

AD-A064 521

FLEET WEATHER CENTRAL/JOINT TYPHOON WARNING CENTER FP--ETC F/G 4/2
TROPICAL CYCLONE CENTER FIX DATA FOR THE 1975 TYPHOON SEASON. (U)

NOV 76

LINE ASSTATED

FI FWFCEN/JTWC-TN-76-5

NL

| OF |
AD
A 064 521



END
DATE
FILED
4-79
DDC

(1)

FLEWEACEN TECH NOTE:
JTWC 76-5

LEVEL^{II}

ADA 064521

TROPICAL CYCLONE CENTER
FIX DATA FOR THE 1975 TYPHOON
SEASON

by

THIS DOCUMENT IS BEST QUALITY PRACTICALLY.
THE COPY FURNISHED TO DDC CONTAINED A
SIGNIFICANT NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.

STAFF OF THE JOINT TYPHOON WARNING CENTER
NOVEMBER 1976



U.S. FLEET WEATHER CENTRAL GUAM
BOX 12 COMNAVMARIANAS
F.P.O. SAN FRANCISCO, CALIFORNIA 96630

Approved for public release;
Distribution Unlimited

79 02 09 041

DISCLAIMER NOTICE

**THIS DOCUMENT IS BEST QUALITY
PRACTICABLE. THE COPY FURNISHED
TO DDC CONTAINED A SIGNIFICANT
NUMBER OF PAGES WHICH DO NOT
REPRODUCE LEGIBLY.**

ACCESSION for	
NTIS	White Section <input checked="" type="checkbox"/>
DDC	Blk Section <input type="checkbox"/>
UNANNOUNCED <input type="checkbox"/>	
JUSTIFICATION <i>per Form 50</i>	
BY	
DISTRIBUTION/AVAILABILITY CODES	
Dist.	AVAIL. AND/ OR SPECIAL
A	<i>W3P 8</i>

FLEWEACEN TECH NOTE:
JTWC 76-5

(14) FLEWEACEN/JTWC-TN-76-5

(6) TROPICAL CYCLONE CENTER FIX
DATA FOR THE 1975 TYPHOON SEASON

(9) Technical note.

BY

(12) 4DP

STAFF OF THE JOINT TYPHOON WARNING CENTER

(11) NOVEMBER 1976

U. S. FLEET WEATHER CENTRAL GUAM
BOX 12 COMNAVMARIANAS
F. P. O. SAN FRANCISCO, CALIFORNIA 96630

79 02 09 041

408 282

Gua

CONTENTS

ABSTRACT.....	iii
INTRODUCTION.....	1
FORMAT.....	1
FIX DATA PRINTOUTS.....	6

ABSTRACT

A computer print-out of all center fix data is displayed for each tropical cyclone occurring in the western North Pacific, the Arabian Sea and the Bay of Bengal during 1975.

INTRODUCTION

During the 1975 typhoon season, 1857 fixes from various reconnaissance platforms were received at the Fleet Weather Central/Joint Typhoon Warning Center, Guam. Of these, 217 (11.7%) were obtained from aircraft, 444 (23.9%) from land radar, 2 (.1%) from aircraft radar, 965 (52.0%) from DMSP satellite and 229 (12.3%) from NOAA-4 satellite. A discussion of the various reconnaissance platforms is presented in Chapter II of the 1975 Annual Typhoon Report.

FORMAT

This fix data print-out is presented in calendar order for the 25 Western Pacific tropical cyclones and the 6 North Indian Ocean tropical cyclones. For all types of fixes, the first four columns list the same information in the following format:

FIX NO. - Fixes are numbered sequentially.

TIME - Day, hour and minutes (Zulu time) of fix.

POSIT - Position of storm center in degrees and tenths.

FIXCAT - Type of fix used (SAT - satellite, P - aircraft penetration, LRDR - land radar, AC R - aircraft radar, SRDR - ship radar, CPA - station experiencing eye passage, SCF - synoptic chart fix).

The format of the remainder of the print-out varies with the type of fix.

A. SATELLITE - The primary satellite fix data was obtained from USAF DMSP¹ sites at Nimitz Hill, Guam; Kadena AB, Okinawa; Yokota AB, Japan; Clark AB, Philippines; Nankon Phanon AB, Thailand²; and the Air Force Global Weather Central at Offutt AFB, Nebraska. Additional fix data was obtained from FLEWEAFAC Suitland, MD and from the National Environmental Satellite Service (NESS), Suitland, MD both of which utilized NOAA-4 data. Intensity estimates and trends (when available) are listed as derived from the Dvorak technique (NOAA TM,

1 Defense Meteorological Satellite Program

2 The site at Nakon Phanon AB, Thailand was deactivated and re-established at Clark AB, Philippines during 26 Aug-26 Sep 1975.

TABLE 1. POSITION CODE NUMBERS (PCN)

<u>PCN</u>	<u>METHOD OF CENTER DETERMINATION/GRIIDDING</u>	<u>RADIUS OF 90% PROBABILITY AREA (NM)</u>
1	Eye/Geography	25
2	Eye/Ephemeris	25
3	Well Defined CC/Geography	40
4	Well Defined CC/Ephemeris	40
5	Poorly Defined CC/Geography	55
6	Poorly Defined CC/Ephemeris	55

CC=CIRCULATION CENTER

TABLE 2. Confidence (CONF) numbers as a function of Dvorak T Number and radius of 90% probability area (nm).

TROPICAL CYCLONE INTENSITY	<u>CONF (1)</u>	<u>CONF (2)</u>	<u>CONF (3)</u>
T1.5	60	120	170
T2.0	60	120	170
T2.5	60	120	170
T3.0	50	100	150
T3.5	45	90	140
T4.0	45	90	140
T4.5	45	90	140
T5.0	40	90	130
T5.5	40	80	130
T6.0	40	80	130
T6.5	30	70	120
T7.0	30	70	120
T7.5	30	60	100
T8.0	30	60	100

NESS-45). If the source was DMSP data, the Position Code Number (PCN) (See Table 1) appears followed by the acronym DMSP. If the source was NOAA-4 data, then NOAA-4 appears followed by the acronym CONF and the confidence number (see Table 2). Fixes based on infrared data are annotated by the acronym IR DATA.

B. RADAR - The latitude and longitude of the radar site is given in the POSIT OF RADAR column. If available, plain language remarks regarding tropical cyclone characteristics, size and accuracy of fix appear after AC & W and military radar reports. All other land radar contain (if available) a 5-digit code group identical to the WMO radar code for reporting tropical cyclone characteristics with regard to size, development and accuracy of location of the center or eye.

C. AIRCRAFT PENETRATION - This data is normally obtained at scheduled fix times. Intermittent aircraft fixes are sometimes made during peripheral data gathering legs between scheduled fixes. These intermittent fixes normally provide date, time and position data only.

The categories of aircraft reconnaissance information are as follows:

1. ACCRY (Accuracy): The estimated navigation (first number) and meteorological (second number) accuracies are expressed in nautical miles.

2. FIX LVL (Fix level): A constant-pressure-surface flight level (listed in millibars) is normally maintained during a tropical cyclone fix mission. Low-level missions (usually 1500 feet) are conducted at a constant true altitude.

3. MAX OBS FLT LVL WIND: Wind speed (knots) at flight level is measured by the AN/APN 147 doppler radar system aboard the WC-130 aircraft. Values entered in the category represent the maximum wind measured prior to obtaining a scheduled fix. This measurement may not represent the maximum flight level wind associated with the tropical cyclone because the aircraft samples only those portions of the tropical cyclone along the flight path. In many instances the flight path may be through the weak sector of the cyclone. In areas of heavy rainfall, the doppler radar may track energy reflected from precipitation rather than the sea surface. This limitation can prevent accurate wind speed measurement. In obvious cases such erroneous wind data will not be reported.

In addition, the doppler radar system on the WC-130

restricts wind measurements to drift angles less than or equal to 27 degrees if the wind is normal to the aircraft heading.

4. MAX OBS SFC WIND: The maximum surface wind (knots) is an estimate made by the Airborne Weather Reconnaissance Officer based on sea state. As in 3 above, this observation is limited to the region of the flight path, and may not be representative of the storm as a whole. Availability of data is also dependent upon the absence of undercast conditions and the presence of adequate illumination. The position of maximum flight level wind and maximum observed surface winds do not necessarily coincide.

5. OBS MIN SLP: The minimum observed sea level pressure on a 700 mb fix level mission is obtained by applying the minimum 700 millibar height (meters) to the following regression equation:

$$SLP = .115 * (700 \text{ MB HT}) + 645$$

This relationship is accurate within ± 3 mb in most cases. However, if the 700 mb center and the surface center are not vertically aligned, the minimum sea level pressure will be erroneously high. In such cases, if the surface center can be detected, the minimum sea level pressure is obtained by a dropsonde released above the surface vortex center.

If the fix is made at the 1500 feet level, the sea level pressure is extrapolated from that level.

6. MIN 700 MB HT: The minimum height of the 700 mb surface in the vortex center is recorded in decameters.

7. FLT LVL TI/TO: This category denotes the maximum temperature measured in the center (TI) and the ambient temperature outside the center (TO). The outside temperature is measured just prior to entering the wall cloud. Both temperature observations are in degrees Celsius and are made at flight level.

Reconnaissance aircraft seldom penetrate on the same azimuth from one fix to another; thus, the position of TO normally varies from the center, both in bearing and range.

8. EYE FORM/ORIENTATION/DIA: The shape and diameter (nautical miles) of the eye is determined by visual observation or by radar. This is reported only if the center is 50 per cent or more surrounded by wall cloud. For elliptical eyes, the size of both the major and minor axis are given in nautical miles. Abbreviations for the eye forms are as

follows:

CIRC - Circular

ELIP - Elliptical

CONC - Concentric

FIX DATA PRINTOUT

TYPHON LOLA FIX POSITIONS FOR CYCLONE NO. 1 0600Z 22 JAN TO 0600Z 28 JAN															
FIX NO.	TIME	POSIT	CAT	LAT	LONG	ELEV	DIR	VEL	RHG	RNG	SFC	WIND	MIN	FILT	POSIT
1	201402	8.6N 136.0E	SAT	8.6N	136.0E	0	IR DATA	170	45	90	PCN 6	DMSP			
2	202402	8.6N 136.0E	SAT	8.6N	136.0E	0	IR DATA	170	45	90	PCN 5	DMSP			
3	2100062	8.4N 137.0E	SAT	8.4N	137.0E	0	(T2.0/24.0 Z01.0/24HGS)				NOAA-4		(CONF 01)		
4	212402	8.4N 136.0E	SAT	8.4N	136.0E	0	IR DATA	170	45	90	PCN 5	DMSP			
5	220402	7.9N 135.4E	SAT	7.9N	135.4E	0	IR DATA	170	45	90	PCN 5	DMSP			
6	221102	7.9N 135.5E	SAT	7.9N	135.5E	0	IR DATA	170	45	90	NOAA-6		(CONF 02)		
7	221102	7.9N 135.5E	SAT	7.9N	135.5E	0	IR DATA	170	45	90	PCN 5	DMSP			
8	221402	7.9N 135.7E	SAT	7.9N	135.7E	0	IR DATA	170	45	90	PCN 5	DMSP			
9	221402	7.9N 135.7E	SAT	7.9N	135.7E	0	IR DATA	170	45	90	PCN 5	DMSP			
10	222102	7.9N 135.2E	P	7.9N	135.2E	0	(T2.0/24.0 Z01.0/24HGS)	700	170	45	30	45	90	985	297 13 - - -
11	222602	8.0N 134.3E	SAT	8.0N	134.3E	0	IR DATA	170	45	90	PCN 5	DMSP			
12	2300012	8.1N 133.0E	SAT	8.1N	133.0E	0	(T2.0/24.0 Z00.5/25HGS)				NOAA-4		(CONF 02)		
13	230102	8.1N 133.4E	SAT	8.1N	133.4E	0	(T3.0/24.0 / / HGS)				PCN 5	DMSP			
14	230102	8.1N 133.4E	SAT	8.1N	133.4E	0	(T2.0/24.0 / / HGS)				PCN 5	DMSP			
15	230102	8.2N 133.8E	P	8.2N	133.8E	10	(T2.0/24.0 Z01.0/24HGS)	700	40	50	300	100	95	100	987 297 11 - - -
16	230102	8.2N 133.8E	SAT	8.2N	133.8E	0	(T3.0/34.0 Z01.0/28HGS)				PCN 5	DMSP			
17	231202	8.3N 131.6E	SAT	8.3N	131.6E	0	IR DATA	170	45	90	PCN 3	DMSP			
18	231402	8.3N 130.0E	SAT	8.3N	130.0E	0	IR DATA	170	45	90	NOAA-6		(CONF 02)		
19	231402	8.3N 130.5E	P	8.3N	130.5E	0	(T2.0/24.0 Z01.0/28HGS)	700	150	70	30	45	-	-	979 292 20 15 CTIR
20	231602	8.3N 130.8E	SAT	8.3N	130.8E	0	IR DATA	170	45	90	PCN 5	DMSP			
21	231602	8.4N 131.0E	SAT	8.4N	131.0E	0	IR DATA	170	45	90	PCN 5	DMSP			
22	231602	8.4N 131.1E	SAT	8.4N	131.1E	0	IR DATA	170	45	90	PCN 5	DMSP			
23	232102	8.4N 129.0E	P	8.4N	129.0E	0	(T2.0/24.0 Z01.0/28HGS)	700	50	75	30	50	-	-	976 289 20 15 ELIP E-W 25A20
24	240102	9.2N 129.0E	SAT	9.2N	129.0E	0	(T4.0/44.0 Z01.0/22HGS)				PCN 3	DMSP			
25	240102	9.2N 129.0E	SAT	9.2N	129.0E	0	(T4.0/44.0 Z01.0/25HGS)				NOAA-4		(CONF 02)		
26	240102	9.2N 128.2E	SAT	9.2N	128.2E	0	IR DATA	170	45	90	PCN 5	DMSP			
27	240102	9.2N 127.4E	SAT	9.2N	127.4E	0	(T4.0/44.0 Z01.0/26HGS)				PCN 3	DMSP			
28	240102	9.2N 127.4E	SAT	9.2N	127.4E	0	(T4.0/44.0 Z02.0/24HGS)				PCN 5	DMSP			
29	240602	10.3N 123.6E	LRHR	-	6//4	0									10.3N 124.0E
30	240602	9.4N 125.5E	LRHR	-	5220	0									10.3N 124.0E
31	251102	9.2N 124.6E	SAT	9.2N	124.6E	0	IR DATA	170	45	90	NOAA-6		(CONF 02)		
32	251202	10.1N 124.9E	SAT	10.1N	124.9E	0	IR DATA	170	45	90	PCN 5	DMSP			
33	251202	10.1N 125.0E	SAT	10.1N	125.0E	0	IR DATA	170	45	90	PCN 5	DMSP			
34	251502	10.1N 123.9E	SAT	10.1N	123.9E	0	IR DATA	170	45	90	PCN 5	DMSP			
35	251502	10.1N 124.3E	SAT	10.1N	124.3E	0	IR DATA	170	45	90	PCN 5	DMSP			
36	242102	11.1N 120.4E	SAT	11.1N	120.4E	0	(T3.0/44.0 Z01.5/24HGS)				PCN 5	DMSP			
37	242102	11.1N 120.0E	SAT	11.1N	120.0E	0	(T2.0/24.0 Z / HGS)				PCN 5	DMSP			
38	242102	11.1N 120.0E	SAT	11.1N	120.0E	0	(T3.0/44.0 Z01.5/21HGS)				PCN 5	DMSP			
39	250102	11.1N 120.5E	SAT	11.1N	120.5E	0	(T3.0/44.0 Z00.5/25HGS)				NOAA-6		(CONF 02)		
40	250402	11.6N 119.4E	SAT	11.6N	119.4E	0	IR DATA	170	45	90	PCN 5	DMSP			
41	250402	11.7N 118.8E	SAT	11.7N	118.8E	0	(T3.0/44.0 Z01.0/24HGS)				PCN 5	DMSP			
42	251302	12.1N 116.9E	SAT	12.1N	116.9E	0	IR DATA	170	45	90	PCN 5	DMSP			
43	251502	12.2N 115.8E	SAT	12.2N	115.8E	0	IR DATA	170	45	90	PCN 5	DMSP			
44	251502	12.2N 116.3E	SAT	12.2N	116.3E	0	IR DATA	170	45	90	PCN 5	DMSP			
45	252202	13.7N 118.4E	P	13.7N	118.4E	10	(T2.0/24.0 Z01.0/24HGS)	700	170	60	60	-	-	995	304 14 12 CTIR
46	260402	14.8N 113.6E	SAT	14.8N	113.6E	0	(T4.0/44.0 Z00.5/23HGS)				NOAA-4		(CONF 01)		
47	2601152	14.9N 113.6E	SAT	14.9N	113.6E	0	(T4.0/44.0 Z01.0/25HGS)				PCN 5	DMSP			
48	2601152	14.9N 113.6E	SAT	14.9N	113.6E	0	(T4.0/44.0 Z01.0/25HGS)				PCN 5	DMSP			
49	2601152	14.9N 114.1E	SAT	14.9N	114.1E	0	IR DATA	170	45	90	PCN 5	DMSP			
50	260402	14.9N 112.7E	SAT	14.9N	112.7E	0	IR DATA	170	45	90	PCN 5	DMSP			
51	260402	14.2N 113.2E	SAT	14.2N	113.2E	0	(T2.0/24.0 Z01.0/24HGS)				PCN 5	DMSP			
52	261052	15.4N 112.9E	SAT	15.4N	112.9E	0	IR DATA	170	45	90	PCN 3	DMSP			
53	261702	16.1N 112.8E	SAT	16.1N	112.8E	0	IR DATA	170	45	90	PCN 5	DMSP			
54	261702	16.2N 112.9E	SAT	16.2N	112.9E	0	IR DATA	170	45	90	PCN 3	DMSP			
55	270102	17.2N 111.9E	SAT	17.2N	111.9E	0	(T3.0/44.0 Z01.0/23HGS)				PCN 5	DMSP			
56	270102	17.4N 112.1E	SAT	17.4N	112.1E	0	IR DATA	170	45	90	PCN 4	DMSP			
57	270102	17.5N 111.5E	SAT	17.5N	111.5E	0	(T3.0/44.0 Z00.5/23HGS)				NOAA-4		(CONF 02)		
58	270402	16.7N 112.1E	SAT	16.7N	112.1E	0	IR DATA	170	45	90	PCN 5	DMSP			
59	270402	17.1N 112.0E	SAT	17.1N	112.0E	0	(T2.0/24.0 Z / 24HGS)				PCN 3	DMSP			
60	271202	16.4N 112.5E	SAT	16.4N	112.5E	0	IR DATA	170	45	90	NOAA-6		(CONF 02)		
61	271302	17.4N 114.3E	SAT	17.4N	114.3E	0	IR DATA	170	45	90	PCN 5	DMSP			
62	271402	16.6N 112.9E	SAT	16.6N	112.9E	0	IR DATA	170	45	90	PCN 3	DMSP			
63	271402	16.6N 112.7E	SAT	16.6N	112.7E	0	IR DATA	170	45	90	PCN 3	DMSP			
64	280102	15.2N 112.2E	SAT	15.2N	112.2E	0	(T1.5/24.5 Z01.5/24HGS)				PCN 3	DMSP			
65	280102	14.2N 112.9E	SAT	14.2N	112.9E	0	(T1.0/24.0 Z01.0/20HGS)				PCN 3	DMSP			
66	280402	14.8N 111.9E	SAT	14.8N	111.9E	0	(T1.5/24.5 Z / HGS)				PCN 3	DMSP			
67	280402	14.8N 111.7E	SAT	14.8N	111.7E	0	(T2.0/24.0 Z / HGS)				PCN 3	DMSP			

TROPICAL DEPRESSION 2
FIX POSITIONS FOR CYCLONE NO. 2
1200Z 21 JUL TO 0000Z 22 APR

FIX NO.	TIME	POSIT	FIX ACCHT	MAX OHS	MAX OHS	UDS	MIN T00MB	FLT LVL	EYE	ORIENT	EYE	POSIT OF	MSN
		CAT NAY-MET	LVL DIR VEL HNG RNG	SLP	HGT	MGT	TI/TD	FORM	TATN	DIA	HAUH	NHHR	
1	201100Z	5.2N 130.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
2	210100Z	6.2N 126.4E	SAT	(T1.0/1.0 / / / HSS)	)	PCN 5	DMSP						
3	220100Z	8.2N 126.4E	SAT	(T2.0/2.0 / 201.0/24HSS)	)	PCN 5	DMSP						
4	220100Z	9.2N 125.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
5	221100Z	11.2N 123.4E	SAT	(IR DATA)	)	PCN 6	DMSP						
6	221100Z	12.2N 123.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
7	221100Z	11.2N 122.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
8	230100Z	11.2N 123.4E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	NOAA-4							
9	230100Z	12.2N 124.4E	SAT	(T1.5/1.5 / #0.5/23HSS)	)	PCN 5	DMSP						
10	230100Z	13.2N 124.4E	SAT	(T2.0/2.0 / / HSS)	)	PCN 5	DMSP						
11	230100Z	14.2N 124.4E	SAT	(T3.0/2.5/2.5 / / HSS)	)	PCN 5	DMSP						
12	231100Z	10.2N 121.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
13	231100Z	10.2N 121.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
14	231100Z	11.2N 121.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
15	231100Z	12.2N 121.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
16	231100Z	11.2N 121.0E	SAT	(IR DATA)	)	PCN 5	DMSP						
17	231100Z	11.2N 121.0E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
18	231100Z	9.2N 120.4E	SAT	P 20 700 150 25 40 40 - - -		1008	313 12 11	-	-	-	-		1
19	231100Z	11.2N 121.4E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
20	230100Z	10.2N 121.0E	SAT	(T2.0/2.0 / #1.0/22HSS)	)	PCN 5	DMSP						
21	241100Z	11.2N 120.2E	SAT	P 5 50 600 130 20 80 100 - - -		1005	*38 4	-	-	-	-		2
22	241100Z	12.2N 120.2E	SAT	(IR DATA)	)	NOAA-4							
23	241100Z	10.2N 121.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
24	241100Z	11.2N 120.4E	SAT	(IR DATA)	)	PCN 3	DMSP						
25	241100Z	11.2N 120.4E	P	1 30 700 10 25 240 30 - - -		1007	313 11	-	-	-	-		2
26	241100Z	11.2N 120.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
27	241100Z	11.2N 120.4E	SAT	(IR DATA)	)	PCN 6	DMSP						
28	242100Z	10.2N 120.1E	P	3 7 700 10 20 30 30		25	*20 350	20	1007	312 10	-		
29	250100Z	11.2N 114.7E	SAT	(IR DATA)	)	PCN 5	DMSP						
30	250100Z	11.2N 120.2E	SAT	(IR DATA)	)	PCN 5	DMSP						
31	250100Z	11.2N 120.1E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
32	250100Z	11.2N 120.4E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
33	250100Z	10.2N 119.4E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
34	251100Z	11.2N 119.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
35	251100Z	11.2N 118.7E	SAT	(IR DATA)	)	PCN 3	DMSP						
36	251100Z	10.2N 118.4E	SAT	(IR DATA)	)	PCN 3	DMSP						
37	251100Z	11.2N 118.4E	SAT	(IR DATA)	)	PCN 5	DMSP						
38	250100Z	11.2N 118.0E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
39	250100Z	12.2N 117.8E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
40	250100Z	11.2N 117.4E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	NOAA-4							
41	250100Z	11.2N 117.0E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 5	DMSP						
42	250100Z	11.2N 117.0E	SAT	(T1.5/2.0 / #0.5/24HSS)	)	PCN 5	DMSP						
43	251100Z	12.2N 116.8E	P	5 10 1500 310 25 220 20 25 180		70	1003	-	26	-	-		4
44	251100Z	11.2N 116.1E	SAT	(IR DATA)	)	PCN 5	DMSP						
45	251100Z	12.2N 116.0E	SAT	(IR DATA)	)	PCN 3	DMSP						
46	251100Z	11.2N 116.0E	SAT	(IR DATA)	)	NOAA-4							
47	261100Z	12.2N 115.5E	SAT	(IR DATA)	)	PCN 3	DMSP						
48	261100Z	11.2N 115.5E	SAT	(IR DATA)	)	PCN 4	DMSP						
49	270100Z	12.2N 117.2E	SAT	(T1.5/2.0 / #0.5/21HSS)	)	PCN 5	DMSP						
50	270100Z	12.2N 117.3E	SAT	(IR DATA)	)	PCN 5	DMSP						
51	270100Z	12.2N 117.3E	SAT	(T2.0/2.0 / 25 / 24HSS)	)	PCN 3	DMSP						
52	270100Z	12.2N 117.4E	P	5 10 1500 270 30 180 40 30 180		40	*30 180	40	1007	-	26	-	
53	270100Z	12.2N 115.0E	SAT	(T1.5/1.5 / 25 / 25HSS)	)	PCN 5	DMSP						
54	270100Z	12.2N 114.7E	SAT	(IR DATA)	)	PCN 5	DMSP						
55	271100Z	13.2N 114.0E	SAT	(IR DATA)	)	NOAA-4							
56	271100Z	12.2N 113.8E	SAT	(IR DATA)	)	PCN 5	DMSP						
57	271100Z	12.2N 112.8E	SAT	(IR DATA)	)	PCN 3	DMSP						
58	280100Z	12.2N 114.9E	SAT	(T1.0/1.5 / #0.5/24HSS)	)	PCN 3	DMSP						
59	280100Z	12.2N 114.9E	SAT	(T1.0/1.0 / / HSS)	)	PCN 3	DMSP						
60	280100Z	12.2N 115.3E	SAT	(IR DATA)	)	PCN 5	DMSP						
61	280100Z	12.2N 115.5E	SAT	(T1.0/1.5 / #0.5/24HSS)	)	PCN 5	DMSP						

TROPICAL STORM MAMIE
FIX POSITIONS FOR CYCLONE NO. 3
0000Z 27 JUL TO 0000Z 29 JUL

FIX NO.	TIME	POSIT	FIX ACCHT	MAX OHS	MAX OHS	UDS	MIN T00MB	FLT LVL	EYE	ORIENT	EYE	POSIT OF	MSN
		CAT NAY-MET	LVL DIR VEL HNG RNG	SLP	HGT	MGT	TI/TD	FORM	TATN	DIA	HAUH	NHHR	
1	242100Z	14.2N 144.0E	SAT	(IR DATA)	)	PCN 5	DMSP						
2	250100Z	14.2N 144.3E	SAT	(IR DATA)	)	PCN 6	DMSP						
3	250100Z	14.2N 141.9E	SAT	(IR DATA)	)	PCN 5	DMSP						
4	251100Z	14.2N 143.8E	SAT	(IR DATA)	)	PCN 5	DMSP						
5	252100Z	17.2N 143.8E	SAT	(IR DATA)	)	PCN 5	DMSP						
6	252100Z	11.2N 144.5E	SAT	(T 0/6.5 / 0.4/10HSS)	)	PCN 5	DMSP						
7	252200Z	17.2N 144.4E	SAT	(T 0/1.0 / / HSS)	)	PCN 5	DMSP						
8	260100Z	14.2N 145.3E	SAT	(T2.0/2.0 / 21.0/24HSS)	)	NOAA-4							
9	260100Z	21.2N 143.6E	P	5 25 1500 - - -		25	-	999	-	26	-		1
10	260100Z	20.2N 144.2E	SAT	(IR DATA)	)	PCN 6	DMSP						
11	260100Z	20.2N 143.4E	SAT	(IR DATA)	)	PCN 6	DMSP						
12	261000Z	20.2N 144.5E	SAT	(IR DATA)	)	NOAA-4							
13	261100Z	21.2N 144.3E	SAT	(IR DATA)	)	PCN 6	DMSP						
14	262000Z	21.2N 144.3E	SAT	(IR DATA)	)	PCN 6	DMSP						
15	262000Z	21.2N 144.3E	SAT	(IR DATA)	)	PCN 6	DMSP						
16	262100Z	22.2N 144.6E	P	2 20 1500 140 30 70		35	30 100	40	1002	-	25 23	-	
17	262200Z	22.2N 141.8E	SAT	(T2.0/2.0 / 20.0/24HSS)		PCN 3	DMSP						
18	262200Z	23.2N 142.7E	SAT	(T1.0/2.0 / 25 / 24HSS)		PCN 3	DMSP						
19	262300Z	21.2N 143.0E	SAT	(T3.0/3.0 / 20.0/23HSS)		NOAA-4							

7

TYPHON PETTY

FIX POSITIONS FOR CYCLONE NO. 4

0600Z 17 SEP TO 1200Z 23 SEP

MAX OHS MAX OHS

UDS MIN T00MB

FILT LVL EYE

ORIENT EYE

POSIT OF DIA

MSN HHR

TROPICAL STORM MARIE																			
FIX POSITIONS FOR CYCLONE NO. 3 0000Z 27 JUL TO 0000Z 29 JUL																			
FIX NO.	TYPE	CONSE	FIX CAT NAV-MET	ACCRY	FIX EVL	FILT DIR VEL HNG RNG	FILT SEC WIND	MAX OHS	MAX OHS	OBS	MIN SLP	700MB	FILT HGT	ETI T1/T0	EYE FORM	ORIENT- ATION	ETI DIA	POSIT OF RADAR	NSR, NMRR
20	270201Z	22.3N	142.0E	SAT	(T1.0/2.0 /	-	WSI)	PCN 3	DMSR										
21	270230Z	22.3N	142.2E	P	2	20	1500	110	30	10	25	35 110	40	1001	-	25 25	-	-	
22	270252Z	22.3N	141.5E	SAT	GIR DATA	-		PEN 3	DMSR										
23	270252Z	22.3N	140.8E	SAT	GIR DATA	-		PEN 6	DMSR										
24	271106Z	22.4N	141.5E	SAT	GIR DATA	-		PEN 5	DMSR										
25	271106Z	22.4N	142.7E	SAT	GIR DATA	-		PEN 6	DMSR										
26	271143Z	22.4N	142.0	SAT	GIR DATA	-		NOAA-4											
27	271143Z	22.4N	141.4E	SAT	GIR DATA	-		PEN 3	DMSR										
28	271143Z	23.1N	140.6E	P	2	2	700	270	25	170	50	-	-	994	103	15 13	-	-	
29	272128Z	22.8N	140.0	SAT	GIR DATA	-		PEN 6	DMSR										
30	272128Z	22.8N	141.6E	SAT	GIR DATA	-		PEN 6	DMSR										
31	272210Z	24.8N	139.5E	P	1	10	700	210	25	150	20	-	-	996	105	14 12	-	-	
32	272212Z	24.8N	139.5E	SAT	(T2.5/2.5 /	0	WSI)	PCN 3	DMSR										
33	272212Z	24.8N	139.3E	SAT	(T2.0/2.0 /	0	WSI)	PCN 3	DMSR										
34	272212Z	24.8N	139.7E	SAT	(T2.5/2.5 /	0	WSI)	PCN 3	DMSR										
35	272212Z	24.1N	139.5E	SAT	(T2.5/3.0 /	0	WSI)	NOAA-4											
36	280104Z	25.1N	138.6E	SAT	(T1.0/2.5/1.5 /	0	WSI)	PCN 5	DMSR										
37	280104Z	24.8N	136.4E	P	10	5	700	180	30	120	20	30 120	20	998	107	14 12	-	-	
38	280105Z	25.8N	137.3E	P	5	15	700	150	35	80	100	35 80	100	997	106	15 14	-	-	
39	281104Z	24.8N	137.5E	SAT	GIR DATA	-		NOAA-4											
40	281105Z	25.1N	137.0	SAT	GIR DATA	-		PCN 6	DMSR										
41	281105Z	25.1N	137.1E	SAT	GIR DATA	-		PCN 6	DMSR										
42	281207Z	25.1N	136.9E	SAT	GIR DATA	-		PCN 6	DMSR										
43	281209Z	25.1N	137.0	SAT	GIR DATA	-		PCN 5	DMSR										
44	281209Z	25.1N	136.8E	SAT	GIR DATA	-		PCN 6	DMSR										
45	281555Z	25.8N	135.5E	P	5	25	700	220	40	140	35	-	-	999	108	14 -	-	-	
46	282110Z	26.0N	136.9E	P	13	7	700	20	7	20	-	-	-	1001	109	14 13	-	-	
47	282110Z	26.0N	135.6E	SAT	GIR DATA	-		PCN 3	DMSR										
48	282110Z	27.0N	135.9E	SAT	GIR DATA	-		PCN 3	DMSR										
49	282110Z	27.0N	135.9E	SAT	(T1.0/2.0 /	0	WSI)	PCN 3	DMSR										
50	282110Z	27.0N	134.5E	SAT	(T2.0/2.5 /	0	WSI)	PCN 3	DMSR										
51	282110Z	26.2N	134.5E	SAT	(T2.0/2.5 /	0	WSI)	PCN 3	DMSR										
52	290105Z	26.1N	134.7E	SAT	(T1.0/2.5 /	0	WSI)	PCN 5	DMSR										
53	291104Z	28.0N	131.7E	SAT	GIR DATA	-		PCN 6	DMSR									ZM,GN 129.5E 30.6N 131.0E	
54	291104Z	28.0N	131.0E	SAT	GIR DATA	-		NOAA-4											
55	292100Z	29.1N	131.1E	LRDR	-	65/77													
56	292200Z	30.1N	130.7E	LRDR	-	55/77													
57	292202Z	31.0N	130.8E	SAT	(T1.0/1.0 /	0	WSI)	PCN 3	DMSR										
58	292202Z	30.0N	131.0E	SAT	(T1.0/1.0 /	0	WSI)	PCN 3	DMSR										
59	292210Z	30.0N	130.6E	LRDR	-													ZM,GN 131.0E 30.6N 131.0E	
60	300000Z	30.0N	130.4E	LRDR	-	65/77													
TYPHON MINA																			
FIX POSITIONS FOR CYCLONE NO. 4 1200Z 31 JUL TO 0000Z 04 AUG																			
FIX NO.	TYPE	CONSE	FIX CAT NAV-MET	ACCRY	FIX EVL	FILT DIR VEL HNG RNG	FILT SEC WIND	MAX OHS	MAX OHS	OBS	MIN SLP	700MB	FILT HGT	ETI T1/T0	EYE FORM	ORIENT- ATION	ETI DIA	POSIT OF RADAR	NSR NMRR
1	282110Z	21.2N	140.5E	SAT	GIR DATA	-		PEN 3	DMSR										
2	292251Z	20.2N	136.0E	SAT	GIR DATA	-		PEN 3	DMSR										
3	301011Z	20.6N	135.1E	SAT	GIR DATA	-		PEN 6	DMSR										
4	301210Z	19.4N	134.6E	SAT	GIR DATA	-		PEN 5	DMSR										
5	310014Z	17.9N	134.4E	SAT	(T1.0/1.0 /	0	WSI)	PCN 5	DMSR										
6	310014Z	18.0N	134.0E	SAT	(T2.0/2.0 /	0	WSI)	PCN 3	DMSR										
7	310014Z	17.9N	134.2E	SAT	(T2.0/2.0 /	0	WSI)	PCN 5	DMSR										
8	310220Z	17.8N	133.5E	SAT	GIR DATA	-		PCN 5	DMSR										
9	311018Z	18.2N	133.1E	SAT	GIR DATA	-		PCN 6	DMSR										
10	311118Z	17.2N	134.0E	SAT	GIR DATA	-		PCN 4	DMSR										
11	311118Z	16.6N	134.0E	SAT	GIR DATA	-		PCN 6	DMSR										
12	311155Z	17.8N	133.1E	SAT	GIR DATA	-		PCN 3	DMSR										
13	311255Z	17.9N	132.9E	SAT	GIR DATA	-		PCN 5	DMSR										
14	311256Z	17.4N	133.6E	SAT	GIR DATA	-		PCN 5	DMSR										
15	312110Z	18.0N	132.5E	P	5	5	700	180	36	110	122	-	-	985	295	16 12	-	-	
16	312122Z	18.0N	132.8E	SAT	GIR DATA	-		PCN 3	DMSR										
17	312122Z	17.5N	132.5E	SAT	GIR DATA	-		PCN 5	DMSR										
18	312156Z	18.0N	132.5E	SAT	(T3.5/3.5 /	0	WSI)	PCN 4	DMSR										
19	312156Z	18.0N	132.4E	SAT	(T3.5/3.5 /	0	WSI)	PCN 3	DMSR										
20	312156Z	18.0N	132.5E	SAT	(T3.0/3.0 /	0	WSI)	PCN 1	DMSR										
21	010304Z	18.0N	132.4E	P	5	5	700	310	40	230	60	45 220	45	979	290	17 15	-	-	
22	010312Z	18.0N	132.4E	SAT	(T3.0/3.0 /	0	WSI)	PCN 3	DMSR										
23	010312Z	18.0N	132.2E	SAT	(T3.5/3.5 /	0	WSI)	PCN 3	DMSR										
24	010312Z	18.0N	132.2E	SAT	GIR DATA	-		PCN 3	DMSR										
25	010312Z	18.0N	132.5E	SAT	GIR DATA	-		PCN 3	DMSR										
26	011007Z	20.4N	131.2E	SAT	GIR DATA	-		PCN 2	DMSR										
27	011007Z	19.9N	130.4E	SAT	GIR DATA	-		PCN 2	DMSR										
28	011007Z	20.1N	131.0E	SAT	GIR DATA	-		PCN 2	DMSR										
29	011207Z	19.8N	130.8E	SAT	GIR DATA	-		PCN 3	DMSR										
30	011207Z	20.2N	130.6E	SAT	GIR DATA	-		PCN 5	DMSR										
31	011207Z	20.2N	130.7E	SAT	GIR DATA	-		PCN 3	DMSR										
32	011207Z	20.4N	130.7E	SAT	GIR DATA	-		PCN 5	DMSR										
33	011517Z	20.6N	130.2E	P	5	5	700	200	55	180	40	-	-	967	283	15 15	CTNC	15	
34	012030Z	21.6N	129.9E	P	8	5	700	30	65	310	40	-	-	956	271	17 12	CTNC	15	
35	012107Z	22.1N	128.1E	SAT	(T5.5/5.5 /	0	WSI)	PCN 3	DMSR										
36	012107Z	21.6N	128.1E	SAT	(T5.0/5.0 /	0	WSI)	PCN 1	DMSR										
37	012107Z	21.6N	128.1E	SAT	(T4.5/4.5 /	0	WSI)	PCN 1	DMSR										
38	020422Z	22.1N	127.2E	SAT</															

TYPHOON MINA FIX POSITIONS FOR CYCLONE NO. 4 1200Z 31 JUL TO 0000Z 04 AUG																POSIT OF RADAR	MSN NMRR
FIX NO.	TYPE	COSITE	CAT	LAT	LONG	MAX OBS SLP	MAX OBS MGT	OBS SLP	MIN 700MB	FLT LVL	EYE	ORIENT- ATION	EYE DIA				
*0 0203522	22.2N 127.1E	SAT	GTR DATA			1	PCN 1	DMSR									
*1 0203522	22.2N 127.2E	SAT	GTR DATA			1	PCN 1	DMSR									
*2 0203524	22.3N 127.1E	P	S	2	700	180	120	120	20	110	120	20	920	240	24 12	CIRC	14 3
*3 0205022	22.3N 126.8E	LDR	-	POOR FIX													
*4 0205022	22.3N 126.5E	LDR	-	10446													
*5 0207002	22.5N 126.8E	LDR	-	2051/													
*6 0207002	22.5N 126.2E	LDR	-	10474													
*7 0207002	22.5N 126.2E	LDR	-	1181/													
*8 0207002	22.5N 126.0E	LDR	-	POOR FIX													
*9 0207002	22.5N 126.0E	LDR	-														
*0 0207002	22.5N 126.2E	P	S	-	10474												
*1 0209002	22.5N 125.9E	LDR	-	1241/													
*2 0210002	22.5N 125.7E	LDR	-	10414													
*3 0210002	23.0N 125.7E	LDR	-	10317													
*4 0210002	22.5N 125.4E	AC R	-	WC-130+ 19,000 FEET													
*5 0210002	23.1N 125.2E	LDR	-	10414													
*6 0211002	23.1N 125.4E	LDR	-	10317													
*7 0211002	23.1N 125.2E	SAT	GTR DATA			1	PCN 1	DMSR									
*8 0211002	23.1N 125.1E	LDR	-	10414													
*9 0211002	23.0N 125.2E	LDR	-	POOR FIX													
*0 0211002	23.0N 125.0E	LDR	-	10414													
*1 0211002	23.1N 125.0E	LDR	-	10417													
*2 0211002	23.1N 124.9E	SAT	GTR DATA			1	PCN 1	DMSR									
*3 0211002	23.1N 124.9E	SAT	GTR DATA			1	PCN 1	DMSR									
*4 0211002	23.1N 125.0E	SAT	GTR DATA			1	PCN 2	DMSR									
*5 0211002	23.0N 125.2E	LDR	-	POOR FIX													
*6 0211002	23.0N 124.9E	LDR	-	10413													
*7 0211002	23.1N 124.9E	LDR	-	10414													
*8 0214002	23.0N 124.6E	LDR	-	10313													
*9 0214002	23.1N 124.6E	LDR	-	POOR FIX													
*0 0214002	23.1N 124.6E	LDR	-	10313													
*1 0214002	23.1N 124.5E	P	T 10	2	700	310	90	210	15	-	-	-	-	225	31 15	CIRC	7 *
*2 0214002	23.1N 124.5E	LDR	-	10383													
*3 0214002	23.1N 124.4E	LDR	-	10313													
*4 0214002	23.2N 124.4E	LDR	-	10414													
*5 0216002	23.2N 124.2E	LDR	-	10317													
*6 0217002	23.2N 124.0E	SAT	GTR DATA			1	PCN 1	DMSR									
*7 0217002	23.2N 124.0E	LDR	-	10283													
*8 0217002	23.2N 123.9E	LDR	-	10317													
*9 0217002	23.1N 123.9E	LDR	-	10417													
*0 0217002	23.1N 123.8E	LDR	-	80213													
*1 0217002	23.1N 123.6E	LDR	-	10312													
*2 0217002	23.1N 123.6E	LDR	-	10417													
*3 0217002	23.1N 123.4E	LDR	-	10312													
*4 0217002	23.1N 123.4E	LDR	-	10417													
*5 0217002	23.1N 123.3E	LDR	-	10312													
*6 0217002	23.1N 123.3E	LDR	-	10417													
*7 0217002	23.1N 123.1E	LDR	-	10222													
*8 0217002	23.1N 123.1E	LDR	-	12357													
*9 0217002	23.1N 123.1E	LDR	-	10312													
*0 0221002	23.1N 123.1E	LDR	-	10417													
*1 0221002	23.1N 123.1E	LDR	-	6000 FIX													
*2 0221002	23.1N 123.1E	AC R	-	6000 FIX, EYE 10NM DIAMETER, CLOSED WALL CLOUD													
*3 0221002	23.1N 123.0E	LDR	-	10312													
*4 0221002	23.1N 122.9E	LDR	-	10312													
*5 0221002	23.1N 122.8E	LDR	-	10222													
*6 0221002	23.1N 122.7E	LDR	-	12357													
*7 0221002	23.1N 122.7E	SAT	GTR DATA			1	PCN 1	DMSR									
*8 0221002	23.1N 122.7E	LDR	-	10312													
*9 0221002	23.1N 122.7E	SAT	GTR DATA			1	PCN 1	DMSR									
*0 0221002	23.1N 122.6E	SAT	GTR DATA			1	PCN 1	DMSR									
*1 0221002	23.1N 122.6E	LDR	-	10312													
*2 0221002	23.1N 122.5E	SAT	GTR DATA			1	PCN 1	DMSR									
*3 0221002	23.1N 122.5E	LDR	-	10312													
*4 0221002	23.1N 122.4E	SAT	GTR DATA			1	PCN 1	DMSR									
*5 0221002	23.1N 122.4E	LDR	-	10312													
*6 0221002	23.1N 122.3E	SAT	GTR DATA			1	PCN 1	DMSR									
*7 0221002	23.1N 122.3E	LDR	-	10312													
*8 0221002	23.1N 122.2E	SAT	GTR DATA			1	PCN 1	DMSR									
*9 0221002	23.1N 122.2E	LDR	-	10312													
*0 0221002	23.1N 122.1E	SAT	GTR DATA			1	PCN 1	DMSR									
*1 0221002	23.1N 122.1E	LDR	-	10312													
*2 0221002	23.1N 122.0E	SAT	GTR DATA			1	PCN 1	DMSR									
*3 0221002	23.1N 122.0E	LDR	-	10312													
*4 0221002	23.1N 121.9E	SAT	GTR DATA			1	PCN 1	DMSR									
*5 0221002	23.1N 121.9E	LDR	-	10312													
*6 0221002	23.1N 121.8E	SAT	GTR DATA			1	PCN 1	DMSR									
*7 0221002	23.1N 121.8E	LDR	-	10312													
*8 0221002	23.1N 121.7E	SAT	GTR DATA			1	PCN 1	DMSR									
*9 0221002	23.1N 121.7E	LDR	-	10312													
*0 0221002	23.1N 121.6E	SAT	GTR DATA			1	PCN 1	DMSR									
*1 0221002	23.1N 121.6E	LDR	-	10414													
*2 0221002	23.1N 121.6E	SAT	GTR DATA			1	PCN 1	DMSR									
*3 0221002	23.1N 121.5E	LDR	-	56663													
*4 0221002	23.1N 121.5E	SAT	GTR DATA			1	NOAA-4										
*5 0221002	23.1N 121.4E	LDR	-	56771													
*6 0221002	23.1N 121.4E	SAT	GTR DATA			1	NOAA-4										
*7 0221002	23.1N 121.3E	LDR	-	56777													
*8 0221002	23.1N 121.3E	SAT	GTR DATA			1	NOAA-4										
*9 0221002	23.1N 121.2E	LDR	-	56777													
*0 0221002	23.1N 121.2E	SAT	GTR DATA			1	NOAA-4										
*1 0221002	23.1N 121.1E	LDR	-	56777													
*2 0221002	23.1N 121.1E	SAT	GTR DATA			1	NOAA-4										
*3 0221002	23.1N 121.0E	LDR	-	56777													
*4 0221002	23.1N 121.0E	SAT	GTR DATA			1	NOAA-4										
*5 0221002	23.1N 120.9E	LDR	-	56777													
*6 0221002	23.1N 120.9E	SAT	GTR DATA			1	NOAA-4										
*7 0221002	23.1N 120.8E	LDR	-	56777													

TROPICAL DEPRESSION 5
FIX POSITIONS FOR CYCLONE NO. 5
0600Z 06 AUG TO 0000Z 07 AUG

FIX NO.	TIME	00511	FIX CAT	ACCR ^Y	MAX OHS	MAX UHS	UBS	MIN	FLT	POSIT OF	MSN
			NAV-MET	LVL	DIR	VEL	SLP	700MB	LVL	EYE	HADAM
				BRG	RNG	VEL	MGT	T1/T0	FORM	ORIEN-	NMHR
						RNG				TATION	
1	041112Z	19.2N 128.8E	SAT	(IR DATA	)	PCN 6	DMSR				
2	041125Z	22.7N 129.8E	SAT	(IR DATA	)	NOAA-4					(CONF 02)
3	042216Z	19.1N 126.4E	SAT	(IR DATA	)	PCN 5	DMSR				
4	042336Z	23.6N 127.5E	SAT	(T1.0/1.0 / 0 /	/ 24HRS)	NOAA-4					(CONF 01)
5	050004Z	19.5N 126.2E	SAT	(T1.0/1.0 /	/ HRS)	PCN 5	DMSR				
6	051100Z	21.2N 125.8E	SAT	(IR DATA	)	PCN 6	DMSR				
7	051100Z	21.0N 125.7E	SAT	(IR DATA	)	PCN 6	DMSR				
8	051120Z	25.6N 125.1E	SAT	(IR DATA	)	NOAA-4					(CONF 01)
9	051105Z	21.0N 125.7E	SAT	(IR DATA	)	PCN 5	DMSR				
10	051106Z	21.1N 125.9E	SAT	(IR DATA	)	PCN 5	DMSR				
11	052203Z	22.5N 126.8E	SAT	(IR DATA	)	PCN 3	DMSR				
12	060006Z	22.9N 126.8E	SAT	(T1.0/1.0 / 0 /	/ 24HRS)	PCN 3	DMSR				
13	060006Z	22.5N 127.6E	SAT	(T1.0/1.0 /	/ HRS)	PCN 5	DMSR				
14	060006Z	22.9N 126.9E	SAT	(T1.0/1.0 /	/ HRS)	PCN 5	DMSR				
15	060032Z	25.1N 122.5E	SAT	(IR DATA	)	NOAA-4					(CONF 01)
16	061048Z	25.5N 124.5E	SAT	(IR DATA	)	PCN 4	DMSR				
17	061048Z	26.5N 124.7E	SAT	(IR DATA	)	PCN 4	DMSR				
18	061112Z	23.3N 123.5E	SAT	(IR DATA	)	NOAA-4					(CONF 02)
19	061247Z	25.9N 124.6E	SAT	(IR DATA	)	PCN 3	DMSR				
20	061247Z	25.8N 124.1E	SAT	(IR DATA	)	PCN 3	DMSR				
21	062151Z	26.8N 122.1E	SAT	(IR DATA	)	PCN 3	DMSR				
22	062151Z	26.9N 122.0E	SAT	(IR DATA	)	PCN 4	DMSR				
23	062147Z	27.1N 121.7E	SAT	(T1.0/1.0 / 0 /	/ 24HRS)	PCN 3	DMSR				

TYPHOON ORA
FIX POSITIONS FOR CYCLONE NO. 6
0600Z 10 AUG TO 1200Z 12 AUG

FIX NO.	TIME	00511	FIX CAT	ACCR ^Y	MAX OHS	MAX UHS	UBS	MIN	FLT	POSIT OF	MSN
			NAV-MET	LVL	DIR	VEL	SLP	700MB	LVL	EYE	HADAM
				BRG	RNG	VEL	MGT	T1/T0	FORM	ORIEN-	NMHR
						RNG				TATION	
1	081024Z	17.3N 128.2E	SAT	(IR DATA	)	PCN 6	DMSR				
2	082111Z	19.1N 127.0E	SAT	(IR DATA	)	PCN 3	DMSR				
3	090104Z	20.7N 125.3E	SAT	(T1.0/1.0 /	/ HRS)	PCN 4	DMSR				
4	091102Z	20.5N 126.1E	SAT	(IR DATA	)	PCN 6	DMSR				
5	091152Z	20.6N 126.0E	SAT	(IR DATA	)	PCN 5	DMSR				
6	091108Z	20.5N 125.5E	SAT	(IR DATA	)	NOAA-4					(CONF 01)
7	100001Z	22.5N 125.5E	SAT	(T2.0/2.0 / 01.5/24HRS)		NOAA-4					(CONF 01)
8	100033Z	22.6N 125.4E	SAT	(T1.0/1.0 /	/ HRS)	PCN 6	DMSR				
9	100034Z	22.1N 125.6E	SAT	(T1.0/1.0 /	/ HRS)	PCN 5	DMSR				
10	100245Z	21.8N 125.8E	SAT	(T2.5/2.5 / 01.5/24HRS)		PCN 3	DMSR				
11	100300Z	21.7N 125.2E	LRDR	-	711111						
12	100500Z	21.8N 124.5E	LRDR	-	711111						
13	101109Z	23.0N 124.3E	SAT	(IR DATA	)	NOAA-4					(CONF 03)
14	101142Z	22.5N 125.0E	SAT	(IR DATA	)	PCN 6	DMSR				
15	101142Z	22.2N 125.4E	SAT	(IR DATA	)	PCN 6	DMSR				
16	101152Z	22.5N 124.9E	SAT	(IR DATA	)	PCN 3	DMSR				
17	101152Z	22.5N 124.8E	SAT	(IR DATA	)	PCN 5	DMSR				
18	101152Z	22.5N 123.5E	SAT	(IR DATA	)	PCN 6	DMSR				
19	102100Z	23.1N 125.2E	LRDR	-	555555						
20	102101Z	23.5N 125.0E	P	1 10 700 190 70 90 110 - - -	- - -	978	290 13 - - -				
21	102200Z	23.5N 125.2E	LRDR	-	555555						
22	102200Z	23.2N 125.1E	LRDR	-	711111						
23	102244Z	23.5N 125.5E	SAT	(IR DATA	)	PCN 5	DMSR				
24	102245Z	23.7N 125.5E	SAT	(IR DATA	)	PCN 3	DMSR				
25	102300Z	23.4N 125.2E	LRDR	-	711111						
26	102300Z	23.5N 125.1E	LRDR	-	711111						
27	110015Z	24.6N 125.3E	SAT	(T3.5/3.5 / 02.5/24HRS)		PCN 3	DMSR				
28	110015Z	24.1N 125.7E	SAT	(T3.5/3.5 / 02.5/24HRS)		PCN 3	DMSR				
29	110015Z	23.8N 125.6E	SAT	(T4.0/4.0 /	/ HRS)	PCN 5	DMSR				
30	110016Z	24.6N 125.6E	SAT	(T3.5/3.5 /	/ HRS)	PCN 3	DMSR				
31	110116Z	24.6N 125.2E	SAT	(T3.5/3.5 / 01.5/25HRS)		NOAA-4					(CONF 01)
32	110200Z	23.9N 125.3E	LRDR	-	611111						
33	110400Z	24.2N 125.3E	P	5 5 700 360 55 170 20 60 170 20 978 290 15 13 - - -	- - -						
34	110408Z	24.5N 125.1E	SAT	(T4.0/4.0 / 01.5/24HRS)		PCN 1	DMSR				
35	110700Z	24.7N 125.7E	LRDR	-	555555						
36	110700Z	24.6N 125.7E	LRDR	-	555555						
37	110700Z	24.5N 125.7E	LRDR	-	25703						
38	110710Z	24.5N 125.2E	LRDR	-	10 DEGREE SPIRAL OVERLAY; POOR FIX						
39	110742Z	25.0N 125.2E	LRDR	-	FAIR FIX						
40	110800Z	25.1N 125.9E	LRDR	-	555555						
41	110800Z	25.2N 125.7E	LRDR	-	611111						
42	110800Z	25.5N 125.7E	LRDR	-	35/3/3						
43	110810Z	25.3N 125.2E	LRDR	-	15 DEGREE SPIRAL OVERLAY; POOR FIX; NO WALL CLOUD						
44	110852Z	25.4N 125.3E	LRDR	-	15 DEGREE SPIRAL OVERLAY; POOR FIX; NO WALL CLOUD						
45	110900Z	25.5N 125.6E	LRDR	-	611111						
46	110900Z	25.4N 125.6E	LRDR	-	611111						
47	110900Z	25.4N 125.7E	LRDR	-	65//11						
48	110910Z	25.5N 125.3E	LRDR	-	15 DEGREE SPIRAL OVERLAY; POOR FIX; 60 PERCENT WALL CLOUD; DIAMETER 20NM						
49	110920Z	25.5N 125.3E	P	1 5 700 240 55 160 60 55 160 60 977 289 13 11 - - -	- - -						
50	111000Z	25.6N 125.3E	LRDR	-	611111						

TYPHON PHILIPS
FIX POSITIONS FOR CYCLONE NO. 6
0600Z 10 AUG TO 1200Z 12 AUG

FIX NO.	TIME	POSITION	FTX	ACCRY	FIX CAT	MAX OBS NAD-MET	MAX OBS LVL	SFC WIND	MIN 700MB	FLT	MIN SLP	ORIEN-	EYE	POSITION	OF	MSN
						LHDH	DIR VEL	DIR HNG	DIR HNG	T/L	MGT	TI/TD	FORM	TATIION	HADAK	NMMR
51	111010Z	25.8N 125.9E	LHDH	-	-	- 15 DEGREE SPIRAL OVERLAY: POOR FIX, NO WALL CLOUD									25.8N 127.0E	
52	111100Z	25.8N 125.3E	LHDH	-	-	- 65//									25.8N 125.3E	
53	111100Z	25.8N 125.4E	LHDH	-	-	- 65//									25.8N 125.4E	
54	111110Z	26.1N 125.0E	SAT	(IR DATA	)	PCN 5 DMSP									26.1N 127.0E
55	111110Z	26.1N 124.7E	SAT	(IR DATA	)	PCN 6 DMSP									26.1N 127.0E
56	111115Z	26.1N 125.2E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: POOR FIX, NO WALL CLOUD									26.1N 127.0E	
57	111200Z	26.1N 125.5E	LHDH	-	-	- 65//									26.1N 127.0E	
58	111205Z	26.0N 124.8E	SAT	(IR DATA	)	NOAA-4 (CONF 01)									26.0N 127.0E
59	111210Z	26.0N 124.9E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: POOR FIX, NO WALL CLOUD									26.0N 127.0E	
60	111215Z	26.0N 124.8E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: NO WALL CLOUD									26.0N 127.0E	
61	111217Z	26.1N 124.7E	SAT	(IR DATA	)	PCN 3 DMSP									26.1N 127.0E
62	111219Z	26.1N 124.6E	SAT	(IR DATA	)	PCN 3 DMSP									26.1N 127.0E
63	111225Z	26.0N 125.0E	SAT	(IR DATA	)	PCN 5 DMSP									26.0N 127.0E
64	111300Z	26.0N 124.9E	LHDH	-	-	- 65//									26.0N 127.0E	
65	111302Z	26.0N 125.0E	LHDH	-	-	- 65//									26.0N 127.0E	
66	111310Z	26.0N 124.8E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: POOR FIX, NO WALL CLOUD									26.0N 127.0E	
67	111315Z	26.0N 124.7E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: POOR FIX, NO WALL CLOUD									26.0N 127.0E	
68	111400Z	26.0N 124.6E	LHDH	-	-	- 65//									26.0N 127.0E	
69	111402Z	26.0N 125.0E	LHDH	-	-	- 65//									26.0N 127.0E	
70	111410Z	26.0N 124.7E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: POOR FIX, NO WALL CLOUD									26.0N 127.0E	
71	111415Z	26.0N 125.0E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: 40 PERCENT WALL CLOUD, CIRC EYE, DIAMETER 20NM									26.0N 127.0E	
72	111419Z	26.0N 124.8E	LHDH	-	-	-									26.0N 126.0E	
73	111500Z	26.0N 124.5E	LHDH	-	-	- 65//									26.0N 125.0E	
74	111502Z	26.0N 124.2E	LHDH	-	-	- 65//									26.0N 125.0E	
75	111610Z	26.0N 124.6E	LHDH	-	-	- 10 DEGREE SPIRAL OVERLAY: POOR FIX, 40 PERCENT WC, CIRC EYE, DIAMETER 20NM									26.0N 125.0E	
76	111700Z	26.0N 124.1E	LHDH	-	-	- 65//									26.0N 125.0E	
77	111715Z	27.0N 124.2E	LHDH	-	-	- 20 DEGREE SPIRAL OVERLAY: POOR FIX									26.0N 125.0E	
78	111800Z	26.0N 124.0E	LHDH	-	-	- 65//									26.0N 125.0E	
79	111802Z	27.0N 123.8E	LHDH	-	-	- 65//									26.0N 125.0E	
80	112044Z	26.0N 124.1E	P	2 10 100 240 55 180 40	-	-	-	-	-	-	-	-	-	-	26.0N 125.0E	
81	112100Z	27.0N 123.6E	LHDH	-	-	- 65//									26.0N 125.0E	
82	112233Z	27.5N 123.6E	SAT	(IR DATA	)	PCN 5 DMSP									26.5N 125.0E
83	112357Z	27.5N 122.8E	SAT	(T3.5/3.5/5/5 / 24HRS)		PCN 3 DMSP									26.5N 125.0E	
84	112357Z	27.5N 122.6E	SAT	(T2.5/3.5/5/5 / 24HRS)		PCN 3 DMSP									26.5N 125.0E	
85	112357Z	27.5N 123.2E	SAT	(T3.5/3.5/5/5 / 24HRS)		PCN 3 DMSP									26.5N 125.0E	
86	120116Z	27.0N 123.0E	SAT	(T4.5/4.5/7/1.0 / 24HRS)		NOAA-4 (CONF 01)									27.0N 125.0E	
87	120349Z	27.0N 122.5E	SAT	(T3.5/4.0/5/5 / 24HRS)		PCN 3 DMSP									27.0N 125.0E	
88	121110Z	28.0N 120.3E	SAT	(IR DATA	)	NOAA-4 (CONF 02)									28.0N 125.0E
89	121117Z	28.0N 120.3E	SAT	(IR DATA	)	PCN 4 DMSP									28.0N 125.0E
90	121239Z	28.0N 120.2E	SAT	(IR DATA	)	PCN 3 DMSP									28.0N 125.0E
91	121239Z	28.0N 120.0E	SAT	(IR DATA	)	PCN 3 DMSP									28.0N 125.0E
92	121239Z	28.0N 120.2E	SAT	(IR DATA	)	PCN 3 DMSP									28.0N 125.0E
93	122221Z	29.0N 118.2E	SAT	(IR DATA	)	PCN 5 DMSP									29.0N 125.0E
94	122319Z	29.0N 117.7E	SAT	(IR DATA	)	PCN 3 DMSP									29.0N 125.0E
95	122392Z	29.0N 117.8E	SAT	(IR DATA	)	PCN 3 DMSP									29.0N 125.0E

TYPHON PHILLIPS
FIX POSITIONS FOR CYCLONE NO. 7
0000Z 12 AUG TO 1800Z 18 AUG

FIX NO.	TIME	POSITION	FTX	ACCRY	FIX CAT	MAX OBS NAD-MET	MAX OBS LVL	SFC WIND	MIN 700MB	FLT	MIN SLP	ORIEN-	EYE	POSITION	OF	MSN
						LHDH	DIR VEL	DIR HNG	DIR HNG	T/L	MGT	TI/TD	FORM	TATIION	HADAK	NMMR
1	102234Z	14.3N 138.2E	SAT	(T1.0/1.0 / / HRS)		PCN 3 DMSP										1
2	102246Z	14.3N 138.2E	SAT	(T1.0/1.0 / / HRS)		PCN 4 DMSP									1	
3	110448Z	12.5N 137.1E	SAT	(IR DATA	)	PCN 5 DMSP									2
4	111116Z	12.5N 137.2E	SAT	(IR DATA	)	PCN 5 DMSP									2
5	111116Z	12.5N 137.2E	SAT	(IR DATA	)	PCN 5 DMSP									2
6	112257Z	13.1N 135.9E	SAT	(T1.0/1.0 / / 25HRS)		PCN 5 DMSP									2	
7	112357Z	13.1N 137.8E	SAT	(T1.0/1.0 / / 25HRS)		PCN 5 DMSP									2	
8	120405Z	12.7N 137.9E	P	5 5 1500 290 30 30	2	30 180 45 992 - 25 25									1	
9	120427Z	12.8N 137.6E	P	5 5 1500 240 30 20	25	35 30 5 986 - 26 24									1	
10	120432Z	13.2N 138.0E	SAT	(IR DATA	)	PCN 6 DMSP									2
11	121022Z	13.6N 137.5E	P	5 5 700 360 30 270	24	- - - 993 302 11 10								2		
12	121022Z	13.6N 136.9E	SAT	(IR DATA	)	NOAA-4 (CONF 02)									2
13	121239Z	13.3N 136.5E	SAT	(IR DATA	)	PCN 5 DMSP									3
14	121432Z	13.6N 136.9E	P	5 5 700 130 35 50	15 - - - 990 300 14 12									3		
15	122212Z	14.0N 136.2E	SAT	(IR DATA	)	PCN 5 DMSP									3
16	122239Z	14.0N 136.5E	SAT	(T3.5/3.5/5/2.5 / 24HRS)		PCN 3 DMSP									3	
17	122357Z	14.5N 137.5E	SAT	(T2.5/2.5 / / HRS)		PCN 3 DMSP									3	
18	122357Z	14.5N 136.5E	SAT	(T3.0/3.0/2.0 / 24HRS)		PCN 3 DMSP									3	
19	130252Z	14.2N 136.5E	P	5 5 700 190 40 80	45 35 80 30 982 293 15 9 E-TIP E-W 20X10									3		
20	130331Z	14.5N 136.0E	SAT	(T3.0/3.0 / / HRS)		PCN 3 DMSP									3	
21	130332Z	15.1N 136.7E	P	5 5 700 180 55 100	30 60 110 20 974 286 16 12 CTMC 30									3		
22	130926Z	15.0N 136.2E	SAT	(IR DATA	)	PCN 6 DMSP									3
23	131157Z	15.1N 136.0E	SAT	(IR DATA	)	NOAA-4 (CONF 02)									3
24	131220Z	15.4N 135.8E	SAT	(IR DATA	)	PCN 5 DMSP									3
25	131220Z	15.4N 136.3E	SAT	(IR DATA	)	PCN 5 DMSP									3
26	131220Z	15.4N 136.8E	SAT	(IR DATA	)	PCN 5 DMSP									3
27	131559Z	16.1N 136.6E	P	5 5 700 290 80 200	15 - - - 964 277 19 13 CTMC 20									3		
28	132048Z	16.1N 136.9E	P	10 5 700 180 100 270	15 100 90 10 951 266 17 13 CTMC 20									3		
29	132209Z	16.1N 136.8E	SAT	(IR DATA	)	PCN 1 DMSP									3
30	132209Z	16.1N 137.2E	SAT	(IR DATA	)	PCN 1 DMSP									3
31	132209Z	16.1N 137.2E	SAT	(IR DATA	)	PCN 1 DMSP									3
32	132209Z	16.1N 136.9E	SAT	(T5.5/5.5/2.0 / 24HRS)		PCN 1 DMSP									3	
33	132202Z	16.1N 136.9E	SAT	(T4.5/4.5/5 / 24HRS)		PCN 1 DMSP									3	

TYPHOON PHYLIS															
FIX POSITIONS FOR CYCLONE NO. 7															
FIX NO.	TIME	DIST	FIX	ACHTY	MAX OHS	MAX OHS	UBS	MIN	FLT	TUMH	LVL	EYE	UNIEN-	EYE	POSI
															MHN
															MHR
36	1300Z02	18.4N 136.9E	SAT	(150/54.5 /02+0/24hWS)	P	PCN 1	DMSP								
35	1400Z02	18.4N 136.9E	SAT	(150/54.5 /02+0/25hWS)		NOAA-4									
36	1400Z22	19.6N 137.2E	SAT	(150/54.5 /01.5/24hWS)	P	PCN 2	DMSP								
37	1400Z52	21.6N 137.0E	P	5 5 3 700 210 125 120		20	60	170	05	931	249	17 13	CTHC	20	5
38	1410Z52	22.1N 136.7E	SAT	(IR DATA)		PCN 2	DMSP								
39	1410Z52	21.8N 136.6E	SAT	(IR DATA)		PCN 1	DMSP								
40	1410Z52	21.7N 137.3E	SAT	(IR DATA)		PCN 2	DMSP								
41	1410Z52	22.9N 136.7E	SAT	(IR DATA)		NOAA-4									
42	1410Z22	22.1N 136.8E	SAT	(IR DATA)		PCN 1	DMSP								
43	1410Z22	22.1N 137.1E	SAT	(IR DATA)		PCN 1	DMSP								
44	1410Z22	22.3N 137.0E	SAT	(IR DATA)		PCN 1	DMSP								
45	1410Z52	23.2N 137.0E	P	5 5 3 700 330 98 250	14	-	-			920	239	20 16	CTHC	15	5
46	1420Z02	25.1N 137.1E	P	5 3 700 270 115 180	25	100	180	25	931	247	17 15	CTHC	20	6	
47	1421Z52	25.3N 137.1E	SAT	(IR DATA)		PCN 1	DMSP								
48	1421Z52	25.3N 137.1E	SAT	(IR DATA)		PCN 1	DMSP								
49	1421Z52	25.3N 137.1E	SAT	(IR DATA)		PCN 1	DMSP								
50	1420Z22	25.6N 137.0E	SAT	(150/57.5 /01.5/24hWS)	P	PCN 2	DMSP								
51	1420Z22	25.5N 137.2E	SAT	(150/57.0 /01.5/24hWS)		PCN 1	DMSP								
52	1420Z22	25.5N 137.1E	SAT	(150/57.5 /01.5/24hWS)		PCN 1	DMSP								
53	1421Z12	25.6N 137.0E	SAT	(150/57.0 /01.5/23hWS)		NOAA-4									
54	1500Z32	27.5N 137.4E	SAT	(150/57.5 /01.5/24hWS)	P	PCN 2	DMSP								
55	1500Z52	26.6N 137.0E	P	5 5 3 700 30 75 300	25	60	330	15	934	251	17 14	CTHC	20	6	
56	1510Z12	28.1N 135.8E	SAT	(IR DATA)		PCN 2	DMSP								
57	1510Z12	28.1N 136.0E	SAT	(IR DATA)		PCN 1	DMSP								
58	1510Z12	28.1N 135.7E	SAT	(IR DATA)		PCN 1	DMSP								
59	1511Z42	28.3N 135.8E	SAT	(IR DATA)		PCN 1	DMSP								
60	1511Z42	28.3N 136.0E	SAT	(IR DATA)		PCN 1	DMSP								
61	1511Z42	28.3N 135.6E	SAT	(IR DATA)		PCN 1	DMSP								
62	1511Z62	28.5N 135.5E	SAT	(IR DATA)		NOAA-4									
63	1511Z22	28.8N 135.3E	P	5 2 700 60 90 340	30	-	-		939	256	15 14	CTHC	18	7	
64	1520Z22	29.3N 134.7E	P	5 5 700 240 70 140	30	80	130	8	943	259	17 14	CTHC	15	8	
65	1521Z42	29.4N 134.6E	SAT	(IR DATA)		PCN 1	DMSP								
66	1521Z42	29.4N 134.7E	SAT	(IR DATA)		PCN 1	DMSP								
67	1522Z42	29.4N 134.6E	SAT	(150/67.0 /#1.5/24hWS)		PCN 1	DMSP								
68	1522Z42	29.4N 134.7E	SAT	(150/67.0 /#1.0/24hWS)		PCN 1	DMSP								
69	1522Z42	29.4N 134.5E	SAT	(150/67.0 /#1.0/24hWS)		PCN 1	DMSP								
70	1600Z52	29.4N 134.2E	SAT	(150/67.0 /#1.0/24hWS)		NOAA-4									
71	1600Z02	29.7N 134.4E	LRDN	- 2913											30.6N 131.0E
72	1600Z02	29.7N 134.3E	LRDN	- 20973											30.6N 131.0E
73	1601Z02	29.8N 134.2E	P	5 5 700 280 100 180	45	80	180	50	945	261	17 14	CTHC	30	9	
74	1601Z02	29.9N 134.3E	LRDN	- 20913											30.6N 131.0E
75	1601Z02	29.9N 134.2E	LRDN	- 10913											30.6N 131.0E
76	1601Z02	30.0N 134.3E	LRDN	- 10913											30.6N 131.0E
77	1601Z02	30.1N 134.3E	LRDN	- 10913											30.6N 131.0E
78	1605Z32	30.5N 135.0E	P	5 5 700 210 90 120	60	55	140	50	-	-	-	18 12	CTHC	40	9
79	1606Z02	30.5N 135.3E	LRDN	- 22913											30.6N 131.0E
80	1606Z02	30.6N 135.2E	LRDN	- 22943											30.6N 131.0E
81	1610Z02	30.6N 134.0E	SAT	(IR DATA)		PCN 2	DMSP								
82	1610Z02	30.6N 134.8E	SAT	(IR DATA)		PCN 2	DMSP								
83	1611Z02	30.8N 134.1E	LRDN	- 21913											30.6N 131.0E
84	1611Z52	30.9N 134.7E	SAT	(IR DATA)		PCN 1	DMSP								
85	1611Z52	30.8N 134.4E	SAT	(IR DATA)		PCN 1	DMSP								
86	1611Z52	30.9N 134.5E	SAT	(IR DATA)		PCN 1	DMSP								
87	1612Z02	30.9N 134.9E	LRDN	- 10913											30.6N 131.0E
88	1611Z02	31.1N 133.4E	LRDN	- 22913											30.6N 131.0E
89	1611Z02	30.9N 133.7E	SAT	(IR DATA)		PCN 1	DMSP								
90	1611Z02	31.1N 133.4E	SAT	(IR DATA)		PCN 1	DMSP								
91	1611Z02	31.2N 133.5E	LRDN	- 21913											30.6N 131.0E
92	1611Z02	31.3N 133.3E	LRDN	- 22913											30.6N 131.0E
93	1611Z02	31.6N 133.2E	LRDN	- 20913											30.6N 131.0E
94	1611Z02	31.7N 133.4E	LRDN	- 20911											30.6N 131.0E
95	1611Z02	31.7N 133.4E	LRDN	- 20913											34.4N 130.4E
96	1611Z02	31.8N 133.4E	LRDN	- 50913											30.6N 131.0E
97	1620Z02	31.9N 133.4E	LRDN	- 20817											34.4N 130.4E
98	1620Z02	32.0N 133.4E	LRDN	- 51913											30.6N 131.0E
99	1620Z02	32.0N 133.4E	LRDN	- 51913											30.6N 131.0E
100	1620Z02	32.1N 133.4E	LRDN	-											30.6N 131.0E
101	1621Z32	32.1N 132.9E	SAT	(IR DATA)		PCN 1	DMSP								
102	1621Z32	32.1N 132.9E	SAT	(IR DATA)		PCN 1	DMSP								
103	1621Z32	32.2N 132.9E	SAT	(IR DATA)	1	- 30477									34.5N 130.4E
104	1622Z02	32.3N 132.9E	LRDN	- 20413											30.6N 131.0E
105	1622Z02	32.3N 132.9E	LRDN	-											33.4N 130.4E
106	1622Z52	32.3N 132.9E	SAT	(150/05.0 /#1.0/25hWS)	P	PCN 1	DMSP								
107	1622Z52	32.3N 132.5E	SAT	(IR DATA)	1	- 20413									30.6N 131.0E
108	1622Z02	32.4N 132.9E	LRDN	- 20927											33.4N 130.4E
109	1700Z02	32.4N 132.8E	LRDN	- 20643											30.6N 131.0E
110	1700Z02	32.4N 132.4E	LRDN	-											30.6N 131.0E
111	1700Z02	32.5N 133.0E	SAT	(150/05.0 /#1.0/25hWS)	P	PCN 1	DMSP								30.6N 131.0E
112	1700Z02	32.5N 132.7E	SAT	(IR DATA)	1	- 20413									30.6N 131.0E
113	1700Z82	32.4N 133.4E	SAT	1	- 7777										
114	1701Z02	32.4N 132.8E	LRDN	- 22943											30.6N 131.0E
115	1701Z02	32.4N 132.6E	LRDN	- 50913											34.5N 131.0E
116	1702Z02	32.4N 132.4E	LRDN	- 65777											30.6N 131.0E
117	1702Z02	32.4N 132.4E	LRDN	-											30.6N 131.0E
118	1703Z02	32.4N 132.5E	SAT	1	- 20413										30.6N 131.0E
119	1703Z02	32.4N 132.4E	LRDN	- 60777											34.5N 131.0E
120	1704Z02	32.4N 132.3E	LRDN	-											35.4N 130.4E
121	1704Z02	32.4N 132.1E	LRDN	- 20413			</								

TYPHON PHYLIS
FIX POSITIONS FOR CYCLONE NO. 7
0000Z 12 AUG TO 1200Z 18 AUG

FIX NO.	TIME	POSITION	FIX CAT	ARCHY	MAX OBS	MAX OBS	UWS	MIN	FIT	POSIT OF HADAK
			NAV-MET	LVL	FLT LVL WIND	SFC WIND	MIN 700MB	LVL	EYE ORIEN-	MSN NMHR
				DIM VEL HNG RNG	VEL HNG RNG	SLP	HGT	TI/YO FORM	TATION DIA	
125	170100Z	33.0N 131.7E	LRDR	-	2040/					33.0N 130.9E
126	170100Z	34.0N 131.7E	LRDR	-	35/7/3					34.0N 136.9E
127	170100Z	34.1N 131.7E	LRDR	-	35/7/3					34.1N 133.9E
128	170100Z	34.1N 131.7E	LRDR	-	20412					34.1N 132.0E
129	170100Z	34.2N 131.5E	LRDR	-	2035/					34.2N 130.9E
130	170100Z	34.1N 131.6E	LRDR	-	35/7/3					34.1N 130.9E
131	170100Z	34.3N 131.6E	LRDR	-	1032/					34.3N 133.9E
132	170100Z	34.2N 131.6E	LRDR	-	55/7/2					34.2N 132.0E
133	171000Z	34.6N 131.3E	LRDR	-						34.6N 132.0E
134	171017Z	34.5N 131.7E	SAT	(IR DATA		NOAA-4	(CONF 01)			
135	171153Z	35.0N 133.0E	SAT	(I - 24/1/						35.0N 130.9E
136	171200Z	34.8N 130.9E	LRDR	-						34.8N 130.9E
137	171249Z	34.9N 130.5E	SAT	(IR DATA		PCN 5 DMSP				
138	171249Z	35.1N 131.7E	SAT	(I - 24/1/						35.1N 130.9E
139	171500Z	35.0N 130.5E	LRDR	-						35.0N 130.9E
140	172148Z	36.2N 130.5E	SAT	(T2.0/3.0- /#1.0/24HSI)	PCN 3 DMSP					
141	172148Z	36.2N 130.6E	SAT	(T3.0/4.0- /#1.0/24HSI)	PCN 3 DMSP					
142	182330Z	40.4N 130.6E	SAT	(IR DATA	1	PCN 5 DMSP				

TYPHON PITA
FIX POSITIONS FOR CYCLONE NO. 8
0600Z 18 AUG TO 1800Z 23 AUG

FIX NO.	TIME	POSITION	FIX CAT	ARCHY	MAX OBS	MAX OBS	UWS	MIN	FIT	POSIT OF HADAK
			NAV-MET	LVL	FLT LVL WIND	SFC WIND	MIN 700MB	LVL	EYE ORIEN-	MSN NMHR
				DIM VEL HNG RNG	VEL HNG RNG	SLP	HGT	TI/YO FORM	TATION DIA	
1	170007Z	23.2N 120.9E	SAT	(T2.0/2.0- / / HRS)	PCN 5 DMSP					
2	171152Z	21.0N 121.7E	SAT	(IR DATA	)	PCN 6 DMSP				
3	171152Z	26.3N 124.3E	SAT	(IR DATA	)	PCN 6 DMSP				
4	171248Z	22.5N 126.2E	SAT	(IR DATA	)	PCN 5 DMSP				
5	171248Z	23.1N 125.7E	SAT	(IR DATA	)	PCN 5 DMSP				
6	172120Z	23.9N 129.9E	SAT	(IR DATA	)	PCN 5 DMSP				
7	172148Z	24.4N 130.5E	SAT	(T1.0/2.0- /#1.0/24HSI)	PCN 3 DMSP					
8	172148Z	24.4N 130.2E	SAT	(IR DATA	)	PCN 3 DMSP				
9	172148Z	24.6N 130.6E	SAT	(T1.0/1.0- / / HRS)	PCN 3 DMSP					
10	180411Z	25.0N 130.0E	SAT	(IR DATA	)	PCN 5 DMSP				
11	180413Z	24.7N 130.4E	P	5 25 1500 240 55 140 130 45 140 150 991 - 22 25 - - - -						1
12	180405Z	24.9N 130.4E	P	10 15 1500 230 40 40 100 40 140 80 993 - 28 - - - -						2
13	181005Z	24.6N 130.9E	SAT	(IR DATA	)	PCN 5 DMSP				
14	181005Z	23.2N 133.6E	SAT	(IR DATA	)	PCN 6 DMSP				
15	181210Z	25.4N 132.1E	SAT	(IR DATA	)	PCN 3 DMSP				
16	181230Z	25.3N 132.2E	SAT	(IR DATA	)	PCN 3 DMSP				
17	181230Z	25.3N 131.7E	SAT	(IR DATA	)	PCN 3 DMSP				
18	181440Z	24.1N 131.0E	P	5 5 1500 180 30 90 60 - - - 991 - 25 25 ETIP N-S 50X35						3
19	182108Z	25.1N 130.9E	SAT	(IR DATA	)	PCN 6 DMSP				
20	182108Z	25.2N 131.2E	SAT	(IR DATA	)	PCN 6 DMSP				
21	182108Z	25.2N 131.3E	SAT	(IR DATA	)	PCN 6 DMSP				
22	182119Z	25.9N 130.7E	P	5 5 1500 150 55 60 50 35 120 40 992 - 25 23 - - - -						3
23	182330Z	25.9N 130.2E	SAT	(T2.0/2.0- /#1.0/24HSI)	PCN 3 DMSP					
24	182330Z	25.4N 130.1E	SAT	(T1.0/1.0- /#1.0/24HSI)	PCN 3 DMSP					
25	190302Z	25.9N 130.2E	SAT	(T2.0/2.0- /#1.0/24HSI)	PCN 3 DMSP					
26	190302Z	26.2N 130.2E	SAT	(T1.5/1.5- / / HRS)	PCN 3 DMSP					
27	190302Z	25.7N 130.7E	P	2 5 700 170 45 50 30 35 50 30 985 295 15 15 - - - -						4
28	191002Z	26.7N 129.5E	LRDR	- 6//						26.0N 127.0E
29	191100Z	26.6N 129.3E	LRDR	- 6//						26.0N 127.0E
30	191135Z	26.8N 129.7E	SAT	(IR DATA	)	PCN 3 DMSP				
31	191135Z	26.0N 130.0E	SAT	(IR DATA	)	PCN 3 DMSP				
32	191211Z	26.6N 129.5E	SAT	(IR DATA	)	PCN 3 DMSP				
33	191212Z	26.8N 129.7E	SAT	(IR DATA	)	PCN 3 DMSP				
34	191212Z	26.9N 129.6E	SAT	(IR DATA	)	PCN 3 DMSP				
35	191500Z	26.0N 129.3E	P	5 15 700 120 40 30 90 - - - 991 301 15 15 - - - -						5
36	192150Z	26.7N 128.9E	LRDR	- 25/7/	1	PCN 3 DMSP				26.0N 127.0E
37	194100Z	26.4N 128.7E	SAT	- 6//2/						26.0N 127.0E
38	192400Z	26.5N 129.3E	P	5 5 700 120 40 360 35 210 10 987 298 18 15 - - - -						5
39	192400Z	26.1N 128.7E	LRDR	- POOR FIX, NO EYE WALL, 10 DEG SPIRAL OVERLAY						26.0N 127.0E
40	192110Z	26.6N 128.4E	LRDR	- FAIR FIX, CIRCULAR EYE, 30 NM DIAM, 50 PERCENT WALL CLOUD, 15 DEG SPOV						26.0N 127.0E
41	192135Z	26.2N 128.6E	LRDR	- FAIR FIX, CIRCULAR EYE, 10 NM DIAM, 40 PERCENT WALL CLOUD, 10 DEG SPOV						26.0N 127.0E
42	192238Z	26.4N 129.0E	SAT	(IR DATA	)	PCN 5 DMSP				
43	192238Z	26.2N 128.4E	SAT	(T3.0/3.0- /#1.0/24HSI)	PCN 5 DMSP					
44	192412Z	26.9N 128.9E	SAT	(T3.0/3.0- /#1.0/24HSI)	PCN 3 DMSP					
45	192412Z	26.1N 128.9E	SAT	(T2.0/2.0- /#1.0/24HSI)	PCN 3 DMSP					
46	192412Z	27.1N 129.0E	SAT	(IR DATA	)	PCN 3 DMSP				
47	192506Z	26.2N 128.5E	SAT	(T3.5/3.5- /#1.0/24HSI)	NOAA-4 (CONF 01)					
48	200402Z	27.0N 129.1E	SAT	(T2.5/2.5- /#1.0/24HSI)	PCN 3 DMSP					
49	200325Z	26.9N 128.5E	P	1 2 700 270 40 230 25 25 220 20 991 301 16 14 - - - -						6
50	200338Z	26.6N 128.1E	LRDR	- POOR FIX, NO WALL CLOUD, 15 DEG SPIRAL OVERLAY						
51	200402Z	26.4N 128.3E	SAT	- 15 DEGREE SPIRAL OVERLAY, POOR FIX, NO WALL CLOUD						26.0N 127.0E
52	200402Z	26.6N 128.3E	LRDR	- 10 DEGREE SPIRAL OVERLAY, POOR FIX, NO WALL CLOUD						26.0N 127.0E
53	200402Z	27.0N 128.1E	LRDR	- 10 DEGREE SPIRAL OVERLAY, POOR FIX, NO WALL CLOUD						26.0N 127.0E
54	200402Z	26.8N 128.8E	P	5 10 700 360 40 270 15 45 220 60 986 297 19 17 - - - -						6
55	201122Z	26.8N 128.9E	SAT	(IR DATA	)	PCN 5 DMSP				
56	201132Z	27.0N 129.0E	SAT	(IR DATA	)	PCN 5 DMSP				
57	201132Z	27.0N 128.5E	SAT	(IR DATA	)	PCN 3 DMSP				
58	201132Z	26.9N 128.9E	SAT	(IR DATA	)	PCN 5 DMSP				
59	201132Z	27.0N 128.6E	SAT	(IR DATA	)	PCN 3 DMSP				

TYPHOON DITA
FIX POSITIONS FOR CYCLONE NO. 8
0600Z IN ADO TO 1400Z 23 AUG

FIX NO.	TIME	DATE	FIX CAT	ACHTY	FIX LVL	FLT DIR	LVL VEL	MAX DHS	MAX DHS	UHS	MIN SLP	FIT	POSIT OF HAAR	MSN NMHR		
60	201-002	27.4N 130.7E	LRDR	-	100	330	60	250	30	40	250	90	Y74	280 9 15 CTNC	10 24.4N 129.5E	
61	201-002	27.4N 130.7E	LRDR	-	100	330	60	250	30	40	250	90	Y74	280 9 15 CTNC	24.4N 129.5E	
62	202-002	27.5N 130.8E	LRDR	-	100	330	60	250	30	40	250	90	Y74	280 9 15 CTNC	24.4N 129.5E	
63	202-1582	28.2N 131.1E	P	-	10	700	330	60	250	30	40	250	90	Y74	280 9 15 CTNC	10 24.4N 129.5E
64	202-002	27.5N 131.2E	LRDR	-	100	330	60	250	30	40	250	90	Y74	280 9 15 CTNC	24.4N 129.5E	
65	202-262	28.0N 131.2E	SAT	(T3.5/3.5 700.5/23HRS)	PCN 1	DMSP										
66	202-262	28.1N 131.5E	SAT	(IR DATA	)	PCN 3	DMSP									
67	202-262	28.2N 131.3E	SAT	(IR DATA	)	PCN 1	DMSP									
68	202-532	28.1N 131.3E	SAT	(IR DATA	)	PCN 1	DMSP									
69	202-532	28.1N 131.0E	SAT	(T3.5/3.5+01.0/24HRS)	PCN 1	DMSP										
70	202-532	28.1N 131.2E	SAT	(T4.0/4.0+01.0/24HRS)	PCN 1	DMSP										
71	202-002	28.1N 131.2E	LRDR	-	55//2											
72	210-002	28.3N 131.6E	LRDR	-	55//2											
73	210-002	28.5N 131.6E	LRDR	-	55//2											
74	210-352	28.8N 131.5E	P	-	1	700	200	70	140	30	60	140	35	Y73	285 15 13 CTNC	5
75	210-432	28.8N 131.7E	SAT	(T3.5/3.5 701.0/24HRS)	PCN 3	DMSP										
76	210-002	28.7N 131.6E	LRDR	-	65//1											
77	210-002	28.8N 131.5E	LRDR	-	65//2											
78	210-002	28.9N 131.5E	LRDR	-	65//2											
79	210-002	29.1N 131.5E	LRDR	-	65//3											
80	210-002	28.9N 131.7E	LRDR	-	65//2											
81	210-002	28.9N 131.8E	LRDR	-	55//1											
82	210-002	28.8N 132.0E	LRDR	-	55//3											
83	210-002	29.1N 132.0E	LRDR	-	65//1											
84	210-002	29.1N 132.1E	LRDR	-	55//3											
85	210-002	29.2N 132.2E	LRDR	-	55//3											
86	210-002	29.1N 132.1E	LRDR	-	65//2											
87	211-002	29.4N 132.3E	LRDR	-	65//2											
88	211-002	29.5N 132.3E	LRDR	-	55//3											
89	211-1102	29.6N 132.0E	SAT	(IR DATA	)	PCN 2	DMSP									
90	211-1102	29.4N 131.9E	SAT	(IR DATA	)	PCN 1	DMSP									
91	211-352	29.4N 131.8E	SAT	(IR DATA	)	PCN 1	DMSP									
92	211-352	29.4N 132.0E	SAT	(IR DATA	)	PCN 1	DMSP									
93	211-352	29.4N 131.8E	SAT	(IR DATA	)	PCN 1	DMSP									
94	211-002	29.5N 132.4E	LRDR	-	55//3											
95	211-002	29.4N 132.4E	LRDR	-	65//2											
96	211-212	30.1N 133.3E	SAT	(IR DATA	)	PCN 1	DMSP									
97	211-002	29.5N 132.4E	LRDR	-	55//3											
98	211-002	29.4N 132.4E	LRDR	-	65//2											
99	211-172	29.0N 132.6E	SAT	(IR DATA	)	PCN 1	DMSP									
100	211-002	29.6N 132.5E	LRDR	-	6000 FIX											
101	211-002	29.5N 132.3E	LRDR	-	55//3											
102	211-002	29.6N 132.4E	LRDR	-	65//2											
103	211-002	29.2N 132.5E	LRDR	-	6000 FIX											
104	211-002	29.7N 132.5E	LRDR	-	55//3											
105	211-5592	29.8N 132.7E	P	5	4	700	320	60	240	55	45	230	60	Y72	284 18 14 CTNC	40 30.4N 131.0E
106	211-002	29.8N 132.6E	LRDR	-	6000 FIX											
107	211-002	29.7N 132.6E	LRDR	-	55//3											
108	211-002	29.4N 132.5E	LRDR	-	65//2											
109	211-702	30.0N 132.7E	LRDR	-	POOR FIX											
110	211-702	29.9N 132.7E	LRDR	-	55//3											
111	211-702	29.7N 132.7E	LRDR	-	65//2											
112	211-002	29.6N 132.7E	LRDR	-	65//2											
113	211-002	29.8N 132.8E	LRDR	-	55//3											
114	211-002	30.0N 132.9E	LRDR	-	POOR FIX											
115	211-002	30.0N 132.8E	LRDR	-	55//3											
116	211-002	29.9N 132.9E	LRDR	-	65//2											
117	212-002	30.1N 132.9E	LRDR	-	6000 FIX											
118	212-002	30.1N 133.0E	LRDR	-	55//3											
119	212-002	30.1N 133.1E	LRDR	-	65//1											
120	212-302	30.4N 133.0E	P	5	2	700	130	80	40	65	-	-	-	Y70	283 18 14 CTNC	40 30.4N 131.0E
121	212-102	30.7N 133.0E	LRDR	-	6000 FIX											
122	212-102	30.1N 133.1E	LRDR	-	55//2											
123	212-102	30.2N 133.0E	LRDR	-	65//1											
124	212-202	30.5N 133.2E	LRDR	-	55//2											
125	212-202	30.4N 133.1E	LRDR	-	65//1											
126	212-142	30.5N 133.2E	SAT	(T3.5/4.5+5/5 724HRS)	PCN 1	DMSP										
127	212-152	30.5N 133.2E	SAT	(IR DATA	)	PCN 1	DMSP									
128	212-152	30.4N 133.4E	SAT	(T4.5/4.5+5/5 701.0/24HRS)	PCN 1	DMSP										
129	212-2352	30.4N 133.1E	SAT	(T4.5/4.5+5/5 700.5/23HRS)	PCN 1	DMSP										
130	212-002	30.4N 133.3E	LRDR	-	55//2											
131	212-002	30.6N 133.2E	LRDR	-	65//1											
132	220-002	30.4N 133.4E	LRDR	-	55//2											
133	220-1172	30.6N 133.4E	SAT	(IR DATA	)	PCN 1	DMSP									
134	220-1002	30.7N 133.5E	LRDR	-	55//2											
135	220-1002	30.7N 133.2E	LRDR	-	21972											
136	220-002	30.8N 133.6E	LRDR	-	55//2											
137	220-252	30.4N 133.2E	SAT	(T4.5/4.5+5/5 701.0/24HRS)	PCN 1	DMSP										
138	220-002	31.1N 133.1E	LRDR	-	55//2											
139	220-002	31.1N 133.5E	LRDR	-	20872											
140	220-1552	31.1N 133.5E	P	5	10	700	330	52	250	45	50	230	45	Y66	280 16 13 CTNC	60 33.3N 134.2E
141	220-002	31.1N 133.7E	LRDR	-	55//2											
142	220-002	31.1N 133.8E	LRDR	-	21972											
143	220-002	31.6N 133.8E	LRDR	-	65//2											
144	220-002	31.5N 133.9E	LRDR	-	21932											
145	220-002	31.1N 134.1E	LRDR	-	65//2											
146	220-002	31.0N 134.0E	LRDR	-	21912											
147	220-002	32.1N 134.2E	LRDR	-	21912											
148	220-002	32.1N 134.1E	LRDR	-	65//2											
149	220-002	32.1N 134.0E	P	5	5	700	250	65	150	50	-	-	-	Y67	281 15 13 CTNC	60 33.3N 134.2E
150	220-002	32.1N 134.4E	LRDR	-	60//2											

TYPHON RITA
FIX POSITIONS FOR CYCLONE NO. 8
0600Z 18 AUG TO 1800Z 23 AUG

FIX NO.	TIME	POSIT CAT NA-MET	FIX MAX OWS	FIX MAX OWS	OBS	MIN	FLY	POSIT OF RADAR	MSN NMHR				
		LVL	LVL	WIND	SFC WIND	MIN	100MB	LVL	EYE	ORIEN-	EYE	TATUM	DATA
		DIR	VEL	BNG	RNG	SLP	MGT	TI/YO	FORM	TATION	DATA		
151	220400Z	32.1N 134.2E	LRDR	- 20412								35.3N 134.2E	
152	221000Z	32.1N 134.5E	LRDR	- 21912								35.3N 134.5E	
153	221100Z	32.1N 134.3E	LRDR	- 6//72								35.3N 134.3E	
154	221103Z	33.0N 134.8E	SAT	- 118 DATA	1	NOAA-4	(CONF 01)						
155	221058Z	32.1N 134.4E	SAT	- 118 DATA	1	PCN 1	DNSP						
156	221058Z	32.1N 134.5E	SAT	- 118 DATA	1	PCN 1	DNSP						
157	221100Z	32.1N 134.3E	LRDR	- 21912								35.3N 134.3E	
158	221200Z	32.1N 134.4E	LRDR	- 21912								35.3N 134.4E	
159	221200Z	32.1N 134.3E	LRDR	- 20512								35.3N 134.3E	
160	221258Z	32.1N 134.5E	SAT	- 118 DATA	1	PCN 1	DNSP						
161	221258Z	32.1N 134.6E	SAT	- 118 DATA	1	PCN 1	DNSP						
162	221300Z	33.1N 134.5E	LRDR	- 20512								35.3N 134.5E	
163	221300Z	33.1N 134.4E	LRDR	- 53617								35.3N 134.4E	
164	221300Z	33.1N 134.5E	LRDR	- 50216								35.3N 134.5E	
165	221300Z	33.1N 134.5E	LRDR	- 20912								35.3N 134.5E	
166	221500Z	33.1N 134.5E	LRDR	- 21915								35.3N 134.5E	
167	221500Z	33.1N 134.5E	LRDR	- 20412								35.3N 134.5E	
168	221500Z	33.1N 134.7E	LRDR	- 6//71								36.3N 134.7E	
169	221500Z	33.1N 134.5E	LRDR	- 50970								35.3N 134.5E	
170	221500Z	33.1N 134.5E	LRDR	- 6//21								35.3N 134.5E	
171	221600Z	33.1N 134.8E	LRDR	- 22951								36.3N 134.8E	
172	221700Z	33.1N 134.6E	LRDR	- 35541								35.3N 134.6E	
173	221700Z	33.1N 134.8E	LRDR	- 65913								35.3N 134.8E	
174	221700Z	33.1N 134.7E	LRDR	- 6//43								36.3N 134.7E	
175	221700Z	33.1N 134.7E	LRDR	- 12722								35.3N 134.7E	
176	221700Z	33.1N 134.6E	LRDR	- 21623								35.3N 134.6E	
177	221700Z	33.1N 134.7E	LRDR	- 65931								35.3N 134.7E	
178	221700Z	33.1N 134.8E	LRDR	- 65941								35.3N 134.8E	
179	221700Z	33.1N 134.9E	LRDR	- 65973								35.3N 134.9E	
180	222000Z	33.1N 135.1E	LRDR	- 30573								35.3N 135.1E	
181	222116Z	35.0N 135.9E	SAT	- 118 DATA	1	PCN 5	DNSP					35.3N 135.9E	
182	222217Z	35.0N 136.1E	SAT	- 118 DATA	1	PCN 5	DNSP					35.3N 136.1E	
183	230206Z	36.2N 136.5E	SAT	- 118/5/345--w1.0/24h051	1	PCN 3	DNSP					35.3N 136.5E	
184	230400Z	37.2N 136.6E	LRDR	- 25307								35.3N 136.6E	
185	230500Z	37.2N 137.2E	LRDR	- 35757								35.3N 137.2E	
186	230500Z	38.0N 138.2E	LRDR	- 09077								35.3N 138.2E	
187	231100Z	38.0N 138.2E	SAT	- 118 DATA	1	PCN 1	DNSP					35.3N 138.2E	
188	231200Z	38.0N 138.0E	SAT	- 118 DATA	1	PCN 5	DNSP					35.3N 138.0E	

TROPICAL STORM SUSAN
FIX POSITIONS FOR CYCLONE NO. 9
1200Z 26 AUG TO 0600Z 01 SEP

FIX NO.	TIME	POSIT CAT NA-MET	FIX MAX OWS	FIX MAX OWS	OBS	MIN	FLY	POSIT OF RADAR	MSN NMHR					
		CAT NA-MET	LVL	LVL	WIND	SFC WIND	MIN	100MB	LVL	EYE	ORIEN-	EYE	TATUM	DATA
		DIR	DIR	VEL	BNG	RNG	SLP	MGT	TI/YO	FORM	TATION	DATA		
1	212216Z	22.3N 158.6E	SAT	- 118 DATA	1	PCN 5	DNSP							
2	222216Z	23.0N 156.5E	SAT	- 118 DATA	1	PCN 3	DNSP							
3	232158Z	23.6N 156.6E	SAT	- 118 DATA	1	PCN 3	DNSP							
4	242139Z	23.7N 151.5E	SAT	- 118 DATA	1	PCN 3	DNSP							
5	252122Z	25.4N 153.5E	SAT	- 118/0/10/2/ /--HRS1	1	PCN 5	DNSP							
6	252303Z	25.3N 153.4E	SAT	- 118 DATA	1	PCN 5	DNSP							
7	260829Z	25.7N 153.2E	SAT	- 118 DATA	1	PCN 6	DNSP							
8	261102Z	26.3N 153.4E	SAT	- 118 DATA	1	PCN 5	DNSP							
9	261145Z	25.8N 153.5E	SAT	- 118 DATA	1	PCN 5	DNSP							
10	262113Z	27.7N 152.9E	SAT	- 118/0/10/2/5/ /24h051	1	PCN 3	DNSP							
11	262113Z	27.8N 153.1E	SAT	- 118 DATA	1	PCN 3	DNSP							
12	262155Z	27.7N 152.8E	SAT	- 118/0/10/2/ /--HRS1	1	PCN 3	DNSP							
13	262245Z	27.8N 152.9E	SAT	- 118/0/2/2/0/2/ /--HRS1	1	PCN 6	DNSP							
14	272033Z	28.0N 150.0E	SAT	- 118 DATA	1	NOAA-4	(CONF 01)							
15	270932Z	30.0N 152.0E	SAT	- 118 DATA	1	PCN 3	DNSP							
16	270952Z	30.4N 151.9E	SAT	- 118 DATA	1	PCN 3	DNSP							
17	270952Z	30.4N 152.4E	SAT	- 118 DATA	1	PCN 3	DNSP							
18	271126Z	30.5N 151.8E	SAT	- 118 DATA	1	PCN 3	DNSP							
19	271126Z	30.5N 152.1E	SAT	- 118 DATA	1	PCN 3	DNSP							
20	271127Z	30.3N 152.2E	SAT	- 118 DATA	1	PCN 3	DNSP							
21	272101Z	31.9N 152.0E	SAT	- 118 DATA	1	PCN 3	DNSP							
22	272101Z	32.1N 152.0E	SAT	- 118 DATA	1	PCN 4	DNSP							
23	272226Z	32.1N 151.6E	SAT	- 118/5/2/2/5/ /201.5/23h051	1	PCN 3	DNSP							
24	280846Z	33.4N 151.6E	SAT	- 118 DATA	1	PCN 1	DNSP							
25	281102Z	33.4N 151.2E	SAT	- 118 DATA	1	NOAA-4	(CONF 01)							
26	281102Z	33.4N 151.8E	SAT	- 118 DATA	1	PCN 3	DNSP							
27	282149Z	34.8N 152.4E	SAT	- 118 DATA	1	PCN 3	DNSP							
28	282208Z	34.7N 152.5E	SAT	- 118/5/2/2/5/ /201.5/23h051	1	PCN 1	DNSP							
29	282234Z	34.8N 152.8E	SAT	- 118/5/3/5/ /201.0/23h051	1	NOAA-4	(CONF 02)							
30	290156Z	35.4N 153.6E	SAT	- 118 DATA	1	PCN 1	DNSP							
31	290229Z	36.1N 154.5E	SAT	- 118 DATA	1	NOAA-4	(CONF 01)							
32	290316Z	36.2N 154.7E	SAT	- 118 DATA	1	PCN 4	DNSP							
33	290316Z	36.2N 154.5E	SAT	- 118 DATA	1	PCN 4	DNSP							
34	291026Z	37.8N 158.6E	SAT	- 118 DATA	1	NOAA-4	(CONF 01)							
35	291052Z	38.2N 158.9E	SAT	- 118 DATA	1	PCN 1	DNSP							
36	291052Z	38.2N 158.9E	SAT	- 118 DATA	1	PCN 2	DNSP							
37	292157Z	37.7N 156.4E	SAT	- 118 DATA	1	PCN 3	DNSP							
38	292157Z	35.0N 156.7E	SAT	- 118 DATA	1	PCN 3	DNSP							
39	292150Z	36.2N 156.7E	SAT	- 118/0/2/2/5/ /201.0/23h051	1	PCN 3	DNSP							

TROPICAL STORM SUSAN
FIX POSITIONS FOR CYCLONE NO. 9
1000Z 26 AUG TO 0000Z 01 SEP

FIX NO.	TIME	POSTI	FIX CAT	ACHTY	MAX OHS	MAX OBS	OBS	MIN	FLY	ORIENT	POSIT OF RADAR	MSN NNNN
			NA-MET	LVL	DIR VEL HNG RNG	SFC WIND	SLP	700MB	LVL	EYE		
				LVL	VEL HNG RNG		HGT	TI/T0	FORM	TATION	DIA	
40	092102	36.5N 157.0E	SAT	113.0/3.0 /	/	NWSI	PCN 1	DMSP				
41	092122	36.5N 156.5E	SAT	114.5/4.5 /01.0/25HGS	/	NWSI	NOAA-4	(CONF 01)				
42	100132	37.5N 157.3E	SAT	113.5/3.5 /	/	NWSI	PCN 2	DMSP				
43	100152	37.5N 156.5E	SAT	113. DATA			PCN 2	DMSP				
44	100152	37.5N 156.5E	SAT	113. DATA			PCN 2	DMSP				
45	101132	38.5N 156.5E	SAT	113. DATA			PCN 2	DMSP				
46	102132	37.5N 156.5E	SAT	113. DATA			PCN 3	DMSP				
47	102132	38.5N 156.5E	SAT	113. DATA			PCN 3	DMSP				
48	102132	37.5N 156.5E	SAT	112.0/2.0 /	/	NWSI	PCN 3	DMSP				
49	102132	37.5N 156.5E	SAT	112.0/2.0 /01.0/24HGS	/	NWSI	PCN 4	DMSP				
50	102132	37.5N 156.5E	SAT	112.0/3.0 /01.0/24HGS	/	NWSI	PCN 3	DMSP				
51	102202	37.5N 156.5E	SAT	113.5/4.5 /01.0/23HGS	/	NWSI	NOAA-4	(CONF 01)				
52	310119	38.5N 156.5E	SAT	112.0/3.0 /01.0/24HGS	/	NWSI	PCN 3	DMSP				
53	310119	38.5N 156.5E	SAT	113. DATA			PCN 3	DMSP				
54	310119	38.5N 156.5E	SAT	113. DATA			NOAA-4	(CONF 02)				
55	310119	38.5N 156.5E	SAT	113. DATA			NOAA-4	(CONF 01)				
56	311113	39.5N 156.5E	SAT	113. DATA			PCN 4	DMSP				
57	312113	39.5N 156.5E	SAT	112.5/2.5 /00.5/24HGS	/	NWSI	PCN 4	DMSP				
58	312113	39.5N 157.2E	SAT	112.0/2.0 /01.5/24HGS	/	NWSI	PCN 3	DMSP				
59	312122	39.5N 156.5E	SAT	113. DATA			NOAA-4	(CONF 01)				
60	010102	40.5N 157.5E	SAT	111.5/1.5 /01.5/24HGS	/	NWSI	PCN 4	DMSP				
61	011020	40.5N 156.5E	SAT	113. DATA			NOAA-4	(CONF 02)				
62	012102	41.5N 156.5E	SAT	113. DATA			PCN 5	DMSP				

TYPHOON TESS
FIX POSITIONS FOR CYCLONE NO. 10
0000Z 02 SEP TO 0000Z 10 SEP

FIX NO.	TIME	POSTI	FIX CAT	ACHTY	MAX OHS	MAX OBS	OBS	MIN	FLY	ORIENT	POSIT OF RADAR	MSN NNNN
			NA-MET	LVL	DIR VEL HNG RNG	SFC WIND	SLP	700MB	LVL	EYE		
				LVL	VEL HNG RNG		HGT	TI/T0	FORM	TATION	DIA	
1	3101102	17.5N 156.0E	SAT	113. DATA			PCN 6	DMSP				
2	3121352	18.5N 156.0E	SAT	111.5/1.5 /00.5/24HGS	/	NWSI	NOAA-4	(CONF 02)				
3	3121352	18.5N 155.5E	SAT	113.5/3.5 /	/	NWSI	PCN 6	DMSP				
4	3121352	18.5N 155.5E	SAT	113. DATA			PCN 6	DMSP				
5	3121352	18.5N 156.5E	SAT	113.0/1.0 /	/	NWSI	PCN 6	DMSP				
6	0101002	18.5N 156.2E	SAT	111.5/1.5 /	/	NWSI	PCN 6	DMSP				
7	0101082	18.5N 151.0E	SAT	113. DATA			PCN 3	DMSP				
8	0111082	18.5N 152.5E	SAT	113. DATA			PCN 6	DMSP				
9	0111032	17.25N 151.25E	SAT	113. DATA			NOAA-4	(CONF 01)				
10	0111362	17.25N 151.5E	SAT	113. DATA			PCN 5	DMSP				
11	0111362	17.25N 151.5E	SAT	113. DATA			PCN 5	DMSP				
12	0111362	17.25N 151.5E	SAT	113. DATA			PCN 6	DMSP				
13	0120012	17.25N 151.5E	SAT	113. DATA			PCN 5	DMSP				
14	0120052	17.25N 150.5E	F	2 2 1500 30 30 270	45 40 270	70 497	-	26 24	-	-	-	1
15	0122292	17.25N 151.0E	SAT	112.5/2.5 /01.0/25HGS	/	NWSI	NOAA-4	(CONF 01)				
16	0122362	18.5N 151.2E	SAT	112.0/2.0 /01.0/23HGS	/	NWSI	PCN 5	DMSP				
17	0122362	18.5N 150.5E	SAT	112.0/5.0 /00.5/24HGS	/	NWSI	PCN 3	DMSP				
18	0122362	17.25N 150.2E	SAT	112.5/2.5 /	/	NWSI	PCN 3	DMSP				
19	0202052	18.5N 150.2E	SAT	113.0/3.0 /01.5/24HGS	/	NWSI	PCN 4	DMSP				
20	0202052	19.5N 150.6E	SAT	113. DATA			PCN 6	DMSP				
21	021102	19.5N 150.0E	SAT	113. DATA			NOAA-4	(CONF 02)				
22	0211182	19.5N 150.4E	SAT	113. DATA			PCN 6	DMSP				
23	0211182	19.5N 150.0E	SAT	113. DATA			PCN 3	DMSP				
24	0211182	19.5N 149.8E	SAT	113. DATA			PCN 6	DMSP				
25	0211182	19.25N 150.3E	P	15 5 700 350 55 240	30 -	-	-	989	299 16 16	-	-	2
26	0211492	19.25N 149.0E	P	10 5 700 70 50 340	30 -	-	-	992	301 14 9	-	-	2
27	0221312	19.5N 149.0E	SAT	113. DATA			PCN 6	DMSP				
28	0221312	19.45N 148.5E	SAT	113. DATA			PCN 5	DMSP				
29	0221312	19.45N 149.6E	SAT	113.5/3.5 /01.5/24HGS	/	NWSI	PCN 3	DMSP				
30	0221312	19.35N 149.6E	SAT	113.0/4.0 /01.0/24HGS	/	NWSI	PCN 3	DMSP				
31	0221312	19.25N 149.7E	SAT	113.5/3.5 /01.0/24HGS	/	NWSI	PCN 3	DMSP				
32	0221312	19.25N 149.5E	SAT	113.0/4.0 /01.5/25HGS	/	NWSI	NOAA-4	(CONF 02)				
33	0301042	19.25N 149.9E	SAT	113.0/4.0 /01.0/24HGS	/	NWSI	PCN 3	DMSP				
34	0301042	19.25N 149.4E	P	5 5 700 350 60 250	90 70 280	40 479	290 14 12	-	-	-	-	3
35	0301042	19.25N 149.3E	P	5 5 700 360 75 270	45 90 270	45 476	287 14 12	CTHC	-	-	-	3
36	0301042	19.25N 149.2E	SAT	113. DATA			PCN 6	DMSP				
37	0311092	20.3N 149.1E	SAT	113. DATA			NOAA-4	(CONF 01)				
38	0311092	19.5N 149.1E	SAT	113. DATA			PCN 5	DMSP				
39	0311092	19.5N 149.2E	SAT	113. DATA			PCN 5	DMSP				
40	0311092	19.5N 149.2E	SAT	113. DATA			PCN 3	DMSP				
41	0311092	20.3N 149.0E	SAT	113. DATA			PCN 5	DMSP				
42	0311092	19.5N 149.2E	SAT	113. DATA			PCN 3	DMSP				
43	0311092	20.3N 149.5E	SAT	113. DATA			PCN 3	DMSP				
44	0321192	20.6N 149.3E	SAT	113. DATA			PCN 3	DMSP				
45	0321192	20.5N 149.7E	SAT	113. DATA			PCN 5	DMSP				
46	0321192	20.6N 149.1E	SAT	113.0/4.0 /01.0/24HGS	/	NWSI	PCN 3	DMSP				
47	0321192	20.5N 149.0E	SAT	113.5/4.5 /00.5/23HGS	/	NWSI	NOAA-4	(CONF 01)				
48	0401462	21.2N 148.9E	SAT	113.0/5.0 /01.0/24HGS	/	NWSI	PCN 2	DMSP				
49	0401462	21.2N 149.0E	P	10 5 700 240 80 150	60 80 150	60 459	273 15 10	CTHC	-	-	-	5
50	0401462	21.2N 148.9E	P	5 2 700 110 90 20	20 80 50	60 451	266 16 10	CTHP	N-S	38A1R		5

TYPHOON TESS
FIX POSITIONS FOR CYCLONE NO. 10
0000Z 02 SEP TO 0000Z 10 SEP

FIX NO.	TIME	OSIT	FIX ACCURACY	FIX ELT LVL	MAX OHS CAT NR-MET	MAX UHS LVL DIM VEL BRG RNG	OBS MIN SLP	FLY MGR T/L TO	EYE ORIENTATION	EYF FOHM TATIION	MOSIT OF RADAR	MSN NNNN
51	051004Z	21.8N 148.6E	SAT	10H DATA	1	P CN 1 DMSP						
52	051004Z	22.0N 148.2E	SAT	10H DATA	1	P CN 1 DMSP						
53	051012Z	21.9N 147.4E	SAT	10H DATA	1	P CN 2 DMSP						
54	051012Z	22.1N 147.9E	SAT	10H DATA	1	P CN 2 DMSP						
55	051052Z	22.5N 148.0E	SAT	10H DATA	1	NAAA-4 (CONF 01)						
56	051052Z	22.7N 147.8E	P	5 700 260 77 180 3E	-	-	V65	261 17 12	ELTP	N-S	26A1M	6
57	051052Z	23.5N 147.5E	SAT	10H DATA	1	P CN 1 DMSP						
58	051052Z	23.7N 147.3E	SAT	10H DATA	1	P CN 1 DMSP						
59	051052Z	23.5N 147.3E	SAT	10H DATA	1	P CN 1 DMSP						
60	051052Z	23.7N 147.0E	SAT	10H DATA	1	P CN 1 DMSP						
61	051052Z	23.7N 147.4E	SAT	10H DATA	1	P CN 1 DMSP						
62	051052Z	23.8N 147.5E	SAT	10H DATA	1	P CN 2 DMSP						
63	051052Z	24.5N 146.9E	SAT	10H DATA	1	P CN 1 DMSP						
64	051052Z	24.2N 147.0E	SAT	10H DATA	1	P CN 1 DMSP						
65	051052Z	24.3N 146.8E	SAT	10H DATA	1	P CN 3 DMSP						
66	051052Z	24.4N 146.6E	P	5 700 220 80 180 55	50 180	75	V47	263 18 15	CTMC	20		7
67	051052Z	25.0N 145.9E	P	2 5 700 20 70 240 47	35 290	47	V48	264 18 11	CTMC	30		7
68	051052Z	25.3N 146.0E	SAT	10H DATA	1	P CN 1 DMSP						
69	051052Z	25.4N 146.0E	SAT	10H DATA	1	P CN 1 DMSP						
70	051052Z	25.6N 145.9E	SAT	10H DATA	1	P CN 1 DMSP						
71	051104Z	26.0N 145.5E	P	5 3 700 290 70 180 70	-	-	V50	265 16 14	CTMC	40		8
72	051054Z	26.8N 145.5E	SAT	10H DATA	1	P CN 1 DMSP						
73	051054Z	26.5N 145.5E	SAT	10H DATA	1	P CN 1 DMSP						
74	051054Z	26.6N 145.4E	SAT	10H DATA	1	P CN 1 DMSP						
75	051054Z	26.8N 145.4E	SAT	10H DATA	1	P CN 1 DMSP						
76	051054Z	27.1N 145.7E	SAT	10H DATA	1	P CN 1 DMSP						
77	051054Z	27.1N 145.8E	SAT	10H DATA	1	P CN 1 DMSP						
78	051054Z	27.1N 144.5E	SAT	10H DATA	1	P CN 1 DMSP						
79	051052Z	27.4N 145.9E	P	5 10 700 270 80 180 50	55 180	45	V52	267 14 13	ELTP	E-W	55X45	9
80	051052Z	27.8N 145.9E	SAT	10H DATA	1	P CN 1 DMSP						
81	051102Z	27.9N 145.1E	SAT	10H DATA	1	P CN 1 DMSP						
82	051102Z	27.4N 145.0E	SAT	10H DATA	1	NAAA-4 (CONF 02)						
83	051102Z	27.1N 145.2E	SAT	10H DATA	1	P CN 1 DMSP						
84	051102Z	27.1N 145.2E	SAT	10H DATA	1	P CN 1 DMSP						
85	051102Z	27.0N 145.5E	P	5 2 700 270 85 180 60	-	-	V58	272 15 13	-	-	-	10
86	051042Z	27.0N 146.6E	SAT	10H DATA	1	P CN 1 DMSP						
87	051042Z	27.3N 146.0E	SAT	10H DATA	1	P CN 1 DMSP						
88	051042Z	27.8N 145.5E	SAT	10H DATA	1	P CN 1 DMSP						
89	051042Z	27.8N 145.6E	SAT	10H DATA	1	P CN 1 DMSP						
90	051042Z	27.8N 144.4E	SAT	10H DATA	1	P CN 3 DMSP						
91	051042Z	27.8N 145.7E	P	- 20 700 350 65 260 61	-	-	V69	282 17 15	-	-	-	11
92	051042Z	27.8N 146.2E	P	- 10 700 100 70 360 65	55 10 115	66	V66	279 16 14	-	-	-	11
93	051042Z	27.8N 146.3E	SAT	10H DATA	1	P CN 1 DMSP						
94	051042Z	27.8N 146.5E	SAT	10H DATA	1	P CN 3 DMSP						
95	051002Z	27.8N 146.5E	SAT	10H DATA	1	NAAA-4 (CONF 02)						
96	071127Z	28.0N 146.7E	SAT	10H DATA	1	P CN 3 DMSP						
97	071127Z	28.0N 146.6E	SAT	10H DATA	1	P CN 1 DMSP						
98	071127Z	28.0N 146.2E	P	3 5 700 290 65 180 50	-	-	V65	279 13 13	-	-	-	12
99	071127Z	28.0N 146.4E	SAT	10H DATA	1	P CN 1 DMSP						
100	072230Z	28.2N 146.5E	SAT	10H DATA	1	P CN 3 DMSP						
101	072237Z	28.0N 146.6E	SAT	10H DATA	1	P CN 3 DMSP						
102	072237Z	28.1N 146.8E	SAT	10H DATA	1	P CN 1 DMSP						
103	080213Z	28.4N 147.0E	SAT	10H DATA	1	P CN 4 DMSP						13
104	080213Z	28.4N 146.6E	P	5 10 700 - -	-	-	V55	250 130	V69	ZR2	14 12	-
105	080216Z	28.4N 147.2E	SAT	10H DATA	1	P CN 3 DMSP						
106	080216Z	28.4N 147.0E	SAT	10H DATA	1	P CN 3 DMSP						
107	080216Z	28.1N 147.1E	SAT	10H DATA	1	P CN 3 DMSP						
108	081109Z	28.4N 147.4E	SAT	10H DATA	1	P CN 3 DMSP						
109	081109Z	30.2N 147.2E	SAT	10H DATA	1	P CN 3 DMSP						
110	081109Z	30.2N 147.3E	SAT	10H DATA	1	P CN 3 DMSP						
111	081109Z	31.1N 147.2E	P	10 20 700 30 55 280 130	-	-	V73	285 15 14	-	-	-	14
112	082118Z	31.2N 147.8E	SAT	10H DATA	1	P CN 3 DMSP						
113	082118Z	31.2N 147.9E	SAT	10H DATA	1	P CN 4 DMSP						
114	082118Z	31.1N 147.7E	SAT	10H DATA	1	P CN 4 DMSP						
115	082202Z	31.1N 148.0E	SAT	10H DATA	1	P CN 3 DMSP						
116	082202Z	31.1N 148.0E	SAT	10H DATA	1	P CN 3 DMSP						
117	082202Z	31.3N 147.8E	SAT	10H DATA	1	P CN 3 DMSP						
118	090134Z	30.1N 151.3E	SAT	10H DATA	1	P CN 5 DMSP						
119	090134Z	32.2N 147.7E	P	2 5 700 320 50 260 00	-	-	V77	289 14 12	-	-	-	15
120	090134Z	34.2N 149.6E	SAT	10H DATA	1	P CN 6 DMSP						
121	090134Z	35.2N 150.1E	SAT	10H DATA	1	P CN 6 DMSP						
122	090459Z	34.2N 150.0E	SAT	10H DATA	1	NAAA-4 (CONF 01)						
123	091051Z	35.2N 150.7E	SAT	10H DATA	1	P CN 5 DMSP						
124	092052Z	37.2N 151.7E	SAT	10H DATA	1	P CN 5 DMSP						
125	092052Z	37.2N 151.0E	SAT	10H DATA	1	P CN 5 DMSP						
126	092102Z	36.2N 150.9E	SAT	10H DATA	1	P CN 5 DMSP						
127	092102Z	35.2N 150.4E	SAT	10H DATA	1	P CN 5 DMSP						
128	092151Z	37.2N 152.6E	SAT	10H DATA	1	P CN 5 DMSP						
129	092151Z	34.2N 152.6E	SAT	10H DATA	1	P CN 5 DMSP						
130	092202Z	36.2N 151.0E	SAT	10H DATA	1	NAAA-4 (CONF 01)						
131	100135Z	36.2N 152.6E	SAT	10H DATA	1	P CN 3 DMSP						

TROPICAL STORM VIOLA

FIX POSITIONS FOR CYCLONE NO. 11

0000Z 05 SEP TO 0000Z 07 SEP

FIX NO.	TIME	CONSET	FIX CAT	ACCHY	MAX OHS	MAX OBS	UBS	MIN	FLT	POSI	OF	MSN		
			NA-MET	LVL	DIR	VEL	BHG	RNG	SLP	TI/TD	FORM	TATI-	MADAK	
				LVL	VEL	BHG	RNG	VEL	MGT	TI/TD	EYE	URIEN-	EYE	
1	011136Z	13.2N 136.7E	SAT	(IR DATA)			PCN 6	DMS						
2	012143Z	13.7N 137.7E	SAT	(IR DATA)			PCN 5	DMS						
3	012736Z	13.9N 137.4E	SAT	(IR DATA /)	/ HRS)		PCN 5	DMS						
4	021928Z	14.1N 136.7E	SAT	(IR DATA)			PCN 5	DMS						
5	022131Z	12.7N 133.3E	SAT	(IR DATA)			PCN 6	DMS						
6	022159Z	13.2N 133.4E	SAT	(IR DATA /)	/ 25HRS)		PCN 5	DMS						
7	022159Z	14.2N 132.5E	SAT	(IR DATA /)	/ HRS)		PCN 5	DMS						
8	032119Z	13.7N 130.9E	SAT	(IR DATA /)	/ HRS)		PCN 5	DMS						
9	042120Z	15.4N 130.8E	SAT	(IR DATA /)	/ 21.0/24HRS)		PCN 3	DMS						
10	042122Z	15.0N 131.4E	SAT	(IR DATA /)	/ 25.5/26HRS)		PCN 3	DMS						
11	042122Z	14.7N 130.3E	SAT	(IR DATA /)	/ HRS)		PCN 5	DMS						
12	042123Z	14.6N 131.1E	SAT	(IR DATA /)	/ HRS)		PCN 3	DMS						
13	050108Z	15.0N 130.8E	SAT	(IR DATA)			PCN 3	DMS						
14	050108Z	15.1N 131.5E	SAT	(IR DATA /)	/ HRS)		PCN 3	DMS						
15	050109Z	15.2N 131.1E	SAT	(IR DATA)			PCN 3	DMS						
16	050109Z	15.0N 131.0E	SAT	(IR DATA)			PCN 5	DMS						
17	050152Z	15.8N 130.7E	SAT	(IR DATA)			PCN 5	DMS						
18	051104Z	15.2N 132.0E	SAT	(IR DATA)			PCN 5	DMS						
19	051104Z	16.0N 131.5E	SAT	(IR DATA)			PCN 5	DMS						
20	052115Z	16.0N 131.8E	P	5	2	700	170	40	30	60	40	30	CTHC	
21	052136Z	16.1N 132.8E	SAT	(IR DATA)			PCN 5	DMS					1	
22	052140Z	16.4N 131.7E	SAT	(IR DATA /)	/ 21.5/24HRS)		PCN 3	DMS						
23	052140Z	16.4N 132.0E	SAT	(IR DATA /)	/ 21.0/24HRS)		PCN 5	DMS						
24	060105Z	16.2N 131.6E	SAT	(IR DATA /)	/ 21.0/25HRS)		NOAA-4	(CONF 01)						
25	060105Z	16.2N 132.3E	P	3	2	700	330	40	26h	35	65	340	CTHC	
26	060150Z	16.4N 132.5E	SAT	(IR DATA)			PCN 3	DMS					1	
27	060150Z	16.4N 132.1E	SAT	(IR DATA)			PCN 5	DMS						
28	060150Z	16.2N 132.8E	SAT	(IR DATA /)	/ 21.5/24HRS)		PCN 4	DMS						
29	060103Z	17.9N 132.9E	P	10	5	700	180	40	27h	25	40	270	CTHC	
30	060402Z	16.7N 133.0E	SAT	(IR DATA)			PCN 3	DMS						
31	061159Z	19.2N 133.6E	SAT	(IR DATA)			NOAA-4	(CONF 02)						
32	061146Z	18.1N 133.1E	SAT	(IR DATA)			PCN 5	DMS						
33	061146Z	17.5N 133.2E	SAT	(IR DATA)			PCN 5	DMS						
34	061432Z	18.1N 133.3E	P	10	20	700	60	30	330	30	-	-	CTHC	
35	062124Z	19.1N 133.6E	SAT	(IR DATA)			PCN 5	DMS					2	
36	062246Z	19.1N 133.4E	SAT	(IR DATA /)	/ 22.0/24HRS)		PCN 5	DMS						
37	062246Z	19.1N 134.3E	SAT	(IR DATA /)	/ 24HRS)		PCN 5	DMS						
38	070231Z	19.4N 134.5E	SAT	(IR DATA)			PCN 5	DMS						
39	070231Z	20.2N 134.5E	SAT	(IR DATA)			PCN 3	DMS						
40	070231Z	20.2N 134.0E	SAT	(IR DATA /)	/ 21.5/24HRS)		PCN 6	DMS						
41	070222Z	19.2N 134.2E	P	3	6	700	-	-	-	-	25	310	60	-
42	070222Z	20.7N 137.4E	SAT	(IR DATA /)	/ 22.0/24HRS)		PCN 3	DMS			310	13	11	-
43	080231Z	21.1N 136.8E	SAT	(IR DATA /)	/ 21.0/24HRS)		PCN 6	DMS					3	

TYPHOON WINNIE

FIX POSITIONS FOR CYCLONE NO. 12

0000Z 09 SEP TO 0000Z 12 SEP

FIX NO.	TIME	CONSET	FIX CAT	ACCHY	MAX OHS	MAX OBS	UBS	MIN	FLT	POSI	OF	MSN	
			NA-MET	LVL	DIR	VEL	BHG	RNG	SLP	TI/TD	FORM	TATI-	MADAK
				LVL	VEL	BHG	RNG	VEL	MGT	TI/TD	EYE	URIEN-	EYE
1	050107Z	22.1N 161.7E	SAT	(IR DATA /)	/ HRS)		PCN 6	DMS					
2	072277Z	22.8N 163.1E	SAT	(IR DATA /)	/ HRS)		PCN 3	DMS					
3	080113Z	23.3N 163.0E	SAT	(IR DATA /)	/ HRS)		PCN 4	DMS					
4	080101Z	24.1N 162.9E	SAT	(IR DATA)			NOAA-4	(CONF 01)					
5	080101Z	24.1N 163.6E	SAT	(IR DATA)			PCN 5	DMS					
6	080105Z	24.1N 163.5E	SAT	(IR DATA)			PCN 5	DMS					
7	081109Z	24.1N 163.8E	SAT	(IR DATA)			PCN 5	DMS					
8	082118Z	25.1N 163.8E	SAT	(IR DATA)			PCN 5	DMS					
9	082118Z	24.9N 163.9E	SAT	(IR DATA)			PCN 6	DMS					
10	082209Z	25.1N 163.8E	SAT	(IR DATA /)	/ HRS)		PCN 3	DMS					
11	082209Z	25.1N 163.6E	SAT	(IR DATA /)	/ 21.0/24HRS)		PCN 3	DMS					
12	090114Z	26.1N 164.3E	SAT	(IR DATA)			PCN 4	DMS					
13	090114Z	26.1N 163.9E	SAT	(IR DATA)			PCN 4	DMS					
14	090103Z	27.1N 163.7E	SAT	(IR DATA)			PCN 6	DMS					
15	090103Z	28.0N 163.9E	SAT	(IR DATA)			PCN 4	DMS					
16	090103Z	27.1N 163.9E	SAT	(IR DATA)			PCN 6	DMS					
17	090106Z	27.1N 164.5E	SAT	(IR DATA)			NOAA-4	(CONF 01)					
18	091106Z	27.1N 164.0E	SAT	(IR DATA)			PCN 4	DMS					
19	091101Z	24.6N 163.8E	SAT	(IR DATA)			PCN 4	DMS					
20	092106Z	29.1N 162.7E	SAT	(IR DATA)			PCN 4	DMS					
21	092106Z	29.1N 163.2E	SAT	(IR DATA)			PCN 4	DMS					
22	092112Z	29.4N 162.9E	SAT	(IR DATA /)	/ 24HRS)		PCN 1	DMS					
23	092112Z	29.4N 163.0E	SAT	(IR DATA /)	/ 24HRS)		PCN 3	DMS					
24	092151Z	29.4N 163.2E	SAT	(IR DATA /)	/ 24HRS)		PCN 1	DMS					
25	100105Z	30.1N 163.0E	SAT	(IR DATA /)	/ HRS)		PCN 4	DMS					
26	100105Z	32.1N 163.0E	SAT	(IR DATA)			PCN 4	DMS					
27	100105Z	28.1N 163.5E	SAT	(IR DATA)			NOAA-4	(CONF 01)					
28	101102Z	31.1N 162.7E	SAT	(IR DATA)			PCN 3	DMS					
29	101102Z	32.1N 162.9E	SAT	(IR DATA)			PCN 4	DMS					
30	102132Z	34.1N 162.3E	SAT	(IR DATA /)	/ 24HRS)		PCN 1	DMS					
31	102132Z	33.4N 162.7E	SAT	(IR DATA /)	/ 24HRS)		PCN 3	DMS					
32	110117Z	35.1N 163.4E	SAT	(IR DATA /)	/ 24HRS)		PCN 2	DMS					
33	111102Z	34.1N 164.0E	SAT	(IR DATA /)	/ 24HRS)		PCN 2	DMS					
34	112114Z	42.1N 164.4E	SAT	(IR DATA /)	/ 24HRS)		PCN 3	DMS					

TYPHON ALICE
FIX POSITIONS FOR CYCLONE NO. 13
0000Z 16 SEP TO 0600Z 20 SEP

EXHIBIT N - METT
FIX POSITIONS FOR CYCLONE NO. 14
0600Z 17 SEP TO 1200Z 23 SEP

TYPHON PETTY

FIX POSITIONS FOR CYCLONE NO. 14
0600Z 17 SEP TO 1200Z 23 SEP

FIX NO.	TIME	LAT	LONG	CAT	A-CBT	FIX	FLT	LVI	XTRD	SEC WIND	MIN	ZDUMH	LVI	FYT	ORIEN-	EYF	POSIT	OF	MSH	
																				MAX UDS	MAX UDS	UBS	MIN	FLT	MGT	T/T	FORM	TATION	DIA	NADAK	NMHK
92	211000Z	22.1N	125.9E	LHDH	-	22013											24.0N 125.3E			
93	211002	22.1N	125.4E	LHDH	-	051/3											24.0N 125.3E			
94	211002	22.1N	125.6E	LHDH	2	5 700	220	70	160	30	-	-	452	267	17 13	CIMC	20	24.0N 125.3E	11	
95	211002	22.1N	125.9E	LHDH	-	251/3											24.0N 125.3E			
96	211002	22.1N	125.9E	LHDH	-	577/2											24.0N 124.3E			
97	211002	22.1N	125.0E	LHDH	-	577/4											24.0N 124.3E			
98	211002	22.1N	125.1E	LHDH	-	21613											24.0N 125.3E			
99	211002	22.1N	125.9E	LHDH	-	577/2											24.0N 124.3E			
100	211002	22.1N	125.9E	LHDH	-	41613											24.0N 125.3E			
101	211002	22.1N	125.5E	LHDH	-	677/2											24.0N 124.3E			
102	211002	22.1N	124.7E	LHDH	-	41613											24.0N 125.3E			
103	211002	22.1N	124.9E	LHDH	-	577/6											24.0N 124.3E			
104	211002	22.1N	124.5E	LHDH	-	41613											24.0N 125.3E			
105	210002	22.1N	124.3E	LHDH	-	51453											24.0N 125.3E			
106	210002	22.1N	124.1E	LHDH	P 10	2 700	300	70	220	30	-	-	450	266	18 15	CIMC	15	24.0N 121.0E	12	
107	210002	22.1N	124.3E	LHDH	-	557/3											24.0N 125.3E			
108	210002	22.1N	124.2E	LHDH	-	359/3											24.0N 121.0E			
109	210002	22.1N	125.7E	SAT	(T5.0/2.0-7)	(23451)	PCN 2	DMSP												
110	210002	22.1N	125.8E	SAT	(TH DATA)	PCN 1	DMSP												
111	210002	22.1N	124.0E	SAT	(T5.0/2.0-7)	(23451)	PCN 1	DMSP												
112	210002	22.1N	125.7E	LHDH	-	557/3											24.0N 124.3E			
113	210002	22.1N	125.7E	LHDH	-	10413											24.0N 125.3E			
114	210002	22.1N	125.6E	SAT	(TH DATA)	PCN 1	DMSP												
115	210002	22.1N	125.5E	SAT	(T5.0/2.0-7)	(24451)	PCN 1	DMSP												
116	210002	22.1N	125.7E	SAT	(TH DATA)	PCN 1	DMSP												
117	210002	22.1N	125.5E	SAT	(TH DATA)	PCN 1	DMSP												
118	200002	22.1N	124.2E	LHDH	-	577/3											24.0N 121.0E			
119	200002	22.1N	125.0E	LHDH	-	557/2											24.0N 124.3E			
120	200002	22.1N	124.2E	LHDH	-	20903											24.0N 124.3E			
121	200002	22.1N	124.0E	LHDH	-	577/2											24.0N 125.3E			
122	200002	22.1N	123.1E	LHDH	-	10412											24.0N 125.3E			
123	200002	22.1N	125.5E	LHDH	P 3	2 700	100	110	330	6n	80	330	15	444	260	20 12	CIMC	15	24.0N 121.0E	12
124	200002	22.1N	122.9E	LHDH	-	77/2											24.0N 124.3E			
125	200002	22.1N	122.9E	LHDH	-	10413											24.0N 125.3E			
126	200002	22.1N	122.8E	LHDH	-	10422											24.0N 121.0E			
127	200002	22.1N	122.9E	LHDH	-	77/2											24.0N 124.3E			
128	200002	22.1N	122.9E	LHDH	-	10414											24.0N 125.3E			
129	200002	22.1N	122.5E	SAT	(TH DATA)	PCN 1	DMSP										24.0N 121.0E		
130	200002	22.1N	123.2E	SAT	(T6.0/2.0-7)	(24451)	PCN 1	DMSP										24.0N 124.3E		
131	200002	22.1N	122.7E	LHDH	-	10412											24.0N 121.0E			
132	200002	22.1N	122.5E	LHDH	-	10432											24.0N 124.3E			
133	200002	22.1N	122.2E	LHDH	-	20442											24.0N 121.0E			
134	200002	22.1N	122.8E	LHDH	-	19434											24.0N 124.3E			
135	200002	22.1N	121.8E	LHDH	-	677/2											24.0N 121.0E			
136	200002	22.1N	121.9E	LHDH	-	677/7											24.0N 124.3E			
137	200002	22.1N	121.6E	LHDH	-	577/3											24.0N 121.0E			
138	200002	22.1N	121.5E	LHDH	-	577/3											24.0N 124.3E			
139	200002	22.1N	121.3E	LHDH	-	136/7											24.0N 124.3E			
140	211002	22.1N	120.7E	SAT	(TH DATA)	PCN 5	DMSP										24.0N 120.3E		
141	211002	22.1N	120.1E	SAT	(TH DATA)	PCN 6	DMSP										24.0N 120.3E		
142	211002	22.1N	120.1E	LHDH	-	25//											24.0N 120.3E			
143	211002	22.1N	120.0E	LHDH	-	56//											24.0N 120.3E			
144	211002	22.1N	119.8E	LHDH	-	56//											24.0N 120.3E			
145	211002	22.1N	119.6E	LHDH	-	56//											24.0N 120.3E			
146	211002	22.1N	119.6E	LHDH	-	56//											24.0N 120.3E			
147	211002	22.1N	119.3E	LHDH	-	55//											24.0N 120.3E			
148	222342	23.1N	118.5E	SAT	(T3.5/4.5-#1.5/24HRS)		PCN 5	DMSP									22.0N 120.3E			
149	222352	22.1N	118.9E	SAT	(T3.0/4.0-#2.0/23HRS)		PCN 5	DMSP									22.0N 120.3E			
150	222352	22.1N	118.8E	SAT	(TH DATA	)	PCN 5	DMSP									22.0N 120.3E		
151	222352	22.1N	119.2E	LHDH	-	56//											22.0N 120.3E			
152	230402	23.1N	118.8E	SAT	(T3.5/4.5-#1.5/26HRS)		PCN 3	DMSP									22.0N 120.3E			
153	230402	23.1N	118.4E	LHDH	-	56//											22.0N 120.3E			
154	230412	23.1N	118.0E	SAT	(TH DATA	)	PCN 3	DMSP									22.0N 120.3E		
155	230412	23.1N	118.3E	SAT	(T4.0/5.0-#2.0/24HRS)		PCN 3	DMSP									22.0N 120.3E			
156	230402	23.1N	118.2E	LHDH	-	56//											22.0N 120.3E			
157	230402	23.1N	118.0E	LHDH	-	56//											22.0N 120.3E			
158	2311202	23.1N	118.8E	SAT	(TH DATA	)	PCN 5	DMSP									22.0N 120.3E		
159	2311202	23.1N	118.2E	SAT	(TH DATA	)	PCN 5	DMSP									22.0N 120.3E		
160	2404192	23.1N	113.3E	SAT	(TH DATA	)	PCN 5	DMSP									22.0N 120.3E		

TYPHOON CORA															
FIX POSITIONS FOR CYCLONE NO. 15															
0600Z 01 OCT TO 0600Z 06 OCT															
FIX NO.	TIME	POSITION	FIX CAT NBR-MET	MAX DIR VEL	MAX VEL HNG	MAX SFC WIND	MAX WIND	OBJS	MIN 700MB SLP	LVL MGT	FLT TI/TD	EYE	UNIDEN- TION	POSIT OF RADAR	MSN NMHR
1	282408Z	10.2N 140.8E	SAT	(T1.0/1.0	/	HWS)	)	PCN 5	DMSP						
2	291008Z	10.2N 141.7E	SAT	(IN DATA			)	PCN 5	DMSP						
3	291108Z	10.2N 141.7E	SAT	(IN DATA			)	PCN 5	DMSP						
4	291130Z	10.2N 141.6E	SAT	(IN DATA			)	PCN 6	DMSP						
5	291130Z	10.2N 142.0E	SAT	(IN DATA			)	PCN 5	DMSP						
6	292110Z	10.0N 136.9E	SAT	(IN DATA			)	PCN 6	DMSP						
7	300111Z	9.1N 136.5E	SAT	(T1.0/1.0	/	725HRS)	)	PCN 5	DMSP						
8	300111Z	9.1N 136.6E	SAT	(T1.0/1.0	/	HRS)	)	PCN 5	DMSP						
9	300150Z	10.4N 136.6E	SAT	(IN DATA			)	PCN 5	DMSP						
10	300150Z	10.2N 136.6E	SAT	(IN DATA			)	PCN 5	DMSP						
11	301111Z	10.5N 136.3E	SAT	(IN DATA			)	PCN 5	DMSP						
12	301111Z	10.5N 137.0E	SAT	(IN DATA			)	PCN 6	DMSP						
13	302240Z	12.1N 133.6E	SAT	(IN DATA			)	PCN 5	DMSP						
14	302353Z	13.0N 133.9E	SAT	(T2.5/2.5	/	701.5/24HRS)	)	PCN 5	DMSP						
15	302353Z	13.0N 133.9E	SAT	(T2.0/2.0	/	701.0/24HRS)	)	PCN 5	DMSP						
16	010512Z	14.0N 134.0E	SAT	(IN DATA			)	PCN 5	DMSP						
17	010407Z	13.8N 133.3E	P	5 15 1500	180	34 250	75	35 250	100	1001	-	23 23	-	-	2
18	010408Z	14.0N 134.0E	SAT	(IN DATA			)	PCN 5	DMSP						
19	010431Z	14.2N 134.4E	P	5 10 700	40	28 310	150	20 310	200	999	308	11 10	-	-	2
20	010443Z	14.6N 132.9E	SAT	(IN DATA			)	PCN 5	DMSP						
21	010443Z	15.2N 135.2E	SAT	(IN DATA			)	PCN 5	DMSP						
22	011058Z	13.8N 134.4E	SAT	(IN DATA			)	NOAA-4							
23	011238Z	15.1N 133.4E	SAT	(IN DATA			)	PCN 5	DMSP						
24	011238Z	15.5N 133.2E	SAT	(IN DATA			)	PCN 5	DMSP						
25	011238Z	15.7N 134.2E	SAT	(IN DATA			)	PCN 6	DMSP						
26	011552Z	15.6N 132.4E	P	5 20 700	170	35 110	170	-	-	1001	309	11 11	-	-	3
27	012052Z	16.8N 131.8E	P	5 10 700	330	22 250	25	-	-	308	11 10	-	-	-	3
28	012228Z	16.9N 132.0E	SAT	(IN DATA			)	PCN 5	DMSP						
29	012311Z	17.2N 132.7E	SAT	(T3.0/3.0	/	701.5/23HRS)	)	NOAA-4							
30	012352Z	17.5N 132.2E	SAT	(T3.0/3.0	/	700.5/24HRS)	)	PCN 5	DMSP						
31	012352Z	17.6N 132.6E	SAT	(T3.0/3.0	/	701.0/24HRS)	)	PCN 3	DMSP						
32	012352Z	17.7N 132.4E	SAT	(T2.0/2.0	/	HRS)	)	PCN 5	DMSP						
33	020132Z	18.8N 131.8E	SAT	(IN DATA			)	PCN 3	DMSP						
34	020132Z	18.7N 132.2E	SAT	(IN DATA			)	PCN 3	DMSP						
35	020132Z	18.9N 132.1E	SAT	(T2.5/2.5	/	701.0/24HRS)	)	PCN 4	DMSP						
36	020410Z	14.9N 131.6E	P	5 2 700	170	45 70	20	20 35	320	15	997	306	14 11	-	4
37	021113Z	20.5N 131.0E	SAT	(IN DATA			)	PCN 5	DMSP						
38	021113Z	19.2N 131.5E	SAT	(IN DATA			)	PCN 5	DMSP						
39	021116Z	20.5N 131.6E	SAT	(IN DATA			)	PCN 5	DMSP						
40	021116Z	20.2N 131.4E	SAT	(IN DATA			)	PCN 5	DMSP						
41	021430Z	20.0N 130.7E	P	5 5 700	130	48 50	60	-	-	-	309	15 10	-	-	4
42	022216Z	21.7N 129.6E	SAT	(IN DATA			)	PCN 3	DMSP						
43	022216Z	21.3N 129.7E	SAT	(IN DATA			)	PCN 3	DMSP						
44	022416Z	21.7N 129.3E	SAT	(T4.0/4.0	/	701.0/24HRS)	)	PCN 3	DMSP						
45	022516Z	21.5N 129.7E	SAT	(T4.0/4.0	/	701.0/24HRS)	)	PCN 3	DMSP						
46	030104Z	21.4N 129.1E	SAT	(T4.0/4.0	/	701.0/24HRS)	)	NOAA-4							
47	030158Z	22.1N 129.5E	SAT	(IN DATA			)	PCN 3	DMSP						
48	030259Z	22.3N 129.5E	SAT	(IN DATA			)	PCN 3	DMSP						
49	030259Z	22.3N 128.9E	SAT	(T3.0/3.0	/	701.0/24HRS)	)	PCN 4	DMSP						
50	031044Z	22.4N 129.4E	P	5 5 700	200	80 120	7	70 140	8	977	289	17 12	CIMC	25	6
51	031040Z	23.1N 129.3E	P	5 3 700	30	90 340	34	80 330	30	966	279	16 10	CIMC	20	6
52	031100Z	23.0N 129.3E	LEDR	- 20402											26.1N 127.8E
53	031101Z	23.7N 129.6E	SAT	(IN DATA			)	PCN 3	DMSP						
54	031101Z	23.5N 129.3E	SAT	(IN DATA			)	PCN 3	DMSP						
55	031101Z	23.6N 129.4E	SAT	(IN DATA			)	PCN 1	DMSP						
56	031150Z	23.8N 129.4E	SAT	(IN DATA			)	PCN 3	DMSP						
57	031150Z	23.8N 129.0E	SAT	(IN DATA			)	PCN 3	DMSP						
58	031150Z	23.9N 129.3E	SAT	(IN DATA			)	PCN 3	DMSP						
59	031100Z	23.7N 129.2E	LEDR	- 12912											
60	031100Z	23.4N 129.2E	LEDR	- 22912											
61	031100Z	23.4N 129.2E	LEDR	- 52912											
62	031454Z	24.4N 129.2E	P	7 5 700	220	90 140	25	-	-	966	279	17 14	ELIP SW-NE 25X15		7
63	031500Z	24.1N 129.2E	LEDR	- 52912											
64	031500Z	24.3N 129.2E	LEDR	- 20412											
65	031700Z	24.6N 129.2E	LEDR	- 20412											
66	031700Z	24.1N 129.3E	LEDR	- 20412											
67	031700Z	24.8N 129.3E	LEDR	- 20412											
68	032030Z	25.1N 129.3E	P	5 5 700	-	-	-	-	-	948	264	20 15	CIMC	20	8
69	032100Z	25.4N 129.4E	LEDR	- 20412											
70	032200Z	25.6N 129.5E	LEDR	- 20412											
71	032200Z	25.8N 129.5E	SAT	(IN DATA			)	PCN 2	DMSP						
72	032200Z	25.1N 129.7E	SAT	(IN DATA			)	PCN 1	DMSP						
73	032200Z	25.4N 129.5E	SAT	(IN DATA			)	PCN 1	DMSP						
74	032257Z	25.1N 129.6E	SAT	(T5.0/5.0	/	701.0/24HRS)	)	PCN 1	DMSP						
75	032257Z	25.2N 129.6E	SAT	(T5.0/5.0	/	701.0/24HRS)	)	PCN 2	DMSP						
76	032257Z	25.2N 129.7E	SAT	(T5.0/5.0	/	701.0/24HRS)	)	PCN 1	DMSP						
77	032400Z	25.9N 129.5E	LEDR	- 20412											
78	032400Z	25.4N 129.5E	LEDR	- 52912											
79	040100Z	26.1N 129.7E	LEDR	- 20432											
80	040100Z	26.3N 129.7E	LEDR	- 50772											
81	040100Z	26.4N 129.9E	LEDR	- 20714											
82	040100Z	26.5N 129.8E	LEDR	- 21672											
83	040304Z	26.4N 129.4E	SAT	(IN DATA			)	PCN 1	DMSP						
84	040436Z	26.6N 129.8E	SAT	(IN DATA			)	PCN 1	DMSP						
85	040500Z	26.8N 130.0E	LEDR	- 20814											
86	040500Z	26.1N 130.0E	LEDR	- 21932											
87	040534Z	26.1N 130.1E	P	1 1 700	310	115 230	10	110 230	10	945	261	17 11	CIMC	25	4
88	040400Z	27.1N 130.1E	LEDR	- 20113											
89	040400Z	27.1N 130.0E	LEDR	- 21912											
90	040434Z	27.1N 130.0E	SAT	(IN DATA			)	PCN 1	DMSP						

TYPHON CORA
FTA POSITIONS FOR CYCLONE NO. 15
0600Z 01 OCT TO 0400Z 06 OCT

FIX NO.	TIME	CONSET	FIX CAT	ANCHY LAT	MAX OHS LVL	FLT LVL	WIND	SEC WIND	SLP	MIN HGT	FLT LVL	WIND	UNDEF TATI	EYE TATI	EYE DIA	POSIT OF KRAK NMRK
91	040500Z	27.8N 130.2E	LDRN	-	21882											28.1N 127.8E
92	040500Z	27.8N 130.5E	LDRN	-	22932											28.1N 129.5E
93	040700Z	27.8N 130.6E	LDRN	-	22942											28.1N 129.5E
94	040700Z	28.1N 130.8E	LDRN	-	22773											30.6N 131.0E
95	040700Z	28.1N 130.8E	LDRN	-	22942											28.1N 129.5E
96	040700Z	28.1N 130.8E	LDRN	-	51883											30.6N 131.0E
97	040900Z	28.1N 131.0E	LDRN	-	22912											28.1N 129.5E
98	041000Z	28.1N 131.0E	LDRN	-	32944											30.6N 131.0E
99	041000Z	28.1N 131.1E	LDRN	-	22912											28.1N 129.5E
100	041049Z	28.1N 131.1E	SAT	(TR DATA)												
101	041149Z	28.1N 131.3E	SAT	(TR DATA)												
102	041149Z	28.1N 131.5E	SAT	(TR DATA)												28.1N 129.5E
103	041100Z	28.1N 131.5E	LDRN	-	21912											30.6N 131.0E
104	041100Z	28.1N 131.5E	LDRN	-	55744											
105	041100Z	28.1N 131.5E	SAT	(TR DATA)												
106	041100Z	28.1N 131.5E	LDRN	-	55772											28.1N 129.5E
107	041100Z	28.1N 131.5E	LDRN	-	55713											30.6N 131.0E
108	041100Z	28.1N 131.5E	LDRN	-	55772											28.1N 129.5E
109	041100Z	28.1N 131.5E	LDRN	-	55713											30.6N 131.0E
110	041100Z	28.1N 131.5E	SAT	(TR DATA)												
111	041100Z	28.1N 132.1E	LDRN	-	55772											28.1N 129.5E
112	041400Z	28.1N 132.4E	LDRN	-	55713											30.6N 131.0E
113	041500Z	28.1N 132.5E	LDRN	-	55772											28.1N 129.5E
114	041500Z	28.1N 132.5E	LDRN	-	55713											30.6N 131.0E
115	041500Z	28.1N 132.5E	P	7	5 700	280 105 180 27	-	-	-	946	260	15 11	CTHC	14		10
116	041500Z	28.1N 132.4E	LDRN	-	55713											30.6N 131.0E
117	041500Z	28.1N 132.4E	LDRN	-	55772											28.1N 129.5E
118	041500Z	30.5N 133.5E	LDRN	-	55713											30.6N 131.0E
119	042000Z	30.5N 133.9E	LDRN	-	55815											
120	042100Z	30.5N 134.4E	P	5	3 700	140 85 20 25	-	-	-	943	259	16 10	CTHC	15		10
121	042100Z	30.5N 134.4E	LDRN	-	50816											30.6N 131.0E
122	042100Z	30.5N 134.4E	LDRN	-	50912											33.3N 134.2E
123	042152Z	31.0N 136.9E	SAT	(TR DATA)												
124	042152Z	31.0N 136.9E	SAT	(TR DATA)												
125	042152Z	31.0N 136.9E	SAT	(TS+0%+0% / 24HRS)												
126	042200Z	31.0N 136.9E	LDRN	-	10822											33.3N 134.2E
127	042200Z	31.0N 136.9E	LDRN	-	55742											30.6N 131.0E
128	042200Z	31.0N 136.9E	SAT	(TS+0%+0% / 01.0/24HRS)												
129	042200Z	31.0N 136.9E	SAT	(TS+0%+0% / 02.0/24HRS)												
130	042200Z	31.0N 136.9E	SAT	(TR DATA)												
131	042200Z	31.0N 136.9E	LDRN	-	10932											
132	042200Z	31.0N 136.9E	LDRN	-	10932											
133	050000Z	31.6N 135.5E	LDRN	-	10932											
134	050100Z	32.6N 136.1E	LDRN	-	10932											
135	050200Z	32.1N 136.7E	LDRN	-	20912											
136	050200Z	32.1N 136.7E	LDRN	-	10942											
137	050217Z	32.1N 136.8E	SAT	(TR DATA)												
138	050217Z	32.1N 136.8E	SAT	(TR DATA)												
139	050217Z	32.1N 136.8E	LDRN	-	10912											
140	050200Z	32.1N 137.2E	LDRN	-	11912											
141	050200Z	32.1N 137.4E	P	5	5 700	340 100 240 35	120 140 10	946	262	20 13	CTHC	30		11		
142	050400Z	32.6N 137.5E	LDRN	-	10912											
143	050400Z	32.6N 137.6E	LDRN	-	11882											
144	050500Z	32.1N 138.3E	LDRN	-	10872											
145	050500Z	32.1N 138.8E	LDRN	-	11911											
146	050700Z	33.3N 139.3E	LDRN	-	12911											
147	050855Z	33.7N 140.6E	P	1	2 700	360 100 300 18	-	-	-	946	263	18 12	CTHC	20		12
148	050900Z	33.5N 140.7E	LDRN	-	11912											
149	051037Z	34.0N 141.6E	SAT	(TR DATA)												
150	051121Z	34.1N 142.1E	SAT	(TR DATA)												
151	051121Z	34.1N 142.1E	SAT	(TR DATA)												
152	051200Z	34.3N 142.5E	LDRN	-	20941											
153	051410Z	34.7N 143.8E	P	1	2 700	210 110 130 12	-	-	-	953	268	20 16	CTHC	15		12
154	052212Z	35.1N 149.8E	SAT	(TS+0%+0% / #2.0/24HRS)												
155	052212Z	35.1N 151.0E	SAT	(TS+0%+0% / #2.0/24HRS)												
156	052212Z	35.1N 149.8E	SAT	(TS+0%+0% / #2.0/24HRS)												

TROPICAL STORM DOMIS														POSIT OF RADAR	MSN NMRR					
FIX NO.	TIME	POSITION	FIX CAT	ACCRY	MAX OHS MET	FIX LVL	FLT LVI WIND	SFC WIND	MAX OHS	UBS	MIN	SLP	MGT	FIT	EYR	UNIEN-	EYE			
																TATION	DIA			
1	011239Z	9.8N 117.2E	SAT	(IR DATA	)	PCN 5	DMS												
2	022158Z	10.4N 116.8E	SAT	(IR DATA	/ / HRS)	PCN 5	DMS													
3	030057Z	10.4N 111.4E	SAT	(IR DATA	/ / HRS)	PCN 5	DMS													
*	030057Z	10.5N 111.9E	SAT	(IR DATA	/ / HRS)	PCN 3	DMS													
5	030436Z	10.6N 112.2E	SAT	(IR DATA	)	PCN 5	DMS												
6	031101Z	10.6N 112.8E	SAT	(IR DATA	)	PCN 5	DMS												
7	031139Z	10.6N 111.0E	SAT	(IR DATA	)	PCN 5	DMS												
8	031139Z	10.6N 112.2E	SAT	(IR DATA	)	PCN 5	DMS												
9	032156Z	10.6N 111.1E	SAT	(IR DATA	)	PCN 6	DMS												
10	032156Z	10.6N 111.6E	SAT	(T2+5/24S /W1.5/22HRS)		PCN 6	DMS													
11	040039Z	10.6N 113.3E	SAT	(T2+0/2.0 /W2.0/25HRS)		PCN 3	DMS													
12	040039Z	10.6N 111.4E	SAT	(IR DATA	)	PCN 4	DMS												
13	040417Z	10.6N 111.7E	SAT	(IR DATA	)	PCN 3	DMS												
14	041320Z	10.6N 112.0E	SAT	(IR DATA	)	PCN 5	DMS												
15	041320Z	10.6N 111.3E	SAT	(IR DATA	)	PCN 6	DMS												
16	042334Z	10.6N 112.7E	SAT	(IR DATA	)	PCN 5	DMS												
17	042334Z	10.6N 112.0E	SAT	(T2+0/3.0 /W0.5/24HRS)		PCN 4	DMS													
18	050020Z	10.6N 112.8E	SAT	(13+0/3.0 / / HRS)		PCN 5	DMS													
19	050020Z	10.6N 112.6E	SAT	(13+5/3.5 /W1.5/24HRS)		PCN 3	DMS													
20	050458Z	10.6N 112.7E	SAT	(IR DATA	)	PCN 5	DMS												
21	050459Z	10.6N 112.7E	SAT	(IR DATA	)	PCN 3	DMS												
22	051200Z	20.6N 112.3E	LRNR	- 109/													22.3N 114.2E			
23	051219Z	20.8N 112.6E	SAT	(IR DATA	)	PCN 5	DMS											22.3N 114.2E	
24	051300Z	20.8N 112.4E	LRNR	- 119/													22.3N 114.2E			
25	051302Z	20.7N 112.8E	SAT	(IR DATA)	PCN 5	DMS													
26	051302Z	20.6N 112.7E	SAT	(IR DATA)	PCN 5	DMS													
27	051400Z	21.0N 112.4E	LRNR	- 109/													22.3N 114.2E			
28	051500Z	21.2N 112.4E	LRNR	- 119/													22.3N 114.2E			
29	051900Z	22.0N 112.6E	LRNR	- 109/													22.3N 114.2E			
30	051940Z	23.4N 112.6E	SAT	(T4+0/4.0 /D2.0/24HRS)		PCN 4	DMS													
31	052000Z	22.2N 112.7E	LRNR	- 107/													22.3N 114.2E			
32	052100Z	22.4N 112.7E	LRNR	- 105/													22.3N 114.2E			
33	052100Z	22.8N 112.8E	LRNR	- 250/													22.3N 114.2E			
34	052422Z	22.5N 113.0E	SAT	(IR DATA	)	PCN 5	DMS												
35	060022Z	22.4N 112.9E	SAT	(T3+0/3.0 /S /20HRS)		PCN 3	DMS													
36	060022Z	22.4N 113.0E	SAT	(T3+0/3.0 /W0.5/24HRS)		PCN 5	DMS													
37	061339Z	23.4N 113.0E	SAT	(IR DATA	)	PCN 3	DMS												
38	061442Z	25.2N 115.1E	SAT	(IR DATA	)	PCN 5	DMS												

TYPHOON ELITE														POSIT OF RADAR	MSN NMRR					
FIX NO.	TIME	POSITION	FIX CAT	ACCRY	MAX OHS MET	FIX LVL	FLT LVI WIND	SFC WIND	MAX OHS	UBS	MIN	SLP	MGT	FIT	EYR	UNIEN-	EYE			
																TATION	DIA			
1	062344Z	7.7N 145.3E	SAT	(T 0/1.0 / / HRS)		PCN 5	DMS													
2	072116Z	8.3N 142.6E	SAT	(IR DATA	)	PCN 6	DMS													
3	072326Z	10.7N 141.8E	SAT	(T1+0/1.0 /D1.0/24HRS)		PCN 5	DMS													
*	072326Z	9.0N 143.6E	SAT	(T 0/1.0 / / HRS)		PCN 5	DMS													
5	081001Z	10.7N 141.5E	SAT	(IR DATA	)	PCN 5	DMS													
6	081001Z	10.6N 141.6E	SAT	(IR DATA	)	PCN 5	DMS													
7	081207Z	10.6N 141.3E	SAT	(IR DATA	)	PCN 5	DMS													
8	081207Z	10.6N 141.3E	SAT	(IR DATA	)	PCN 5	DMS													
9	082104Z	12.1N 136.4E	SAT	(IR DATA	)	PCN 5	DMS													
10	082104Z	11.0N 139.0E	SAT	(T1+0/1.0 / / HRS)		PCN 6	DMS													
11	082449Z	12.8N 138.4E	P	3 5 1500 170 35 100	210 35 150 140 1003	- 24 24	- - - -												1	
12	082307Z	12.8N 138.5E	SAT	(T1+0/1.0 /S /24HRS)		PCN 5	DMS													
13	082307Z	12.8N 138.5E	SAT	(T1+0/1.0 /D1.0/24HRS)		PCN 5	DMS													
14	090230Z	12.0N 136.5E	P	2 10 700 130 35 30	120 40 60 120 1001	309 11 8	- - - -													
15	090244Z	13.1N 137.9E	SAT	(IR DATA	)	PCN 5	DMS													
16	090249Z	13.1N 135.4E	P	12 10 700 160 35 60	110 35 60 100 499	308 13 12	- - - -												2	
17	090449Z	13.1N 136.9E	SAT	(IR DATA	)	PCN 5	DMS													
18	090449Z	13.1N 135.4E	SAT	(IR DATA	)	PCN 5	DMS													
19	091036Z	15.9N 135.5E	SAT	(IR DATA	)	NOAA-4	(CONF 02)													
20	091149Z	14.2N 135.5E	SAT	(IR DATA	)	PCN 5	DMS													
21	091149Z	13.1N 135.8E	SAT	(IR DATA	)	PCN 5	DMS													
22	091507Z	16.1N 133.4E	P	10 3 700 320 40 240	75 - - - 999	308 13 9	- - - -												3	
23	092158Z	16.0N 134.0E	SAT	(P 3 5 700 140 60 60	5 70 60 5 991	301 14 11	CIRCU													
24	092233Z	15.1N 133.3E	SAT	(IR DATA	)	PCN 5	DMS													
25	092234Z	16.1N 133.3E	SAT	(T3+0/3.0 /D2.0/24HRS)		PCN 3	DMS													
26	092249Z	16.1N 133.3E	SAT	(IR DATA	)	PCN 3	DMS													
27	092349Z	15.9N 133.3E	SAT	(T3.5/3.5 / / HRS)		PCN 3	DMS													
28	092449Z	16.1N 133.4E	SAT	(T3+0/3.0 /D2.0/24HRS)		PCN 3	DMS													
29	100045Z	16.1N 132.9E	SAT	(T2.5/2.5 / / HRS)		PCN 5	DMS													
30	100045Z	16.1N 133.3E	SAT	(T3+0/3.0 /D2.0/24HRS)		NOAA-4	(CONF 01)													
31	100302Z	16.1N 132.8E	P	3 5 700 160 45 30	15 70 30 15 484	300 14 10	ELTP SE-NW 15X10</													

TYPHON ELSIE
FIX POSITIONS FOR CYCLONE NO. 17
0000Z 09 OCT TO 0000Z 15 OCT

TROPICAL DEPRESSION 18
FIX POSITIONS FOR CYCLONE NO. 18
0600Z 15 OCT TO 0600Z 17 OCT

FIX NO.	TIME	POSIT LAT N/A-S	FIX ACHTY CAT NA-MET	FIX FLT LVL DIR VEL HGT HNG	MAX OHS SLP	MAX OHS SLP	OBS	MIN	FILT	POSI TATI ON	EYE	ORIENT	EYE	OF RADAR	MSH NMNH
1	132517Z	11.4N 144.5E	SAT	/T 0/1.0 / / HESI	PCN 5	DMSP									
2	140522Z	11.4N 144.4E	SAT	/TH DATA	)	PCN 5	DMSP								
3	141159Z	12.-N 141.4E	SAT	/TH DATA	)	PCN 5	DMSP								
4	142133Z	13.-N 139.4E	SAT	/TH DATA	)	PCN 5	DMSP								
5	142259Z	13.-N 139.5E	SAT	(11.0/1.0 /01.0/24HESI	PCN 5	DMSP									
6	142259Z	14.-N 140.9E	SAT	/T 0/1.0 / / HESI	PCN 5	DMSP									
7	150234Z	13.-N 139.6E	SAT	/TH DATA	)	PCN 5	DMSP								
8	150417Z	13.-N 137.1E	P	3 3 1500 120 40 60 50 40 60 50 1004 - 25 23 - - -										1	
9	150704Z	12.-N 135.8E	E	3 3 1500 80 25 300 100 20 270 35 1002 - 24 24 - - -										1	
10	151018Z	13.-N 136.1E	SAT	/TH DATA	)	PCN 5	DMSP								
11	151110Z	13.-N 136.5E	SAT	/TH DATA	)	PCN 5	DMSP								
12	151118Z	13.-N 136.4E	SAT	/TH DATA	)	PCN 5	DMSP								
13	151119Z	13.-N 137.0E	SAT	/TH DATA	)	PCN 5	DMSP								
14	151140Z	13.-N 136.4E	SAT	/TH DATA	)	PCN 5	DMSP								
15	151140Z	13.-N 137.0E	SAT	/TH DATA	)	PCN 5	DMSP								
16	152121Z	14.-N 136.0E	SAT	/TH DATA	)	PCN 5	DMSP								
17	152121Z	13.-N 133.7E	SAT	/TH DATA	)	PCN 5	DMSP								
18	160022Z	14.0N 132.9E	SAT	(11.0/1.0 /S /25HESI	PCN 5	DMSP									
19	160022Z	14.3N 132.4E	SAT	/T 0/1.0 /S /25HESI	PCN 5	DMSP									
20	160156Z	13.8N 132.6E	SAT	/TH DATA	)	PCN 5	DMSP								
21	160157Z	13.-N 131.8E	SAT	/TH DATA	)	PCN 5	DMSP								
22	170003Z	14.3N 131.6E	SAT	(12.0/2.0 /01.0/24HESI	PCN 5	DMSP									
23	170337Z	14.5N 131.2E	SAT	/TH DATA	)	PCN 5	DMSP								
24	170556Z	14.5N 130.2E	SAT	/TH DATA	)	PCN 5	DMSP								
25	191105Z	14.0N 122.2E	SAT	/TH DATA	)	NOAA-4									

TYPHOON FLOSSIE
FIX POSITIONS FOR CYCLONE NO. 19
0000Z 20 OCT TO 1200Z 23 OCT

FIX NO.	TIME	POSIT LAT N/A-S	FIX ACHTY CAT NA-MET	FIX FLT LVL DIR VEL HGT HNG	MAX OHS SLP	MAX OHS SLP	OBS	MIN	FILT	POSI TATI ON	EYE	ORIENT	EYE	OF RADAR	MSH NMNH
1	170438Z	14.8N 124.4E	SAT	/TH DATA	)	PCN 5	DMSP								
2	171116Z	14.2N 126.0E	SAT	/TH DATA	)	PCN 5	DMSP								
3	171136Z	15.-N 125.4E	SAT	/TH DATA	)	PCN 5	DMSP								
4	171245Z	15.-N 125.3E	SAT	/TH DATA	)	PCN 5	DMSP								
5	171245Z	15.-N 125.5E	SAT	/TH DATA	)	PCN 5	DMSP								
6	172238Z	15.-N 122.7E	SAT	/TH DATA	)	PCN 5	DMSP								
7	172239Z	14.8N 128.0E	SAT	/TH DATA	)	PCN 5	DMSP								
8	172445Z	14.2N 125.5E	SAT	(11.0/1.0 / / HESI	PCN 5	DMSP									
9	172445Z	14.5N 125.3E	SAT	(11.0/1.0 / / HESI	PCN 5	DMSP									
10	172445Z	14.0N 125.2E	SAT	(11.5/1.5 / / HESI	PCN 5	DMSP									
11	180027Z	14.0N 122.0E	SAT	(12.0/2.0 /00.5/25HESI	NOAA-4										
12	180119Z	14.2N 129.9E	SAT	/TH DATA	)	PCN 5	DMSP								
13	180119Z	15.-N 122.8E	SAT	/TH DATA	)	PCN 5	DMSP								
14	180700Z	15.6N 126.5E	LHRW	- 10001											
15	180700Z	15.1N 122.6E	LHRW	- 21720											
16	180700Z	15.-N 122.1E	LHRW												
17	181124Z	16.1N 121.7E	SAT	/TH DATA	)	PCN 5	DMSP								
18	181227Z	16.3N 121.5E	SAT	/TH DATA	)	PCN 5	DMSP								
19	181304Z	16.-N 120.2E	SAT	/TH DATA	)	NOAA-4									
20	182226Z	18.4N 119.8E	SAT	(11.0/1.0 /S /23HESI	PCN 5	DMSP									
21	182227Z	18.-N 120.3E	SAT	/TH DATA	)	PCN 6	DMSP								
22	190150Z	18.2N 120.4E	SAT	(11.0/1.5 /#0.5/25HESI	PCN 5	DMSP									
23	190151Z	17.9N 121.0E	SAT	(12.0/2.0 /S /25HESI	NOAA-4										
24	190442Z	18.7N 120.5E	SAT	(11.0/1.0 / / HESI	PCN 5	DMSP									
25	190442Z	18.8N 119.9E	SAT	/TH DATA	)	PCN 5	DMSP								
26	191049Z	16.2N 118.9E	P	20 10 1500 90 40 360 60 40 360 60 994 - 26 23 - - -										1	
27	191112Z	18.1N 120.4E	SAT	/TH DATA	)	PCN 5	DMSP								
28	191112Z	17.8N 119.7E	SAT	/TH DATA	)	PCN 6	DMSP								
29	191152Z	18.0N 122.2E	SAT	/TH DATA	)	NOAA-4									
30	191208Z	18.1N 120.3E	SAT	/TH DATA	)	PCN 5	DMSP								
31	191208Z	18.4N 121.3E	SAT	/TH DATA	)	PCN 5	DMSP								
32	192219Z	15.-N 117.5E	SAT	/TH DATA	)	PCN 5	DMSP								
33	192219Z	15.-N 117.3E	SAT	(12.0/2.0 /01.0/24HESI	PCN 5	DMSP									
34	200141Z	15.-N 117.4E	SAT	(12.5/1.5 /00.5/23HESI	NOAA-4										
35	200502Z	15.-N 116.4E	SAT	(12.0/2.0 /01.0/20HESI	PCN 5	DMSP									
36	200502Z	15.9N 116.5E	SAT	(12.0/2.0 /01.0/24HESI	PCN 5	DMSP									
37	201106Z	15.9N 116.0E	SAT	/TH DATA	)	NOAA-4									
38	200423Z	16.2N 116.3E	SAT	/TH DATA	)	PCN 5	DMSP								
39	200423Z	16.3N 116.1E	SAT	/TH DATA	)	PCN 5	DMSP								
40	200557Z	15.-N 115.9E	P	15 10 1500 330 45 220 25 45 220 25 997 - 26 23 - - -										2	
41	200502Z	15.-N 116.0E	P	15 10 700 - - - - -											
42	201104Z	15.-N 115.9E	SAT	/TH DATA	)	PCN 5	DMSP								
43	201104Z	15.-N 116.5E	SAT	/TH DATA	)	PCN 5	DMSP								
44	201104Z	15.-N 115.8E	SAT	/TH DATA	)	PCN 6	DMSP								
45	201155Z	16.0N 115.9E	SAT	/TH DATA	)	NOAA-4									
46	201155Z	15.-N 116.2E	SAT	/TH DATA	)	PCN 5	DMSP								
47	201331Z	15.-N 116.7E	SAT	/TH DATA	)	PCN 6	DMSP								
48	201700Z	15.-N 115.9E	E	7 10 700 320 40 220 30 - - - - -										3	
49	202155Z	15.-N 116.0E	E	7 10 700 50 50 320 65 - - - - -										3	
50	202144Z	15.-N 115.4E	SAT	/TH DATA	)	PCN 6	DMSP								

TYPHON FLOSSIE
FIX POSITIONS FOR CYCLONE NO. 19
0000Z 20 OCT TO 1200Z 23 OCT

FIX NO.	TIME	POSITION	FIX ACCM	MAX OHS	MAX OBS	OBS	MIN	FLY	PUSIT	
		CAT NAM-MET	FLT LVL	LVL	SFC WIND	MIN 700MB	LVL	EYE	ORIEN-	MSN
			DIM	VEL	BRG	SLP	HGT	TI/TO	EYE TATION	NMR
51	202445Z	15.7N 115.8E	SAT	(IR DATA	)	PCN 4	DMSP			
52	210031Z	15.5N 115.7E	SAT	(T3.0/3.0 /01.0/24HRS)	)	PCN 5	DMSP			
53	210032Z	15.5N 115.8E	SAT	(T3.0/3.0 /01.0/24HRS)	)	PCN 3	DMSP			
54	210032Z	15.7N 115.9E	SAT	(T3.0/3.0 /01.0/24HRS)	)	PCN 3	DMSP			
55	210404Z	15.8N 116.2E	SAT	(IR DATA	)	PCN 5	DMSP			
56	210404Z	16.1N 116.5E	SAT	(IR DATA	)	PCN 5	DMSP			
57	210405Z	16.3N 116.6E	SAT	(IR DATA	)	PCN 5	DMSP			
58	210405Z	16.7N 116.5E	F	15 15 700 290 50 200	50 50 200 00	984	295 13 11	- - -		4
59	211047Z	16.5N 116.6E	SAT	(IR DATA	)	PCN 5	DMSP			
60	211047Z	16.5N 115.8E	SAT	(IR DATA	)	NOAA-4	(CONF 02)			
61	211113Z	16.4N 116.8E	SAT	(IR DATA	)	PCN 3	DMSP			
62	211113Z	16.7N 115.5E	SAT	(IR DATA	)	PCN 5	DMSP			
63	211440Z	17.0N 116.6E	F	15 10 700 160 55 60	60 - - -	983	294 14 12	- - -		4
64	212015Z	17.4N 115.2E	F	5 5 700 120 75 100	55 - - -	978	290 15 12	CTHC	40	5
65	212133Z	17.0N 115.7E	SAT	(IR DATA	)	PCN 4	DMSP			
66	212133Z	17.0N 116.2E	SAT	(IR DATA	)	PCN 6	DMSP			
67	220013Z	17.4N 115.2E	SAT	(T4.0/4.0 /01.0/24HRS)	)	PCN 5	DMSP			
68	220013Z	17.4N 115.2E	SAT	(T4.0/4.0 /01.0/24HRS)	)	PCN 3	DMSP			
69	220013Z	17.4N 116.0E	SAT	(T4.0/4.0 /01.0/25HRS)	)	PCN 5	DMSP			
70	220610Z	17.7N 115.5E	SAT	(T3.5/3.5 /01.0/25HRS)	NOAA-4	(CONF 01)				
71	220230Z	16.4N 114.7E	F	5 2 700 120 70 50	70 60 60 00	976	287 17 11	CTHC	40	5
72	220346Z	18.0N 114.7E	SAT	(IR DATA	)	PCN 5	DMSP			
73	220346Z	18.0N 114.8E	SAT	(IR DATA	)	PCN 3	DMSP			
74	220346Z	18.1N 114.5E	SAT	(IR DATA	)	PCN 5	DMSP			
75	221217Z	17.8N 115.5E	SAT	(IR DATA	)	PCN 3	DMSP			
76	221217Z	17.9N 113.9E	SAT	(IR DATA	)	PCN 3	DMSP			
77	221254Z	17.9N 113.2E	SAT	(IR DATA	)	PCN 3	DMSP			
78	221256Z	17.9N 113.1E	SAT	(IR DATA	)	NOAA-4	(CONF 02)			
79	221400Z	20.0N 113.1E	LRDR	- 107H/						22.3N 114.2E
80	222121Z	20.5N 112.0E	SAT	(IR DATA	)	PCN 4	DMSP			
81	222321Z	20.2N 111.9E	SAT	(IR DATA	)	PCN 4	DMSP			
82	230116Z	20.0N 111.5E	SAT	(T3.0/4.0 /-W0.5/23HRS)	NOAA-4	(CONF 02)				
83	230136Z	20.0N 111.3E	SAT	(T3.0/4.0 /-W1.0/25HRS)	PCN 5	DMSP				
84	230137Z	20.0N 112.2E	SAT	(T4.0/4.0 /-S /25HRS)	PCN 4	DMSP				
85	230509Z	21.0N 111.0E	SAT	(IR DATA	)	PCN 5	DMSP			
86	230509Z	21.2N 110.3E	SAT	(IR DATA	)	PCN 5	DMSP			
87	231205Z	21.9N 109.0E	SAT	(IR DATA	)	PCN 5	DMSP			
88	231205Z	22.0N 109.0E	SAT	(IR DATA	)	PCN 6	DMSP			
89	231451Z	22.0N 106.9E	SAT	(IR DATA	)	NOAA-4	(CONF 01)			
90	231418Z	22.1N 108.6E	SAT	(IR DATA	)	PCN 5	UMSP			
91	231418Z	22.1N 108.6E	SAT	(IR DATA	)	PCN 6	DMSP			

TROPICAL STORM GRACE
FIX POSITIONS FOR CYCLONE NO. 20
0000Z 25 OCT TO 0600Z 02 NOV

FIX NO.	TIME	POSITION	FIX ACCM	MAX OHS	MAX OBS	OBS	MIN	FLY	PUSIT	
		CAT NAM-MET	FLT LVL	LVL	SFC WIND	MIN 700MB	LVL	EYE	ORIEN-	MSN
			DIM	VEL	BRG	SLP	HGT	TI/TO	EYE TATION	NMR
1	210414Z	21.4N 126.2E	SAT	(IR DATA	)	PCN 5	DMSP			
2	211047Z	22.0N 127.1E	SAT	(IR DATA	)	PCN 4	DMSP			
3	220013Z	22.0N 126.4E	SAT	(T 0/1.0 / / HRS)	)	PCN 3	DMSP			
4	220346Z	24.4N 126.4E	SAT	(IR DATA	)	PCN 5	DMSP			
5	221035Z	25.0N 126.4E	SAT	(IR DATA	)	PCN 5	DMSP			
6	222355Z	24.1N 127.3E	SAT	(T 0/1.0 / 5 /24HRS)	)	PCN 3	DMSP			
7	232337Z	20.8N 129.7E	SAT	(T2.0/2.0 /-D0.2 /24HRS)	)	PCN 5	DMSP			
8	240409Z	20.5N 129.5E	SAT	(IR DATA	)	PCN 5	DMSP			
9	241010Z	18.4N 130.0E	SAT	(IR DATA	)	PCN 5	DMSP			
10	241011Z	17.5N 128.8E	SAT	(IR DATA	)	PCN 5	DMSP			
11	241218Z	18.1N 129.1E	SAT	(IR DATA	)	PCN 5	DMSP			
12	241218Z	18.3N 129.6E	SAT	(IR DATA	)	PCN 5	DMSP			
13	242114Z	19.0N 133.5E	SAT	(IR DATA	)	PCN 5	DMSP			
14	242256Z	18.2N 128.0E	SAT	(T2.0/2.0 / / HRS)	)	PCN 5	DMSP			
15	242756Z	17.5N 128.0E	SAT	(T1.0/1.0 / / HRS)	)	PCN 6	DMSP			
16	242818Z	18.4N 128.0E	SAT	(T2.0/2.0 / 5 /24HRS)	)	PCN 3	DMSP			
17	242318Z	18.3N 128.1E	SAT	(T1.0/1.0 / / HRS)	)	PCN 5	DMSP			
18	250218Z	18.4N 128.3E	F	3 2 700 350 50 270	5 160 5	996	305 19 10	CTHC	18	1
19	250250Z	17.4N 127.7E	SAT	(IR DATA	)	PCN 5	DMSP			
20	250250Z	17.2N 128.0E	SAT	(IR DATA	)	PCN 5	DMSP			
21	250432Z	17.5N 128.4E	SAT	(IR DATA	)	PCN 5	DMSP			
22	250459Z	17.5N 126.9E	SAT	(IR DATA	)	PCN 5	DMSP			
23	251141Z	17.6N 127.1E	SAT	(IR DATA	)	PCN 5	DMSP			
24	251141Z	17.9N 127.0E	SAT	(IR DATA	)	PCN 5	DMSP			
25	251150Z	17.5N 127.0E	SAT	(IR DATA	)	NOAA-4	(CONF 01)			
26	251153Z	18.1N 128.8E	F	20 15 700 220 30 130	80 - - -	999	308 17 10	- - -		2
27	251200Z	18.0N 127.6E	SAT	(IR DATA	)	PCN 5	DMSP			
28	251200Z	17.6N 127.1E	SAT	(IR DATA	)	PCN 5	DMSP			
29	251542Z	18.3N 128.4E	F	15 15 700 230 2K 110	80 - - -	998	307 15 -	- - -		2
30	252244Z	18.2N 128.9E	SAT	(IR DATA	)	PCN 3	DMSP			
31	252244Z	19.0N 128.4E	SAT	(IR DATA	)	PCN 1	DMSP			
32	260006Z	18.4N 128.6E	SAT	(T1.0/1.5 /W0.5/23HRS)	NOAA-4	(CONF 01)				
33	260041Z	18.4N 128.6E	SAT	(T2.0/2.0 / 5 /26HRS)	PCN 5	DMSP				
34	260041Z	18.3N 129.0E	SAT	(T 0/1.0 /W1.0/25HRS)	PCN 5	DMSP				
35	260412Z	18.2N 129.2E	SAT	(T1.0/2.0 /W1.0/29HRS)	PCN 5	DMSP				
36	260412Z	19.0N 128.9E	SAT	(IR DATA	)	PCN 5	DMSP			

FIX NO.	TIME		POSIT	TROPICAL STORM GRACE			FIX POSITIONS FOR CYCLONE NO. 20							MSN NNNN							
				MAX OBS	MAX OBS	UWS	MIN	FLT	MIN	700MB	LVL	EYE	UNION-								
	CAT	NA-MET	LVL	UM	VEL	HKG	RNG	VEL	HKG	RNG	SLP	MGT	TI/TD	FORM							
			P	3	15	700	90	20	360	50	-	-	-	TATI							
37	261129Z	18.2N	129.9E	SAT	(IR DATA)	)	PCN 5	DMSP							5					
38	261129Z	18.3N	129.7E	SAT	(IR DATA)	)	PCN 5	DMSP												
39	261131Z	18.6N	129.6E	SAT	(IR DATA)	)	PCN 5	DMSP												
40	261131Z	18.6N	129.9E	SAT	(IR DATA)	)	PCN 5	DMSP												
41	261130Z	18.4N	129.8E	P	3	15	700	90	20	360	50	-	-	-	40						
42	270023Z	19.1N	130.0E	SAT	(T1.0/1.0 /S /20HRS)	)	PCN 3	DMSP												
43	270105Z	19.1N	130.0E	SAT	(IR DATA)	)	PCN 5	DMSP												
44	271116Z	18.8N	131.4E	SAT	(IR DATA)	)	PCN 5	DMSP												
45	271106Z	18.8N	131.5E	SAT	(IR DATA)	)	PCN 5	DMSP												
46	272120Z	18.4N	132.2E	SAT	(IR DATA)	)	PCN 5	DMSP												
47	280001Z	18.0N	132.0E	SAT	(T2.5/2.5 /U1.5/12HRS)		NOAA-4														
48	280005Z	18.1N	132.2E	SAT	(T2.0/2.0 /U1.0/24HRS)		PCN 5	DMSP													
49	280005Z	18.1N	132.0E	SAT	(T1.5/1.5 / / HRS)		PCN 5	DMSP													
50	280005Z	18.1N	132.0E	SAT	(T2.0/2.0 / / HRS)		PCN 3	DMSP													
51	280335Z	18.1N	132.0E	SAT	(IR DATA)	)	PCN 5	DMSP												
52	280336Z	18.9N	131.4E	SAT	(IR DATA)	)	PCN 3	DMSP												
53	280431Z	18.2N	131.2E	P	5	5	700	220	35	140	50	-	-	-	6						
54	281104Z	18.2N	132.3E	SAT	(IR DATA)	)	PCN 5	DMSP												
55	281105Z	18.1N	131.3E	SAT	(IR DATA)	)	PCN 5	DMSP												
56	281105Z	17.8N	132.5E	SAT	(IR DATA)	)	PCN 5	DMSP												
57	281145Z	18.1N	131.2E	SAT	(IR DATA)	)	PCN 5	DMSP												
58	281157Z	18.1N	129.8E	P	2	20	700	230	30	120	80	-	-	-	7						
59	282136Z	17.1N	128.6E	P	5	10	700	90	30	120	30	25	20	35	7						
60	282208Z	17.2N	129.1E	SAT	(IR DATA)	)	PCN 5	DMSP												
61	282208Z	16.8N	129.3E	SAT	(T1.0/1.0 / / HRS)		PCN 5	DMSP													
62	282406Z	17.2N	128.4E	SAT	(T1.0/2.0 /W1.0/24HRS)		PCN 5	DMSP													
63	282406Z	17.0N	129.7E	SAT	(T2.0/2.0 /U0.5/24HRS)		PCN 3	DMSP													
64	282406Z	16.9N	128.9E	SAT	(T2.0/2.0 /S /24HRS)		PCN 5	DMSP													
65	290317Z	17.4N	126.3E	SAT	(IR DATA)	)	PCN 5	DMSP												
66	290417Z	16.6N	129.0E	SAT	(IR DATA)	)	PCN 5	DMSP												
67	290417Z	17.2N	128.6E	P	10	20	700	250	25	200	70	498	307	11 9	-	-	-	9			
68	291053Z	17.2N	129.3E	SAT	(IR DATA))	PCN 5	DMSP													
69	291053Z	17.0N	129.7E	SAT	(IR DATA))	PCN 5	DMSP													
70	291228Z	17.4N	129.4E	SAT	(IR DATA))	PCN 5	DMSP													
71	291228Z	17.4N	129.8E	SAT	(IR DATA))	PCN 5	DMSP													
72	291318Z	18.1N	128.6E	P	1	8	700	220	20	100	25	-	-	-	996	305 11 9	-	-	-	9	
73	292030Z	14.2N	130.8E	P	2	5	700	20	25	300	25	-	-	-	991	301 16 12	-	-	-	9	
74	292156Z	14.9N	129.0E	SAT	(IR DATA))	PCN 5	DMSP													
75	292156Z	17.4N	130.6E	SAT	(T1.0/1.0 /U1.0/24HRS)		PCN 5	DMSP													
76	292428Z	17.4N	129.2E	SAT	(T2.5/2.5 /U1.0/24HRS)		PCN 5	DMSP													
77	292428Z	18.4N	130.2E	SAT	(T1.5/2.0 /W0.5/24HRS)		PCN 5	DMSP													
78	292428Z	18.1N	129.3E	SAT	(T3.0/3.0 /U1.0/24HRS)		PCN 5	DMSP													
79	292455Z	19.2N	130.5E	SAT	(T3.5/2.5 /U1.0/24HRS)		NOAA-4														
80	300241Z	18.1N	129.7E	P	2	5	700	230	30	180	20	35	310	60	-	990	310 15 11	-	-	-	10
81	300258Z	18.4N	129.8E	SAT	(IR DATA))	PCN 5	DMSP													
82	300258Z	18.7N	130.8E	SAT	(IR DATA))	PCN 5	DMSP													
83	301030Z	19.1N	129.4E	P	3	5	700	-	-	-	-	-	40	190	70	-	309 10 9	-	-	-	10
84	301041Z	20.2N	130.6E	SAT	(IR DATA))	PCN 6	DMSP													
85	301041Z	18.9N	129.5E	SAT	(IR DATA))	PCN 5	DMSP													
86	301041Z	20.2N	130.3E	SAT	(IR DATA))	PCN 5	DMSP													
87	301059Z	20.5N	130.1E	SAT	(IR DATA))	PCN 5	DMSP													
88	301059Z	20.6N	129.6E	SAT	(IR DATA))	PCN 5	DMSP													
89	301127Z	20.1N	129.6E	P	10	10	700	220	85	140	50	-	-	-	987	298 15 10	ELIP	N-S	40A14	11	
90	302140Z	21.5N	129.9E	P	* 3	5	700	260	60	190	60	80	240	15	984	295 17 14	CTHC		35	12	
91	302144Z	21.4N	129.9E	SAT	(IR DATA))	PCN 3	DMSP													
92	302144Z	21.1N	129.9E	SAT	(IR DATA))	PCN 3	DMSP													
93	302504Z	21.1N	130.0E	SAT	(T2.0/2.0 /U1.0/25HRS)		PCN 5	DMSP													
94	302510Z	21.4N	130.0E	SAT	(T3.5/3.5 /U1.0/24HRS)		PCN 3	DMSP													
95	302510Z	21.6N	129.9E	SAT	(T3.0/3.0 /U1.0/24HRS)		PCN 3	DMSP													
96	302510Z	21.6N	130.2E	SAT	(T3.0/2.0 /U1.0/24HRS)		PCN 3	DMSP													
97	310230Z	21.5N	130.1E	P	2	5	700	210	50	120	50	60	70	25	990	300 16 14	-	-	-	12	
98	310640Z	21.3N	130.5E	SAT	(IR DATA))	PCN 3	DMSP													
99	310959Z	23.2N	131.6E	P	10	2	700	60	35	300	22	-	-	-	994	303 16 10	-	-	-	13	
100	311029Z	23.4N	131.9E	SAT	(IR DATA))	PCN 5	DMSP													
101	311029Z	23.4N	132.1E	SAT	(IR DATA))	PCN 5	DMSP													
102	311151Z	23.5N	131.7E	SAT	(IR DATA))	PCN 5	DMSP													
103	311151Z	23.6N	131.5E	SAT	(IR DATA))	PCN 5	DMSP													
104	311430Z	23.4N	131.8E	P	10	5	700	20	43	310	35	-	-	-	995	304 18 11	-	-	-	13	
105	312132Z	24.0N	133.1E	SAT	(IR DATA))	PCN 5	DMSP													
106	312132Z	24.3N	133.3E	SAT	(IR DATA))	PCN 5	DMSP													
107	312132Z	23.9N	133.0E	SAT	(T3.0/3.0 /U1.0/26HRS)		PCN 5	DMSP													
108	312251Z	24.2N	133.0E	SAT	(T3.0/2.5 /W0.5/24HRS)		PCN 5	DMSP													
109	312251Z	24.2N	133.5E	SAT	(T2.5/3.0 /W0.5/24HRS)		PCN 5	DMSP													
110	312349Z	24.2N	132.0E	SAT	(T2.5/3.0 /W1.0/23HRS)		NOAA-4														
111	010450Z	26.3N	136.4E	P	20	20	700	210	65	120	60	-	-	-	999	308 11 9	-	-	-	15	
112	011016Z	26.1N	135.1E	SAT	(IR DATA))	PCN 5	DMSP													
113	011016Z	25.5N	136.6E	SAT	(IR DATA))	PCN 5	DMSP													
114	011016Z	26.1N	134.9E	SAT	(IR DATA))	PCN 5	DMSP													
115	011132Z	25.9N	136.2E	SAT	(IR DATA))	PCN 5	DMSP													
116	011132Z	26.1N	136.4E	SAT	(IR DATA))	PCN 6	DMSP													
117	011158Z	26.1N	137.0E	P	5	5	700	200	70												

TROPICAL STORM HELEN
FIX POSITIONS FOR CYCLONE NO. 22
0600Z 03 NOV TO 1200Z 04 NOV

TYPHOON TDA
FIX POSITIONS FOR CYCLONE NO. 22
0600Z 06 NOV TO 1200Z 11 NOV

TYPHOON TUA FIX POSITIONS FOR CYCLONE NO. 22 0600Z 06 NOV TO 1200Z 11 NOV																		
FIX NO.	TIME	POINT	FIX ACCY	FIX CAT	MAX DIR	MAX VEL	MAX BHG	MAX WIND	SFC WIND	MIN SLP	700MB SLP	LVL MGT	EVE TI/TO	ORION- FORM	EYE TATION	DIA	PUSIT OF RADAR	MSN NMHR
51	091030Z	14.6N 146.0E	P	-	5	700	10	65 330	7008A-4									
52	091010Z	14.8N 145.5E	SAT	(IN DATA					)	N0N	DMSP						
53	091021Z	14.7N 145.5E	SAT	(IN DATA					)	PCN 5	DMSP						
54	091022Z	14.9N 145.6E	SAT	(IN DATA					)	PCN 5	DMSP						
55	091047Z	14.8N 145.1E	SAT	(IN DATA					)	PCN 6	DMSP						
56	091047Z	14.6N 145.5E	SAT	(IN DATA					)	PCN 6	DMSP						
57	091130Z	20.8N 145.4E	P	-	5	700	290	80 210	60	-	-	970	293	16 12	CTMC	60	8	
58	092125Z	21.4N 145.5E	SAT	(TS+0/5.0 /01.5/24HS)						PCN 4	DMSP							
59	092125Z	21.5N 145.9E	SAT	(TS+0/4.0 / / HHS)						PCN 5	DMSP							
60	092127Z	21.6N 145.6E	SAT	(IN DATA					)	PCN 3	DMSP						
61	092230Z	21.5N 146.0E	SAT	(TS+0/5.0 /01.0/23HS)						NOAA-4								
62	092329Z	22.2N 145.7E	SAT	(IN DATA					)	PCN 1	DMSP						
63	092329Z	22.2N 145.8E	SAT	(TS+5/4.5 / / HHS)						PCN 3	DMSP							
64	100152Z	22.9N 146.0E	P	-	3	700	290	70 210	70	100	210	50	Y02	276	17 12	CTMC	30	9
65	101102Z	25.4N 147.9E	SAT	(IN DATA					)	PCN 1	DMSP						
66	101113Z	26.7N 147.2E	SAT	(IN DATA					)	NOAA-4							
67	101210Z	26.3N 148.3E	SAT	(IN DATA					)	PCN 1	DMSP						
68	101210Z	26.3N 147.8E	SAT	(IN DATA					)	PCN 1	DMSP						
69	101437Z	27.6N 147.6E	P	S	2	700	240	110 180	20	-	-	959	273	20 16	CTMC	25	10	
70	102113Z	31.4N 150.5E	SAT	(IN DATA					)	PCN 3	DMSP						
71	102113Z	31.4N 150.9E	SAT	(TS+0/3.0 / / HHS)						PCN 5	DMSP							
72	102129Z	31.7N 150.2E	SAT	(TS+5/4.5/5 /01.5/24HS)						PCN 4	DMSP							
73	102324Z	33.0N 151.9E	SAT	(TS+0/5.0 /01.0/23HS)						NOAA-4								
74	110457Z	37.4N 153.2E	SAT	(IN DATA					)	PCN 5	DMSP						
75	110457Z	37.5N 153.7E	SAT	(IN DATA					)	PCN 5	DMSP						
76	110819Z	42.0N 157.0E	SAT	(IN DATA					)	NOAA-4							
77	111119Z	37.2N 153.6E	SAT	(IN DATA					)	PCN 5	DMSP						

TYPHOON UNF FIX POSITIONS FOR CYCLONE NO. 23 0600Z 16 NOV TO 0000Z 26 NOV																		
FIX NO.	TIME	POINT	FIX ACCY	FIX CAT	MAX DIR	MAX VEL	MAX BHG	MAX WIND	SFC WIND	MIN SLP	700MB SLP	LVL MGT	EVE TI/TO	ORION- FORM	EYE TATION	DIA	PUSIT OF RADAR	MSN NMHR
1	152215Z	7.7N 149.2E	SAT	(T 0/1.0 / / HHS)						PCN 5	DMSP							
2	160421Z	8.5N 148.5E	SAT	(IN DATA					)	PCN 5	DMSP						
3	160254Z	9.5N 147.1E	SAT	(IN DATA					)	PCN 6	DMSP						
4	162157Z	9.5N 147.2E	SAT	(T2.0/2.0 /02.0/24HS)						PCN 6	DMSP							
5	162319Z	9.5N 145.8E	SAT	(T1.0/0/1.0 /00.5/24HS)						NOAA-4								
6	162338Z	9.2N 146.2E	SAT	(IN DATA					)	PCN 5	DMSP						
7	150409Z	7.9N 145.9E	SAT	(IN DATA					)	PCN 5	DMSP						
8	151038Z	9.1N 145.4E	SAT	(IN DATA					)	PCN 5	DMSP						
9	151122Z	9.1N 144.5E	SAT	(IN DATA					)	NOAA-4							
10	152155Z	8.4N 143.3E	SAT	(IN DATA					)	PCN 5	DMSP						
11	152155Z	8.2N 143.4E	SAT	(T 0/1.0 / / HHS)						PCN 5	DMSP							
12	152320Z	7.9N 142.9E	SAT	(T2.0/2.0 /05 /25HS)						PCN 5	DMSP							
13	152320Z	7.3N 142.4E	SAT	(IN DATA					)	PCN 5	DMSP						
14	160115Z	7.2N 144.0E	SAT	(T2.0/2.0 /01.0/26HS)						NOAA-4								
15	160326Z	6.4N 143.4E	P	S	5	700	350	27 260	25	30	210	35	Y96	-	23 23	-	-	
16	160435Z	6.4N 142.8E	SAT	S 5	700	70	30	360	10	-	-	Y96	303	14 14	CTMC	5	3	
17	161122Z	6.2N 142.6E	SAT	(IN DATA)	NOAA-4								
18	161212Z	7.2N 141.5E	SAT	(IN DATA					)	PCN 5	DMSP						
19	161212Z	6.4N 142.5E	SAT	(IN DATA					)	PCN 5	DMSP						
20	161435Z	6.4N 142.8E	P	S	5	700	80	42 320	10	-	-	Y92	301	12 10	CTMC	5	3	
21	162053Z	6.3N 142.3E	P	S	10	5	700	150	40 40	6	35	50	10	Y86	297	16 12	CTMC	5
22	162122Z	6.3N 142.6E	SAT	(IN DATA					)	PCN 5	DMSP						
23	162122Z	6.3N 143.4E	SAT	(T2.0/2.0 /02.0/24HS)						PCN 6	DMSP							
24	162202Z	6.3N 142.5E	SAT	(IN DATA					)	PCN 5	DMSP						
25	162302Z	6.2N 142.3E	SAT	(T3.0/2.0 / / HHS)						PCN 3	DMSP							
26	162615Z	6.1N 142.0E	SAT	(T3.0/2.0 /01.0/23HS)						NOAA-4								
27	170118Z	6.1N 142.6E	P	S	5	700	310	47 260	4H	50	180	65	Y81	293	16 11	CTMC	6	4
28	170133Z	6.1N 142.5E	P	S	5	2	700	240	64 140	22	55	320	25	Y77	288	16 13	EITM	22X14
29	171127Z	6.2N 142.7E	SAT	(IN DATA					)	PCN 5	DMSP						
30	171127Z	7.0N 142.1E	SAT	(IN DATA					)	PCN 3	DMSP						
31	171143Z	6.8N 142.4E	SAT	(IN DATA					)	PCN 3	DMSP						
32	171143Z	6.1N 142.3E	SAT	(IN DATA					)	PCN 6	DMSP						
33	171147Z	6.1N 141.5E	SAT	(IN DATA					)	NOAA-4							
34	171153Z	7.0N 142.6E	P	S	5	5	700	10	50 65 10	10	-	-	Y73	286	14 12	EITM	18X12	
35	172110Z	7.0N 142.3E	P	S	5	5	700	340	75 240	10	70	240	10	Y68	281	14 14	CTMC	1U
36	172130Z	7.0N 142.3E	SAT	(IN DATA					)	PCN 4	DMSP						
37	172130Z	7.0N 141.9E	SAT	(T4.5/4.5+0/01.5/23HS)						PCN 4	DMSP							
38	172243Z	7.0N 142.4E	SAT	(T5.0/2.0+0/01.5/24HS)						PCN 3	DMSP							
39	172243Z	7.0N 142.4E	SAT	(IN DATA					)	PCN 3	DMSP						
40	180109Z	7.0N 142.5E	SAT	(T5.0/2.0+0/01.0/25HS)						NOAA-4								
41	180107Z	6.2N 142.6E	P	S	5	5	700	50	65 10	10	60	240	5	Y69	282	20 14	CTMC	1U
42	180107Z	6.2N 142.3E	P	S	5	2	700	80	75 350	15	-	-	Y65	278	14 17	CTMC	18	
43	181152Z	9.6N 142.2E	SAT	(IN DATA					)	PCN 3	DMSP						
44	181152Z	9.6N 141.9E	SAT	(IN DATA					)	PCN 6	DMSP						

TYPHON JUNE
FIX POSITIONS FOR CYCLONE NO. 23

TROPICAL DEPRESSION 24
FIX POSITIONS FOR CYCLONE NO. 24
0000Z 27 DEC TO 0600Z 28 DEC

FIX NO.	TIME	POINT	FTX	ACHTY	FIX	FLT	LVL	WIND	SPC WIND	MIN	UWS	MIN	FLT	PUSIT	OF	MSK	
			CAT	NAM-MET	LVL	DIN	VEL	BHG RNG	VEL	BHG	SLP	HGT	TI/TD	EYE	ORIENT-	EYE	MSK
1	230103Z	8.1N 136.6E	SAT	(T1.0/1.0 / / HWS)		PCN 5	UMSP										NHHR
2	240108Z	5.8N 133.4E	SAT	(IN DATA)		PCN 5	UMSP										
3	240112Z	7.9N 130.9E	SAT	(T1.0/1.0 /01.0/25HWS)		PCN 5	UMSP										
4	251117Z	7.7N 129.3E	SAT	(IN DATA)		PCN 5	UMSP										
5	252202Z	9.2N 127.6E	SAT	(T2.0/2.0 /01.0/24HWS)		PCN 5	UMSP										
6	260030Z	10.4N 127.2E	SAT	(T2.0/2.0 /01.0/24HWS)		NOAA-4											
7	261105Z	13.5N 125.2E	SAT	(IN DATA)		PCN 5	UMSP										
8	261104Z	11.1N 124.4E	SAT	(IN DATA)		NOAA-4											
9	261119Z	12.5N 125.6E	SAT	(IN DATA)		PCN 6	UMSP										
10	262208Z	13.9N 124.6E	SAT	(T1.0/2.0 /01.0/24HWS)		PCN 5	UMSP										
11	262208Z	14.2N 125.5E	SAT	(T2.0/2.0 / / HWS)		PCN 6	UMSP										
12	270018Z	14.7N 125.0E	SAT	(T2.0/2.0 /00.5/24HWS)		PCN 6	UMSP										
13	270123Z	15.1N 124.5E	SAT	(T2.5/2.5 /00.5/25HWS)		NOAA-4											
14	271032Z	14.6N 122.0E	SAT	(IN DATA)		PCN 5	UMSP										
15	271032Z	15.1N 121.7E	SAT	(IN DATA)		PCN 5	UMSP										
16	271032Z	15.0N 121.7E	SAT	(IN DATA)		NOAA-4											
17	271100Z	15.2N 122.2E	SAT	(IN DATA)		PCN 6	UMSP										
18	272156Z	13.9N 121.4E	SAT	(IN DATA)		PCN 6	UMSP										
19	272156Z	13.8N 121.7E	SAT	(IN DATA)		PCN 6	UMSP										
20	272302Z	14.0N 121.8E	SAT	(IN DATA)		PCN 5	UMSP										
21	272302Z	15.0N 121.7E	SAT	(T2.0/2.0 /01.5/25HWS)		PCN 5	UMSP										
22	280024Z	15.0N 122.5E	SAT	(T2.0/2.0 /00.5/23HWS)		NOAA-4											
23	281012Z	17.5N 123.5E	SAT	(IN DATA)		NOAA-4											
24	290118Z	15.0N 126.5E	SAT	(IN DATA)		NOAA-4											

TROPICAL DEPRESSION 25
FIX POSITIONS FOR CYCLONE NO. 25
0000Z 27 DEC TO 0600Z 28 DEC

FIX NO.	TIME	POINT	FTX	ACHTY	FIX	FLT	LVL	WIND	SPC WIND	MIN	UWS	MIN	FLT	PUSIT	OF	MSK	
			CAT	NAM-MET	LVL	DIN	VEL	BHG RNG	VEL	BHG	SLP	HGT	TI/TD	EYE	ORIENT-	EYE	MSK
1	250131Z	7.2N 113.2E	SAT	(T1.5/1.5 /01.0/24HWS)		NOAA-4											
2	251117Z	11.0N 111.7E	SAT	(IN DATA)		PCN 5	UMSP										
3	251210Z	10.5N 114.0E	SAT	(IN DATA)		NOAA-4											
4	260022Z	11.3N 113.3E	SAT	(T1.0/1.0 / / HWS)		PCN 5	UMSP										
5	260224Z	10.5N 113.0E	SAT	(T1.5/1.5 /S /25HWS)		NOAA-4											
6	261105Z	11.2N 113.5E	SAT	(IN DATA)		NOAA-4											
7	262150Z	11.2N 114.3E	SAT	(T3.0/3.0 /02.0/24HWS)		PCN 4	UMSP										
8	270018Z	10.8N 112.6E	SAT	(T1.5/1.5 / / HWS)		PCN 3	UMSP										
9	270125Z	10.3N 113.4E	SAT	(T3.0/3.0 /01.5/23HWS)		NOAA-4											
10	271105Z	11.2N 114.0E	SAT	(IN DATA)		NOAA-4											
11	271135Z	10.7N 113.1E	SAT	(IN DATA)		PCN 5	UMSP										
12	271140Z	10.5N 112.5E	SAT	(IN DATA)		PCN 3	UMSP										
13	272138Z	9.8N 115.8E	SAT	(T2.0/2.0 / / HWS)		PCN 5	UMSP										
14	272138Z	9.6N 116.0E	SAT	(T2.0/3.0 /01.0/24HWS)		PCN 5	UMSP										
15	280025Z	10.0N 116.0E	SAT	(T3.0/3.0 /S /23HWS)		NOAA-4											
16	280456Z	9.4N 115.1E	SAT	(T2.0/2.0 /00.5/28HWS)		PCN 4	UMSP										
17	281112Z	9.1N 115.1E	SAT	(IN DATA)		PCN 5	UMSP										
18	281123Z	9.4N 115.8E	SAT	(IN DATA)		PCN 5	UMSP										
19	281223Z	9.0N 114.6E	SAT	(IN DATA)		PCN 6	UMSP										
20	281252Z	9.0N 116.0E	SAT	(IN DATA)		NOAA-4											
21	282162Z	9.0N 116.7E	SAT	(T2.0/2.0 /S /24HWS)		PCN 5	UMSP										
22	282162Z	8.9N 116.9E	SAT	(T1.0/2.0 /01.0/24HWS)		PCN 6	UMSP										
23	290124Z	8.3N 117.0E	SAT	(T2.5/3.0 /00.5/25HWS)		NOAA-4											
24	290123Z	8.6N 117.7E	SAT	(IN DATA)		PCN 6	UMSP										
25	290438Z	8.5N 117.4E	SAT	(T3.0/3.0 /01.0/24HWS)		PCN 6	UMSP										
26	291200Z	10.0N 115.5E	SAT	(IN DATA)		NOAA-4											
27	291211Z	9.5N 117.5E	SAT	(IN DATA)		PCN 5	UMSP										
28	291211Z	10.1N 117.6E	SAT	(IN DATA)		PCN 5	UMSP										
29	292114Z	9.8N 118.8E	SAT	(T2.0/2.0 /01.0/24HWS)		PCN 5	UMSP										
30	300021Z	9.0N 119.3E	SAT	(T1.5/2.5 /01.0/23HWS)		NOAA-4											
31	301254Z	9.5N 117.5E	SAT	(IN DATA)		NON	UMSP										

FIX POSITIONS FOR TROPICAL CYCLONE NO. 4-75

0600Z 10 JAN TO 0600Z 11 JAN

Fix No.	Time	Date	Fix Accy	Fix Cat	Max OHC	Max OHS	OBS	Min	Flt	Posit of Hauar	MSN		
				NAT-MET	LVL	DIR VEL BRG RNG	SFC WIND	MIN	700MB	LVL	EYE	ORIENT-	ETP
						DIR VEL HNG RNG	SLP	MGT	TI/TO	FORM	TATION	UIA	NMHR
1	060216Z	04.7N	99.6E	SAT	(T1.5/1.5	/ / HES)	PCN 5	DMSH					
2	061414Z	7.5N	92.0E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
3	070158Z	8.2N	94.1E	SAT	(T1.5/1.5	/ / HES)	PCN 5	DMSH					
4	070158Z	8.2N	95.2E	SAT	(T1.5/1.5	/ / HES)	PCN 5	DMSH					
5	070235Z	9.0N	94.0E	SAT	(T2.0/2.0	/ / 0.0/24HRS)	NOAA-4		(CONF 01)				
6	071110Z	10.0N	93.6E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
7	080351Z	10.8N	95.4E	SAT	(T2.0/2.0	/ / 0.0/24HRS)	NOAA-4		(CONF 02)				
8	080451Z	10.3N	95.8E	SAT	(T1.5/1.5	/ / HES)	PCN 5	DMSH					
9	081111Z	11.5N	94.6E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
10	090303Z	11.2N	93.0E	SAT	(T2.0/2.0	/ / 0.0/24HRS)	PCN 5	DMSH					
11	091504Z	12.8N	94.0E	SAT			NOAA-4		(CONF 02)				
12	100245Z	15.4N	93.5E	SAT	(T3.0/3.0	/ / HES)	PCN 3	DMSH					
13	100245Z	15.0N	93.0E	SAT	(T3.0/3.0	/ / 0.0/24HRS)	PCN 3	DMSH					
14	100342Z	15.8N	94.0E	SAT	(T1.5/2.5	/ / 0.0/24HRS)	NOAA-4		(CONF 01)				

FIX POSITIONS FOR TROPICAL CYCLONE NO. 24-75

0600Z 02 MAY TO 0600Z 12 MAY

Fix No.	Time	Date	Fix Accy	Fix Cat	Max OHC	Max OHS	OBS	Min	Flt	Posit of Hauar	MSN		
				NAT-MET	LVL	DIR VEL BRG RNG	SFC WIND	MIN	700MB	LVL	EYE	ORIENT-	ETP
						DIR VEL HNG RNG	SLP	MGT	TI/TO	FORM	TATION	UIA	NMHR
1	300412Z	10.7N	72.5E	SAT	(IR DATA	)	NOAA-4		(CONF 01)				
2	300438Z	9.5N	72.3E	SAT	(T2.0/2.0	/ / 0.0/24HRS)	NOAA-4		(CONF 01)				
3	301117Z	10.0N	74.0E	SAT	(IR DATA	)	NOAA-4		(CONF 01)				
4	301117Z	10.0N	73.0E	SAT	(IR DATA	)	PCN 6	DMSH					
5	301139Z	9.7N	73.7E	SAT	(T2.0/2.0	/ / 23HRS)	NOAA-4		(CONF 01)				
6	010422Z	9.5N	72.0E	SAT	(T2.0/2.0	/ / HES)	PCN 5	DMSH					
7	010402Z	9.5N	71.5E	SAT	(IR DATA	)	PCN 5	DMSH					
8	011112Z	9.5N	71.8E	SAT	(IR DATA	)	NOAA-4		(CONF 01)				
9	011143Z	10.5N	72.6E	SAT	(IR DATA	)	PCN 5	DMSH					
10	020404Z	11.0N	72.0E	SAT	(T3.5/3.5	/ / 0.0/24HRS)	PCN 5	DMSH					
11	020433Z	11.5N	71.5E	SAT	(T4.0/4.0	/ / 0.0/24HRS)	NOAA-4		(CONF 01)				
12	020643Z	11.5N	71.4E	SAT	(IR DATA	)	PCN 4	DMSH					
13	021113Z	10.5N	71.0E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
14	021202Z	11.0N	70.3E	SAT	(IR DATA	)	PCN 3	DMSH					
15	030414Z	11.5N	71.0E	SAT	(T4.0/4.0	/ / 23HRS)	NOAA-4		(CONF 01)				
16	030529Z	12.0N	72.3E	SAT	(T4.0/4.0	/ / 0.0/24HRS)	PCN 3	DMSH					
17	031608Z	11.5N	70.0E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
18	031708Z	12.0N	69.0E	SAT	(IR DATA	)	PCN 3	DMSH					
19	040427Z	13.5N	70.3E	SAT	(IR DATA	)	PCN 3	DMSH					
20	040428Z	12.4N	70.1E	SAT	(T5.0/5.0	/ / 0.0/24HRS)	NOAA-4		(CONF 01)				
21	040748Z	13.0N	70.3E	SAT	(T4.0/4.0	/ / 23HRS)	PCN 3	DMSH					
22	041809Z	12.5N	70.0E	SAT	(IR DATA	)	PCN 3	DMSH					
23	042029Z	13.2N	71.3E	SAT	(IR DATA	)	PCN 3	DMSH					
24	050309Z	13.3N	70.7E	SAT	(IR DATA	)	PCN 3	DMSH					
25	050327Z	13.1N	70.0E	SAT	(T4.0/4.0	/ / 0.0/24HRS)	NOAA-4		(CONF 01)				
26	050729Z	13.3N	69.2E	SAT	(T5.0/5.0	/ / 0.0/24HRS)	PCN 3	DMSH					
27	051551Z	13.5N	69.2E	SAT	(IR DATA	)	PCN 3	DMSH					
28	051604Z	13.7N	70.0E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
29	060423Z	14.3N	69.1E	SAT	(T3.0/2.0	/ / 0.0/24HRS)	NOAA-4		(CONF 01)				
30	060432Z	14.3N	70.0E	SAT	(IR DATA	)	PCN 3	DMSH					
31	060710Z	14.4N	68.8E	SAT	(T3.5/3.5	/ / 0.0/24HRS)	PCN 3	DMSH					
32	061504Z	14.0N	67.4E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
33	070414Z	13.6N	67.4E	SAT	(IR DATA	)	PCN 3	DMSH					
34	070517Z	13.2N	67.5E	SAT	(T3.5/3.5	/ / 0.0/25HRS)	NOAA-4		(CONF 01)				
35	070522Z	13.5N	66.5E	SAT	(T4.5/4.5	/ / 0.0/24HRS)	PCN 3	DMSH					
36	080417Z	15.1N	65.9E	SAT	(T2.5/3.0	/ / 0.0/23HRS)	NOAA-4		(CONF 01)				
37	080715Z	14.7N	66.4E	SAT	(IR DATA	)	PCN 3	DMSH					
38	081837Z	14.0N	65.6E	SAT	(IR DATA	)	PCN 4	DMSH					
39	081844Z	15.0N	65.0E	SAT	(IR DATA	)	NOAA-4		(CONF 01)				
40	090337Z	15.4N	65.1E	SAT	(IR DATA	)	PCN 3	DMSH					
41	090411Z	15.4N	65.9E	SAT	(T4.0/4.0	/ / 0.0/24HRS)	NOAA-4		(CONF 02)				
42	090702Z	15.3N	65.5E	SAT	(T4.0/5.0	/ / 0.0/23HRS)	PCN 3	DMSH					
43	091556Z	16.0N	66.0E	SAT	(IR DATA	)	NOAA-4		(CONF 01)				
44	091619Z	15.8N	65.0E	SAT	(IR DATA	)	PCN 4	DMSH					
45	100413Z	16.0N	65.0E	SAT	(T2.5/2.5	/ / 0.0/23HRS)	NOAA-4		(CONF 01)				
46	100716Z	16.5N	64.2E	SAT	(T2.5/3.5	/ / 0.0/24HRS)	PCN 3	DMSH					
47	101601Z	15.2N	65.7E	SAT	(IR DATA	)	PCN 3	DMSH					
48	101649Z	16.4N	64.8E	SAT	(IR DATA	)	NOAA-4		(CONF 01)				
49	110422Z	16.4N	63.9E	SAT	(T2.0/2.5	/ / 0.0/21HRS)	PCN 3	DMSH					
50	110509Z	16.0N	65.1E	SAT	(T1.0/1.0	/ / 0.0/25HRS)	NOAA-4		(CONF 02)				
51	111550Z	14.0N	63.0E	SAT	(IR DATA	)	NOAA-4		(CONF 02)				
52	112000Z	14.0N	64.5E	SAT	(IR DATA	)	PCN 3	DMSH					

FIX POSITIONS FOR TROPICAL CYCLONE NO. 25-15																	
2000Z 05 MAY TO 0400Z 08 MAY																	
FIX NO.	TIME	CONSET	FIX CAT	ACHTY	FIX	FLT	LVL	WIND	SFC WIND	MIN	700MB	LVL	EYE	OIENT-	EYE	POSIT OF RADAR	MSN NMHR
1	050128Z	12.7N	95.4E	SAT	(T2.5/2.5 / / HRS)	PCN 5	DMSP										
2	050428Z	13.3N	96.1E	SAT	(T1.5/1.5 / / HRS)	PCN 3	DMSP										
3	050728Z	13.4N	96.0E	SAT	(T3.0/3.0 / / HRS)	PCN 5	DMSP										
4	051109Z	14.0N	95.2E	SAT	(IR DATA)	NOAA-4										(CONF 02)	
5	051109Z	14.5N	94.6E	SAT	(IR DATA)	PCN 3	DMSP										
6	051109Z	14.5N	94.5E	SAT	(IR DATA)	PCN 5	DMSP										
7	060227Z	15.2N	94.0E	SAT	(T4.0/2.0 / / 02.0/24HRS)	NOAA-4										(CONF 01)	
8	060527Z	15.3N	94.1E	SAT	(T3.0/3.0 / / 01.5/24HRS)	PCN 3	DMSP										
9	060527Z	15.4N	94.5E	SAT	(IR DATA)	PCN 3	DMSP										
10	060829Z	15.1N	94.0E	SAT	(IR DATA)	PCN 3	DMSP										
11	060829Z	14.8N	94.3E	SAT	(T4.0/4.0 / / HRS)	PCN 1	DMSP										
12	061129Z	15.8N	93.2E	SAT	(IR DATA)	PCN 1	DMSP										
13	061129Z	15.8N	92.9E	SAT	(IR DATA)	NOAA-4										(CONF 01)	
14	061129Z	15.6N	93.0E	SAT	(IR DATA)	PCN 2	DMSP										
15	070222Z	16.4N	93.9E	SAT	(T5.5/5.5 / / 01.5/25HRS)	NOAA-4										(CONF 02)	
16	070522Z	16.6N	93.5E	SAT	(T4.5/4.5 / / HRS)	PCN 3	DMSP										
17	070522Z	16.5N	93.6E	SAT	(T5.0/5.0 / / 02.0/24HRS)	PCN 1	DMSP										
18	071406Z	17.3N	95.0E	SAT	(IR DATA)	NOAA-4										(CONF 01)	
19	071751Z	17.0N	94.2S	SAT	(IR DATA)	PCN 5	DMSP										
20	080146Z	18.2N	96.5E	SAT	(IR DATA)	PCN 3	DMSP										
21	080422Z	18.8N	96.9E	SAT	(T3.0/4.0 / / 01.5/24HRS)	PCN 3	DMSP										
22	080422Z	18.5N	96.7E	SAT	(T3.0/4.0 / / 01.0/24HRS)	PCN 3	DMSP										

FIX POSITIONS FOR TROPICAL CYCLONE NO. 28-15																	
2000Z 20 OCT TO 0400Z 22 OCT																	
FIX NO.	TIME	CONSET	FIX CAT	ACHTY	FIX	FLT	LVL	WIND	SFC WIND	MIN	700MB	LVL	EYE	OIENT-	EYE	POSIT OF RADAR	MSN NMHR
1	190416Z	16.0N	72.0E	SAT	(T1.5/1.5 / / 00.5/24HRS)	NOAA-4										(CONF 02)	
2	191155Z	17.9N	72.0E	SAT	(IR DATA)	NOAA-4										(CONF 02)	
3	200139Z	14.8N	70.6E	SAT	(T2.0/2.0 / / HRS)	PCN 3	DMSP										
4	200746Z	14.8N	70.6E	SAT	(IR DATA)	PCN 3	DMSP										
5	201155Z	14.2N	69.1E	SAT	(IR DATA)	PCN 5	DMSP										
6	210154Z	19.5N	68.3E	SAT	(T3.0/3.0 / / 01.0/26HRS)	PCN 3	DMSP										
7	210305Z	19.4N	68.5E	SAT	(T4.0/4.0 / / 01.5/25HRS)	NOAA-4										(CONF 01)	
8	210727Z	19.7N	68.1E	SAT	(IR DATA)	PCN 1	DMSP										
9	211112Z	19.9N	68.2E	SAT	(IR DATA)	PCN 1	DMSP										
10	211150Z	20.0N	68.4E	SAT	(IR DATA)	NOAA-4										(CONF 01)	
11	211136Z	20.2N	68.3E	SAT	(IR DATA)	PCN 1	DMSP										
12	220306Z	20.9N	68.9E	SAT	(T5.0/5.0 / / 02.0/24HRS)	PCN 1	DMSP										
13	220404Z	20.5N	69.0E	SAT	(T5.0/5.0 / / 01.0/23HRS)	NOAA-4										(CONF 01)	
14	221151Z	23.7N	69.5E	SAT	(IR DATA)	NOAA-4										(CONF 02)	

FIX POSITIONS FOR TROPICAL CYCLONE NO. 24-15																	
2000Z 07 NOV TO 0400Z 12 NOV																	
FIX NO.	TIME	CONSET	FIX CAT	ACHTY	FIX	FLT	LVL	WIND	SFC WIND	MIN	700MB	LVL	EYE	OIENT-	EYE	POSIT OF RADAR	MSN NMHR
1	060224Z	12.8N	88.4E	SAT	(T1.5/1.5 / / HRS)	PCN 5	DMSP										
2	060322Z	11.4N	89.7E	SAT	(T1.0/1.0 / / 00.5/24HRS)	NOAA-4										(CONF 01)	
3	061105Z	12.4N	86.6E	SAT	(IR DATA)	PCN 6	DMSP										
4	061109Z	13.2N	87.5E	SAT	(IR DATA)	NOAA-4										(CONF 02)	
5	070427Z	13.2N	85.1E	SAT	(T1.0/1.0 / / 02.5HRS)	NOAA-4										(CONF 01)	
6	071110Z	14.1N	83.8E	SAT	(IR DATA)	PCN 5	DMSP										
7	071103Z	14.7N	83.0E	SAT	(IR DATA)	NOAA-4										(CONF 01)	
8	080128Z	15.0N	82.5E	SAT	(T3.0/3.0 / / 02.0/24HRS)	NOAA-4										(CONF 02)	
9	080329Z	15.2N	81.5E	SAT	(T3.0/3.0 / / 01.5/24HRS)	PCN 5	DMSP										
10	081158Z	16.5N	82.0E	SAT	(IR DATA)	PCN 6	DMSP										
11	090101Z	18.5N	83.4E	SAT	(T4.0/4.0 / / 01.0/26HRS)	PCN 5	DMSP										
12	090310Z	18.4N	84.0E	SAT	(IR DATA)	PCN 6	DMSP										
13	100152Z	18.6N	87.3E	SAT	(T2.5/3.5 / / 01.5/24HRS)	PCN 5	DMSP										
14	101334Z	19.2N	89.0E	SAT	(T3.0/3.0 / / 00.5/22HRS)	PCN 5	DMSP										
15	110137Z	22.3N	91.3E	SAT	(T3.0/3.0 / / 00.5/22HRS)	PCN 5	DMSP										
16	111212Z	22.8N	91.4E	SAT	(IR DATA)	PCN 5	DMSP										
17	120152Z	22.1N	92.0E	SAT	(T1.0/2.0 / / 02.0/26HRS)	PCN 5	DMSP										

FIX POSITIONS FOR TROPICAL CYCLONE NO. 33-75
0600Z 25 NOV TO 0400Z 01 DEC

FIX NO.	TIME	POSIT CAT	MAX OHS CAT NAV-MET	MAX OBS LVL	OBS WIND	MIN SLP	MIN 700MH	LVL	EYR	ORIEN-	EYE	POSIT	OF RADAR	MSN NMHR
												FLT LVL			WIND	SFC WIND	MIN HGT	T1/T0	FORM	TATION	DIA
1	240134Z	11.3N 84.4E	SAT	(T1.5/1.5 / / HWS)	PCN 3	DMSH								
2	240143Z	10.7N 86.0E	SAT	(T1.5/1.5 /#1.0/24HRS)	NOAA-4									
3	241408Z	10.3N 84.6E	SAT	(TH DATA)	PCN 5	DMSH								
4	241442Z	12.4N 82.3E	SAT	(TH DATA)	NOAA-4									
5	250112Z	12.1N 84.5E	SAT	(T1.5/1.5 /S /22HRS)	PCN 5	DMSH								
6	250143Z	12.5N 84.6E	SAT	(T2.0/2.0 /#0.5/23HRS)	NOAA-4									
7	250212Z	12.3N 85.6E	SAT	(TH DATA)	PCN 6	DMSH								
8	251156Z	12.6N 82.2E	SAT	(TH DATA)	PCN 5	DMSH								
9	251158Z	12.5N 80.8E	SAT	(TH DATA)	NOAA-4									
10	260100Z	12.7N 80.6E	SAT	(T2.0/2.0 /#0.5/24HRS)	PCN 6	DMSH								
11	260302Z	11.9N 80.4E	SAT	(TH DATA)	PCN 3	DMSH								
12	260330Z	11.9N 80.1E	SAT	(T2.0/2.0 /S /23HRS)	NOAA-4									
13	261119Z	15.4N 79.3E	SAT	(TH DATA)	NOAA-4									
14	270147Z	14.0N 80.5E	SAT	(T2.0/2.0 /S /24HRS)	PCN 5	DMSH								
15	270238Z	13.6N 82.1E	SAT	(T2.0/2.0 /S /23HRS)	NOAA-4									
16	270244Z	13.6N 82.3E	SAT	(TH DATA)	PCN 3	DMSH								
17	271142Z	15.2N 83.0E	SAT	(TH DATA)	NOAA-4									
18	280131Z	14.0N 87.0E	SAT	(T1.0/2.0 /#1.0/25HRS)	NOAA-4									
19	281152Z	15.5N 87.0E	SAT	(TH DATA)	NOAA-4									
20	290233Z	14.1N 86.3E	SAT	(T2.5/2.5 /#1.5/23HRS)	NOAA-4									
21	290711Z	13.2N 88.9E	SAT	(T2.0/2.0 / / HWS)	PCN 5	DMSH								
22	291102Z	14.0N 85.9E	SAT	(TH DATA)	NOAA-4									
23	300011Z	11.3N 87.8E	SAT	(T1.5/2.0 /#0.5/17HRS)	PCN 5	DMSH								
24	300153Z	11.3N 87.8E	SAT	(TH DATA)	PCN 5	DMSH								
25	300128Z	12.5N 87.7E	SAT	(T1.5/2.5 /#1.0/25HRS)	NOAA-4									
26	301256Z	14.2N 86.2E	SAT	(TH DATA)	PCN 6	DMSH								
27	301409Z	14.3N 86.9E	SAT	(TH DATA)	NOAA-4									
28	010141Z	15.0N 85.0E	SAT	(T1.5/1.5 /S /23HRS)	PCN 3	DMSH								
29	010228Z	14.2N 87.0E	SAT	(T1.5/1.5 /S /23HRS)	NOAA-4									
30	010412Z	15.2N 85.9E	SAT	(TH DATA)	PCN 3	DMSH								
31	011052Z	16.2N 85.5E	SAT	(TH DATA)	NOAA-4									
32	020322Z	14.2N 85.5E	SAT	(T1.5/1.5 /S /25HRS)	NOAA-4									
33	021405Z	15.0N 84.5E	SAT	(TH DATA)	NOAA-4									