	138.6	13.4	138.6	0.0	13.6	143.1	0.	13.9	147.0	0.	14.2	151.2	0.
72206	13.5	139.6	13.5	139.6	0.0	13.7	143.6	0.	13.7	147.6	0.	13.8	151.7	0.
72212	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
72218	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								13.			0.			0.
NUMBER OF CASES								2			0			0

TABLE 12

KEVIN

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
72900	13.9	102.6	13.8	102.6	6.0	14.5	105.3	35.	15.4	108.4	76.	16.5	112.1	6.
72906	14.0	103.4	13.4	103.3	36.5	14.1	107.3	36.	15.1	111.5	50.	16.0	116.6	238.
72912	14.2	104.2	13.7	104.3	30.5	14.4	108.1	18.	15.8	112.8	64.	17.4	117.3	246.
72918	14.4	105.1	14.2	104.2	52.8	15.2	106.8	113.	16.6	110.2	78.	18.0	114.0	17.
73000	14.5	106.0	14.5	104.7	74.0	15.6	107.8	112.	17.5	111.2	83.	18.6	115.3	29.
73006	14.6	106.8	14.7	107.2	23.5	15.7	111.3	39.	16.8	115.2	150.	18.0	119.6	212.
73012	14.7	107.8	14.7	108.1	17.0	15.6	112.2	30.	16.7	116.2	190.	18.0	120.3	248.
73018	14.9	108.8	14.8	108.7	8.3	15.6	112.5	68.	16.8	116.6	150.	18.0	120.5	234.
73100	15.2	109.7	15.2	109.7	0.0	15.9	113.8	99.	17.1	117.7	175.	18.2	121.6	249.
73106	15.5	110.4	15.4	110.7	18.0	16.7	115.0	139.	18.0	119.0	179.	19.8	122.5	232.
73112	15.7	111.0	15.7	111.7	39.5	16.8	115.2	133.	18.0	118.7	165.	19.7	122.2	166.
73118	16.0	111.6	16.0	111.4	11.3	16.9	113.4	71.	18.2	115.7	96.	19.5	118.5	120.
8 100	16.4	112.2	16.5	112.7	6.0	18.1	113.9	56.	19.5	115.6	115.	20.3	117.7	197.
8 106	16.8	112.9	17.0	112.6	20.6	18.9	114.8	68.	20.9	117.6	70.	22.2	120.6	124.
8 112	17.3	113.6	17.5	113.0	35.5	19.7	114.8	81.	21.4	117.1	143.	22.9	119.8	222.
8 118	17.7	114.3	17.8	114.2	8.2	19.7	116.5	16.	21.7	118.7	123.	23.2	121.4	224.
8 200	18.2	114.9	18.3	114.9	6.0	20.3	117.8	27.	21.9	120.8	87.	22.9	124.1	146.
8 206	18.7	115.6	18.9	116.0	25.2	21.7	119.9	132.	22.3	123.2	122.	24.0	126.5	168.
8 212	19.1	116.1	19.4	116.2	18.8	21.5	119.2	78.	22.9	122.2	139.	24.0	125.3	199.
8 218	19.5	116.9	19.5	116.7	11.1	20.9	119.3	69.	22.3	122.1	160.	23.6	125.1	254.
8 300	19.9	117.6	19.9	117.6	0.0	21.4	120.7	61.	22.7	124.1	137.	23.5	127.9	167.
8 306	20.0	118.4	20.0	118.4	0.0	20.6	121.5	28.	21.6	124.8	103.	22.4	128.4	163.
8 312	20.2	119.3	20.2	119.3	0.0	20.9	122.9	13.	22.1	124.9	147.	22.8	128.0	262.
8 318	20.4	120.3	20.4	120.4	5.5	21.3	123.7	54.	22.3	126.8	133.	23.5	129.5	257.
8 400	20.5	121.2	20.5	121.2	0.0	20.9	125.1	28.	21.3	128.9	63.	21.5	132.7	0.
8 406	20.6	122.0	20.6	122.0	0.0	21.1	125.4	67.	21.4	128.7	140.	21.6	132.1	0.
8 412	20.7	123.1	20.7	123.0	5.5	21.2	126.8	34.	21.6	129.5	168.	22.3	132.3	0.
8 418	20.8	124.3	20.6	124.3	12.0	20.9	128.0	46.	21.8	131.4	124.	23.7	133.1	0.
8 500	21.0	125.3	20.9	125.6	17.7	21.2	130.1	19.	21.7	134.7	0.	22.1	139.4	0.
8 506	21.2	126.5	21.2	126.6	5.5	22.1	130.8	37.	23.4	134.8	0.	25.0	138.2	0.
8 512	21.3	127.6	21.3	127.4	11.1	21.6	131.5	56.	22.0	134.3	0.	22.4	137.0	0.
8 518	21.4	128.8	21.1	128.8	18.0	21.2	133.1	33.	21.4	137.2	0.	22.2	140.7	0.
8 600	21.5	130.0	21.5	130.0	0.0	22.1	134.7	0.	22.6	139.4	0.	23.1	144.2	0.
8 606	21.6	131.2	21.6	131.2	0.0	22.2	135.9	0.	22.9	140.7	0.	0.0	0.0	0.
8 612	21.5	132.5	21.5	132.5	0.0	21.6	136.8	0.	22.2	140.2	0.	0.0	0.0	0.
8 618	21.5	133.7	21.5	133.6	5.5	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								59.			123.			187.
NUMBER OF CASES								32			28			24

TABLE 13

LINDA

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
72900	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
72906	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
72912	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
72918	12.3	123.3	12.0	122.0	77.6	13.0	127.5	58.	13.9	133.5	48.	14.0	139.6	314.
73000	12.7	124.7	12.7	124.7	0.0	13.4	130.1	13.	14.3	134.1	37.	14.4	138.3	230.
73006	13.0	126.0	13.0	125.6	23.1	14.1	130.6	53.	14.9	135.1	63.	15.6	139.3	250.
73012	13.2	127.3	13.2	127.3	0.0	14.2	132.6	8.	14.8	138.5	223.	15.3	144.5	550.
73018	13.3	128.6	13.0	128.5	18.9	13.3	133.5	67.	13.9	138.6	258.	14.3	143.7	454.
73100	13.5	129.8	13.6	130.0	13.0	14.2	135.0	87.	15.1	139.5	295.	15.5	142.9	345.
73106	13.6	130.9	14.0	131.5	42.1	15.0	137.3	188.	16.1	142.8	454.	16.6	148.3	634.
73112	13.7	131.8	14.1	132.5	46.9	14.8	136.8	127.	15.4	141.1	353.	15.9	145.9	457.
73118	13.9	132.6	14.1	132.7	13.3	14.8	136.8	145.	15.7	140.8	277.	16.7	144.2	328.
8 100	14.1	133.3	14.1	133.5	11.5	14.4	136.8	145.	14.8	139.9	206.	14.8	142.9	267.
8 106	14.4	133.8	14.5	134.1	18.2	15.5	137.5	146.	16.5	141.0	214.	17.1	144.8	299.
8 112	14.7	134.1	15.4	134.7	54.3	16.7	137.5	161.	17.7	140.0	135.	18.4	143.0	0.
8 118	14.9	134.2	15.0	134.3	8.3	16.0	135.0	60.	17.2	136.6	112.	18.0	139.2	0.
8 200	15.1	134.4	15.1	134.4	0.0	15.7	134.9	101.	16.1	136.0	185.	0.0	0.0	0.
8 206	15.4	134.7	15.2	135.0	21.0	16.0	137.6	21.	16.4	140.0	64.	16.9	143.0	0.
8 212	15.6	135.3	15.5	135.0	18.2	16.3	136.8	70.	17.1	138.9	0.	17.8	141.6	0.
8 218	15.8	135.9	15.7	136.0	8.3	16.4	139.0	37.	17.0	142.1	0.	17.3	145.5	0.
8 300	16.1	136.6	16.1	136.6	0.0	17.0	139.5	31.	17.7	142.8	0.	0.0	0.0	0.
8 306	16.3	137.2	16.2	137.3	8.3	16.6	139.8	49.	0.0	0.0	0.	0.0	0.0	0.
8 312	16.6	137.8	16.5	138.0	12.9	17.0	140.9	0.	17.3	144.2	0.	0.0	0.0	0.
8 318	16.9	138.5	16.8	138.5	6.0	17.6	141.2	0.	18.2	144.3	0.	0.0	0.0	0.
8 400	17.2	139.0	17.2	139.0	0.0	18.1	141.5	0.	0.0	0.0	0.	0.0	0.0	0.
8 406	17.4	139.7	17.4	139.6	5.7	17.9	141.7	0.	18.0	144.2	0.	18.0	146.9	0.
8 412	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
8 418	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								83.			195.			377.
NUMBER OF CASES								19			15			11

TABLE 14

MARTY.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
8 600	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
8 606	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
8 612	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
8 618	14.1	106.2	13.2	108.2	127.0	14.2	111.4	144.	14.9	114.4	123.	15.5	117.0	163.
8 700	14.7	107.3	14.3	109.2	111.1	15.6	113.5	149.	17.0	117.5	224.	17.7	122.1	326.
8 706	15.2	108.4	14.6	110.4	119.1	16.2	114.5	153.	18.0	118.5	269.	19.4	122.2	307.
8 712	15.9	109.4	15.0	111.5	131.3	16.1	116.0	189.	17.1	120.2	316.	17.4	124.3	383.
8 718	16.4	110.4	16.4	110.4	0.0	18.2	114.3	93.	19.8	118.3	199.	20.3	121.7	164.
8 800	16.8	111.4	16.9	111.3	8.2	18.6	115.0	125.	20.3	118.8	190.	21.3	121.8	160.
8 806	17.2	112.0	17.3	112.1	8.2	19.1	115.2	141.	21.0	118.6	183.	22.8	121.7	179.
8 812	17.3	112.7	17.6	113.1	28.7	19.0	116.8	153.	20.1	120.5	166.	20.9	123.9	138.
8 818	17.3	113.3	16.8	113.6	34.5	16.7	116.7	95.	17.1	120.3	151.	18.0	124.4	199.
8 900	17.4	113.7	17.0	113.6	24.6	17.2	115.5	75.	18.5	118.2	104.	20.6	120.9	161.
8 906	17.5	114.3	17.1	113.9	32.8	17.6	115.6	88.	18.7	117.6	187.	20.4	120.0	278.
8 912	17.6	114.8	17.4	114.7	13.2	17.7	117.0	90.	18.5	119.8	199.	19.5	122.9	250.
8 918	17.8	115.5	17.8	115.5	0.0	18.8	118.3	50.	19.9	121.3	86.	20.9	124.4	152.
81000	18.1	116.4	18.1	116.4	0.0	19.2	119.9	21.	20.2	123.1	83.	20.9	126.5	174.
81006	18.4	117.1	18.4	116.9	11.0	19.7	119.6	59.	20.9	122.2	152.	21.8	124.8	219.
81012	18.7	117.9	19.0	117.8	18.8	22.0	121.0	46.	23.5	122.5	191.	25.2	124.2	171.
81018	19.0	118.8	19.3	119.0	21.0	20.9	123.9	79.	22.4	127.3	65.	23.6	131.2	270.
81100	19.4	119.7	19.5	119.7	6.0	20.7	123.4	49.	21.6	127.2	139.	22.1	131.1	0.
81106	19.9	120.5	20.0	120.6	8.1	21.8	123.6	62.	23.3	126.3	104.	24.0	129.3	0.
81112	20.4	121.5	21.4	121.5	60.0	22.9	125.3	42.	24.1	129.4	149.	24.5	133.5	0.
81118	20.9	122.6	20.8	122.5	8.1	22.3	126.7	41.	23.4	130.6	257.	0.0	0.0	0.
81200	21.4	123.6	21.5	123.6	6.0	23.2	127.8	85.	24.6	132.2	0.	25.9	136.4	0.
81206	21.9	124.6	21.9	124.7	5.4	23.2	129.0	166.	24.0	133.2	0.	24.6	136.9	0.
81212	22.3	125.5	22.3	125.7	10.9	23.4	129.7	190.	24.2	133.8	0.	0.0	0.0	0.
81218	23.0	126.1	22.8	126.2	13.2	24.2	129.2	173.	0.0	0.0	0.	0.0	0.0	0.
81300	23.9	126.5	23.8	126.4	8.1	27.4	127.1	0.	0.0	0.0	0.	0.0	0.0	0.
81306	24.8	127.0	25.0	126.7	20.2	29.0	129.3	0.	32.3	127.0	0.	0.0	0.0	0.
81312	25.7	127.3	25.7	127.3	0.0	28.8	129.1	0.	0.0	0.0	0.	0.0	0.0	0.
81318	28.7	127.6	26.7	127.6	120.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								107.			168.			216.
NUMBER OF CASES								25			21			17

TABLE 15

NORA

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
81900	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
81906	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
81912	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
81918	15.5	111.8	15.2	111.5	24.7	16.1	115.7	89.	17.3	119.8	95.	18.4	123.6	207.
82000	15.9	112.8	15.8	112.8	6.0	17.0	116.8	65.	18.7	120.6	98.	19.9	124.4	155.
82006	16.5	114.0	16.2	114.0	18.0	17.8	118.3	44.	19.8	121.9	62.	21.7	125.4	107.
82012	17.0	115.3	16.8	115.5	16.3	18.8	120.0	49.	20.7	123.5	56.	22.5	126.3	102.
82018	17.3	116.6	17.3	116.6	0.0	19.3	120.8	62.	21.2	124.2	68.	23.3	127.5	0.
82100	17.5	117.8	17.5	117.8	0.0	18.3	122.7	66.	18.7	127.6	217.	18.8	132.3	0.
82106	17.8	119.0	17.5	119.0	18.0	18.0	123.3	103.	18.8	127.2	234.	20.0	131.2	0.
82112	18.0	120.1	18.0	120.2	5.5	19.0	124.7	103.	20.0	128.0	210.	21.4	130.8	0.
82118	18.4	121.1	18.3	121.1	6.0	19.7	125.2	103.	21.1	128.6	0.	22.6	131.3	0.
82200	19.0	122.0	19.3	122.2	21.1	22.1	124.2	100.	26.5	124.4	0.	29.1	123.7	0.
82206	19.8	123.2	19.7	123.0	12.6	22.8	126.3	39.	0.0	0.0	0.	0.0	0.0	0.
82212	20.6	124.4	20.7	124.5	8.2	23.7	128.2	25.	0.0	0.0	0.	0.0	0.0	0.
82218	21.3	125.3	21.4	125.4	8.2	24.6	129.5	0.	0.0	0.0	0.	0.0	0.0	0.
82300	22.1	126.1	22.0	126.0	8.2	24.2	128.8	0.	25.0	131.0	0.	0.0	0.0	0.
82306	22.7	127.0	22.7	127.0	0.0	25.3	130.2	0.	0.0	0.0	0.	0.0	0.0	0.
82312	23.5	127.8	23.5	127.8	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
82318	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								71.			130.			143.
NUMBER OF CASES								12			8			4

TABLE 16

OLAF.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
82200	12.9	102.2	12.5	102.5	29.7	13.5	106.0	61.	14.4	109.7	188.	15.3	113.3	271.
82206	13.0	102.8	13.0	102.8	0.0	14.0	105.4	69.	15.5	108.6	176.	17.2	112.4	283.
82212	13.1	103.5	13.1	103.5	0.0	13.8	106.4	53.	0.0	0.0	0.	0.0	0.0	0.
82218	13.1	104.1	13.1	104.2	5.8	13.3	107.3	64.	0.0	0.0	0.	0.0	0.0	0.
82300	13.0	104.7	13.0	105.1	22.9	13.5	109.0	126.	14.6	113.2	247.	16.2	118.9	409.
82306	12.9	105.2	13.0	106.0	46.3	13.2	110.1	144.	14.3	113.9	238.	16.0	118.0	303.
82312	12.8	105.8	13.0	106.8	58.6	13.1	110.5	119.	0.0	0.0	0.	0.0	0.0	0.
82318	12.7	106.3	12.7	106.4	5.7	12.9	109.1	35.	13.4	112.6	227.	14.0	116.2	361.
82400	12.7	106.9	12.7	107.0	5.7	13.0	109.9	35.	14.0	112.9	240.	16.0	117.0	288.
82406	12.7	107.4	12.7	107.7	17.1	13.3	111.2	71.	14.1	115.0	270.	15.4	118.9	364.
82412	12.8	108.0	12.7	108.5	29.2	12.9	111.9	80.	13.3	115.6	349.	14.0	119.1	476.
82418	13.0	108.6	12.9	108.5	8.3	13.5	110.9	204.	14.3	113.7	361.	15.4	116.8	487.
82500	13.7	109.3	13.0	109.3	42.0	13.9	112.7	243.	15.4	116.5	325.	17.2	120.9	350.
82506	14.6	109.9	13.1	110.0	90.2	14.1	113.3	252.	15.2	116.9	377.	17.0	120.8	441.
82512	15.7	110.3	13.3	110.6	145.0	14.7	113.5	263.	16.3	116.5	387.	18.0	119.4	462.
82518	16.9	111.1	16.9	111.1	0.0	20.4	114.4	77.	22.6	117.8	225.	24.1	121.0	372.
82600	17.8	112.1	17.9	112.0	8.2	21.7	116.0	74.	23.0	119.4	229.	23.6	123.0	323.
82606	18.4	113.3	18.3	113.3	6.0	20.5	117.6	58.	17.2	121.5	408.	19.3	125.4	266.
82612	19.1	114.5	19.0	114.4	8.1	21.3	118.7	76.	23.0	122.1	231.	25.0	125.5	284.
82618	20.0	115.7	20.0	115.7	0.0	22.8	120.1	106.	25.3	123.3	300.	27.5	125.7	398.
82700	20.8	116.9	20.8	116.9	0.0	23.2	121.7	108.	25.1	125.5	258.	26.8	128.5	250.
82706	21.4	118.2	21.4	118.0	10.8	23.7	122.0	206.	25.6	125.2	321.	27.1	128.1	236.
82712	21.8	119.9	21.9	119.9	6.0	23.7	125.3	98.	26.1	128.1	258.	28.6	129.7	247.
82718	22.1	121.9	22.0	121.8	8.1	22.3	127.6	29.	23.4	131.4	73.	25.5	133.6	186.
82800	22.4	123.7	22.5	123.5	12.1	26.8	129.5	423.	30.0	133.5	464.	31.5	137.0	495.
82806	22.4	125.0	22.8	125.6	40.2	24.8	133.2	280.	26.5	139.7	550.	27.0	145.0	780.
82812	22.3	126.4	22.3	126.7	10.9	22.7	130.4	65.	23.0	132.8	178.	23.2	134.1	259.
82818	22.0	127.6	21.9	127.3	17.4	21.7	131.4	69.	22.9	133.6	228.	23.8	135.1	0.
82900	21.8	128.5	21.8	128.5	0.0	21.7	132.6	156.	22.2	136.0	384.	22.9	139.0	0.
82906	21.9	129.0	21.8	129.3	17.4	21.9	132.7	176.	22.3	136.5	400.	23.0	140.0	0.
82912	22.2	129.5	22.0	129.5	12.0	22.5	131.3	140.	23.3	132.2	195.	24.5	133.3	0.
82918	22.5	130.0	22.5	130.5	27.2	24.0	132.0	118.	25.6	134.0	0.	0.0	0.0	0.
83000	22.9	130.1	22.9	130.1	0.0	25.5	130.1	19.	0.0	0.0	0.	0.0	0.0	0.
83006	23.5	130.1	23.6	130.1	6.0	25.9	129.8	40.	0.0	0.0	0.	0.0	0.0	0.
83012	24.3	130.2	24.5	130.0	16.2	27.5	129.8	90.	0.0	0.0	0.	0.0	0.0	0.
83018	25.1	130.3	25.1	130.2	5.4	28.0	130.0	0.	0.0	0.0	0.	0.0	0.0	0.
83100	25.7	130.4	25.8	130.2	12.4	28.9	129.9	0.	0.0	0.0	0.	0.0	0.0	0.
83106	26.0	130.5	26.1	130.5	6.0	27.6	131.2	0.	0.0	0.0	0.	0.0	0.0	0.
83112	0.0	0.0	26.3	130.8	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
83118	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								121.			269.			358.
NUMBER OF CASES								35			28			24

TABLE 17

PAULINE.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
82700	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
82706	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
82712	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
82718	15.8	104.1	16.7	105.0	74.8	18.3	110.0	208.	18.9	114.8	462.	19.8	119.5	457.
82800	15.5	105.0	16.5	105.5	66.5	18.0	109.7	265.	19.3	114.0	430.	20.3	117.6	397.
82806	14.8	105.5	16.5	106.5	117.0	17.4	110.6	227.	18.7	114.6	331.	20.1	118.5	359.
82812	13.9	106.1	15.7	106.8	115.3	15.7	110.3	78.	16.5	113.7	168.	18.1	117.6	226.
82818	13.1	106.9	15.7	107.6	161.1	15.5	110.6	186.	16.3	114.4	150.	18.0	118.5	223.
82900	12.8	107.9	13.9	108.0	66.3	13.9	112.0	90.	14.5	115.8	35.	15.9	119.7	118.
82906	12.6	108.9	13.9	109.1	78.9	14.0	113.2	38.	15.5	117.2	75.	17.2	120.0	210.
82912	12.6	109.9	14.4	110.4	111.8	15.6	114.7	131.	17.1	118.6	189.	18.9	122.2	300.
82918	12.6	110.9	12.4	110.5	26.1	12.8	114.4	61.	13.8	117.9	65.	15.3	121.4	92.
83000	12.9	111.9	12.4	112.0	30.6	13.2	116.9	95.	14.5	121.0	55.	16.2	125.1	167.
83006	13.0	112.8	13.4	113.0	26.6	15.1	117.2	55.	16.6	120.9	163.	18.2	124.8	219.
83012	13.4	133.6	13.7	113.6	*1153	14.6	117.4	31.	16.0	121.1	136.	17.1	125.0	140.
83018	13.7	114.6	13.8	114.6	6.0	15.3	118.4	67.	16.6	122.3	144.	18.8	125.6	234.
83100	13.9	115.6	14.0	115.5	8.3	15.3	119.3	94.	16.8	123.1	150.	17.7	127.4	134.
83106	14.0	116.7	14.4	116.6	24.7	15.8	120.5	121.	17.4	124.4	168.	19.0	128.0	221.
83112	14.1	117.8	14.4	116.9	54.8	15.2	120.1	135.	16.1	123.5	135.	17.1	127.3	196.
83118	14.0	119.0	14.3	118.9	18.9	14.9	123.5	72.	15.8	127.8	89.	16.7	131.4	29.
9 100	13.9	119.9	14.0	120.2	18.3	13.9	125.4	142.	14.8	130.0	134.	15.2	134.2	175.
9 106	13.9	120.7	13.9	121.2	28.8	13.6	125.1	80.	14.1	129.4	85.	15.3	133.3	123.
9 112	14.0	121.5	13.9	122.0	29.4	14.0	126.0	59.	14.5	130.0	95.	15.7	134.0	115.
9 118	14.1	122.2	14.2	122.5	18.2	14.7	124.9	95.	15.4	129.2	120.	16.6	132.8	161.
9 200	14.3	123.1	14.3	123.0	5.7	14.9	126.7	73.	15.3	130.8	96.	15.9	135.7	153.
9 206	14.5	124.2	14.6	124.2	6.0	15.3	128.6	37.	16.2	133.1	75.	17.1	137.9	73.
9 212	14.8	125.3	14.8	125.4	5.7	15.3	129.9	54.	16.1	134.4	90.	17.1	139.0	85.
9 218	15.2	126.6	15.0	126.5	13.3	15.9	130.8	32.	16.7	135.0	79.	17.6	139.0	0.
9 300	15.5	127.8	15.5	127.8	0.0	16.5	132.2	37.	17.4	135.6	79.	18.3	140.6	0.
9 306	15.8	128.8	15.3	129.2	29.1	16.5	134.5	141.	17.5	139.2	79.	18.9	143.4	0.
9 312	16.2	130.0	16.0	130.5	31.0	16.3	135.7	112.	16.7	140.8	112.	18.3	145.0	0.
9 318	16.7	130.9	16.4	131.0	18.9	17.7	135.0	21.	19.6	138.1	0.	22.3	140.3	0.
9 400	17.1	132.0	16.7	131.6	33.1	17.9	135.0	94.	19.3	138.6	0.	19.8	142.6	0.
9 406	17.3	133.0	17.0	132.1	54.5	18.5	134.6	200.	19.6	137.4	0.	20.1	141.3	0.
9 412	17.7	134.2	17.6	134.3	8.3	18.9	138.8	67.	19.8	142.8	0.	20.3	144.8	0.
9 418	18.0	136.6	18.0	135.2	80.0	19.5	139.4	0.	20.7	143.4	0.	21.7	146.9	0.
9 500	18.2	136.6	18.3	136.6	6.0	19.1	141.7	0.	19.5	144.8	0.	19.9	148.0	0.
9 506	18.2	138.1	18.3	138.1	6.0	18.4	143.5	0.	18.6	148.3	0.	19.3	152.6	0.
9 512	18.3	139.8	18.3	139.8	0.0	18.5	146.3	0.	19.1	151.6	0.	19.7	155.2	0.
9 518	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
EAN VECTOR ERRORS (N.MI)								100.			143.			192.
UMBER OF CASES								32			28			24

TABLE 18

RICK.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
9 100	14.1	106.5	14.0	106.6	8.3	14.5	110.7	34.	15.9	115.4	59.	17.1	119.5	255.
9 106	14.2	107.7	14.0	107.6	13.3	14.2	111.7	109.	15.5	115.5	58.	17.0	119.3	224.
9 112	14.6	108.8	14.1	108.6	32.2	14.8	112.5	42.	16.0	116.5	79.	17.6	120.0	277.
9 118	14.8	110.1	14.7	110.1	6.0	15.8	114.8	63.	17.2	118.9	251.	18.4	122.7	350.
9 200	15.0	111.7	14.8	111.2	12.0	15.3	116.0	61.	15.8	120.7	252.	16.7	125.4	334.
9 206	15.3	112.1	16.0	111.4	58.2	17.6	115.5	173.	18.9	119.3	335.	20.0	122.8	456.
9 212	15.3	113.0	15.5	112.4	36.9	15.8	116.5	67.	16.2	120.6	201.	17.2	124.6	326.
9 218	15.1	113.9	15.2	113.9	6.0	14.9	118.0	123.	15.5	122.1	176.	16.7	126.1	283.
9 300	14.8	114.7	15.0	115.0	21.2	14.8	119.1	142.	15.0	122.9	166.	15.9	127.5	238.
9 306	14.4	115.3	14.8	116.2	57.6	14.7	120.3	140.	15.1	124.5	187.	15.9	128.6	238.
9 312	14.0	115.8	14.7	116.7	67.0	14.8	121.6	159.	16.0	126.0	278.	17.7	130.5	352.
9 318	13.7	116.4	14.0	116.1	25.1	13.1	119.1	94.	13.0	122.2	219.	13.7	125.9	292.
9 400	13.3	117.4	13.6	117.0	29.4	13.5	119.4	134.	14.4	122.6	284.	16.6	126.0	396.
9 406	13.0	118.5	13.4	118.3	26.7	13.3	122.5	59.	14.0	126.7	139.	15.4	130.3	206.
9 412	12.8	119.6	13.0	119.6	12.0	12.8	124.1	60.	13.0	128.6	67.	14.0	132.2	110.
9 418	12.7	120.7	12.9	120.7	12.0	12.9	125.0	72.	13.7	129.4	84.	14.7	133.7	96.
9 500	12.5	121.8	12.6	121.5	18.5	12.6	125.4	90.	13.1	129.4	125.	14.0	133.3	134.
9 506	12.3	123.1	12.4	122.9	13.1	12.3	127.6	25.	12.7	131.8	47.	14.0	136.2	27.
9 512	12.2	124.4	11.8	124.0	33.4	11.9	129.0	8.	12.4	133.1	46.	13.2	137.1	126.
9 518	12.1	125.9	12.0	125.8	8.4	12.0	130.9	51.	12.0	135.5	98.	12.0	140.1	272.
9 600	12.2	127.0	12.0	126.8	16.7	12.1	131.2	40.	13.0	135.6	54.	14.2	139.8	163.
9 606	12.4	128.1	12.0	127.9	26.6	12.2	132.3	40.	13.2	136.5	72.	14.4	140.4	178.
9 612	12.5	129.2	12.0	129.1	30.6	12.0	133.7	54.	12.7	138.0	165.	13.3	142.2	0.
9 618	12.6	130.4	12.7	130.4	6.0	13.8	134.9	38.	15.2	139.3	94.	16.7	143.4	0.
9 700	12.7	131.5	12.7	131.5	0.0	13.2	135.8	44.	14.4	140.0	157.	16.0	144.1	0.
9 706	12.8	132.6	12.8	132.6	0.0	13.3	136.6	67.	14.1	140.4	195.	15.1	144.4	0.
9 712	13.0	133.6	12.9	133.7	8.3	13.6	138.2	120.	14.8	142.3	0.	15.8	145.0	0.
9 718	13.3	134.5	13.3	134.5	0.0	14.2	138.5	113.	15.7	141.9	0.	17.0	145.0	0.
9 800	13.9	135.5	13.9	135.6	5.8	16.2	139.3	46.	18.3	142.9	0.	20.3	146.5	0.
9 806	14.4	136.4	14.4	136.4	0.0	16.4	140.3	71.	17.5	144.1	0.	18.2	148.3	0.
9 812	15.3	137.1	15.3	137.1	0.0	18.1	140.4	0.	20.7	143.3	0.	24.8	144.2	0.
9 818	16.0	137.9	16.0	137.9	0.0	19.3	140.6	0.	22.4	142.5	0.	25.5	143.0	0.
9 900	16.7	138.7	16.7	138.7	0.0	19.2	142.2	0.	20.7	145.6	0.	22.1	149.1	0.
9 906	17.2	139.4	17.2	139.4	0.0	19.1	142.3	0.	20.0	145.5	0.	20.5	148.8	0.
9 912	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
9 918	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								78.			149.			242.
NUMBER OF CASES								30			26			22

TABLE 19

SANDRA.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
9 500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
9 506	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
9 512	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
9 518	12.7	95.5	12.0	95.0	51.1	12.0	98.2	180.	12.0	103.0	197.	12.6	107.8	195.
9 600	13.0	97.0	12.0	96.7	62.4	12.4	102.9	138.	14.0	107.9	165.	16.4	112.5	174.
9 606	13.1	98.1	12.2	98.2	54.3	12.8	103.5	105.	14.3	107.9	113.	16.4	111.6	97.
9 612	13.5	99.1	12.5	99.5	64.2	13.9	104.8	94.	15.7	109.0	75.	18.2	113.0	197.
9 618	13.8	100.1	14.0	100.5	25.8	15.5	105.0	57.	17.3	109.6	106.	19.6	112.6	227.
9 700	14.1	101.1	14.0	101.2	8.3	15.3	105.0	23.	17.0	109.1	89.	19.2	112.9	188.
9 706	14.5	102.1	14.0	102.2	30.5	14.6	106.2	55.	15.9	110.0	27.	17.8	113.7	80.
9 712	14.7	103.1	14.1	103.2	36.4	14.8	107.3	59.	16.2	111.3	43.	18.7	115.2	124.
9 718	15.1	104.1	15.1	104.1	0.0	16.6	107.9	75.	18.9	111.4	181.	21.9	113.7	254.
9 800	15.4	105.3	15.3	105.4	8.3	16.6	109.7	60.	18.2	113.6	144.	20.5	116.9	199.
9 806	15.5	106.4	15.5	106.4	0.0	16.5	110.5	62.	18.0	114.1	102.	20.0	117.4	155.
9 812	15.7	107.7	15.7	107.7	0.0	16.5	112.6	112.	18.7	116.4	178.	21.0	119.1	253.
9 818	15.7	108.7	15.7	108.8	5.6	16.7	113.3	99.	18.8	117.0	167.	21.8	119.8	267.
9 900	15.5	109.5	15.6	109.6	8.3	15.8	113.2	50.	16.5	117.1	169.	17.5	120.9	324.
9 906	15.5	110.2	15.5	110.2	0.0	15.0	112.9	97.	14.9	115.8	226.	15.0	119.3	391.
9 912	15.6	110.9	15.6	110.9	0.0	16.1	114.3	74.	17.1	117.6	186.	19.0	121.5	284.
9 918	15.9	111.8	15.9	111.8	0.0	16.0	115.8	134.	15.8	120.0	343.	15.8	124.0	479.
91000	16.2	112.3	16.1	112.4	8.2	16.9	115.0	70.	17.9	117.9	174.	18.9	120.9	197.
91006	16.6	113.0	16.6	113.1	5.6	18.2	115.2	25.	20.2	116.8	48.	22.5	118.0	91.
91012	17.0	113.7	17.2	113.7	12.0	20.0	115.4	57.	22.6	117.0	78.	25.1	117.5	256.
91018	17.6	114.3	17.7	114.3	6.0	19.9	116.0	26.	22.1	116.9	74.	24.3	117.4	285.
91100	18.0	114.6	18.0	114.6	0.0	19.9	115.9	12.	22.4	117.0	116.	25.1	117.9	331.
91106	18.6	115.0	18.6	115.1	5.5	20.8	116.3	8.	23.0	117.5	129.	25.2	119.0	320.
91112	19.2	115.3	19.1	115.1	12.5	21.6	115.7	80.	24.1	116.1	284.	26.3	115.3	570.
91118	19.7	115.6	19.7	115.6	0.0	22.1	116.2	106.	25.0	116.8	333.	27.1	116.7	568.
91200	20.2	116.0	20.1	115.9	8.1	22.4	117.3	101.	24.8	119.2	262.	27.6	122.2	423.
91206	20.8	116.5	20.9	116.4	8.1	23.8	117.8	148.	26.0	119.7	320.	28.8	120.7	585.
91212	21.1	117.2	21.3	117.1	13.2	23.0	119.6	86.	24.4	121.9	203.	26.0	124.5	403.
91218	21.4	118.0	21.3	117.9	8.2	21.7	121.0	71.	22.3	124.1	76.	22.7	128.1	183.
91300	21.6	118.7	21.6	118.9	11.2	22.4	122.6	28.	23.0	126.3	91.	23.3	130.1	209.
91306	21.9	119.6	21.9	119.5	5.6	23.1	123.0	69.	23.6	126.6	164.	23.7	130.2	270.
91312	22.1	120.8	22.0	120.7	8.2	22.6	125.9	71.	23.0	130.3	205.	23.3	134.7	242.
91318	22.2	122.0	22.3	122.1	8.2	23.0	127.9	154.	23.0	132.9	245.	22.7	137.9	269.
91400	22.3	123.0	22.3	123.1	5.6	22.4	127.2	82.	22.5	131.3	158.	22.7	134.2	0.
91406	22.2	123.8	22.3	123.9	8.2	22.1	127.8	85.	21.6	131.6	125.	21.8	135.4	0.
91412	22.0	124.6	22.2	124.7	13.2	22.0	128.3	108.	22.0	131.8	186.	21.9	136.5	0.
91418	21.6	125.4	21.9	125.4	18.0	21.2	128.8	87.	21.0	132.0	217.	20.9	135.2	0.
91500	21.0	126.2	21.5	126.1	30.5	20.7	129.5	92.	20.1	132.4	0.	20.8	134.1	0.
91506	20.6	127.2	20.9	127.0	21.2	19.6	130.0	124.	19.4	133.1	0.	20.0	135.0	0.
91512	20.1	128.5	20.2	128.2	17.9	19.9	132.1	90.	20.2	136.0	0.	21.4	139.6	0.
91518	19.9	129.8	20.1	129.8	12.0	19.9	135.4	55.	20.0	138.2	0.	0.0	0.0	0.
91600	19.7	130.9	19.9	130.9	12.0	19.9	136.0	0.	0.0	0.0	0.	0.0	0.0	0.
91606	19.4	132.3	19.6	132.2	13.2	19.4	137.0	0.	0.0	0.0	0.	0.0	0.0	0.
91612	19.2	133.7	19.4	133.6	13.2	19.3	138.9	0.	0.0	0.0	0.	0.0	0.0	0.
91618	18.9	135.2	19.0	135.2	6.0	18.7	141.1	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								81.			162.			275.
NUMBER OF CASES								41			37			33

TABLE 20

TERRY.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
91500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
91506	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
91512	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
91518	12.2	98.5	11.8	98.5	24.0	13.4	102.9	63.	15.0	107.4	99.	17.7	111.3	207.
91600	12.3	99.4	11.8	99.4	30.0	12.4	104.1	69.	13.6	107.9	129.	15.3	111.6	190.
91606	12.5	100.3	11.8	100.4	42.4	12.1	104.5	63.	13.1	108.6	176.	14.4	112.8	276.
91612	12.6	101.2	11.5	101.1	66.3	11.4	104.0	116.	11.6	107.0	261.	12.2	110.4	372.
91618	12.7	102.1	12.7	102.1	0.0	13.1	105.7	67.	13.6	109.0	159.	14.5	112.3	243.
91700	13.0	103.0	13.0	103.1	5.7	13.6	107.0	99.	14.5	111.0	187.	16.5	114.3	230.
91706	13.3	104.0	12.8	103.7	34.5	13.2	106.8	152.	14.6	110.3	173.	17.3	114.0	175.
91712	13.8	104.9	13.2	104.7	37.8	14.1	108.2	112.	15.8	111.7	162.	18.0	115.3	214.
91718	14.4	105.8	14.2	105.9	13.3	16.0	109.6	87.	17.6	112.8	161.	19.0	116.2	233.
91800	14.9	106.5	15.1	106.3	16.4	17.3	108.7	42.	19.4	110.1	72.	21.7	111.3	175.
91806	15.4	107.1	15.7	107.2	18.8	19.1	109.7	121.	22.8	112.2	251.	27.8	114.0	506.
91812	15.8	107.6	15.9	107.7	8.2	17.9	110.4	57.	20.3	112.6	117.	22.8	114.5	190.
91818	16.1	108.1	16.1	108.1	0.0	17.8	110.1	8.	19.8	112.1	54.	23.6	112.8	234.
91900	16.6	108.6	16.6	108.6	0.0	18.7	109.3	87.	20.7	111.0	136.	23.2	112.2	234.
91906	17.0	109.0	17.2	109.0	12.0	19.6	110.6	67.	22.2	111.9	181.	26.0	113.3	359.
91912	17.4	109.5	17.5	109.5	6.0	19.7	110.8	80.	22.3	112.1	183.	25.9	113.3	338.
91918	17.8	110.1	17.9	110.0	8.1	20.3	111.7	87.	22.8	113.0	185.	26.2	113.8	338.
92000	18.2	110.7	18.4	110.8	13.2	20.7	113.3	102.	23.4	115.4	187.	27.0	114.2	368.
92006	18.4	111.2	18.7	111.3	18.8	20.2	113.5	53.	21.6	115.4	73.	23.0	118.0	88.
92012	18.6	111.6	18.6	111.6	0.0	19.2	113.6	32.	20.3	115.7	32.	21.9	117.7	70.
92018	18.9	112.1	18.9	112.1	0.0	19.9	114.0	23.	20.8	116.1	25.	21.8	118.5	127.
92100	19.1	112.6	19.1	112.7	5.5	19.9	115.0	24.	20.6	117.3	54.	21.1	119.7	0.
92106	19.4	113.1	19.4	113.1	0.0	20.5	115.8	13.	21.6	118.4	73.	22.0	121.2	233.
92112	19.7	113.8	19.7	113.8	0.0	20.8	116.2	17.	22.0	118.6	66.	23.3	121.3	235.
92118	20.0	114.4	20.0	114.4	0.0	21.3	117.0	36.	23.0	119.3	61.	24.8	121.4	252.
92200	20.3	114.9	20.3	115.0	5.4	21.6	117.3	38.	22.8	120.0	0.	24.2	122.6	0.
92206	20.5	115.4	20.4	115.6	12.3	21.3	117.9	54.	22.3	120.1	210.	24.0	121.8	0.
92212	20.8	115.9	20.8	115.9	0.0	21.9	117.9	67.	23.1	119.5	259.	24.4	121.4	0.
92218	21.0	116.3	21.1	116.4	8.0	22.1	118.1	115.	23.3	119.8	355.	24.7	121.3	0.
92300	21.4	116.7	21.3	116.7	6.0	22.2	118.2	0.	23.4	119.5	0.	24.6	120.8	0.
92306	22.1	117.4	21.8	117.1	24.1	23.9	118.1	165.	26.2	118.3	0.	28.5	117.8	0.
92312	23.0	118.1	23.0	118.1	0.0	26.3	119.8	84.	29.4	120.7	0.	32.1	121.1	0.
92318	23.9	118.9	23.9	118.8	5.4	27.2	120.4	125.	30.0	121.3	0.	32.4	121.1	0.
92400	24.8	119.7	0.0	0.0	0.0	28.9	122.9	0.	33.0	122.7	0.	0.0	0.0	0.
92406	25.8	120.4	25.8	120.3	5.4	29.9	122.5	0.	31.2	122.5	0.	0.0	0.0	0.
92412	27.4	120.9	27.2	121.0	13.1	31.0	122.0	0.	32.5	121.8	0.	0.0	0.0	0.
92418	29.0	121.6	29.0	121.6	0.0	34.7	122.7	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								73.			146.			243.
NUMBER OF CASES								32			28			24

TABLE 21

VIVIAN.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
91800	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
91806	13.3	116.7	13.8	117.6	60.0	14.3	120.0	127.	15.3	122.2	231.	17.1	124.1	330.
91812	13.8	117.1	14.0	117.7	36.7	14.9	116.3	105.	15.5	115.2	193.	16.1	113.5	334.
91818	14.3	117.5	14.3	117.5	0.0	15.1	116.0	116.	15.6	114.4	238.	16.1	112.3	393.
91900	14.6	117.7	15.0	117.9	26.6	17.3	118.3	126.	19.8	118.6	312.	22.3	118.0	0.
91906	14.8	117.8	14.9	117.9	8.3	16.0	118.8	54.	17.9	119.6	201.	20.8	120.1	0.
91912	14.9	117.9	15.1	118.1	16.7	16.3	118.6	78.	17.9	119.4	211.	20.0	120.1	0.
91918	15.0	118.0	15.0	118.0	0.0	15.9	119.2	58.	17.7	118.7	210.	19.6	118.9	0.
92000	15.2	118.2	15.2	118.2	0.0	16.2	118.7	97.	18.0	119.0	0.	20.9	119.0	0.
92006	15.2	118.4	15.3	118.2	13.0	16.0	120.0	102.	17.2	122.6	0.	18.0	125.2	0.
92012	15.1	118.6	15.0	118.5	8.3	15.3	118.7	57.	16.4	119.4	0.	18.2	121.3	0.
92018	15.0	118.8	15.2	118.5	21.1	15.6	119.0	85.	16.6	119.3	0.	18.1	119.4	0.
92100	14.8	118.9	14.6	118.5	26.1	15.1	117.9	0.	17.0	118.4	0.	19.0	119.0	0.
92106	14.6	119.0	14.6	119.0	0.0	14.7	119.6	0.	15.2	120.3	0.	15.2	121.3	0.
92112	14.4	119.0	14.4	119.0	0.0	14.4	118.5	0.	15.7	118.7	0.	17.7	119.8	0.
92118	14.2	118.9	14.2	118.8	5.8	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								91.			228.			353.
NUMBER OF CASES								11			7			3

TABLE 22

WALDO.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
10 700	15.0	106.1	15.0	106.3	10.8	16.0	111.2	185.	17.8	114.7	399.	20.4	117.1	0.
10 706	15.8	107.3	15.2	107.3	36.0	16.3	111.3	216.	17.4	115.1	514.	19.5	118.6	0.
10 712	16.8	108.1	16.9	108.0	8.1	21.1	109.7	30.	25.8	109.9	130.	0.0	0.0	0.
10 718	17.6	108.8	17.6	108.8	0.0	21.4	111.0	68.	26.0	112.3	0.	0.0	0.0	0.
10 800	18.5	109.3	18.5	109.3	0.0	22.8	110.5	79.	0.0	0.0	0.	0.0	0.0	0.
10 806	19.3	109.6	19.6	109.8	12.4	25.1	109.0	133.	0.0	0.0	0.	0.0	0.0	0.
10 812	20.5	109.7	20.6	109.7	6.0	75.5	109.1	83.	0.0	0.0	0.	0.0	0.0	0.
10 818	21.2	109.7	21.2	109.8	5.4	24.5	109.5	0.	0.0	0.0	0.	0.0	0.0	0.
10 900	22.1	109.3	22.1	109.3	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
10 906	23.1	108.3	23.0	108.2	8.1	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
10 912	0.0	0.0	25.7	107.6	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
10 918	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								114.			347.			0.
NUMBER OF CASES								7			3			0

TABLE 23

XINA.....

DATE/TIME (GMT)	BEST TRACK LAT.	BEST TRACK LONG.	OPERATIONAL POSITION LAT.	OPERATIONAL POSITION LONG.	POSITION ERROR (N.MI.)	24 HOUR FORECAST LAT.	24 HOUR FORECAST LONG.	24 HOUR FORECAST ERROR (N.MI)	48 HOUR FORECAST LAT.	48 HOUR FORECAST LONG.	48 HOUR FORECAST ERROR (N.MI.)	72 HOUR FORECAST LAT.	72 HOUR FORECAST LONG.	72 HOUR FORECAST ERROR (N.MI.)
102500	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
102506	12.0	111.5	12.0	112.0	29.5	12.1	112.5	82.	0.0	0.0	0.	0.0	0.0	0.
102512	11.8	111.9	12.0	111.5	26.2	12.1	111.8	238.	12.8	113.4	386.	13.8	116.0	248.
102518	11.6	112.4	11.7	111.5	52.8	12.5	111.6	326.	0.0	0.0	0.	0.0	0.0	0.
102600	11.5	113.6	11.5	113.0	34.6	11.4	114.1	224.	13.1	117.2	147.	15.1	118.4	212.
102606	11.5	114.7	11.4	113.7	58.4	11.3	114.5	259.	12.0	117.3	160.	13.8	117.8	205.
102612	11.4	115.8	11.5	115.8	6.0	11.6	117.5	136.	13.8	122.0	111.	16.0	125.0	220.
102618	11.4	116.9	11.7	117.1	21.3	12.2	119.5	40.	15.3	125.8	326.	18.4	128.0	404.
102700	11.3	117.7	11.3	117.9	11.5	11.3	120.0	70.	13.0	125.8	346.	16.1	128.3	395.
102706	11.3	118.5	11.3	118.9	23.0	11.3	120.9	107.	12.9	126.7	350.	15.2	129.2	493.
102712	11.6	119.0	11.3	119.8	49.4	11.4	121.6	136.	12.8	127.0	382.	15.2	129.7	546.
102718	11.9	119.4	11.6	119.2	21.4	11.7	119.3	129.	13.4	120.2	201.	15.4	120.3	176.
102800	12.3	119.7	12.4	119.6	8.2	13.3	119.8	243.	17.5	119.5	118.	20.6	117.0	185.
102806	12.8	119.9	12.8	119.9	0.0	13.8	120.1	93.	16.8	120.5	56.	18.8	120.0	59.
102812	13.2	120.2	13.2	120.2	0.0	14.3	120.6	96.	18.3	120.2	31.	20.6	119.2	156.
102818	13.7	120.5	13.5	120.5	12.0	14.4	120.5	138.	17.7	119.9	36.	20.6	119.2	167.
102900	14.3	120.8	17.0	121.5	166.8	14.7	120.9	142.	18.8	121.6	133.	20.7	120.3	280.
102906	15.0	121.1	15.0	121.1	0.0	16.5	121.5	72.	20.9	121.1	199.	23.9	119.1	535.
102912	15.7	121.2	15.8	121.2	6.0	17.6	121.3	46.	22.6	119.7	278.	24.8	117.2	0.
102918	16.5	121.3	16.6	121.2	8.2	18.2	121.0	63.	22.6	119.0	274.	25.0	116.8	0.
103000	17.0	121.4	17.0	121.5	5.7	20.8	121.0	173.	23.4	120.1	436.	25.8	116.9	786.
103006	17.6	121.0	17.6	121.0	0.0	20.1	120.3	136.	23.1	119.1	487.	26.4	117.5	850.
103012	17.7	120.6	18.1	120.7	24.7	20.0	119.3	121.	21.8	117.5	0.	23.2	115.4	684.
103018	17.7	120.0	18.3	119.9	36.5	19.2	117.5	61.	20.4	115.4	0.	21.5	113.0	611.
103100	17.7	119.6	18.4	119.3	45.4	20.1	116.0	290.	21.9	114.0	606.	22.5	113.3	658.
103106	17.4	119.4	18.0	119.4	36.0	18.1	118.8	186.	18.2	118.0	358.	18.5	117.1	370.
103112	17.0	119.2	18.0	119.1	60.3	18.3	117.4	0.	18.8	115.4	439.	19.4	113.0	544.
103118	16.4	119.0	18.2	117.7	131.8	18.1	114.8	0.	17.8	112.0	471.	17.4	109.0	570.
11 100	15.8	118.8	16.2	119.0	26.7	15.6	117.2	187.	16.3	115.7	244.	16.6	113.5	336.
11 106	15.0	118.6	15.0	118.6	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
11 112	14.5	118.6	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
11 118	14.0	118.6	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
11 200	13.5	118.5	12.8	118.6	42.4	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
11 206	13.2	118.4	12.3	118.9	61.6	11.0	118.7	94.	10.2	119.6	248.	9.7	120.7	35.
11 212	12.9	118.3	12.3	118.9	50.5	11.4	121.2	200.	11.4	123.5	412.	0.0	0.0	0.
11 218	12.6	118.1	12.5	118.0	8.4	11.0	117.6	65.	0.0	0.0	0.	0.0	0.0	0.
11 300	12.3	118.0	12.5	118.0	12.0	12.1	118.2	196.	11.8	119.2	18.	11.9	120.3	0.
11 306	12.1	117.9	12.4	118.0	18.9	11.9	118.1	149.	11.4	118.6	126.	11.3	119.5	0.
11 312	11.7	117.8	11.6	117.8	6.0	11.2	117.9	84.	11.0	118.3	0.	0.0	0.0	0.
11 318	11.3	117.8	11.9	117.0	59.4	11.6	116.5	12.	11.5	116.5	0.	0.0	0.0	0.
11 400	10.9	117.9	11.2	115.0	172.4	11.2	115.2	236.	11.0	115.8	0.	11.0	116.2	0.
11 406	10.5	118.2	11.5	115.6	165.0	11.4	115.8	273.	11.1	116.5	0.	11.2	117.6	0.
11 412	10.2	118.6	11.5	116.5	146.6	11.2	117.0	0.	0.0	0.0	0.	0.0	0.0	0.
11 418	10.1	119.1	11.8	116.5	184.5	11.8	115.8	0.	0.0	0.0	0.	0.0	0.0	0.
11 500	10.0	119.6	11.5	119.2	93.1	11.6	121.0	0.	12.0	123.0	0.	12.2	125.0	0.
11 506	10.0	120.2	10.0	120.2	0.0	10.1	122.5	0.	11.4	124.6	0.	13.5	125.7	0.
11 512	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
11 518	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.	0.0	0.0	0.	0.0	0.0	0.
MEAN VECTOR ERRORS (N.MI)								146.			264.			389.
NUMBER OF CASES								35			28			25

TABLE 24

NOAA Technical Memoranda NWS WR: (Continued)

121 Climatological Prediction of Cumulonimbus Clouds in the Vicinity of the Yucca Flat Weather Station. R. F. Quiring, June 1977. (PB-271-704/AS)
122 A Method for Transforming Temperature Distribution to Normality. Morris S. Webb, Jr., June 1977. (PB-271-742/AS)
124 Statistical Guidance for Prediction of Eastern North Pacific Tropical Cyclone Motion - Part I. Charles J. Neumann and Preston W. Leftwich, August 1977. (PB-272-661)
125 Statistical Guidance on the Prediction of Eastern North Pacific Tropical Cyclone Motion - Part II. Preston W. Leftwich and Charles J. Neumann, August 1977. (PB-273-155/AS)
127 Development of a Probability Equation for Winter-Type Precipitation Patterns in Great Falls, Montana. Kenneth B. Mielke, February 1978.(PB-281-387/AS)
128 Hand Calculator Program to Compute Parcel Thermal Dynamics. Dan Gudgel, April 1978. (PB-283-080/AS)
129 Fire Whirls. David W. Goens, May 1978. (PB-283-866/AS)
130 Flash-Flood Procedure. Ralph C. Hatch and Gerald Williams, May 1978. (PB-286-014/AS)
131 Automated Fire-Weather Forecasts. Mark A. Mollner and David E. Olsen, September 1978. (PB-289-916/AS)
132 Estimates of the Effects of Terrain Blocking on the Los Angeles WSR-74C Weather Radar. R. G. Pappas, R. Y. Lee, B. W. Finke, October 1978.(PB289767/AS)
133 Spectral Techniques in Ocean Wave Forecasting. John A. Jannuzzi, October 1978. (PB291317/AS)
134 Solar Radiation. John A. Jannuzzi, November 1978. (PB291195/AS)
135 Application of a Spectrum Analyzer in Forecasting Ocean Swell in Southern California Coastal Waters. Lawrence P. Kierulff, January 1979. (PB292716/AS)
136 Basic Hydrologic Principles. Thomas L. Dietrich, January 1979. (PB292247/AS)
137 LFM 24-Hour Prediction of Eastern Pacific Cyclones Refined by Satellite Images. John R. Zimmerman and Charles P. Ruscha, Jr., Jan. 1979. (PB294324/AS)
138 A Simple Analysis/Diagnosis System for Real Time Evaluation of Vertical Motion. Scott Heflick and James R. Fors, February 1979. (PB294216/AS)
139 Aids for Forecasting Minimum Temperature in the Wenatchee Frost District. Robert S. Robinson, April 1979. (PB298339/AS)
140 Influence of Cloudiness on Summertime Temperatures in the Eastern Washington Fire Weather District. James Holcomb, April 1979. (PB298674/AS)
141 Comparison of LFM and MFM Precipitation Guidance for Nevada During Doreen. Christopher Hill, April 1979. (PB298613/AS)
142 The Usefulness of Data from Mountaintop Fire Lookout Stations in Determining Atmospheric Stability. Jonathan W. Corey, April 1979. (PB298899/AS)
143 The Depth of the Marine Layer at San Diego as Related to Subsequent Cool Season Precipitation Episodes in Arizona. Ira S. Brenner, May 1979. (PB298817/AS)
144 Arizona Cool Season Climatological Surface Wind and Pressure Gradient Study. Ira S. Brenner, May 1979. (PB298900/AS)
145 On the Use of Solar Radiation and Temperature Models to Estimate the Snap Bean Maturity Date in the Willamette Valley. Earl M. Bates, August 1979. (PB80-160971)
146 The BART Experiment. Morris S. Webb, October 1979. (PB80-155112)
147 Occurrence and Distribution of Flash Floods in the Western Region. Thomas L. Dietrich, December 1979. (PB80-160344)
149 Misinterpretations of Precipitation Probability Forecasts. Allan H. Murphy, Sarah Lichtenstein, Baruch Fischhoff, and Robert L. Winkler, February 1980. (PB80-174576)
150 Annual Data and Verification Tabulation - Eastern and Central North Pacific Tropical Storms and Hurricanes 1979. Emil B. Gunther and Staff, EPHC, April 1980. (PB80-220486)
151 NMC Model Performance in the Northeast Pacific. James E. Overland, PMEL-ERL, April 1980. (PB80-196033)
152 Climate of Salt Lake City, Utah. Wilbur E. Figgins, October 1984. 2nd Revision. (PB85 123875)
153 An Automatic Lightning Detection System in Northern California. James E. Rea and Chris E. Fontana, June 1980. (PB80-225592)
154 Regression Equation for the Peak Wind Gust 6 to 12 Hours in Advance at Great Falls During Strong Downslope Wind Storms. Michael J. Oard, July 1980. (PB81-108367)
155 A Raininess Index for the Arizona Monsoon. John H. TenHarkel, July 1980. (PB81-106494)
156 The Effects of Terrain Distribution on Summer Thunderstorm Activity at Reno, Nevada. Christopher Dean Hill, July 1980. (PB81-102501)
157 An Operational Evaluation of the Scofield/Oliver Technique for Estimating Precipitation Rates from Satellite Imagery. Richard Ochoa, August 1980. (PB81-108227)
158 Hydrology Practicum. Thomas Dietrich, September 1980. (PB81-134033)
159 Tropical Cyclone Effects on California. Arnold Court, October 1980. (PB81-133779)
160 Eastern North Pacific Tropical Cyclone Occurrences During Intraseasonal Periods. Preston W. Leftwich and Gail M. Brown, February 1981. (PB81-205494)
161 Solar Radiation as a Sole Source of Energy for Photovoltaics in Las Vegas, Nevada, for July and December. Darryl Randerson, April 1981. (PB81-224503)
162 A Systems Approach to Real-Time Runoff Analysis with a Deterministic Rainfall-Runoff Model. Robert J. C. Burnash and R. Larry Ferral, April 1981. (PB81-224495)
163 A Comparison of Two Methods for Forecasting Thunderstorms at Luke Air Force Base, Arizona. Lt. Colonel Keith R. Cooley, April 1981. (PB81-225393)
164 An Objective Aid for Forecasting Afternoon Relative Humidity Along the Washington Cascade East Slopes. Robert S. Robinson, April 1981. (PB81-23078)
165 Annual Data and Verification Tabulation, Eastern North Pacific Tropical Storms and Hurricanes 1980. Emil B. Gunther and Staff, May 1981. (PB82-230336)
166 Preliminary Estimates of Wind Power Potential at the Nevada Test Site. Howard G. Booth, June 1981. (PB82-127036)
167 ARAP User's Guide. Mark Mathewson, July 1981. (revised September 1981). (PB82-196783)
168 Forecasting the Onset of Coastal Gales Off Washington-Oregon. John R. Zimmerman and William D. Burton, August 1981. (PB82-127051)
169 A Statistical-Dynamical Model for Prediction of Tropical Cyclone Motion in the Eastern North Pacific Ocean. Preston W. Leftwich, Jr., October 1981.
170 An Enhanced Plotter for Surface Airways Observations. Andrew J. Spry and Jeffrey L. Anderson, October 1981. (PB82-153883)
171 Verification of 72-Hour 500-mb Map-Type Predictions. R. F. Quiring, November 1981. (PB82-158098)
172 Forecasting Heavy Snow at Wenatchee, Washington. James W. Holcomb, December 1981. (PB82-177783)
173 Central San Joaquin Valley Type Maps. Thomas R. Crossan, December 1981. (PB82-196064)
174 ARAP Test Results. Mark A. Mathewson, December 1981. (PB82-193103)
175 Annual Data and Verification Tabulation Eastern North Pacific Tropical Storms and Hurricanes 1981. Emil B. Gunther and Staff, June 1982.(PB82-252420)
176 Approximations to the Peak Surface Wind Gusts from Desert Thunderstorms. Darryl Randerson, June 1982. (PB82-253089)
177 Climate of Phoenix, Arizona. Robert J. Schmidli, April 1969 (revised March 1983). (PB83246801)
178 Annual Data and Verification Tabulation, Eastern North Pacific Tropical Storms and Hurricanes 1982. E. B. Gunther, June 1983. (PB85 106078)
179 Stratified Maximum Temperature Relationships Between Sixteen Zone Stations in Arizona and Respective Key Stations. Ira S. Brenner, June 1983. (PB83-248904)
180 Standard Hydrologic Exchange Format (SHEF) Version I. Phillip A. Pasteries, Vernon C. Bissel, David G. Bennett, August, 1983.(PB85 106052)
181 Quantitative and Spacial Distribution of Winter Precipitation Along Utah's Wasatch Front. Lawrence B. Dunn, August, 1983. (PB85 106912)
182 500 Millibar Sign Frequency Teleconnection Charts - Winter. Lawrence B. Dunn, December, 1983.
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