

1. SUMMARY OF WESTERN NORTH PACIFIC AND NORTH INDIAN OCEAN TROPICAL CYCLONES

1.1 WESTERN NORTH PACIFIC OCEAN TROPICAL CYCLONES

Tropical cyclone genesis regions compared to the 15-year average are shown in Figure 1-1. This year's tropical cyclones are listed in Table 1-1. Table 1-2 shows the monthly distribution of tropical cyclones for each year since 1959 and Table 1-3 shows the monthly average occurrence of tropical storms separated into: (1) typhoons only; and (2) tropical storms and typhoons. A summary of this year's Tropical Cyclone Formation Alerts is shown in Table 1-4. The annual number of tropical cyclones of tropical storm strength and higher appear in Figure 1-2, while the number of super typhoons are shown in Figure 1-3. Composites of the tropical cyclone best tracks for the western North Pacific appear following Figure 1-3.

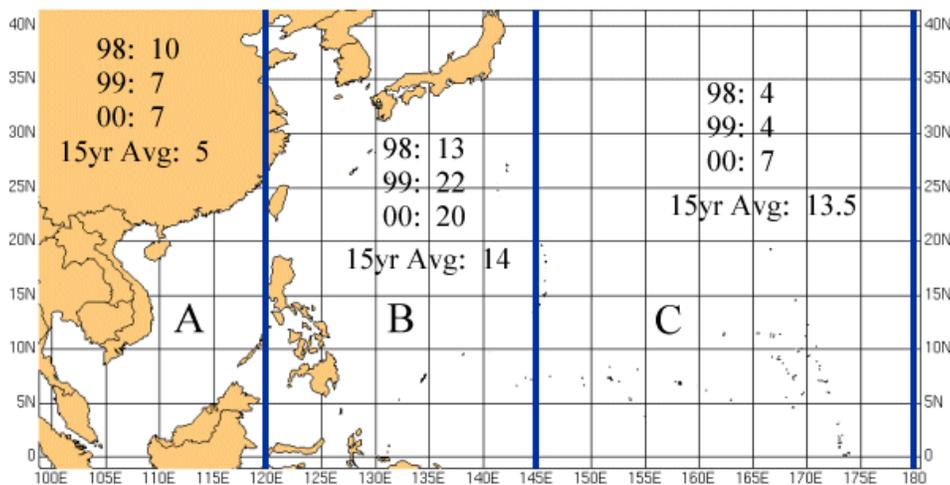


Figure 1-1. Comparison of the number of tropical cyclones that developed within 3 designated areas for 1998, 1999, 2000, and the 15-year average.

Table 1-1 WESTERN NORTH PACIFIC SIGNIFICANT TROPICAL CYCLONES FOR 2000 (01 JAN 2000 - 31 DEC 2000)

TC	NAME	PERIOD	WARNINGS ISSUED	EST MAX SFC WINDS KTS (M/SEC)	MSLP (MB)**
STY 01W	(DAMREY)	05 May 12 May	27	155 (79)	878
TS 02W	(LONGWANG)	18 May 20 May	7	45 (23)	991
TD 03W	-	21 May 22 May	5	30 (15)	1000
TD 04W	-	30 May 01 Jun	8	30 (15)	1000
TY 05W	(KIROGI)	02 Jul 08 Jul	27	115 (59)	927
TY 06W	(KAI-TAK)	04 Jul 11 Jul	28	75 (39)	967
TD 07W	-	13 Jul 15 Jul	9	30 (15)	1000
TD 08W	-	16 Jul 17 Jul	7	25 (13)	1002
TS 09W	(TEMBIN)	17 Jul 23 Jul	22	45 (23)	991
TD 10W	-	20 Jul 22 Jul	13	25 (13)	1002
TS 11W	(BOLAVEN)	24 Jul 31 Jul	27	50 (26)	987
TS 12W	(CHANCHU)	28 Jul 29 Jul	8	35 (18)	994
TY 13W	(JELAWAT)	01 Aug 11 Aug	42	125 (64)	916
TD 14W	-	08 Aug 10 Aug	8	30 (15)	1000
TY 15W	(EWINIAR)	09 Aug 19 Aug	41	75 (39)	967
TS 16W	(WENE)	15 Aug 17 Aug	3 (6)*	55 (28)	984
TD 17W	-	17 Aug 19 Aug	6	25 (13)	1002
STY 18W	(BILIS)	18 Aug 24 Aug	24	140 (72)	898
TS 19W	(KAEMI)	20 Aug 23 Aug	12	45 (23)	991
TY 20W	(PRAPIROON)	26 Aug 01 Sep	26	75 (39)	967
TS 21W	(MARIA)	28 Aug 01 Sep	17	55 (28)	984
STY 22W	(SAOMAI)	02 Sep 16 Sep	56	140 (72)	898
TY 23W	(WUKONG)	05 Sep 10 Sep	21	95 (49)	949
TS 24W	(BOPHA)	05 Sep 12 Sep	26	55 (28)	984
TY 25W	(SONAMU)	14 Sep 18 Sep	16	75 (39)	967
STY 26W	(SHANSHAN)	17 Sep 24 Sep	28	130 (67)	910
TD 27W	-	28 Sep 30 Sep	7	30 (15)	1000
TS 28W	-	06 Oct 13 Oct	27	40 (21)	994
TY 29W	(YAGI)	21 Oct 28 Oct	27	105 (54)	938
TY 30W	(XANGSANE)	25 Oct 01 Nov	30	90 (46)	954
TY 31W	(BEBINCA)	31 Oct 08 Nov	33	85 (44)	958
TD 32W	-	08 Nov 09 Nov	8	30 (15)	1000
TS 33W	(RUMBIA)	28 Nov 08 Dec	36	50 (26)	987
TY 34W	(SOULIK)	29 Dec 05 Jan 2001	29	110 (57)	933
		JTWC TOTAL	711		
		()NPMOC TOTAL	6		
		GRAND TOTAL	717		

*WARNINGS ISSUED BY NPMOC

**MSLP Converted from estimated maximum surface winds using Atkinson/Holiday wind-pressure relationship

Table 1-2 DISTRIBUTION OF WESTERN NORTH PACIFIC TROPICAL CYCLONES FOR 1959 - 2000

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
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Table 1-2 DISTRIBUTION OF WESTERN NORTH PACIFIC TROPICAL CYCLONES FOR 1959 - 2000

1959	0	1	1	1	0	1	3	8	9	3	2	2	31
	000	010	010	100	000	001	111	512	423	210	200	200	17 7 7
1960	1	0	1	1	1	3	3	9	5	4	1	1	30
	001	000	001	100	010	210	210	810	041	400	100	100	19 8 3
1961	1	1	1	1	4	6	5	7	6	7	2	1	42
	010	010	100	010	211	114	320	313	510	322	101	100	20 11 11
1962	0	1	0	1	3	0	8	8	7	5	4	2	39
	000	010	000	100	201	000	512	701	313	311	301	020	24 6 9
1963	0	0	1	1	0	4	5	4	4	6	0	3	28
	000	000	001	100	000	310	311	301	220	510	000	210	19 6 3
1964	0	0	0	0	3	2	8	8	8	7	6	2	44
	000	000	000	000	201	200	611	350	521	331	420	101	26 13 5
1965	2	2	1	1	2	4	6	7	9	3	2	1	40
	110	020	010	100	101	310	411	322	531	201	110	010	21 13 6
1966	0	0	0	1	2	1	4	9	10	4	5	2	38
	000	000	000	100	200	100	310	531	532	112	122	101	20 10 8
1967	1	0	2	1	1	1	8	10	8	4	4	1	41
	010	000	110	100	010	100	332	343	530	211	400	010	20 15 6
1968	0	1	0	1	0	4	3	8	4	6	4	0	31
	000	001	000	100	000	202	120	341	400	510	400	000	20 7 4
1969	1	0	1	1	0	0	3	3	6	5	2	1	23
	100	000	010	100	000	000	210	210	204	410	110	010	13 6 4
1970	0	1	0	0	0	2	3	7	4	6	4	0	27
	000	100	000	000	000	110	021	421	220	321	130	000	12 12 3
1971	1	0	1	2	5	2	8	5	7	4	2	0	37
	010	000	010	200	230	200	620	311	511	310	110	000	24 11 2
1972	1	0	1	0	0	4	5	5	6	5	2	3	32
	100	000	001	000	000	220	410	320	411	410	200	210	22 8 2
1973	0	0	0	0	0	0	7	6	3	4	3	0	23
	000	000	000	000	000	000	430	231	201	400	030	000	12 9 2
1974	1	0	1	1	1	4	5	7	5	4	4	2	35
	010	000	010	010	100	121	230	232	320	400	220	020	15 17 3
1975	1	0	0	1	0	0	1	6	5	6	3	2	25
	100	000	000	001	000	000	010	411	410	321	210	002	14 6 5
1976	1	1	0	2	2	2	4	4	5	0	2	2	25
	100	010	000	110	200	200	220	130	410	000	110	020	14 11 0
1977	0	0	1	0	1	1	4	2	5	4	2	1	21
	000	000	010	000	001	010	301	020	230	310	200	100	11 8 2
1978	1	0	0	1	0	3	4	8	4	7	4	0	32
	010	000	000	100	000	030	310	341	310	412	121	000	15 13 4
1979	1	0	1	1	2	0	5	4	6	3	2	3	28
	100	000	100	100	011	000	221	202	330	210	110	111	14 9 5
1980	0	0	1	1	4	1	5	3	7	4	1	1	28
	000	000	001	010	220	010	311	201	511	220	100	010	15 9 4
1981	0	0	1	1	1	2	5	8	4	2	3	2	29
	000	000	100	010	010	200	230	251	400	110	210	200	16 12 1

Table 1-2 DISTRIBUTION OF WESTERN NORTH PACIFIC TROPICAL CYCLONES FOR 1959 - 2000

1982	0	0	3	0	1	3	4	5	6	4	1	1	28
	000	000	210	000	100	120	220	500	321	301	100	100	19 7 2
1983	0	0	0	0	0	1	3	6	3	5	5	2	25
	000	000	000	000	000	010	300	231	111	320	320	020	12 11 2
1984	0	0	0	0	0	2	5	7	4	8	3	1	30
	000	000	000	000	000	020	410	232	130	521	300	100	16 11 3
1985	2	0	0	0	1	3	1	7	5	5	1	2	27
	020	000	000	000	100	201	100	520	320	410	010	110	17 9 1
1986	0	1	0	1	2	2	2	5	2	5	4	3	27
	000	100	000	100	110	110	200	410	200	320	220	210	19 8 0
1987	1	0	0	1	0	2	4	4	7	2	3	1	25
	100	000	000	010	000	110	400	310	511	200	120	100	18 6 1
1988	1	0	0	0	1	3	2	5	8	4	2	1	27
	100	000	000	000	100	111	110	230	260	400	200	010	14 12 1
1989	1	0	0	1	2	2	6	8	4	6	3	2	35
	010	000	000	100	200	110	231	332	220	600	300	101	21 10 4
1990	1	0	0	1	2	4	4	5	5	5	4	1	32
	100	000	000	010	110	211	220	500	410	230	310	100	21 10 1
1991	0	0	2	1	1	1	4	8	6	3	6	0	32
	000	000	110	010	100	100	400	332	420	300	330	000	20 10 2
1992	1	1	0	0	0	3	4	8	5	6	5	0	33
	100	010	000	000	000	210	220	440	410	510	311	000	21 11 1
1993	0	0	2	2	1	2	5	8	5	6	4	3	38
	000	000	011	002	010	101	320	611	410	321	112	300	21 9 8
1994	1	0	1	0	2	2	9	9	8	7	0	2	41
	001	000	100	000	101	020	342	630	440	511	000	110	21 15 5
1995	1	0	0	0	1	2	3	7	7	8	2	3	34
	001	000	000	000	010	020	210	421	412	512	020	012	15 11 8
1996	0	1	0	2	2	0	7	10	7	5	6	3	43
	000	001	000	011	110	000	610	433	610	212	132	111	21 12 10
1997	1	0	0	2	3	3	4	8	4	6	1	1	33
*	010	000	000	110	120	300	310	611	310	411	100	100	23 8 2
1998	0	0	0	0	0	0	3	3	8	6	3	4	27
*	000	000	000	000	000	000	012	210	413	213	030	112	9 8 10
1999	1	1	0	3	0	1	5	9	6	2	3	3	34
*	010	010	000	210	000	100	113	423	240	110	111	003	12 12 10
2000	0	0	0	0	4	0	8	9	6	3	3	1	34
	000	000	000	000	112	000	233	432	411	210	111	100	15 10 9
(1959-2000)													
MEAN	0.6	0.3	0.5	0.8	1.3	2.0	4.6	6.6	5.8	4.7	2.9	1.6	31.8
CASES	24	12	23	34	55	83	195	277	243	199	123	66	1334

The criteria used in TABLE 1-2 are as follows:

- 1) If a tropical cyclone was first warned on during the last two days of a particular month and continued into the next month for longer than two days, then that system was attributed to the second month.
- 2) If a tropical cyclone was warned on prior to the last two days of a month, it was attributed to the first month, regardless of how long the system lasted.

Table 1-2 DISTRIBUTION OF WESTERN NORTH PACIFIC TROPICAL CYCLONES FOR 1959 - 2000

3) If a tropical cyclone began on the last day of the month and ended on the first day of the next month, that system was attributed to the first month. However, if a tropical cyclone began on the last day of the month and continued into the next month for only two days, then it was attributed to the second month.

* Errors in this table have been noted for the years 1997, 1998 and 1999 in previous ATCRs. The current table has been updated to reflect the correct data.

TABLE 1-3 WESTERN NORTH PACIFIC TROPICAL CYCLONES													
TYPHOONS (1945-1959)													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
MEAN	0.3	0.1	0.3	0.4	0.7	1	2.9	3.1	3.3	2.4	2	0.9	16.4
CASES	5	1	4	6	10	15	29	46	49	36	30	14	245
TYPHOONS (1960-2000)													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
MEAN	0.2	0.0	0.2	0.4	0.7	1.0	2.7	3.5	3.4	3.1	1.6	0.7	17.6
CASES	10	2	8	18	28	42	110	142	139	129	65	28	721
TROPICAL STORMS AND TYPHOONS (1945-1959)													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
MEAN	0.4	0.1	0.5	0.5	0.8	1.6	2.9	4	4.2	3.3	2.7	1.2	22.2
CASES	6	2	7	8	11	22	44	60	64	49	41	18	332
TROPICAL STORMS AND TYPHOONS (1960-2000)													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
MEAN	0.5	0.2	0.4	0.7	1.1	1.7	4.1	5.6	5.1	4.2	2.7	1.2	27.6
CASES	21	9	17	29	46	71	170	228	210	172	109	50	1132

TABLE 1-4 TROPICAL CYCLONE FORMATION ALERTS FOR THE WESTERN NORTH PACIFIC OCEAN FOR 1976-2000					
YEAR	INITIAL TC-FAS	TROPICAL CYCLONES WITH TCFAS	TOTAL TROPICAL CYCLONES	PROBABILITY OF TCFA WITHOUT WARNING*	PROBABILITY OF TCFA BEFORE WARNING
1976	34	25	25	26%	100%
1977	26	20	21	23%	95%
1978	32	27	32	16%	84%
1979	27	23	28	15%	82%
1980	37	28	28	24%	100%
1981	29	28	29	3%	96%
1982	36	26	28	28%	93%
1983	31	25	25	19%	100%
1984	37	30	30	19%	100%
1985	39	26	27	33%	96%
1986	38	27	27	29%	100%
1987	31	24	25	23%	96%
1988	33	26	27	21%	96%
1989	51	32	35	37%	91%
1990	33	30	31	9%	97%

TABLE 1-4 TROPICAL CYCLONE FORMATION ALERTS FOR THE WESTERN NORTH PACIFIC OCEAN FOR 1976-2000					
1991	37	29	31	22%	94%
1992	36	32	32	11%	100%
1993	50	35	38	30%	92%
1994	50	40	40	20%	100%
1995	54	33	35	39%	94%
1996	41	39	43	5%	91%
1997	36	30	33	17%	91%
1998	38	18	27	53%	67%
1999	39	29	33	26%	88%
2000	40	31	34	23%	91%
(1976-2000)					
MEAN:	37.4	28.5	30.6	23.7%	93.3%
TOTALS:	935	713	764		
* Percentage of initial TCFA's not followed by warnings.					

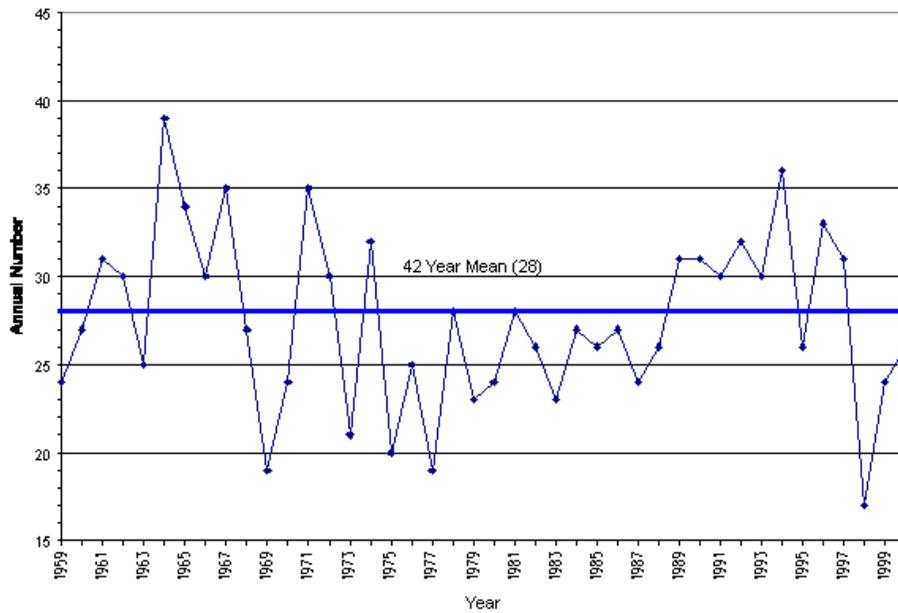


Figure 1-2. Tropical cyclones of tropical storm or greater intensity in the western North Pacific (1959-2000).

1.2 NORTH INDIAN OCEAN TROPICAL CYCLONES

This year's North Indian Ocean tropical cyclones are listed in Table 1-5. The monthly distribution of tropical cyclones for each year since 1975 is shown in Table 1-6. Composites of the tropical cyclone best tracks for the Northern Indian Ocean appear following Table 1-6.

Table 1-5 NORTH INDIAN OCEAN SIGNIFICANT TROPICAL CYCLONES FOR 2000 (01 JAN 2000 - 31 DEC 2000)					
TC	NAME	PERIOD	WARNINGS ISSUED	EST MAX SFC WINDS KTS (M/SEC)	MSLP (MB)*

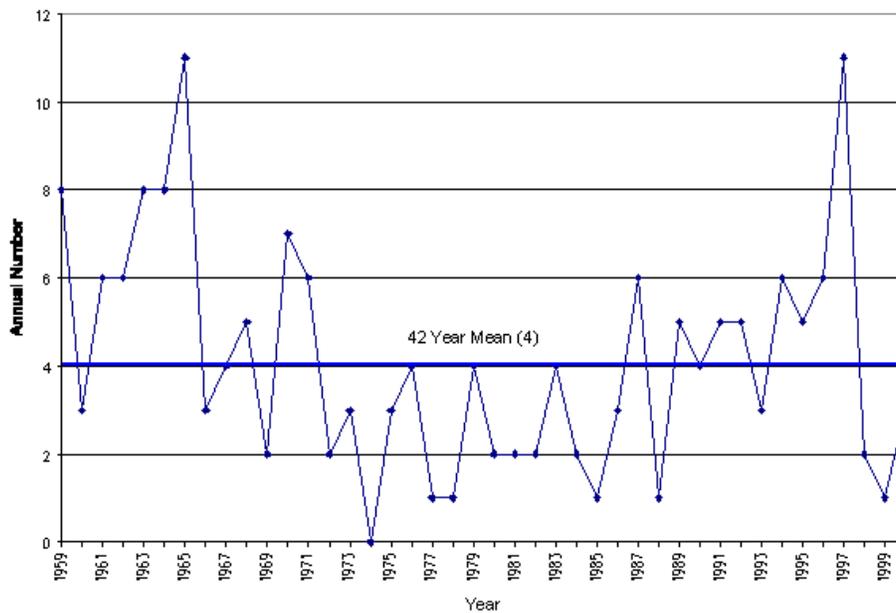


Figure 1-3. Number of western North Pacific super typhoons (1959-2000).

Table 1-5 NORTH INDIAN OCEAN SIGNIFICANT TROPICAL CYCLONES FOR 2000 (01 JAN 2000 - 31 DEC 2000)

01B	-	16 Oct - 18 Oct	6	35 (18)	997
02B	-	27 Oct - 28 Oct	2	35 (18)	997
03B	-	26 Nov - 05 Dec	16	75 (39)	967
04B	-	25 Dec - 28 Dec	7	60 (31)	980
JTWC Total			31		

*MSLP Converted from estimated maximum surface winds using Atkinson/Holiday wind-pressure relationship

Table 1-6 DISTRIBUTION OF NORTHERN INDIAN OCEAN TROPICAL CYCLONES FOR 1975 - 2000

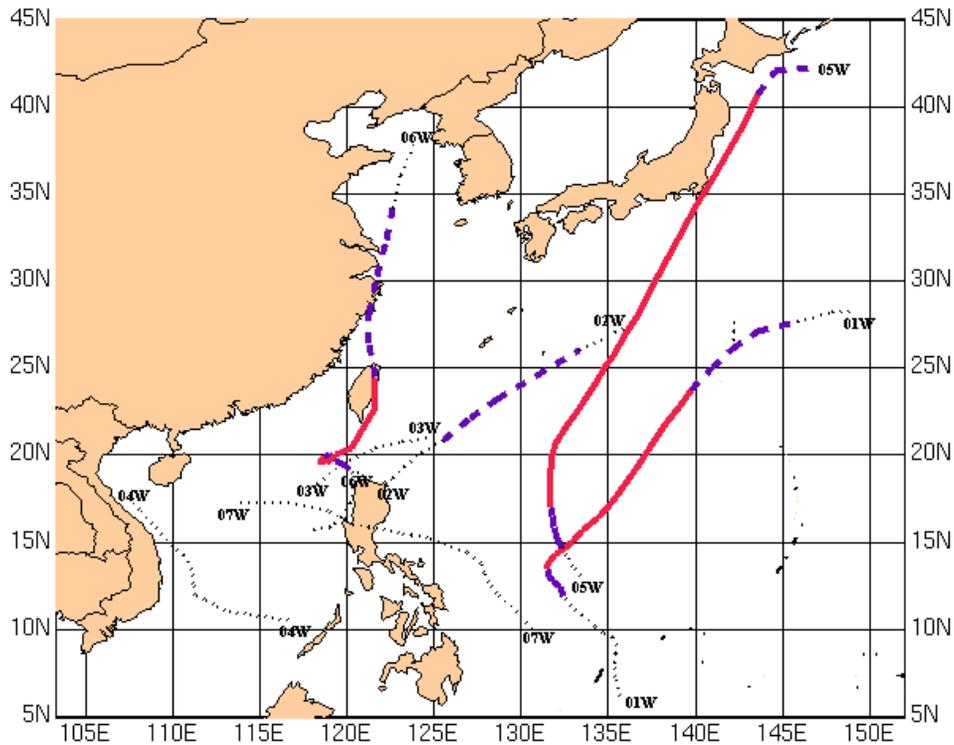
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
1975	1	0	0	0	2	0	0	0	0	1	2	0	6
	0 1 0	0 0 0	0 0 0	0 0 0	2 0 0	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 2 0	0 0 0	3 3 0
1976	0	0	0	1	0	1	0	0	1	1	0	1	5
	0 0 0	0 0 0	0 0 0	0 1 0	0 0 0	0 1 0	0 0 0	0 0 0	0 1 0	0 1 0	0 0 0	0 1 0	0 5 0
1977	0	0	0	0	1	1	0	0	0	1	0	2	5
	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 1 0	0 0 0	0 0 0	0 0 0	0 1 0	0 0 0	1 1 0	1 4 0
1978	0	0	0	0	1	0	0	0	0	1	2	0	4
	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	2 0 0	0 0 0	2 2 0
1979	0	0	0	0	1	1	0	0	2	1	2	0	7
	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 1 0	0 0 0	0 0 0	0 1 1	0 1 0	0 1 1	0 0 0	1 4 2
1980	0	0	0	0	0	0	0	0	0	0	1	1	2
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 1 0	0 2 0
1981	0	0	0	0	0	0	0	0	1	0	1	1	3
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 0 0	1 0 0	1 0 0	2 1 0
1982	0	0	0	0	1	1	0	0	0	2	1	0	5
	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 1 0	0 0 0	0 0 0	0 0 0	0 2 0	1 0 0	0 0 0	2 3 0
1983	0	0	0	0	0	0	0	1	0	1	1	0	3
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 0 0	0 1 0	0 1 0	0 0 0	0 3 0
1984	0	0	0	0	1	0	0	0	0	1	2	0	4
	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	2 0 0	0 0 0	2 2 0
1985	0	0	0	0	2	0	0	0	0	2	1	1	6
	0 0 0	0 0 0	0 0 0	0 0 0	0 2 0	0 0 0	0 0 0	0 0 0	0 0 0	0 2 0	0 1 0	0 1 0	0 6 0
1986	1	0	0	0	0	0	0	0	0	0	2	0	3
	0 1 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 2 0	0 0 0	0 3 0
1987	0	1	0	0	0	2	0	0	0	2	1	2	8
	0 0 0	0 1 0	0 0 0	0 0 0	0 0 0	0 2 0	0 0 0	0 0 0	0 0 0	0 2 0	0 1 0	0 2 0	0 8 0
1988	0	0	0	0	0	1	0	0	0	1	2	1	5
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 0 0	0 0 0	0 0 0	0 1 0	1 1 0	0 1 0	1 4 0
1989	0	0	0	0	1	1	0	0	0	0	1	0	3
	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 1 0	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 0 0	1 2 0
1990	0	0	0	1	1	0	0	0	0	0	1	1	4
	0 0 0	0 0 0	0 0 0	0 0 1	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 1	0 1 0	1 1 2

Table 1-6 DISTRIBUTION OF NORTHERN INDIAN OCEAN TROPICAL CYCLONES FOR 1975 - 2000

1991	1	0	0	1	0	1	0	0	0	0	1	0	4
	0 1 0	0 0 0	0 0 0	1 0 0	0 0 0	0 1 0	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 0 0	2 2 0
1992	0	0	0	0	1	2	1	0	1	3	3	2	13
	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 2 0	0 1 0	0 0 0	0 0 1	0 2 1	2 1 0	0 2 0	3 8 2
1993	0	0	0	0	0	0	0	0	0	0	2	0	2
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	2 0 0	0 0 0	2 0 0
1994	0	0	1	1	0	1	0	0	0	1	1	0	5
	0 0 0	0 0 0	0 1 0	1 0 0	0 0 0	0 1 0	0 0 0	0 0 0	0 0 0	0 1 0	0 1 0	0 0 0	1 4 0
1995	0	0	0	0	0	0	0	0	1	1	2	0	4
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	0 1 0	2 0 0	0 0 0	2 2 0
1996	0	0	0	0	1	3	0	0	0	2	2	0	8
	0 0 0	0 0 0	0 0 0	0 0 0	0 1 0	1 2 0	0 0 0	0 0 0	0 0 0	1 1 0	2 0 0	0 0 0	4 4 0
1997	0	0	0	0	1	0	0	0	1	1	1	0	4
	0 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 0 0	0 0 0	0 0 0	1 0 0	0 1 0	0 1 0	0 0 0	2 2 0
1998	0	0	0	0	2	1	0	0	1	1	2	1	8
	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0	1 0 0	0 0 0	0 0 0	0 1 0	0 1 0	2 0 0	1 0 0	5 3 0
1999	0	1	0	0	1	1	0	0	0	2	0	0	5
	0 0 0	0 1 0	0 0 0	0 0 0	1 0 0	0 1 0	0 0 0	0 0 0	0 0 0	2 0 0	0 0 0	0 0 0	3 2 0
2000	0	0	0	0	0	0	0	0	0	2	1	1	4
	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 2 0	1 0 0	0 1 0	1 3 0
(1959-2000)													
MEAN	0.1	0.1	0.0	0.2	0.7	0.7	0.0	0.0	0.3	1.0	1.3	0.5	5.0
CASES	3	2	1	4	17	17	1	1	8	27	35	14	130

The criteria used in TABLE 1-6 are as follows:

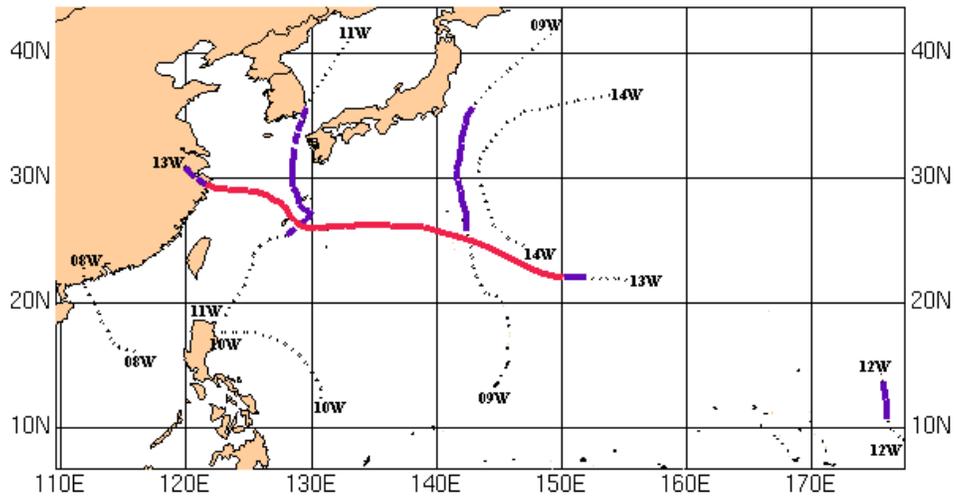
- 1) If a tropical cyclone was first warned on during the last two days of a particular month and continued into the next month for longer than two days, then that system was attributed to the second month.
- 2) If a tropical cyclone was warned on prior to the last two days of a month, it was attributed to the first month, regardless of how long the system lasted.
- 3) If a tropical cyclone began on the last day of the month and ended on the first day of the next month, that system was attributed to the first month. However, if a tropical cyclone began on the last day of the month and continued into the next month for only two days, then it was attributed to the second month.



**NORTHWEST PACIFIC OCEAN
TROPICAL CYCLONES
05 MAY 00 - 15 JUL 00**

MAXIMUM SUSTAINED SURFACE WIND
 ——— 64KT (33M/SEC) OR GREATER
 - - - 34 TO 63KT (18 TO 32M/SEC)
 33KT (17M/SEC) OR LESS

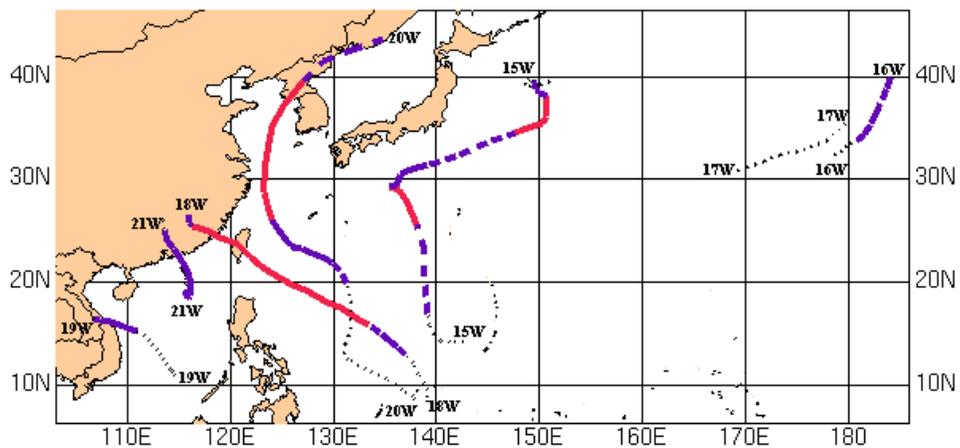
STY 01W (DAMREY)	05 MAY - 12 MAY
TS 02W (LONGWANG)	18 MAY - 20 MAY
TD 03W	21 MAY - 22 MAY
TD 04W	31 MAY - 01 JUN
TY 05W (KIROGI)	02 JUL - 08 JUL
TY 06W (KAI-TAK)	10 JUL - 11 JUL
TD 07W	13 JUL - 15 JUL



**NORTHWEST PACIFIC OCEAN
TROPICAL CYCLONES
16 JUL 00 - 10 AUG 00**

MAXIMUM SUSTAINED SURFACE WIND	
—	64KT (33M/SEC) OR GREATER
- - -	34 TO 63KT (18 TO 32M/SEC)
.....	33KT (17M/SEC) OR LESS

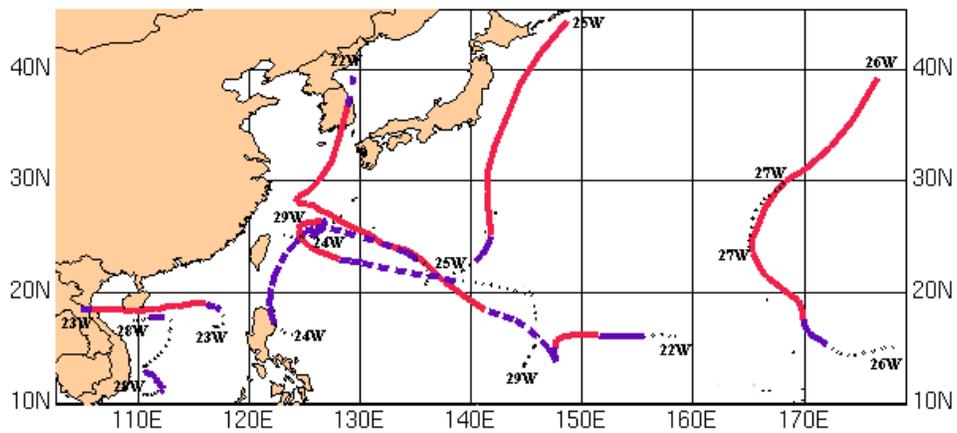
TD 08W	16 JUL - 17 JUL
TS 09W (TEMBIN)	17 JUL - 23 JUL
TD 10W	20 JUL - 22 JUL
TS 11W (BOLAVEN)	24 JUL - 31 JUL
TS 12W (CHANCHU)	28 JUL - 29 JUL
TY 13W (JELEWAT)	01 AUG - 11 AUG
TD 14W	08 AUG - 10 AUG



**NORTHWEST PACIFIC OCEAN
TROPICAL CYCLONES
09 AUG 00 - 01 SEP 00**

MAXIMUM SUSTAINED SURFACE WIND
 ——— 64KT (33M/SEC) OR GREATER
 - - - 34 TO 63KT (18 TO 32M/SEC)
 33KT (17M/SEC) OR LESS

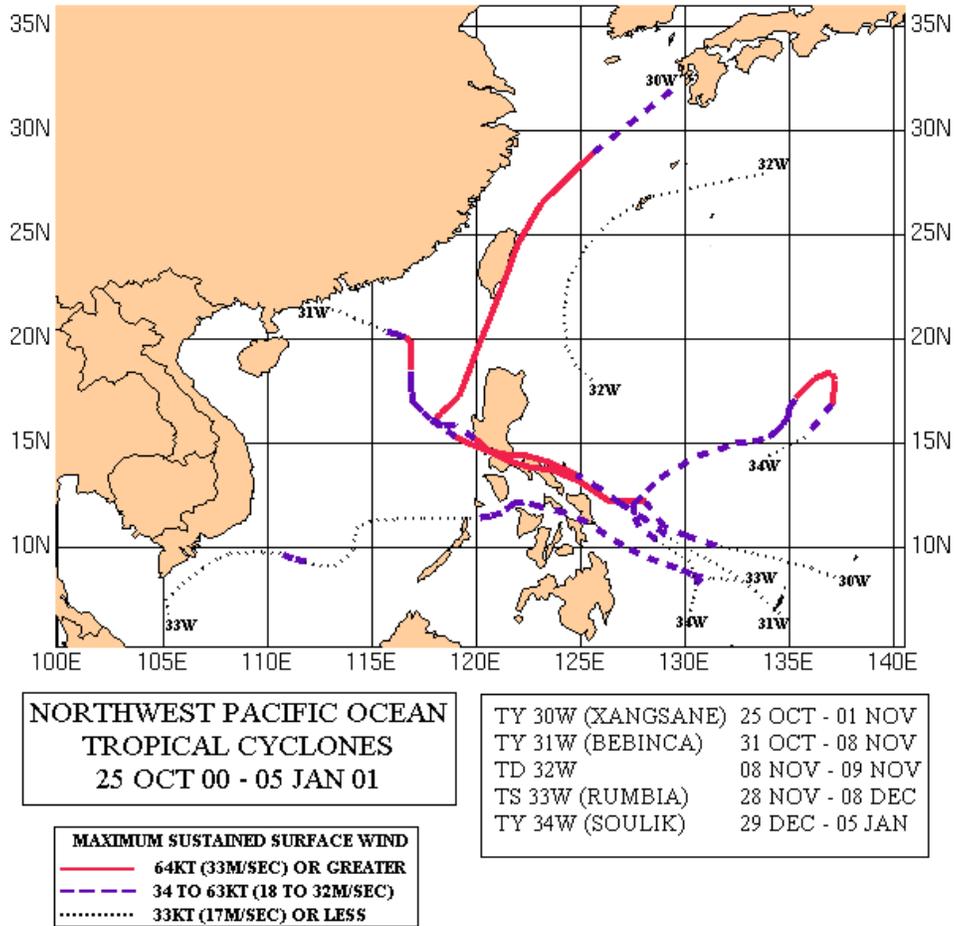
TY 15W (EWINIAR)	09 AUG - 16 AUG
TS 16W (WENE)	15 AUG - 17 AUG
TD 17W	17 AUG - 19 AUG
STY 18W (BILIS)	18 AUG - 24 AUG
TS 19W (KAEMI)	20 AUG - 23 AUG
TY 20W (PRAPIROON)	26 AUG - 01 SEP
TS 21W (MARIA)	28 AUG - 01 SEP

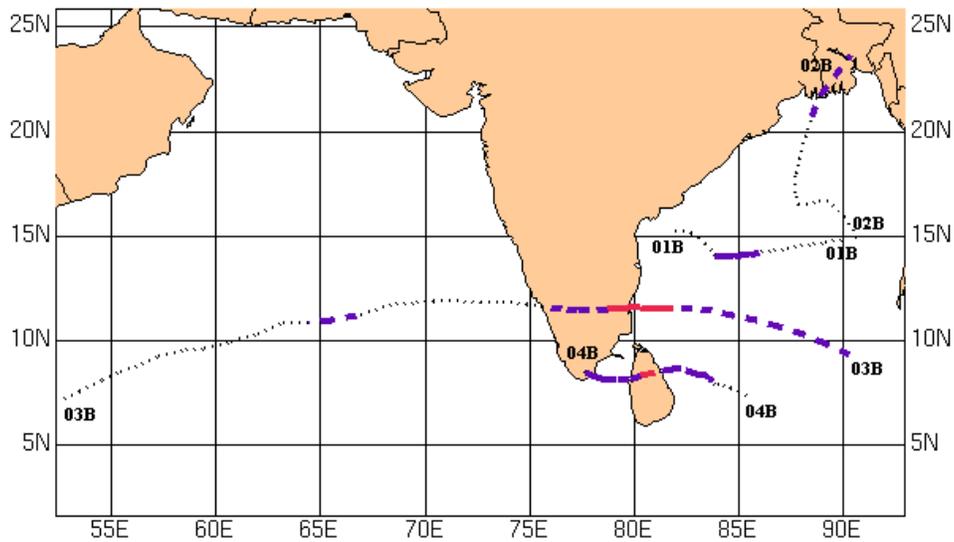


**NORTHWEST PACIFIC OCEAN
TROPICAL CYCLONES
02 SEP 00 - 28 OCT 00**

MAXIMUM SUSTAINED SURFACE WIND	
— (Red)	64KT (33M/SEC) OR GREATER
- - - (Blue)	34 TO 63KT (18 TO 32M/SEC)
..... (Black)	33KT (17M/SEC) OR LESS

STY 22W (SAOMAI)	02 SEP - 16 SEP
TY 23W (WUKONG)	05 SEP - 10 SEP
TS 24W (BOPHA)	05 SEP - 12 SEP
TY 25W (SONAMI)	14 SEP - 18 SEP
STY 26W (SHANSHAN)	17 SEP - 24 SEP
TD 27W	28 SEP - 30 SEP
TS 28W	06 OCT - 13 OCT
TY 29W (YAGI)	21 OCT - 28 OCT





**NORTH INDIAN OCEAN
TROPICAL CYCLONES
16 OCT 00 - 28 DEC 00**

TC 01B	16 OCT 00 - 18 OCT 00
TC 02B	27 OCT 00 - 28 OCT 00
TC 03B	26 NOV 00 - 05 DEC 00
TC 04B	25 DEC 00 - 28 DEC 00

MAXIMUM SUSTAINED SURFACE WIND

- 64KT (33M/SEC) OR GREATER
- - - 34 TO 63KT (18 TO 32M/SEC)
- 33KT (17M/SEC) OR LESS

Super Typhoon (STY) 01W (Damrey*)

First Poor : 1400Z 03 May 00

First Fair : 1700Z 03 May 00

First TCFA : 2330Z 04 May 00

First Warning : 1800Z 05 May 00

Last Warning : 0600Z 12 May 00

Max Intensity : 155 kts, Gusts to 190 kts

Landfall : None

Total Warnings : 27

Remarks:

- (1) First tropical cyclone for 2000 and first super typhoon that occurred during the western North Pacific Ocean tropical cyclone season.
- (2) The second most intense tropical cyclone to have occurred in May according to JTWC records.
- (3) Rapidly intensified to super typhoon strength after changing track from northwestward to northeastward in the Philippine Sea.
- (4) Reached peak intensity 091800Z May 00
- (5) Weakened to tropical storm intensity 30 hours after attaining peak intensity.
- (6) Experienced vertical shear, weakened then dissipated near the Bonin Islands.

* Name assigned by RSMC Tokyo

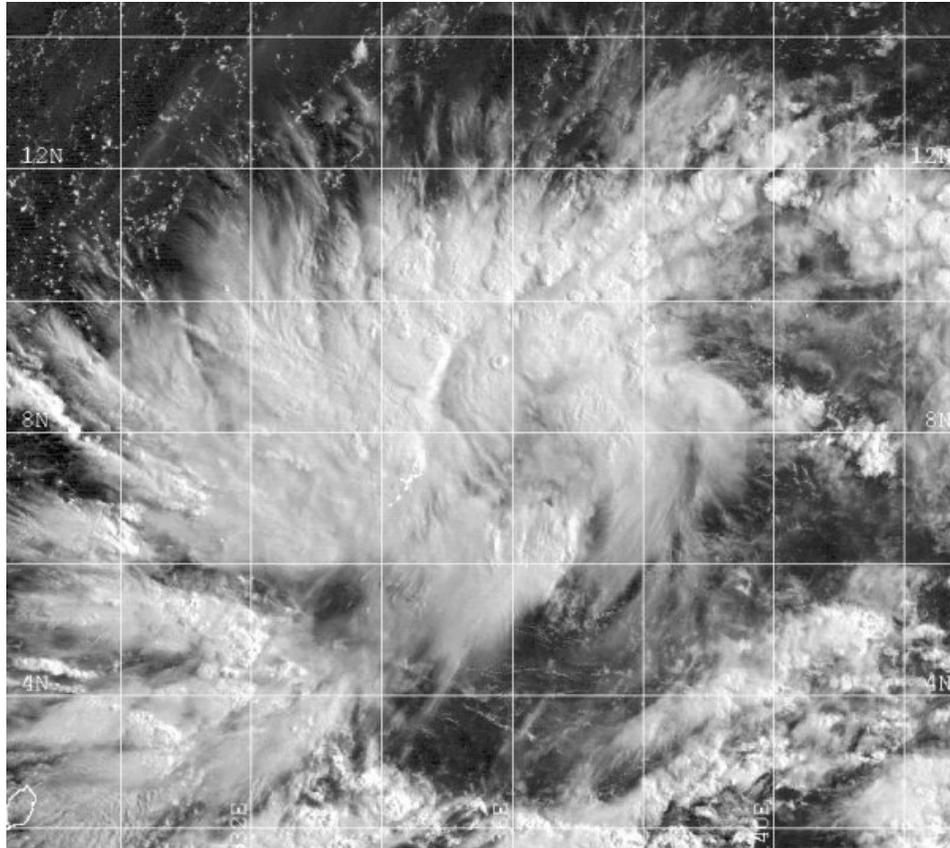


Figure 1-01W-1. 032322Z May 2000 GMS-5 visible image of the incipient disturbance near Palau which developed into STY 01W.

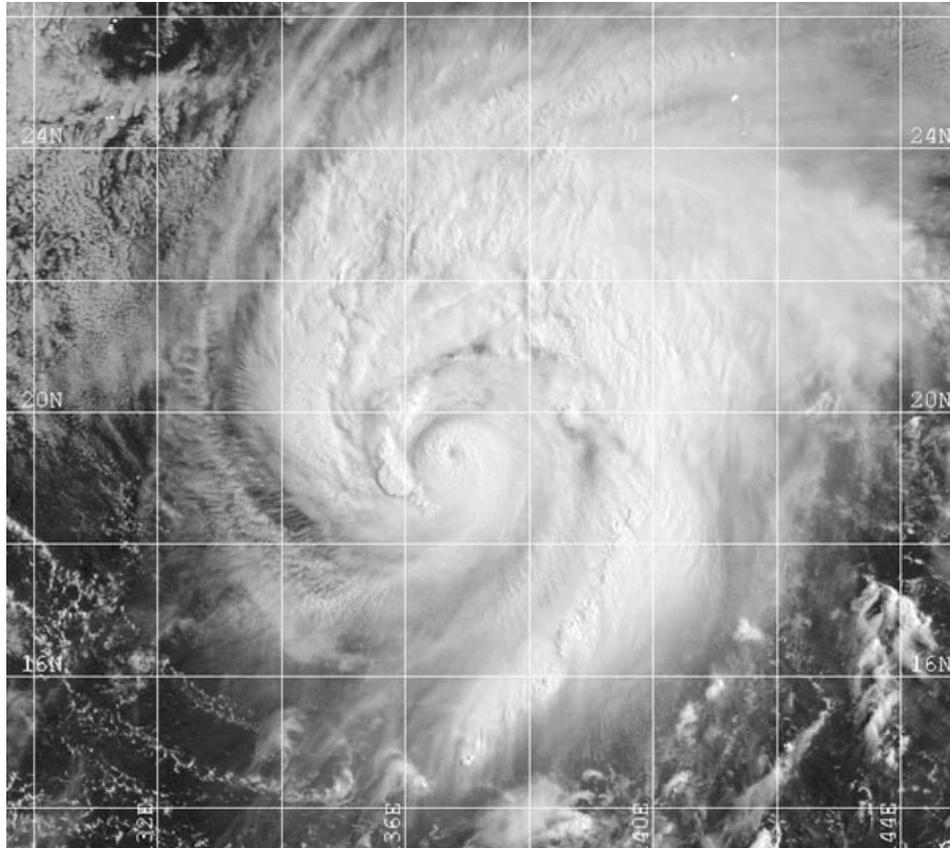


Figure 1-01W-2. 092301Z May 2000 GMS-5 visible image of STY 01W near peak intensity, with estimated winds of 150 knots. At this time, STY 01W is located about 480 nm west of the Mariana Islands with a tiny eye embedded within a well developed central dense overcast.

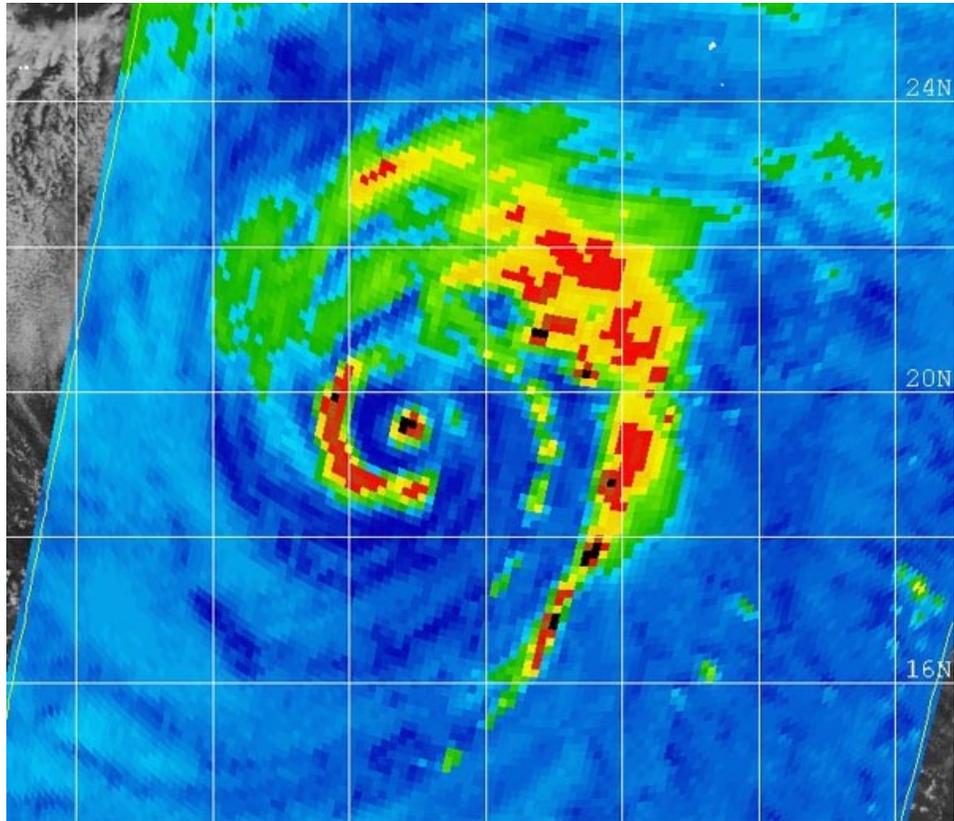


Figure 1-01W-3. 092342Z May 2000 SSMI 85 GHz image of STY 01W, with well-developed convection to the northeast of the low-level circulation.

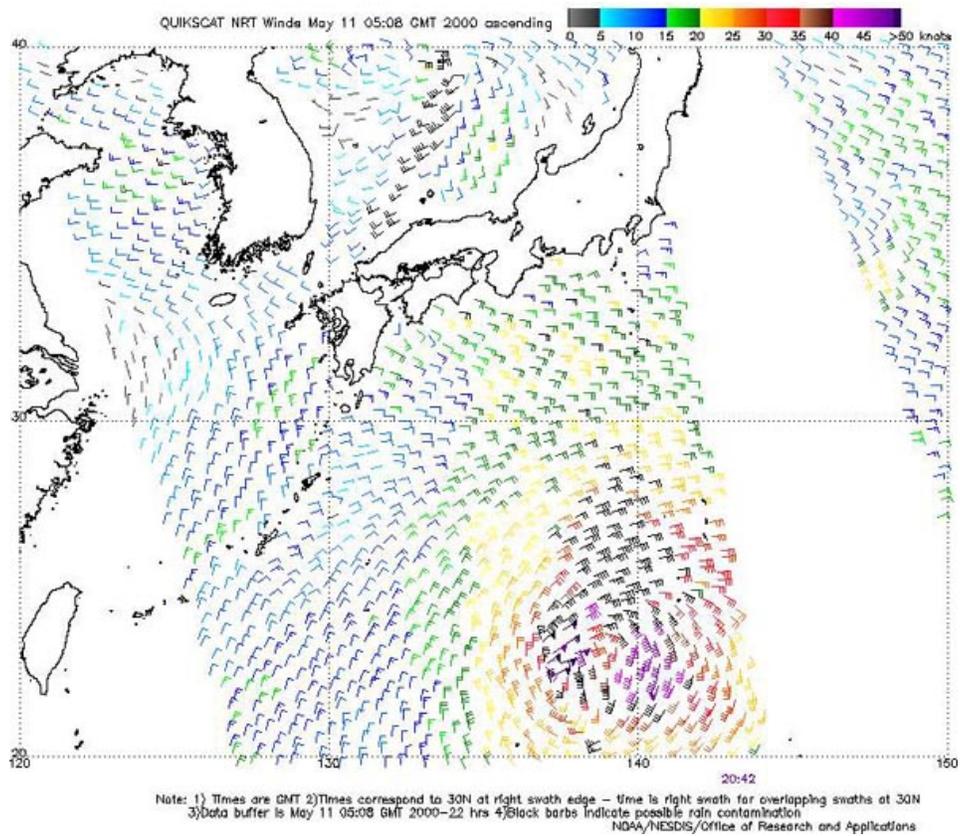


Figure 1-01W-4. 110508Z May 2000 QUIKSCAT pass over the well-defined low-level circulation center. STY 01W is centered 10 degrees south of Japan, with estimated best track intensity of 45 knots.

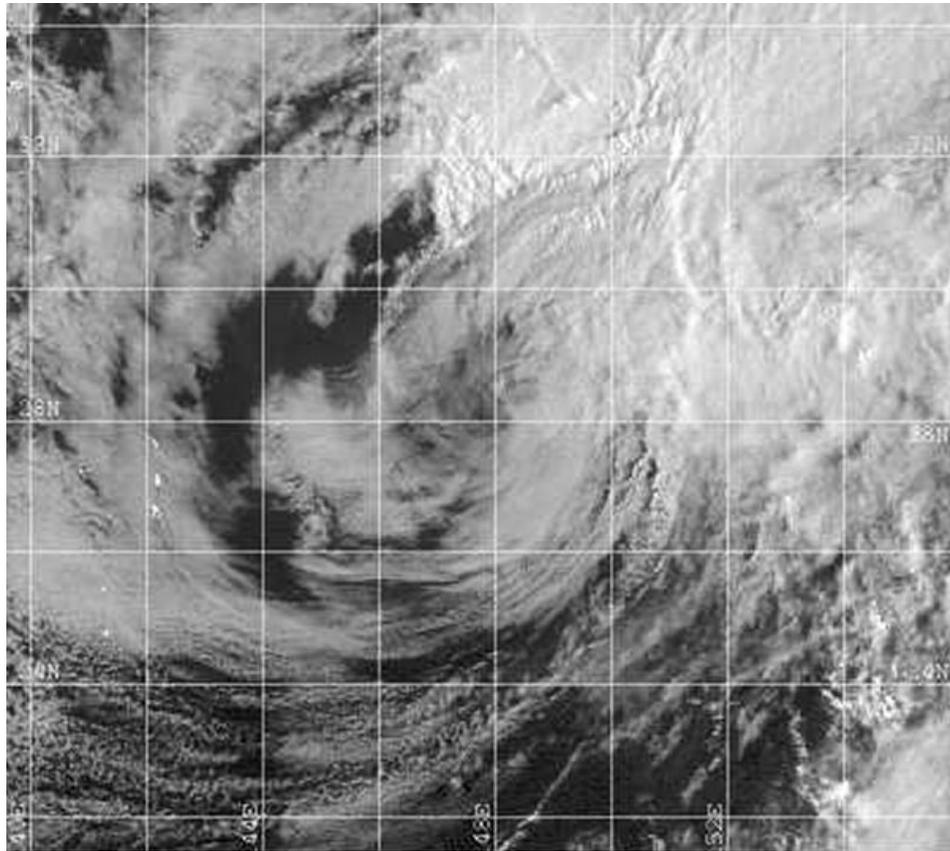
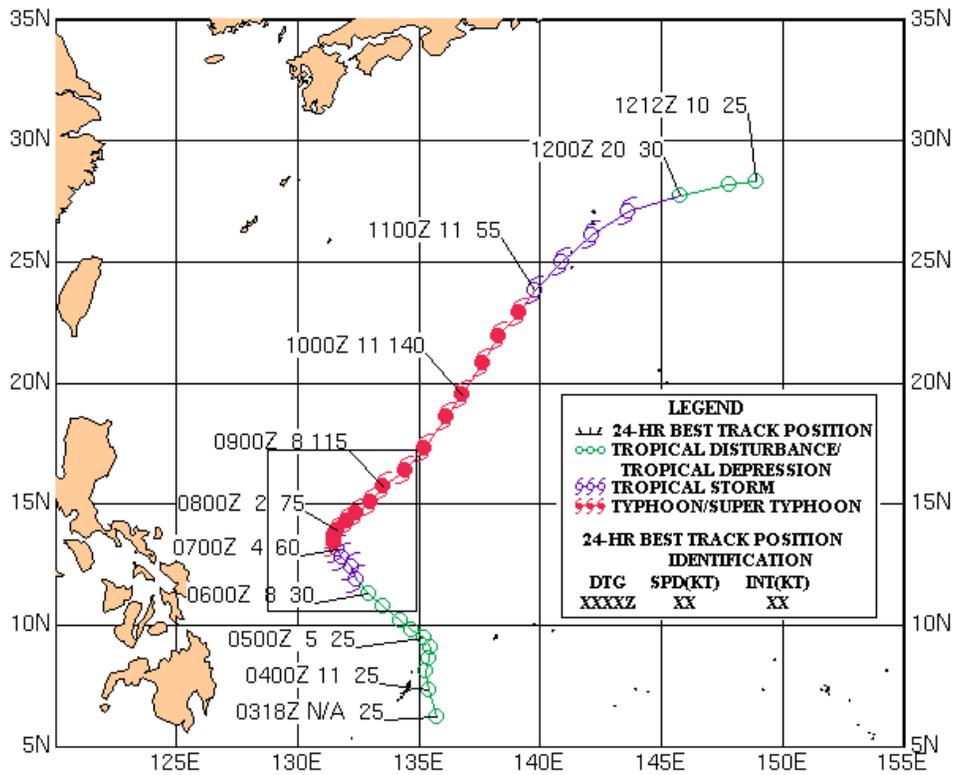
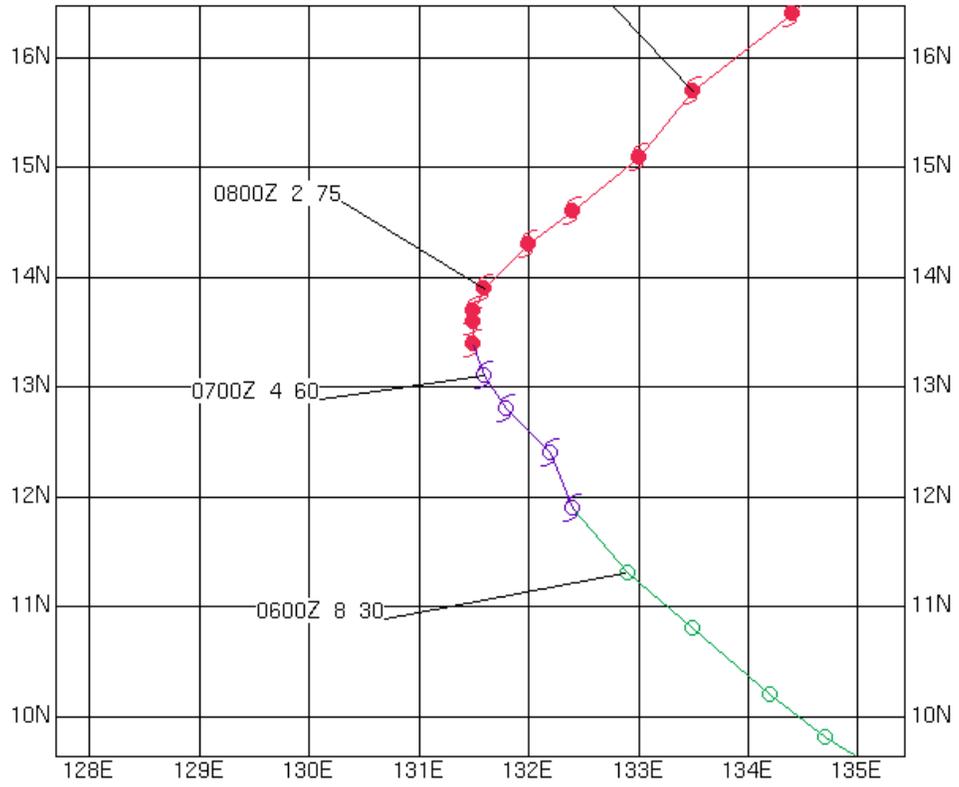


Figure 1-01W-5. 120716Z May 2000 GMS-5 visible image of the exposed low-level circulation. All the deep convection is located several degrees to the northeast. Synoptic data indicate the cyclone weakened as an upper-level trough approached from the northwest, increased the vertical shear, and displaced the upper-level circulation to the northeast.

SUPER TYPHOON 01W (DAMREY)
05 - 12 MAY 2000



See below to view inset detail



Tropical Storm (TS) 02W (Longwang*)

First Poor : 0600Z 15 May 00

First Fair : 2030Z 17 May 00

First TCFA : 0730Z 18 May 00

First Warning : 1800Z 19 May 00

Last Warning : 0600Z 20 May 00

Max Intensity : 45 kts, Gusts to 55 kts

Landfall : None

Total Warnings : 7

Remarks:

(1) No noted impacts

(2) Dissipated in the area between the Ryukyu and Bonin Islands

* Name assigned by RSMC Tokyo

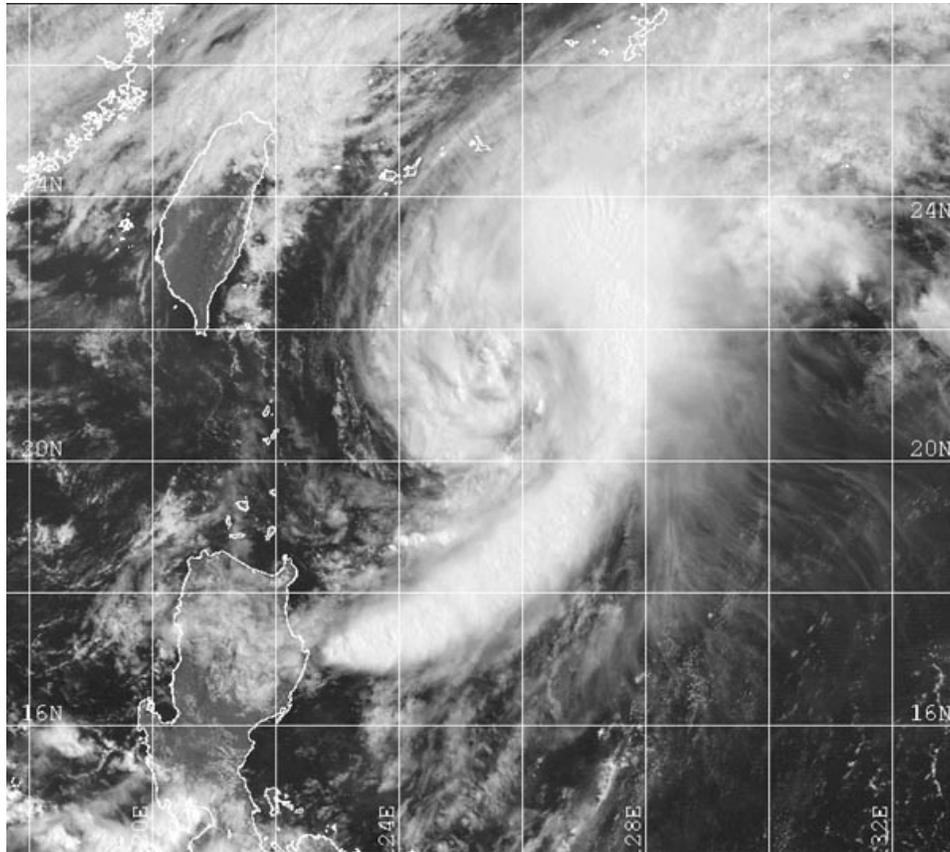
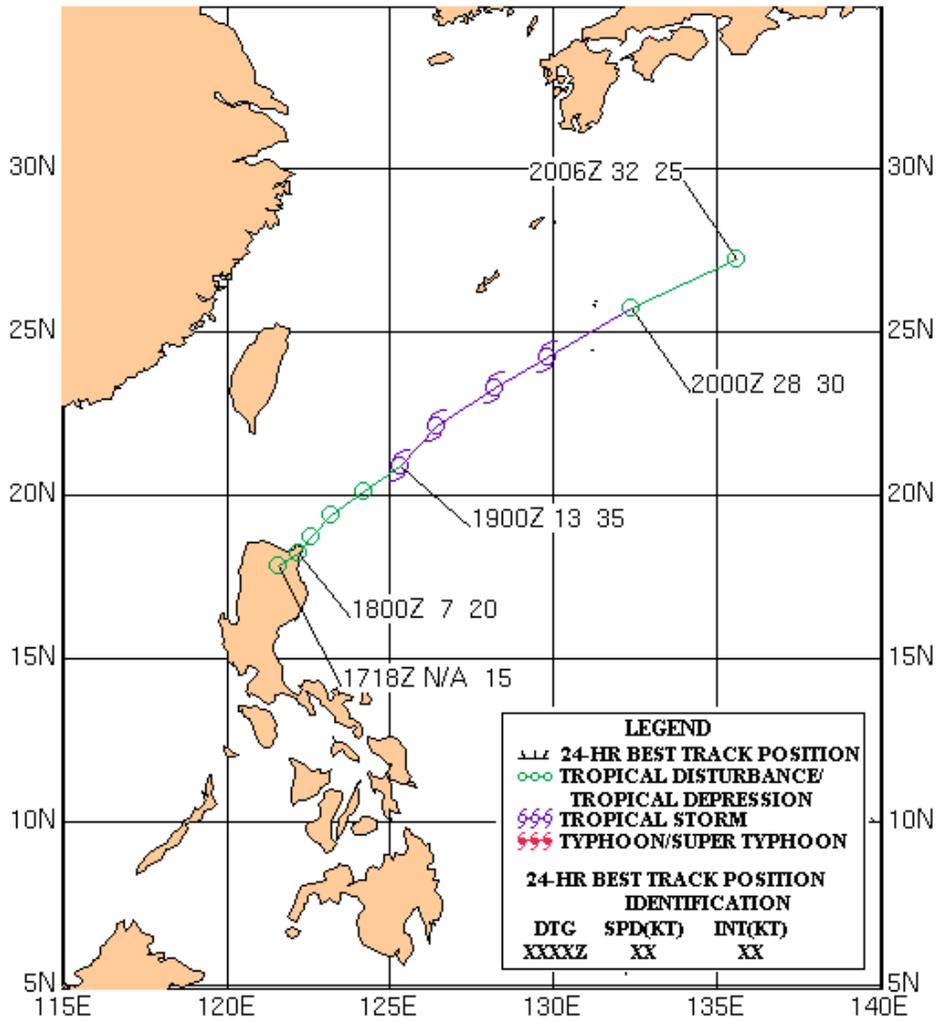


Figure 1-02W-1. 190031Z May 2000 GMS-5 visible image of TS 02W while located about 240 nm east-southeast of Taiwan. The first warning was issued as 02W moved northeast out of Luzon, Philippines on May 17th.

TROPICAL STORM 02W (LONGWANG)
19 - 20 MAY 2000



Tropical Depression (TD) 03W

First Poor : 0600Z 20 May 00

First Fair : None

First TCFA : None

First Warning : 0000Z 21 May 00

Last Warning : 0000Z 22 May 00

Max Intensity : 30 kts, Gusts to 40 kts

Landfall : None

Total Warnings : 5

Remarks : None

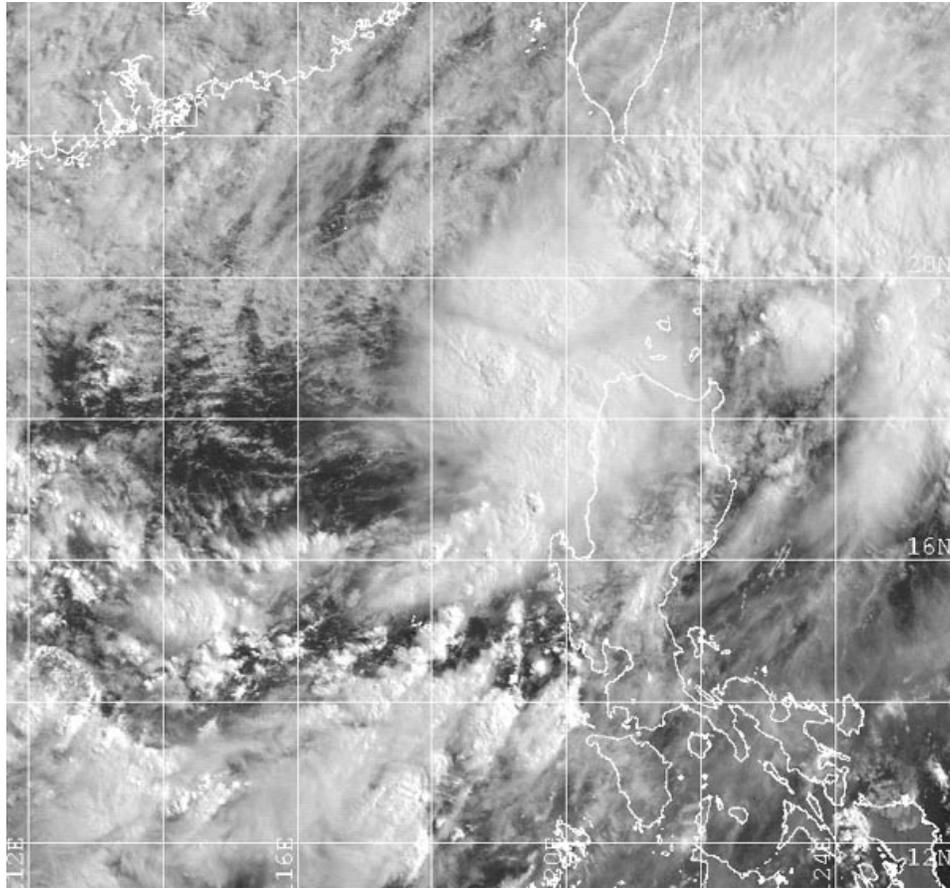


Figure 1-03W-1. 202331Z May 2000 GMS-5 visible image of the area of convection that became TD 03W. This cyclone developed northwest of Luzon, Philippines and tracked west through the Luzon Strait.

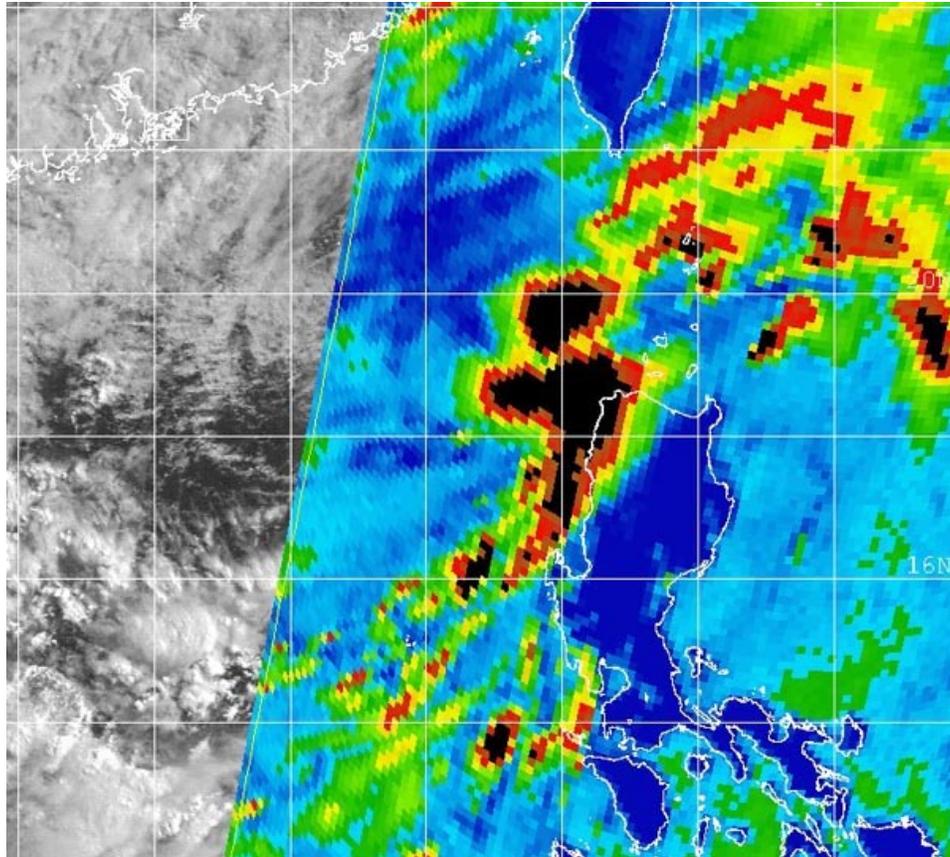
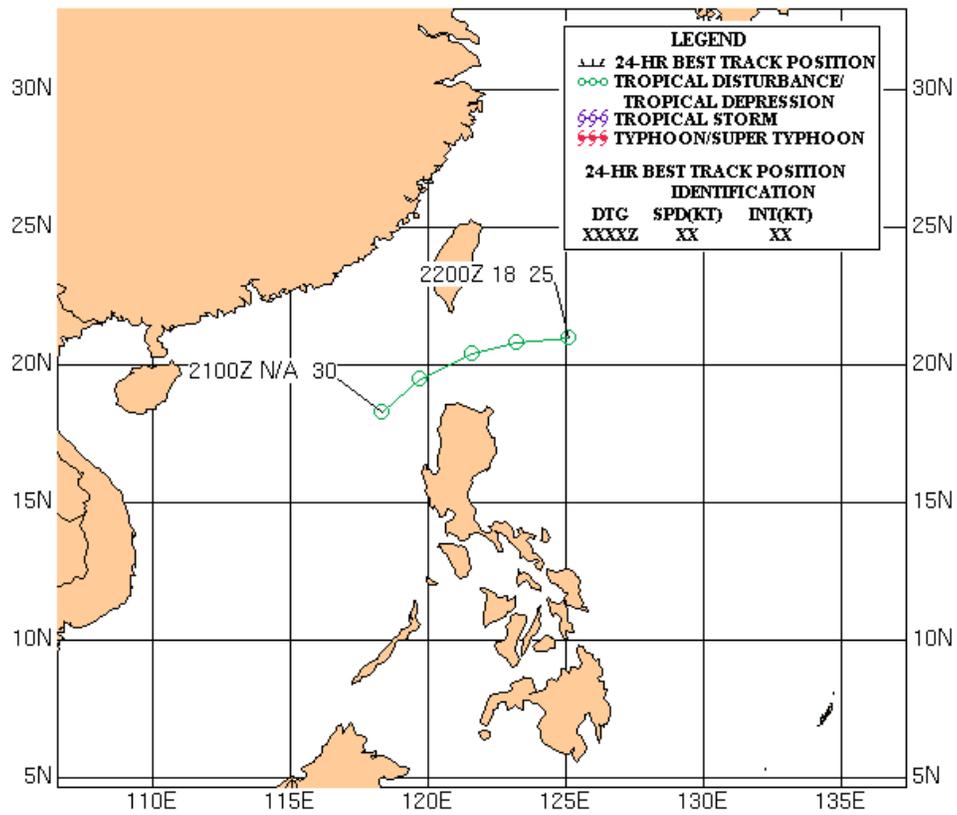


Figure 1-03W-2. 210042Z May 2000 SSMI 85 GHz image of TD 03W. All of the deep convection is located to the east and southeast side of the circulation center.

TROPICAL DEPRESSION 03W
21 - 22 MAY 2000



Tropical Depression (TD) 04W

First Poor : 0600Z 26 May 00

First Fair : 0200Z 29 May 00

First TCFA : 0530Z 30 May 00

First Warning : 1800Z 30 May 00

Last Warning : 0000Z 01 Jun 00

Max Intensity : 30 kts, Gusts to 40

Landfall : None

Total Warnings : 9*

Remarks:

- (1) Post analysis could not verify or substantiate the 9th (final) JTWC warning position for this cyclone. Thus the final warning position was not used in error computation and that position was removed from the best track.

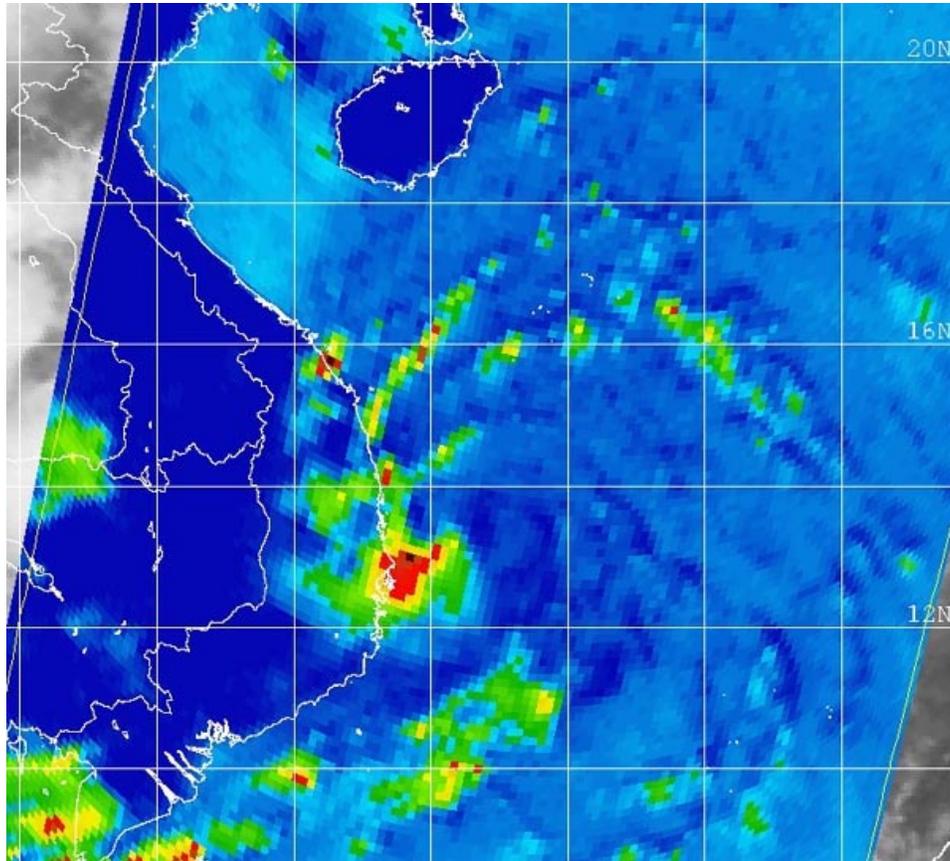


Figure 1-04W-1. 302245Z May 2000 SSM/I 85 GHz image of TD 04W just off the coast of Vietnam. In this image, an area of convection can be seen to the west of the circulation, with narrow bands extending from this region towards the north.

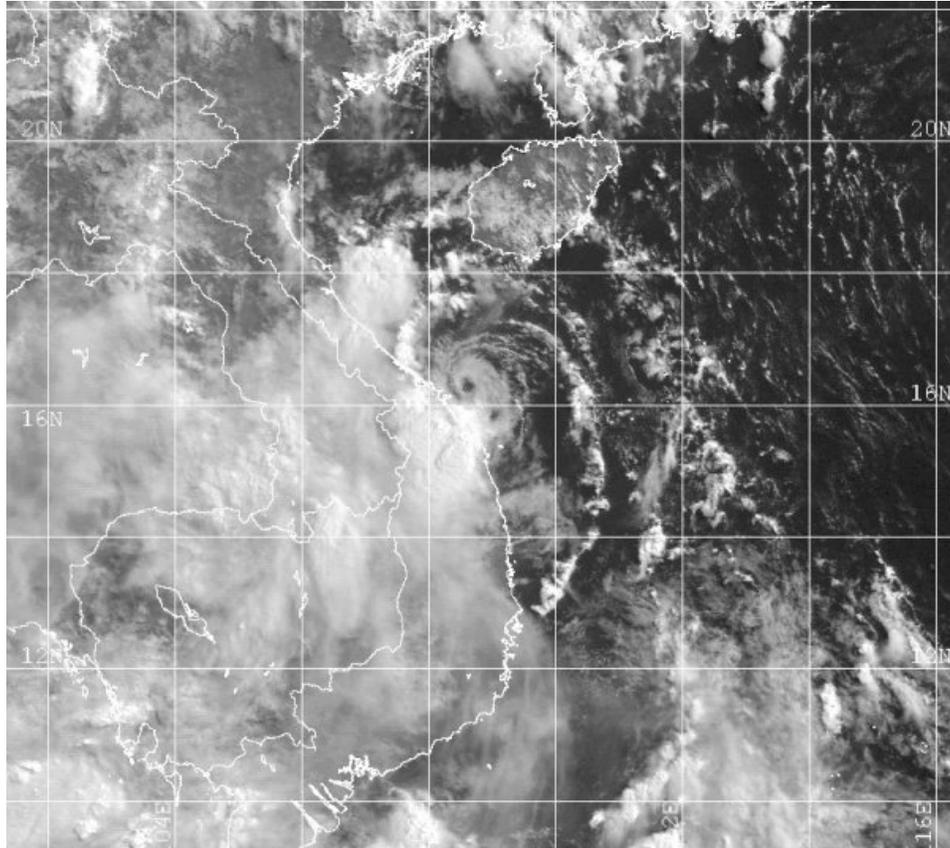
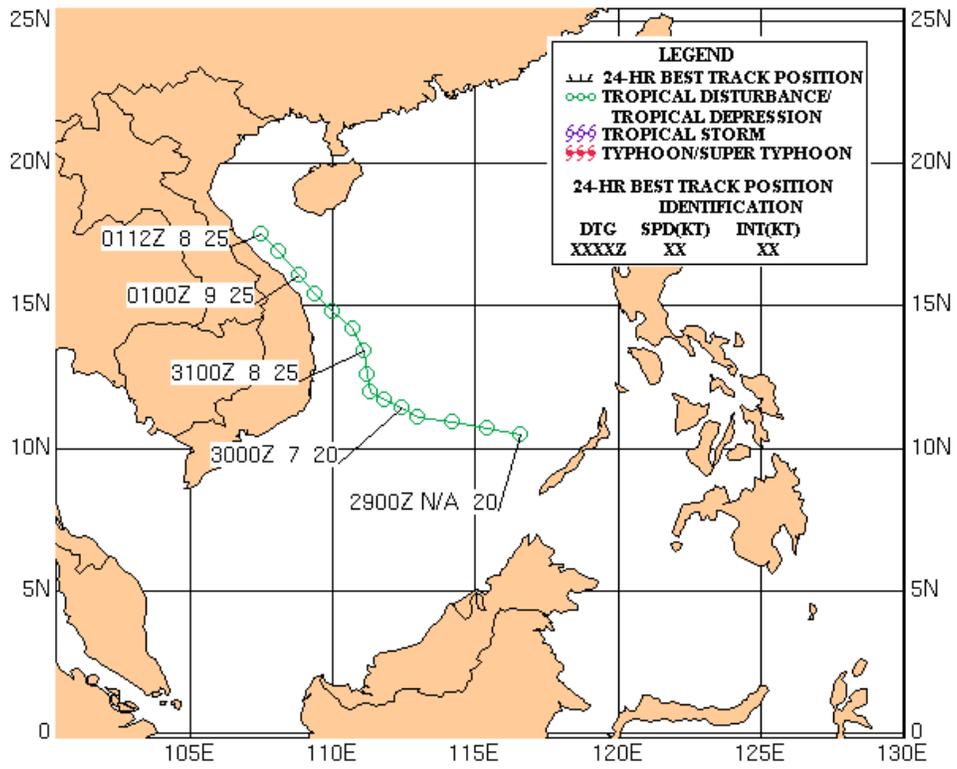


Figure 1-04W-2. 010144Z June 2000 GMS-5 visible image of TD 04W's exposed low-level circulation center.

TROPICAL DEPRESSION 04W
30 MAY - 01 JUNE 2000



Typhoon (TY) 05W (Kirogi*)

First Poor : 1500Z 30 Jun 00

First Fair : 2000Z 01 Jul 00

First TCFA : 2300Z 01 Jul 00

First Warning : 0600Z 02 Jul 00

Last Warning : 1800Z 08 Jul 00

Max Intensity : 115 kts, Gusts to 140 kts

Landfall : None

Total Warnings : 27

Remarks:

- (1) One of two cyclones to simultaneously develop on either side of the Philippines. TY 05W developed in the Philippine Sea while TY 06W (Kai-Tak) formed in the South China Sea.
- (2) After initial development in the Philippine Sea, the cyclone moved north then northeast, brushing the Boso Peninsula, Honshu, Japan, causing three deaths and flooding in the region.
- (3) At 1800Z on 3 July, TY 05W attained typhoon intensity and then reached peak intensity of 115 knots 12 hours later.
- (4) By 2100Z on 7 July, TY 05W was located about 94 NM south of Tokyo, Japan and had weakened to minimum typhoon intensity (65 kts).
- (5) The passage of TY 05W disrupted power to about 20,000 people in several parts of central Japan and flooded 300 homes in the Kanto Plain.
- (6) The port of Mikayu, Japan recorded 312 mm of rain in 24 hours, more than double the July average of 127 mm for the station.

* Name assigned by RSMC Tokyo

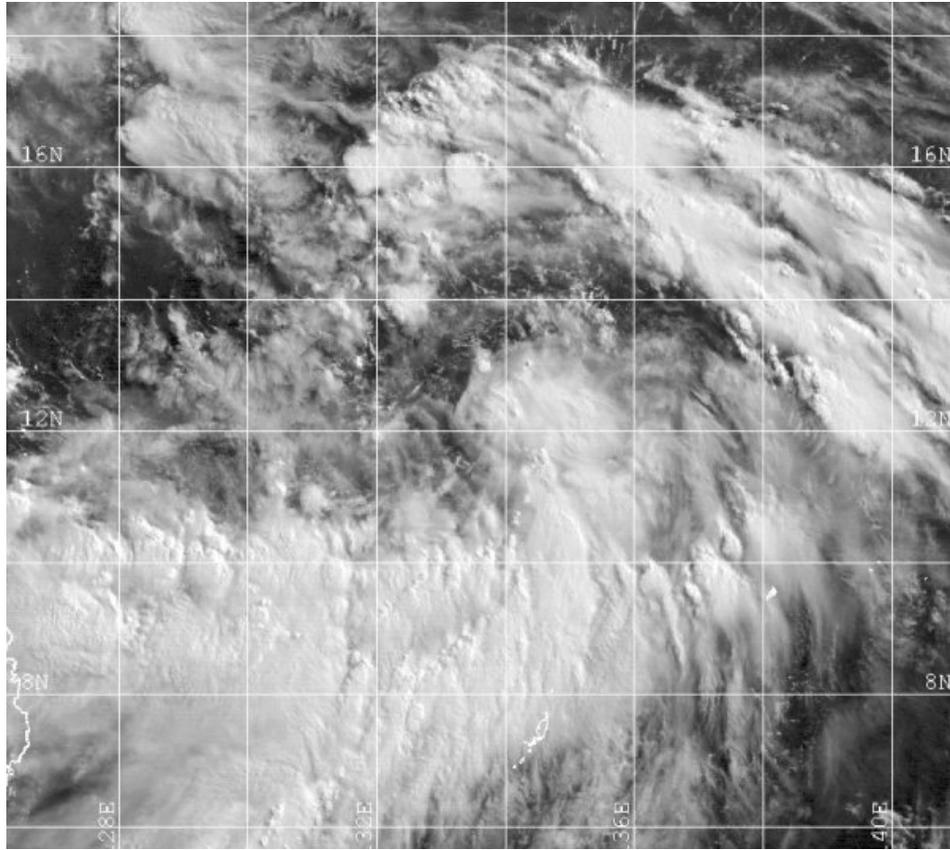


Figure 1-05W-1. 020005Z July 2000 GMS-5 visible image of TY 05W while at tropical depression intensity and located approximately 450 nm east of Mindanao Island.

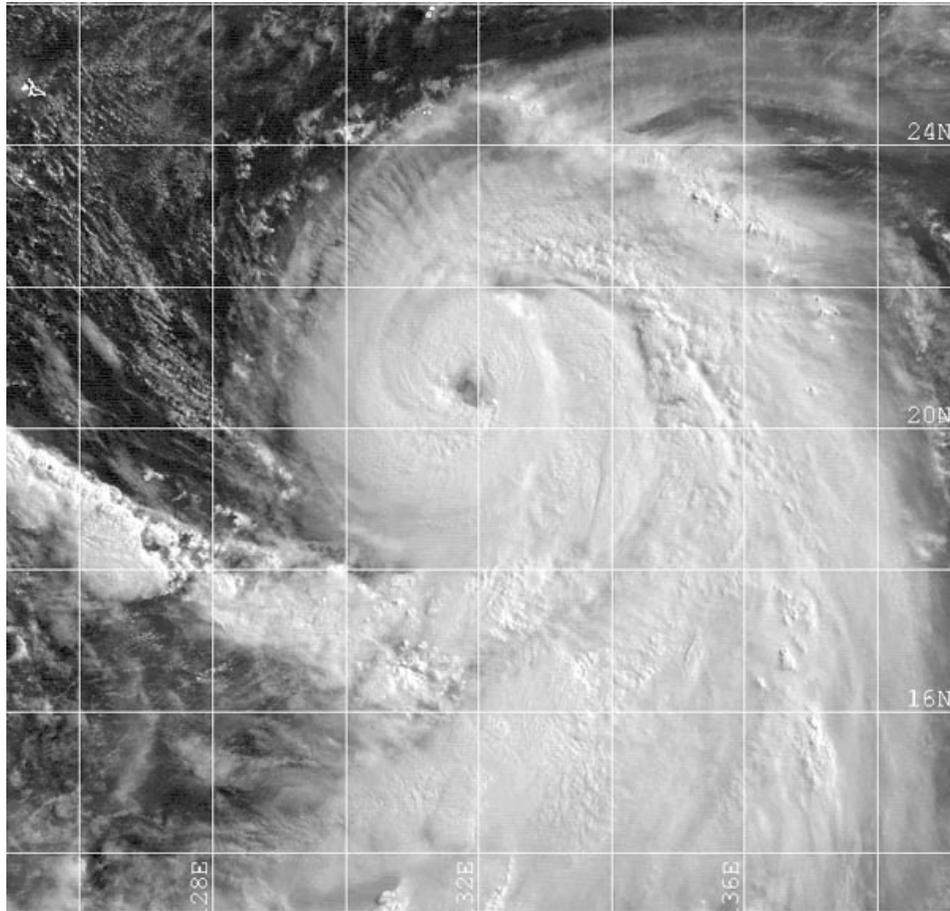


Figure 1-05W-2. 042224Z July 2000 GMS-5 visible image of TY 05W near peak intensity (115 knots). A well-defined eye and central dense overcast is easily seen with outflow extending in all directions.

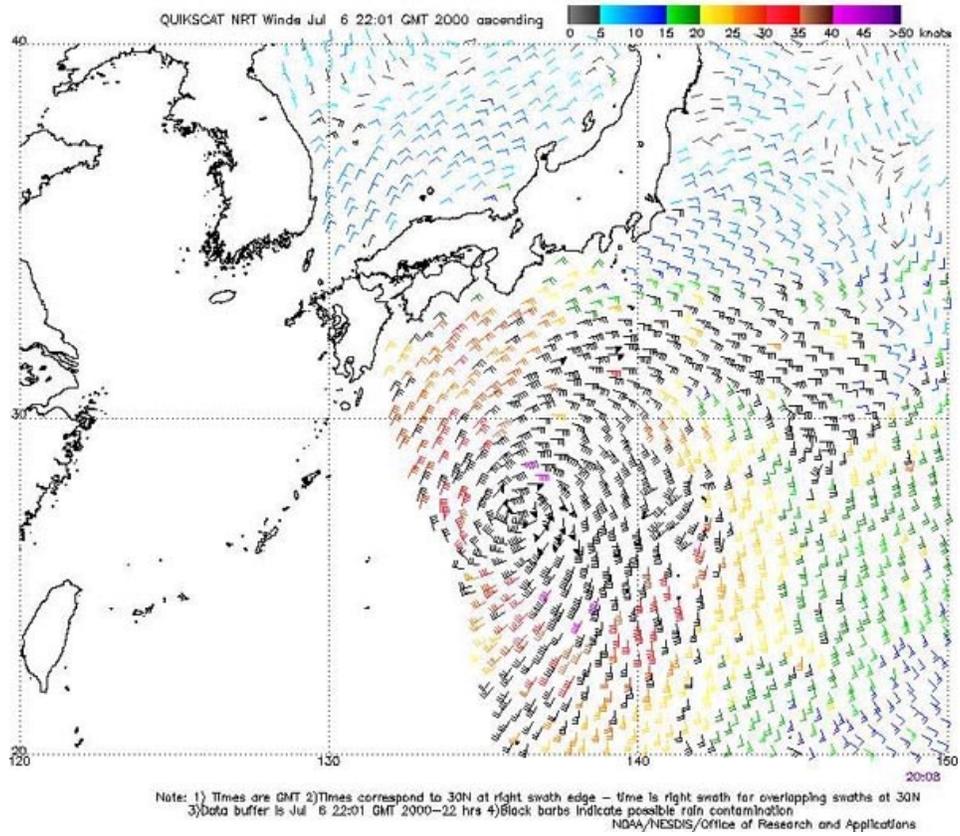


Figure 1-05W-3. 062201Z July 2000 QUIKSCAT pass over TY 05W. At this time, the storm has an estimated best track intensity of 75 knots and is moving northeast at 13 knots.

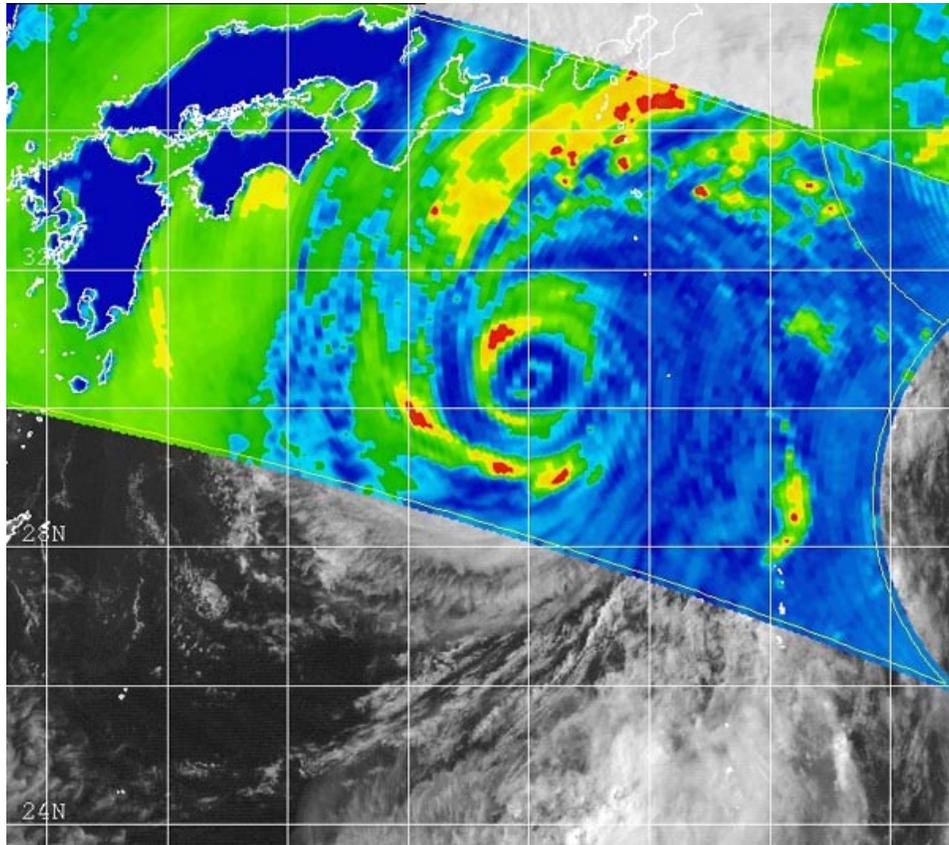


Figure 1-05W-4. 070736Z July 2000 TRMM 85 GHz image of TY 05W, located approximately 240 nm south of Nagoya, Japan. This data suggests the presence of concentric eyewalls and further indicates the impending passage over the Kanto Plain of a band of heavy convection associated with the cyclone.

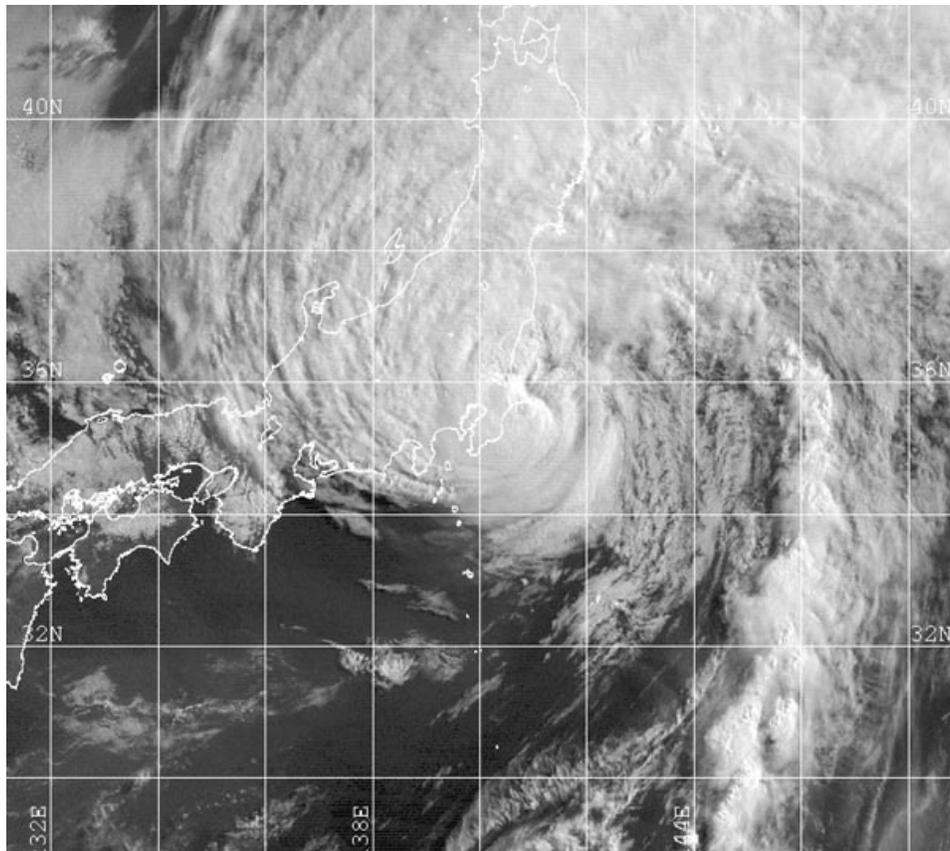
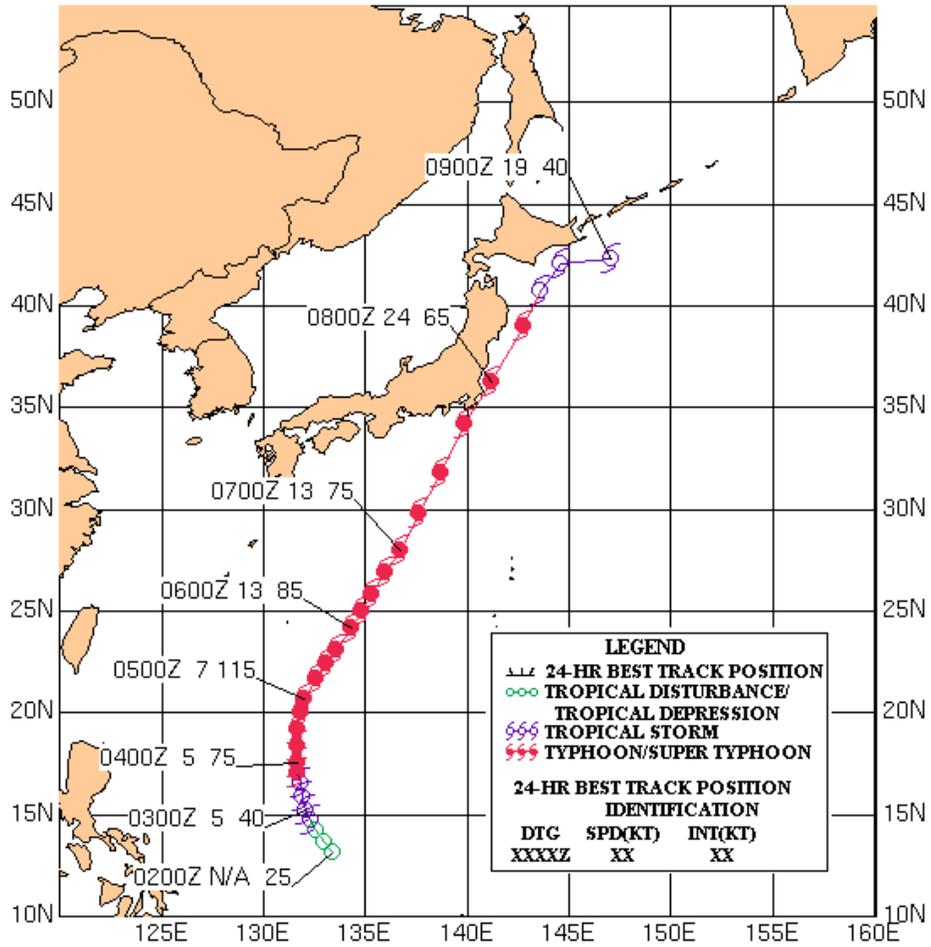


Figure 1-05W-5. 072131Z July 2000 GMS-5 visible image of TY 05W, with a partially exposed low-level circulation, after the cyclone had passed the Boso Peninsula.

TYPHOON 05W (KIROGI)
02 - 10 JULY 2000



Typhoon (TY) 06W (Kai-Tak*)

First Poor : 0600Z 02 Jul 00

First Fair : 0000Z 03 Jul 00

First TCFA : 2200Z 03 Jul 00

First Warning : 0600Z 04 Jul 00

Last Warning : 0000Z 10 Jul 00

Max Intensity : 75 kts, Gusts to 90 kts

Landfall : 0700Z 09 Jul 00 over Taiwan; 2100Z 09 Jul 00 over China

Total Warnings : 28

Remarks:

- (1) Developed in the South China Sea as TY 05W (Kirogi) was developing in the Philippine Sea.
- (2) Precipitation associated with TY 06W and TY 05W caused numerous deaths and flooding in the Philippines. Laoag, Luzon recorded 444 mm of rain in 60 hours beginning on July 5, almost equaling the station's monthly average. The Philippine Defense Secretary reported that TY 06W destroyed more than 5000 homes and caused approximately 128 million Peso (\$2.9 million) in damages to crops and livestock. About 800,000 people were reported to have fled their homes because of flooding.
- (3) TY 06W was blamed for the deaths of 27 individuals due to flooding and landslides in the northern and central portions of Luzon. Near Manila, a 2.5-acre portion of a rain-soaked dumpsite collapsed and caught fire, killing 160 people with an additional 150 missing.
- (4) Between 5 and 8 July, while in the Luzon Strait, TY 06W made a slow and small cyclonic loop and intensified to typhoon strength.
- (5) TY 06W paralleled the southeast Taiwan coast before making landfall over northeast Taiwan around 0700Z on July 9th. The cyclone disrupted power to more than 3000 homes in Taiwan's Pingtung County and killed one person. The Taiwan Central Weather Bureau reported winds up to 80 kts during landfall.
- (6) After crossing the Taiwan Strait, TY 06W made landfall in mainland China around 2100Z on July 9, over Zhejiang province near Shanghai. The China Meteorological Administration reported direct economic losses estimated at \$82 million.

* Name assigned by RSMC Tokyo

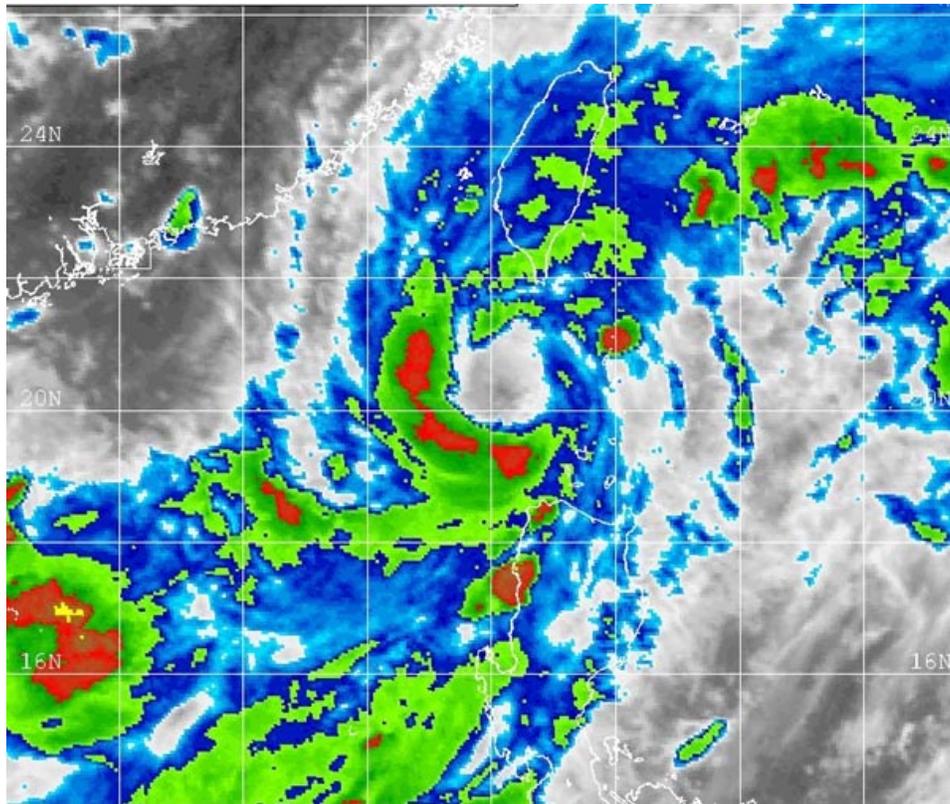


Figure 1-06W-1. 080931Z July 2000 GMS-5 enhanced infrared image of TY 06W approaching Taiwan from the southwest.

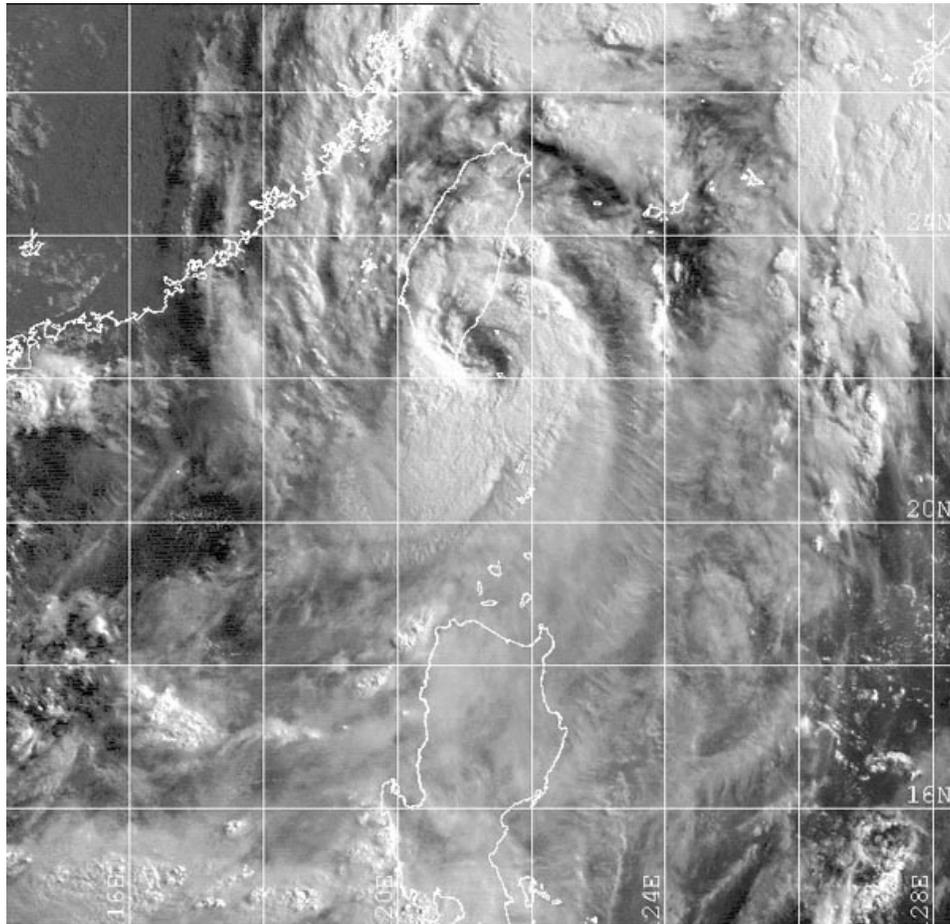


Figure 1-06W-2. 082224Z July 2000 GMS-5 visible image of TY 06W as the eyewall skirts the southern coast of Taiwan. Interaction with Taiwan's central mountain range is evident in the incomplete eyewall on the northwest side of the circulation center.

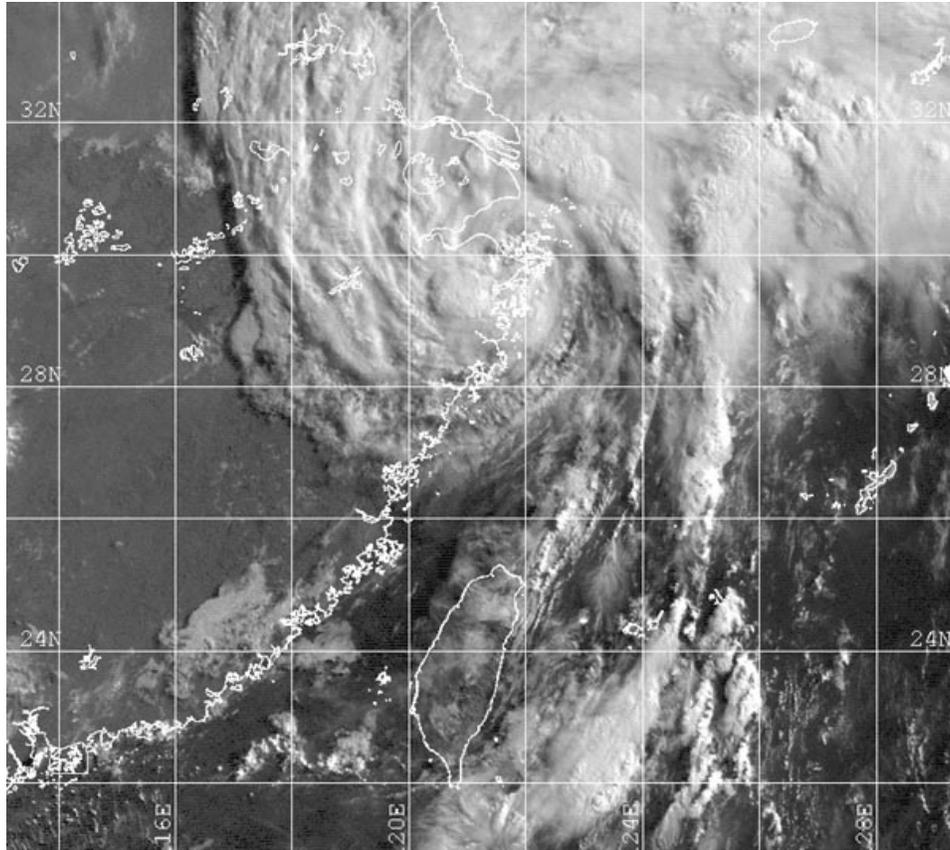
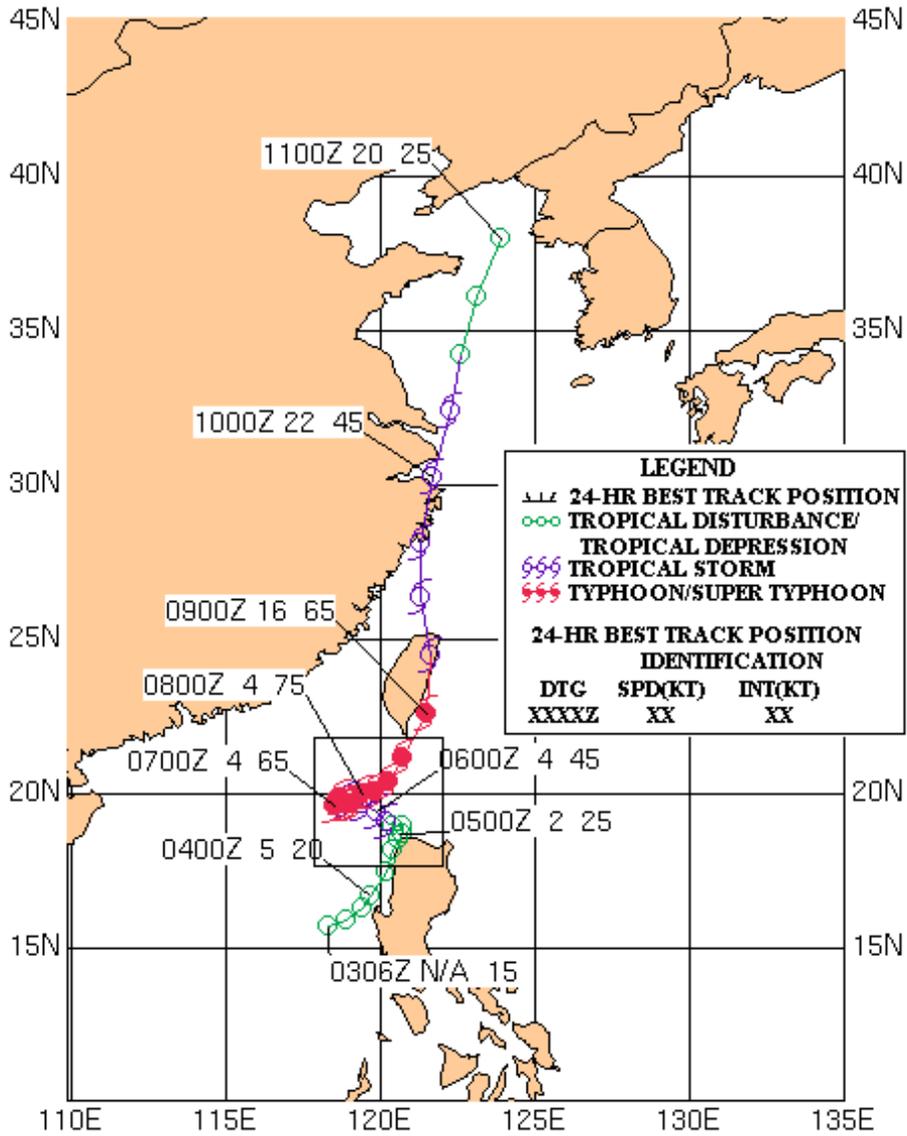
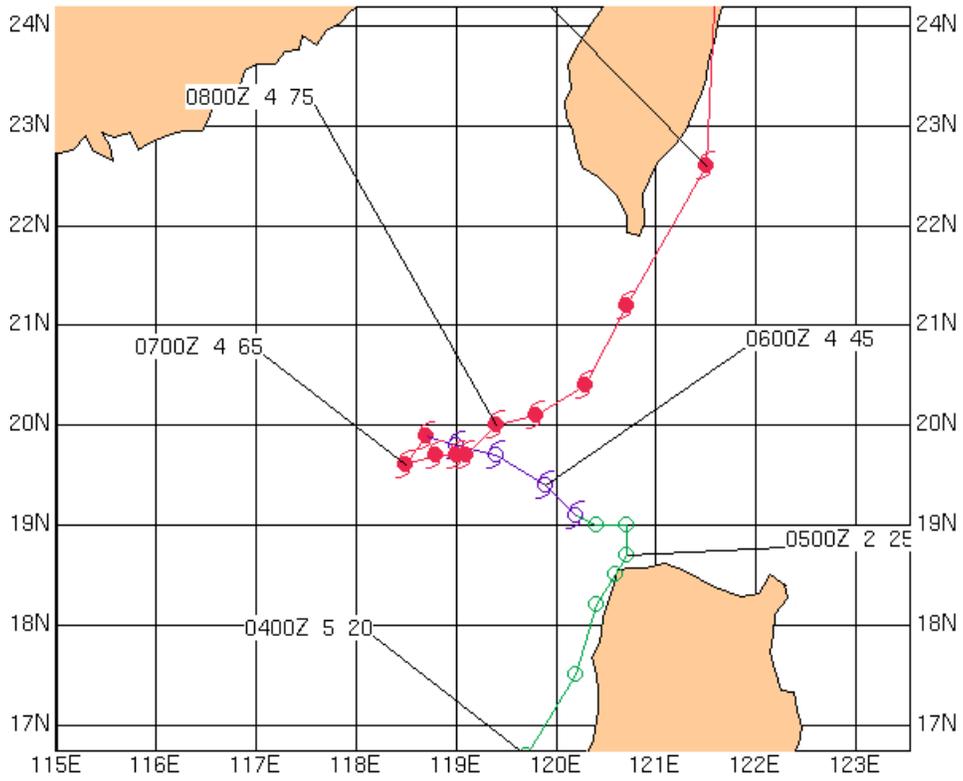


Figure 1-06W-3. 092224Z July 2000 GMS-5 visible image of TY 06W shortly after making landfall on mainland China south of Shanghai.

TYPHOON 06W (KAI-TAK)
04 - 10 JULY 2000



See below to view inset detail



Tropical Depression (TD) 07W

First Poor : 0130Z 09 Jul 00

First Fair : 2330Z 09 Jul 00

First TCFA : 0300Z 11 Jul 00

First Warning : 0000Z 13 Jul 00

Last Warning : 0000Z 15 Jul 00

Max Intensity : 25 kts, Gusts to

Landfall : 2300Z 13 Jul 00 over Luzon

Total Warnings : 9

Remarks : None

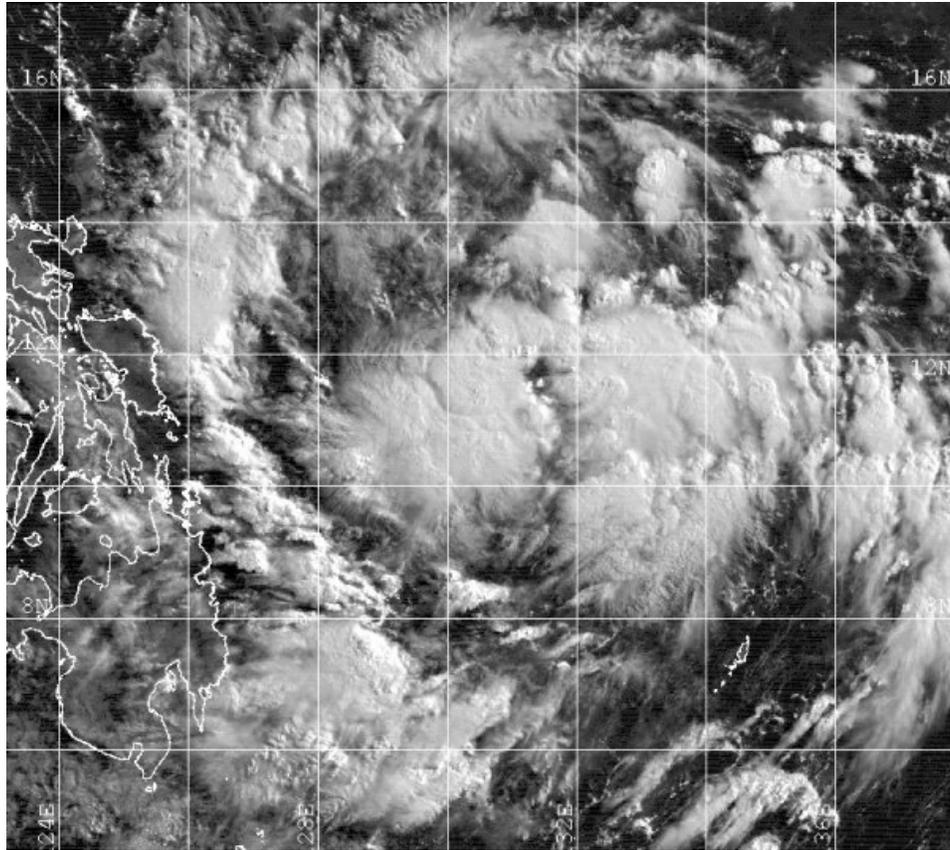


Figure 1-07W-1. 102224Z July 2000 GMS-5 visible image of the convection which developed into TD 07W. Extensive convection is noted over the central region of the disturbance, located about 400 nm east of Leyte Island.

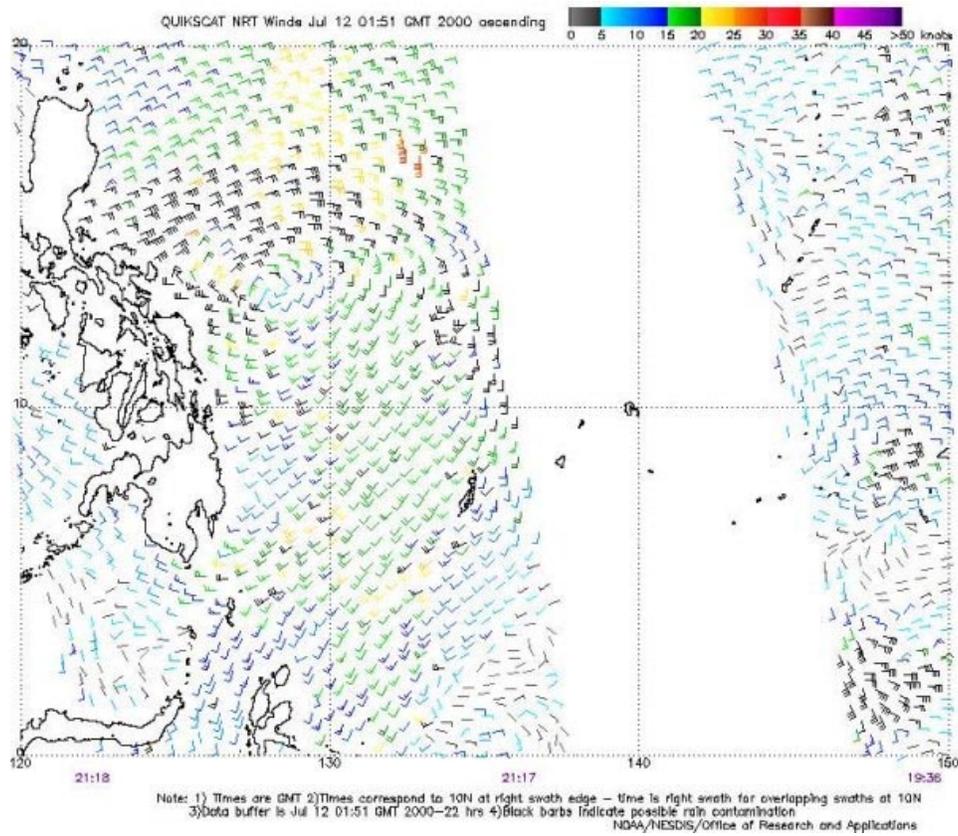
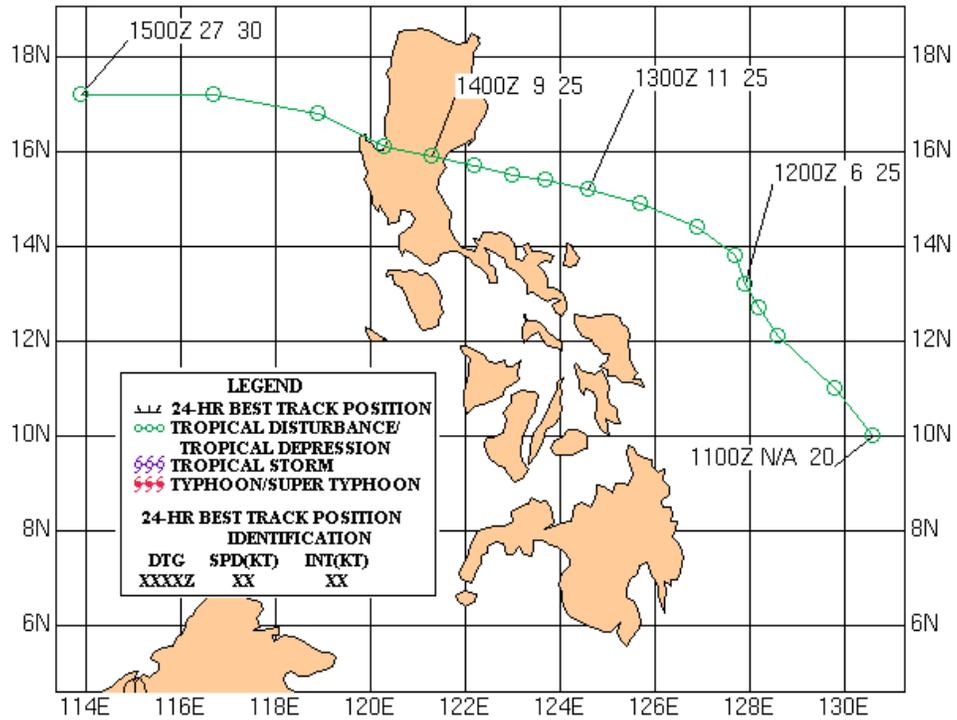


Figure 1-07W-2. 120151Z July 2000 QUIKSCAT pass over TD 07W with well-developed closed circulation.

**TROPICAL DEPRESSION 07W
11-15 JULY 2000**



Tropical Depression (TD) 08W

First Poor : 0600Z 14 Jul 00

First Fair : 1800Z 14 Jul 00

First TCFA : 0900Z 15 Jul 00

First Warning : 0000Z 16 Jul 00

Last Warning : 1200Z 17 Jul 00

Max Intensity : 25 kts, Gusts to 35 kts

Landfall : 0500Z 17 Jul 00 over China

Total Warnings : 7

Remarks : None

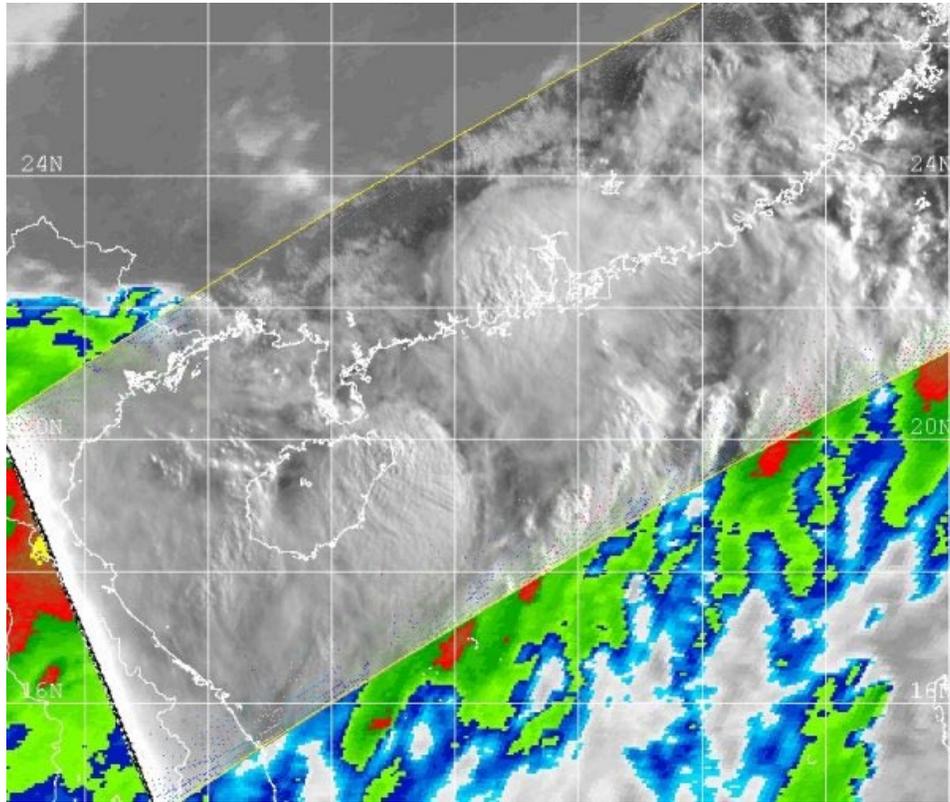


Figure 1-08W-1. 162237Z July 2000 TRMM visible image of TD 08W, a few hours before the cyclone made landfall west of Hong Kong.

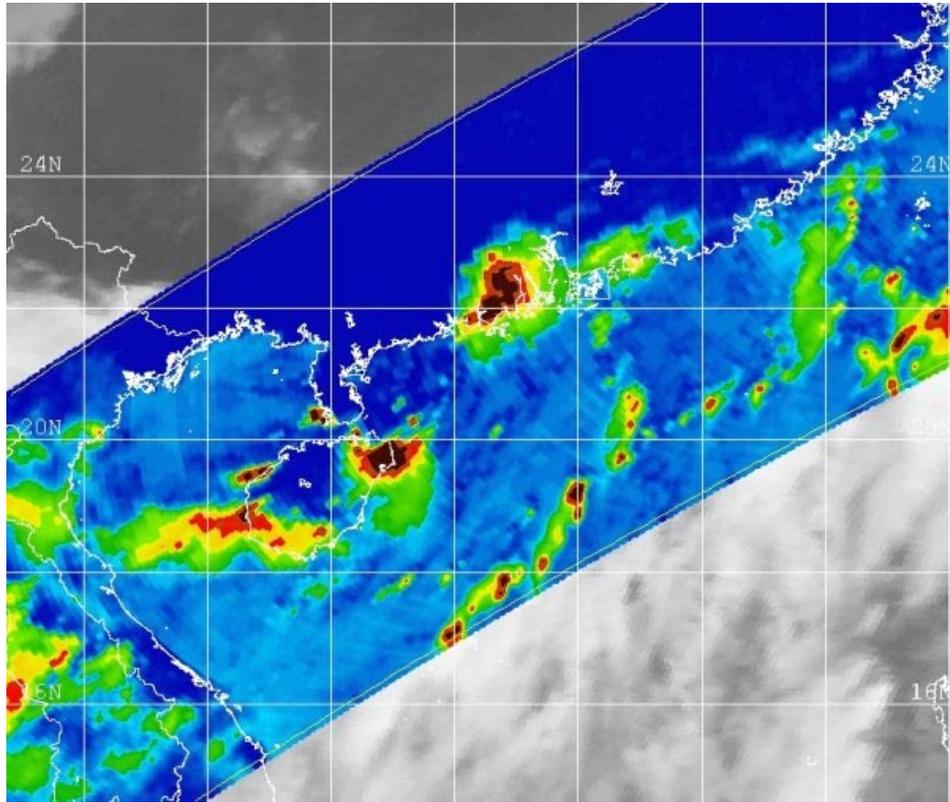
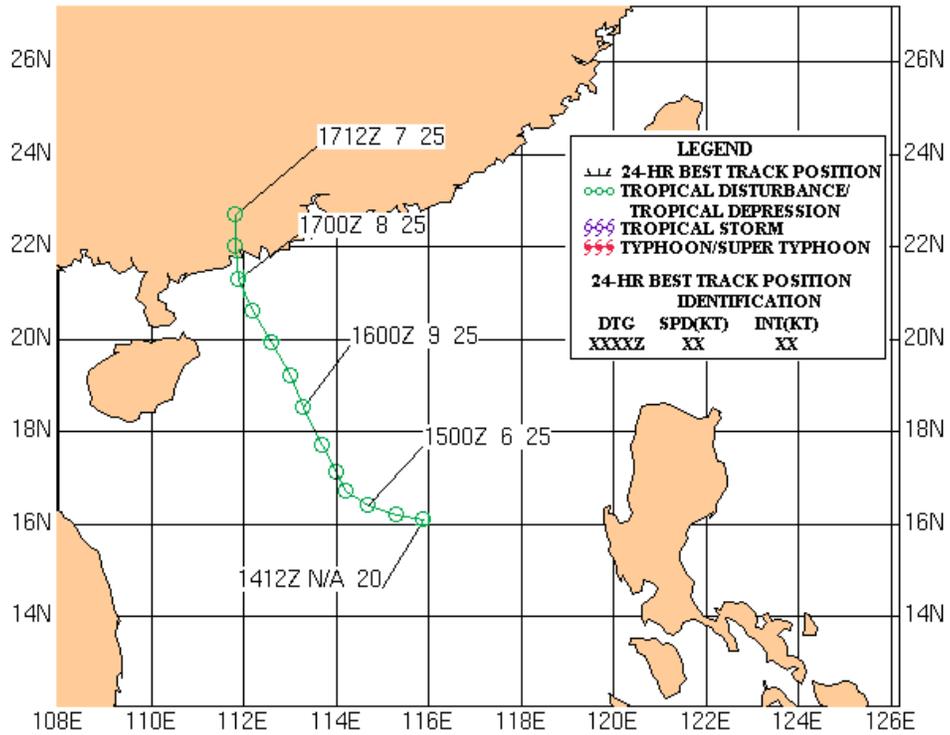


Figure 1-08W-2. 162238Z July 2000 TRMM 85 GHz image of TD 08W, with areas of deep convection mostly over Hainan Island and mainland China.

TROPICAL DEPRESSION 08W
16 - 17 JULY 2000



Tropical Storm (TS) 09W (Tembin*)

First Poor : 1900Z 16 Jul 00

First Fair : 2300Z 16 Jul 00

First TCFA : 0130Z 17 Jul 00

First Warning : 1800Z 17 Jul 00

Last Warning : 0000Z 23 Jul 00

Max Intensity : 45 kts, Gusts to 55 kts

Landfall : None

Total Warnings : 22

Remarks : None

* Name assigned by RSMC Tokyo

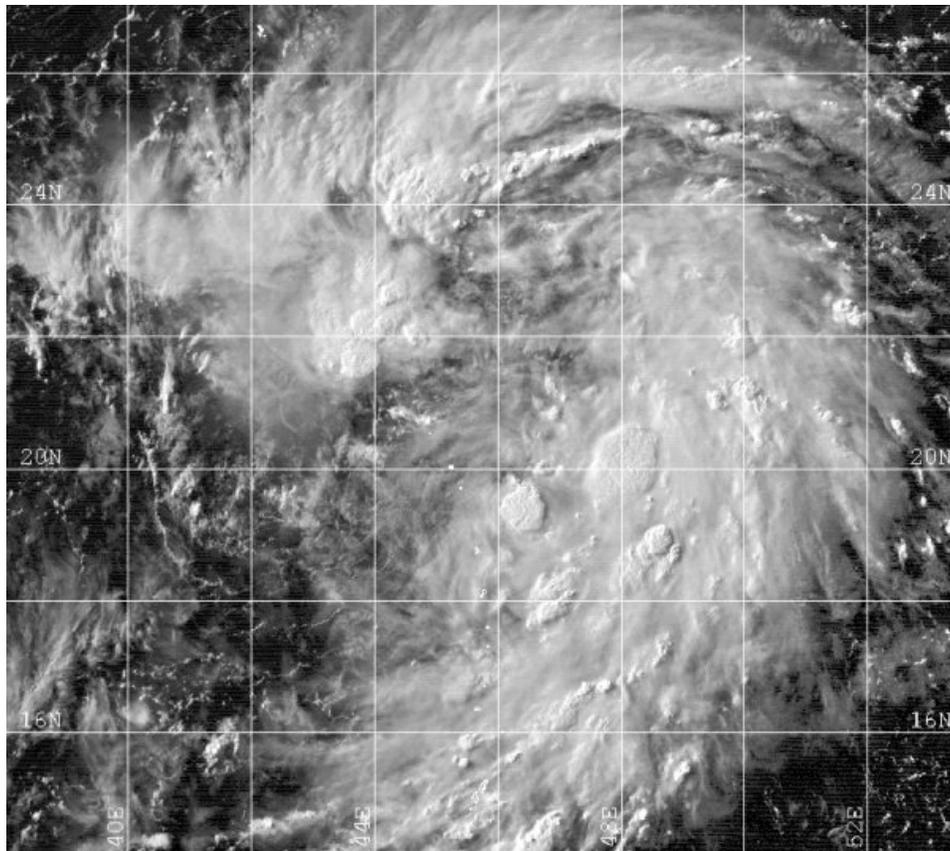


Figure 1-09W-1. 170731Z July 2000 GMS-5 visible image of the initial disturbance which became TS 09W. A broad area of deep convection can be seen around the center of this disturbance.

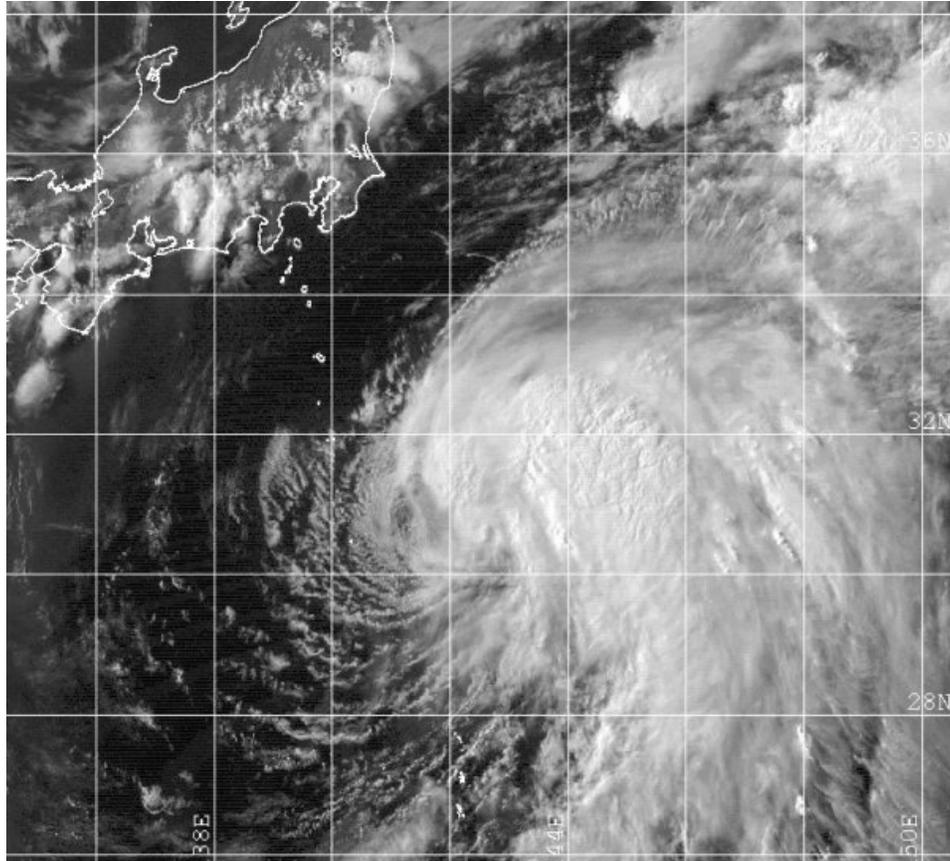


Figure 1-09W-2. 200731Z July 2000 GMS-5 visible image of TS 09W shortly after the cyclone reached maximum intensity. The effect of vertical shear is evident, with the deep convection displaced northeast of the low-level circulation center.

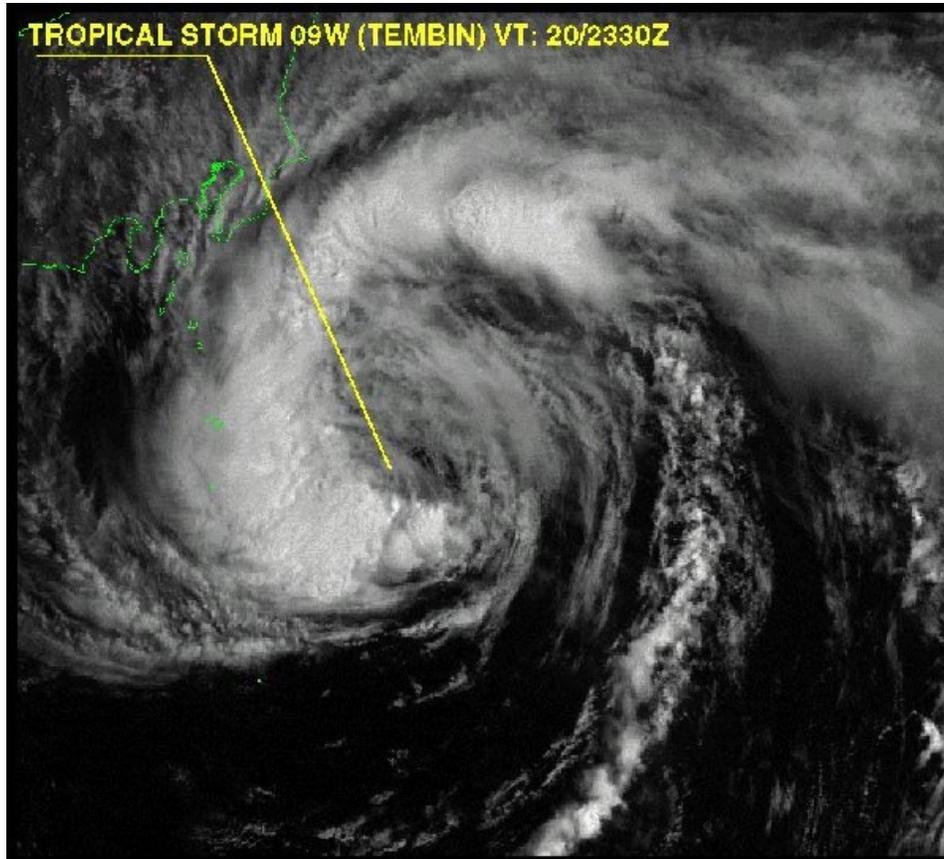
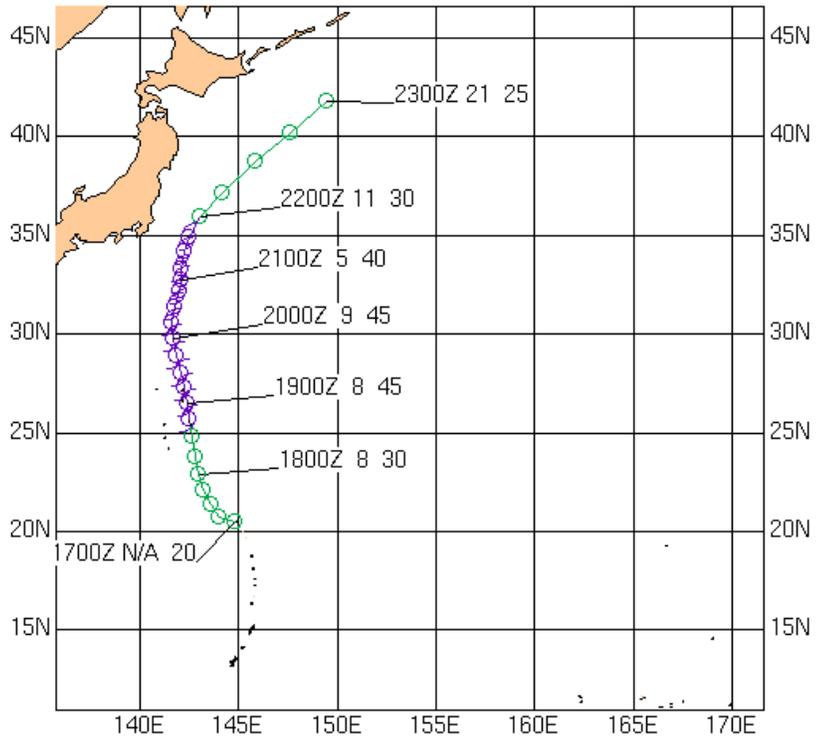


Figure 1-09W-3. 202330Z July 2000 GMS-5 visible image of TS 09W, with the deep convection west of the low-level circulation center.

TROPICAL STORM 09W (TEMBIN)
17 - 23 JULY 2000



Tropical Depression (TD) 10W

First Poor : 0600Z 18 Jul 00

First Fair : None

First TCFA : 0030Z 20 Jul 00

First Warning : 0000Z 20 Jul 00

Last Warning : 0000Z 23 Jul 00

Max Intensity : 25 kts, Gusts to 35 kts

Landfall : 0000Z 23 Jul 00 over Northern Luzon as it dissipated

Total Warnings : 13

Remarks : None

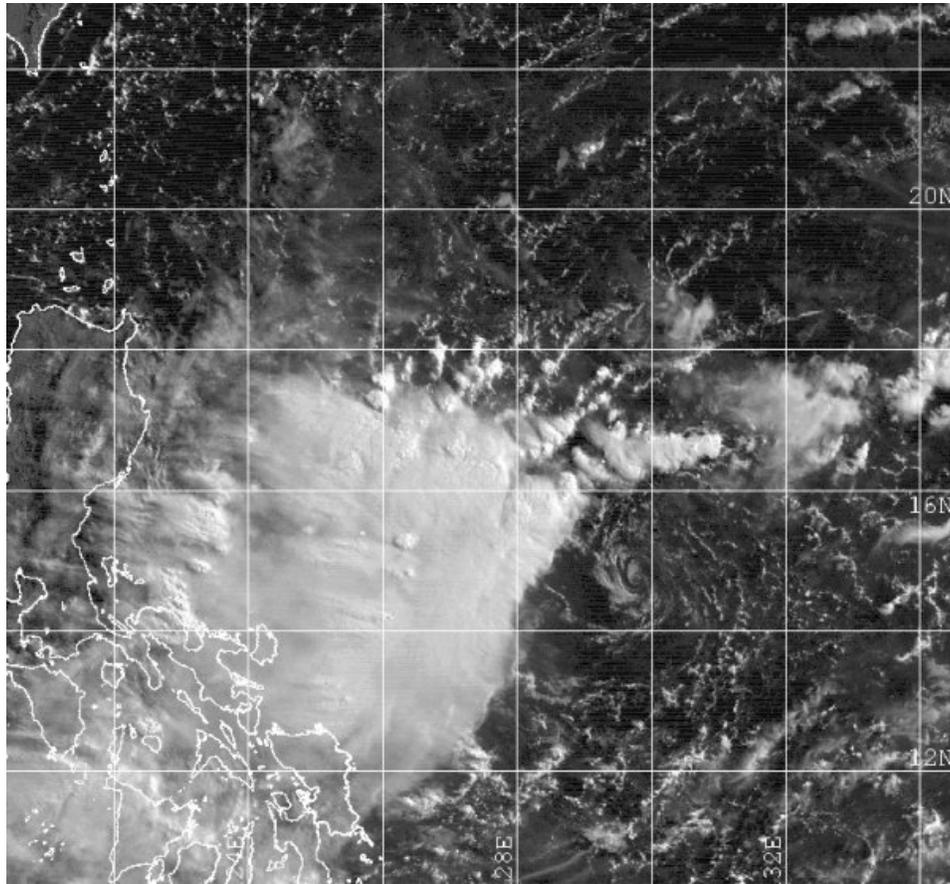


Figure 1-10W-1. 202224Z July 2000 GMS-5 visible image of TD 10W when the cyclone was about 400 nm east of Luzon, with the low-level circulation center well separated from any deep convection.

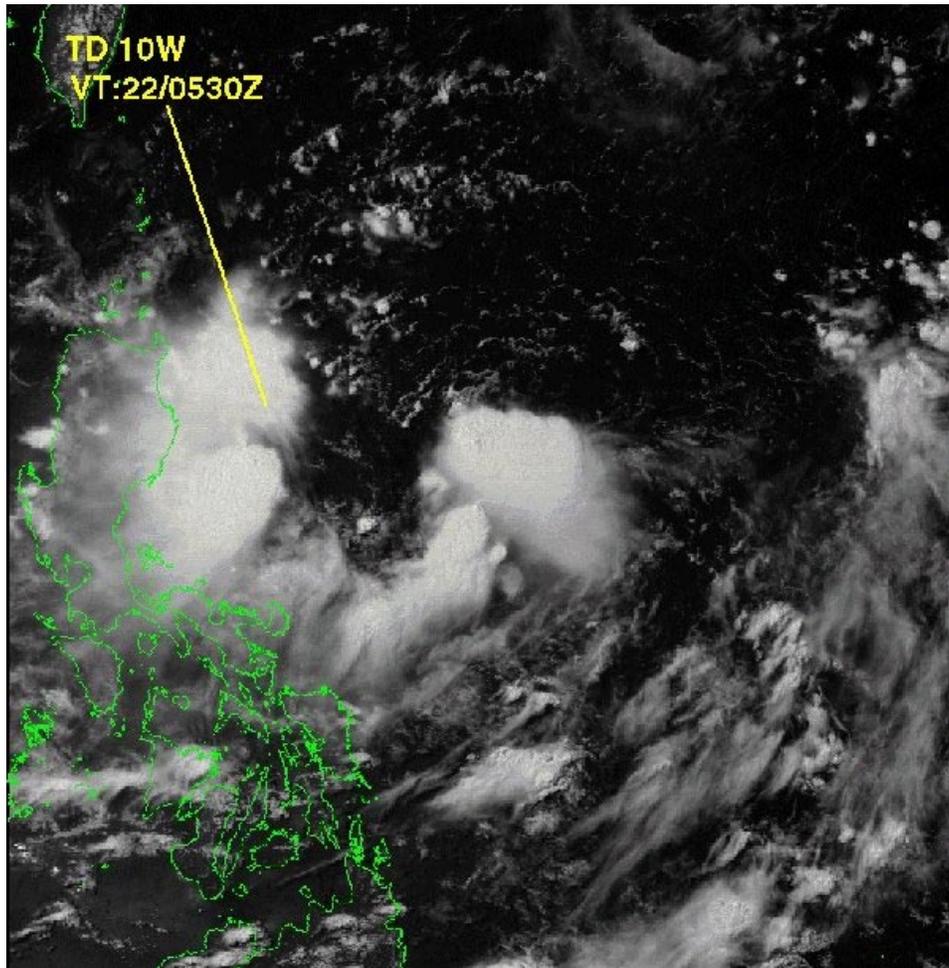
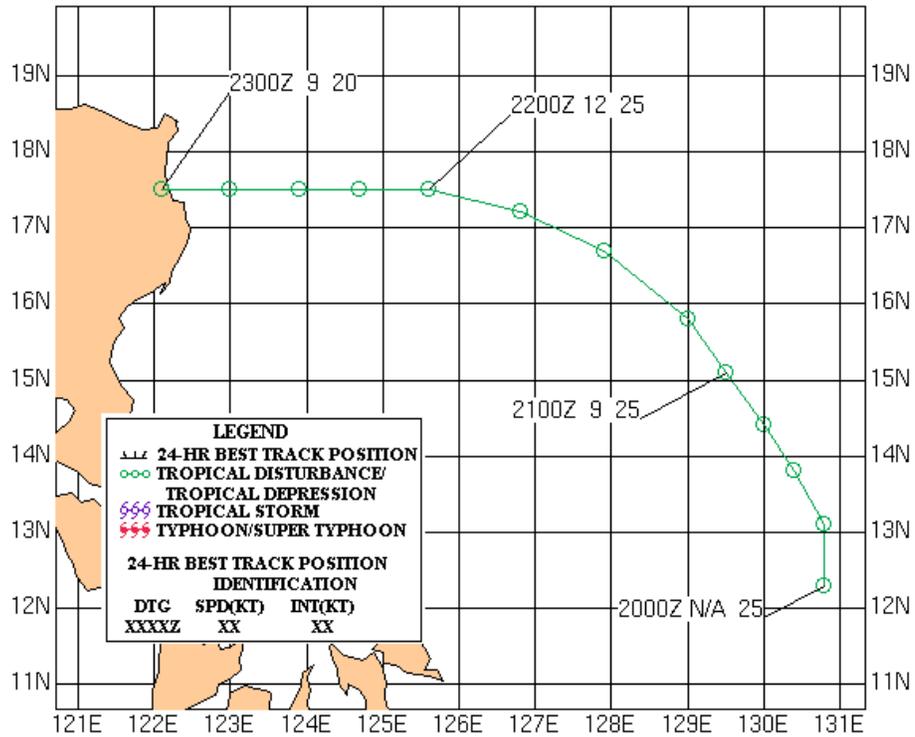


Figure 1-10W-2. 220530Z July 2000 GMS-5 visible image of TD 10W, located about 180 nm east of Luzon.

TROPICAL DEPRESSION 10W
20 - 23 JULY 2000



Tropical Storm (TS) 11W (Bolaven*)

First Poor : 0600Z 23 Jul 00

First Fair : 2130Z 23 Jul 00

First TCFA : 0030Z 24 Jul 00

First Warning : 1800Z 24 Jul 00

Last Warning : 0600Z 31 Jul 00

Max Intensity : 50 kts, Gusts to 65 kts

Landfall : None

Total Warnings : 27

Remarks:

- (1) According to Japanese Meteorological Agency reports, Okinawa and southern Kyushu experienced damage due to heavy rainfall.

* Name assigned by RSMC Tokyo

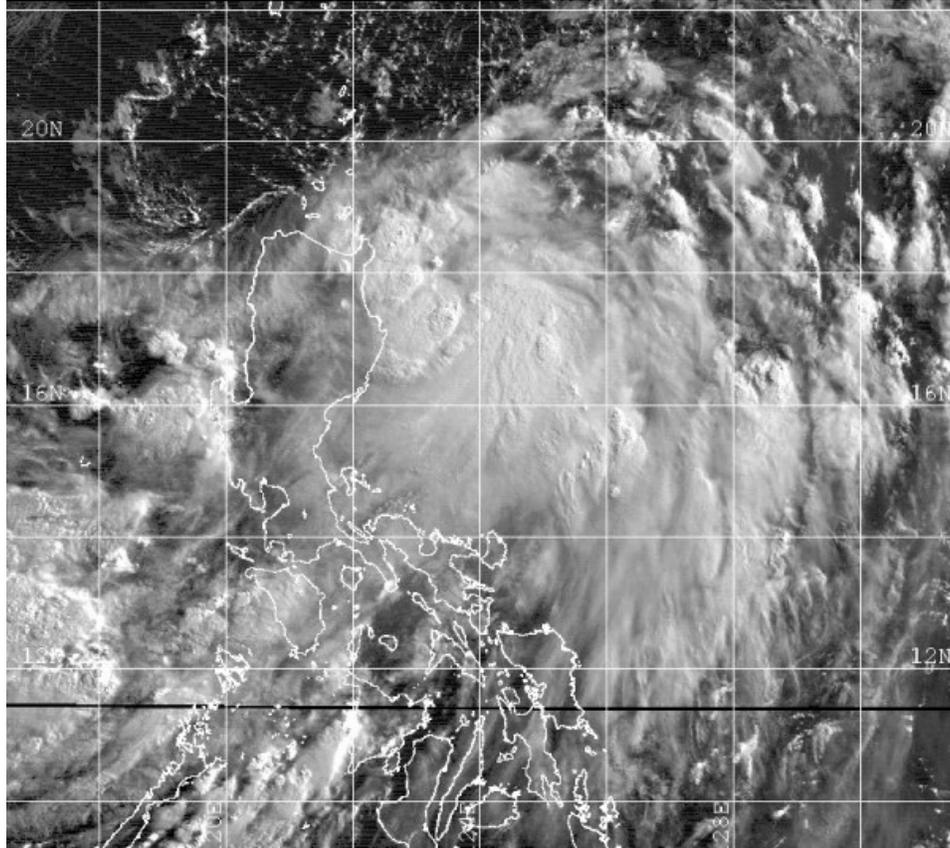


Figure 1-11W-1. 232224Z July 2000 GMS-5 visible image of the area of extensive but disorganized thunderstorm activity which developed into TS 11W.

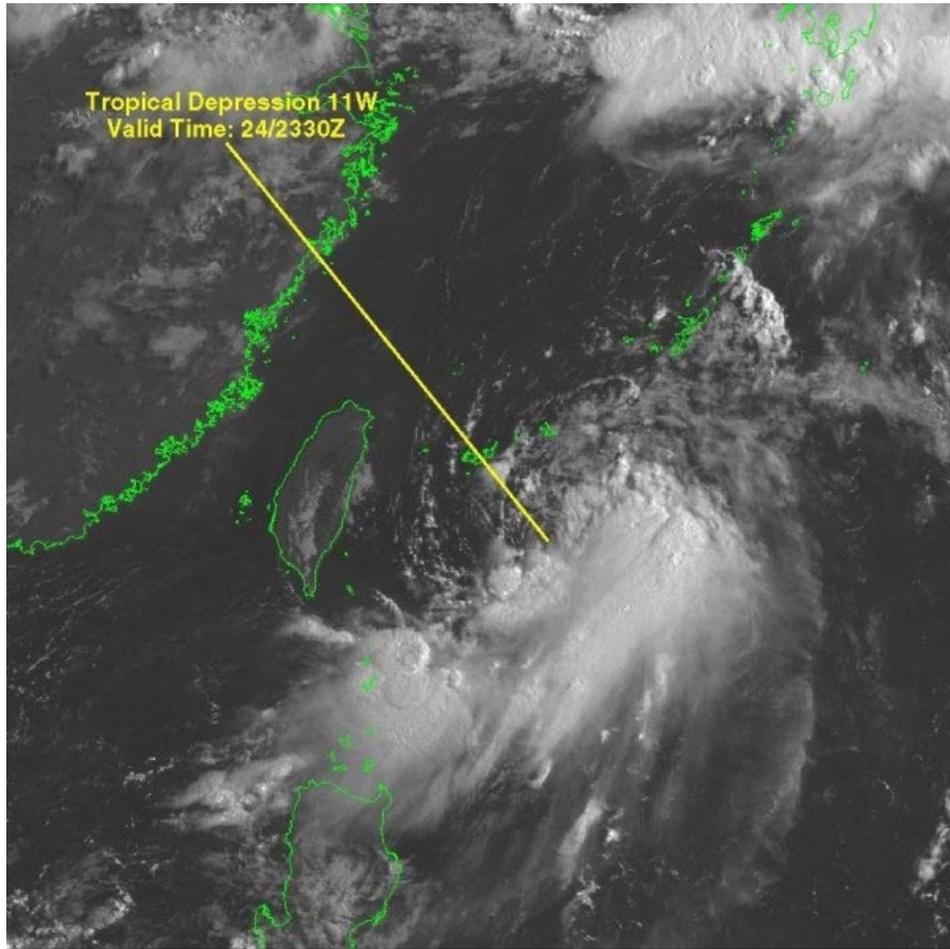


Figure 1-11W-2. 242330Z July 2000 GMS-5 visible image of TS 11W when the cyclone was located east of Taiwan. The image indicates the presence of vertical shear, with the deep convection south of the low-level circulation center.

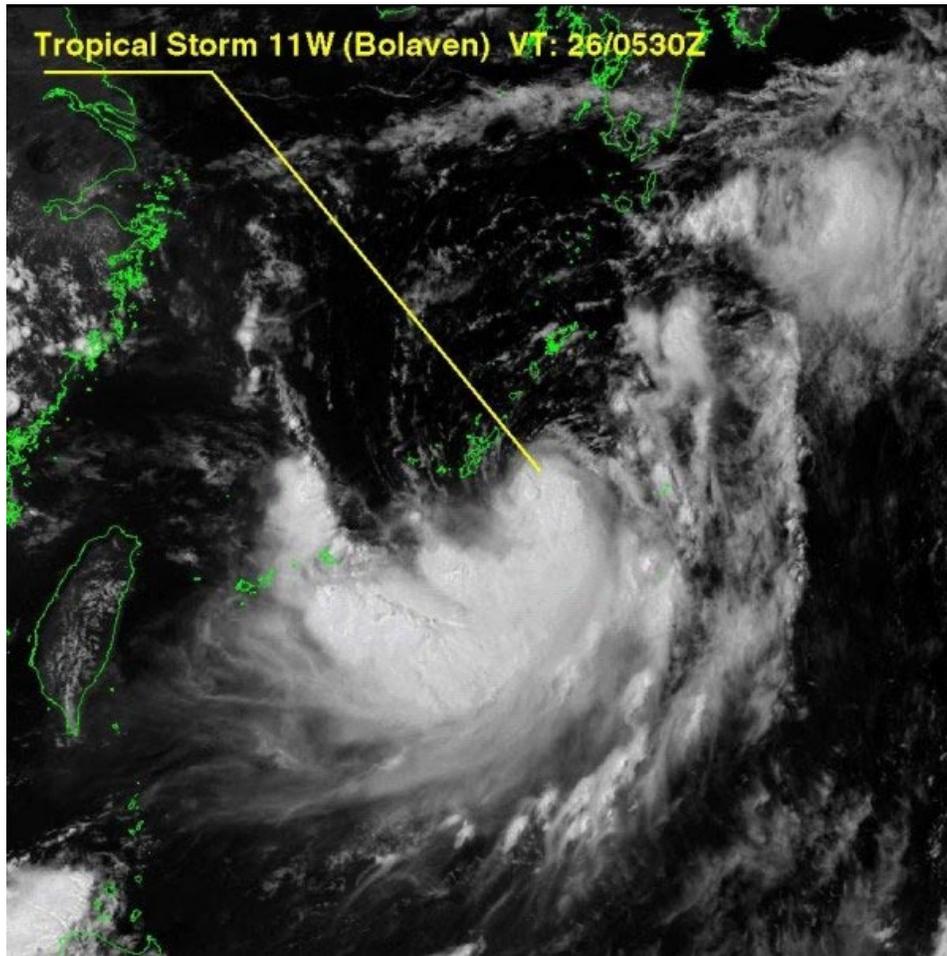


Figure 1-11W-3. 260530Z July 2000 GMS-5 visible image of TS 11W, which continues to show the deep convection displaced to the south of the low-level circulation center. At this time, the cyclone is located about 60 nm east-southeast of Okinawa, Japan.

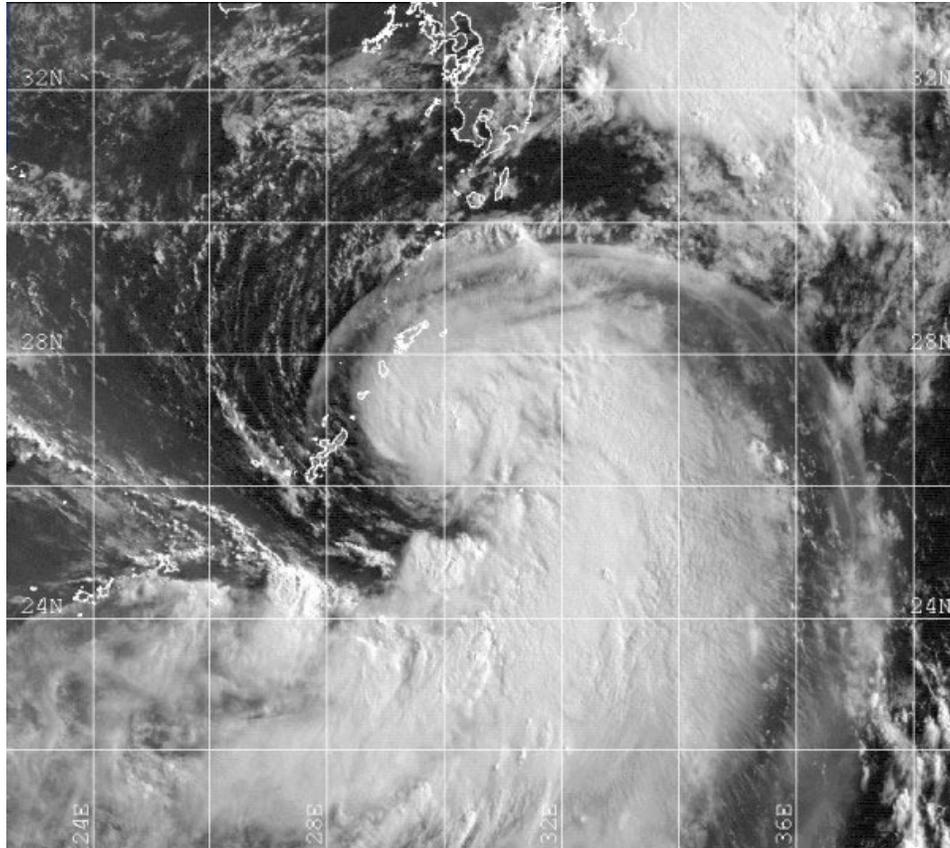


Figure 1-11W-4. 262224Z July 2000 GMS-5 visible image of TS 11W, with the convection displaced to the southeast of the circulation center. The cyclone is located about 60 nm east-northeast of Okinawa, Japan at this time.

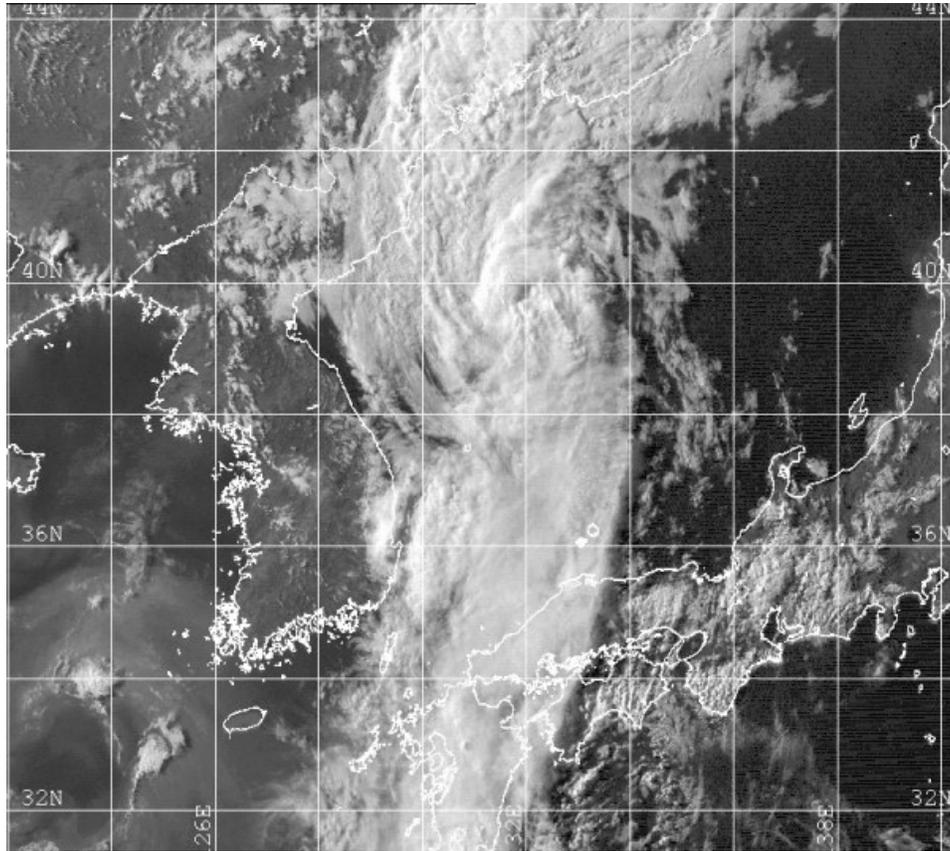
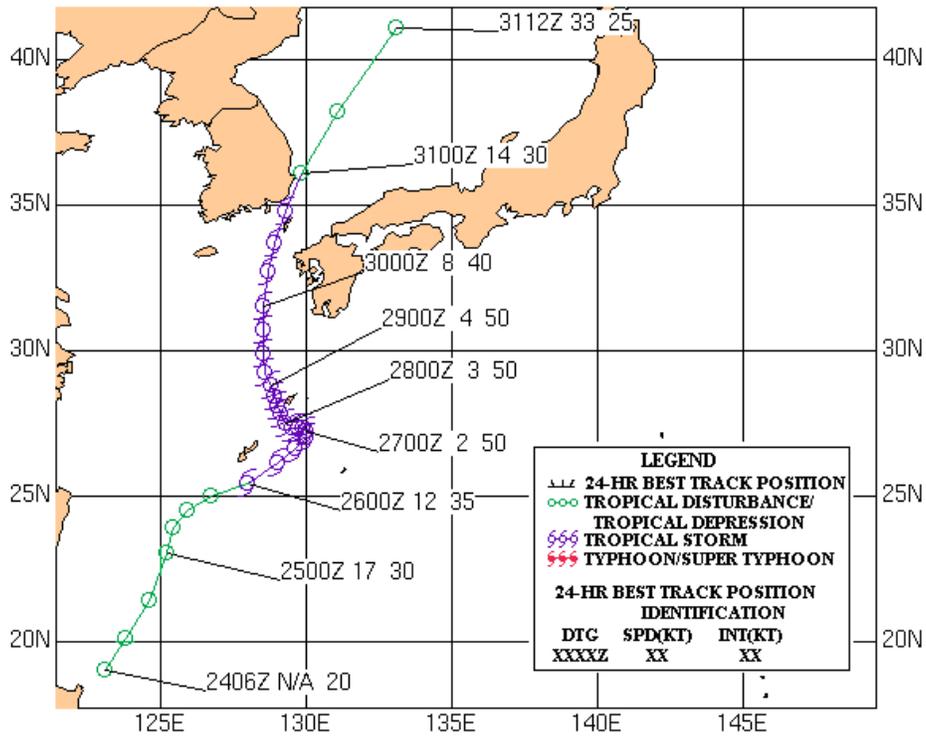


Figure 1-11W-5. 310831Z July 2000 GMS-5 visible image of TS 11W after it passed very close to the southeast coast of Korea. Convection is still evident around the circulation center, but it is not very well organized. Extensive stratus and layered clouds extending to the north and south suggest extratropical transition may be occurring.

TROPICAL STORM 11W (BOLAVEN)
24 - 31 JULY 2000



Tropical Storm (TS) 12W (Chanchu*)

First Poor : 0600Z 26 Jul 00

First Fair : 0600Z 27 Jul 00

First TCFA : 1330Z 27 Jul 00

First Warning : 0000Z 28 Jul 00

Last Warning : 1800Z 29 Jul 00

Max Intensity : 40 kts, Gusts to 50 kts

Landfall : None

Total Warnings : 8

Remarks : None

* Name assigned by RSMC Tokyo

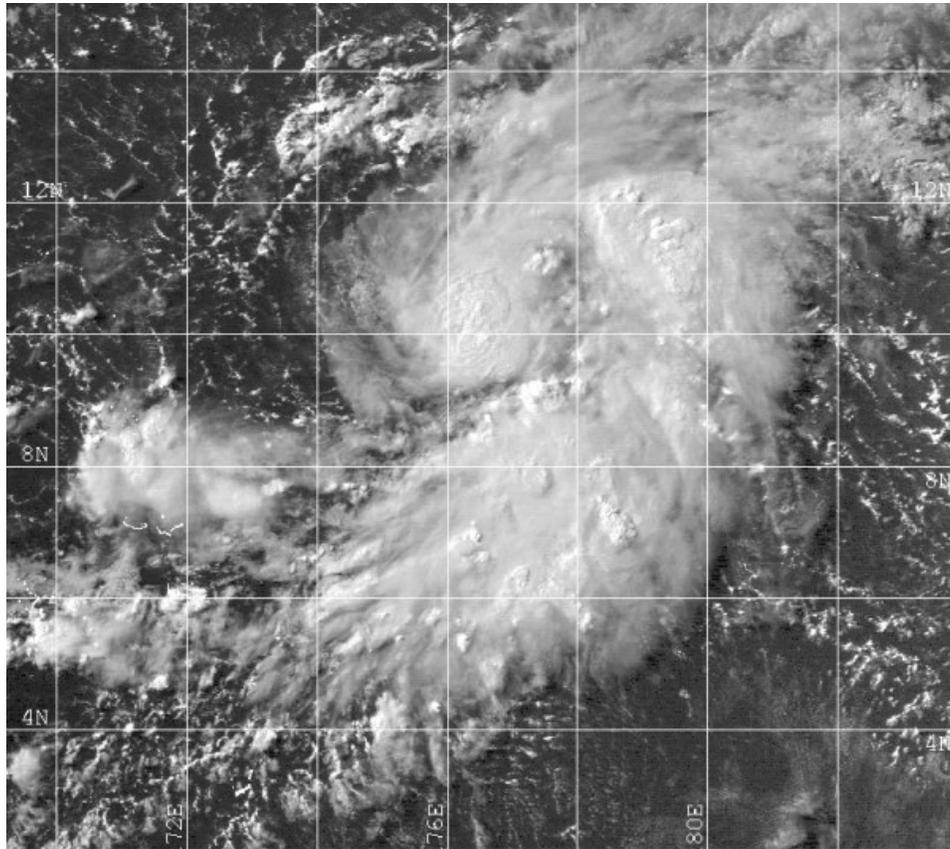


Figure 1-12W-1. 280501Z July 2000 GMS-5 visible image of TS 12W, with convection near the circulation center and a large rainband on the east side extending around the center to the south. In this image, the cyclone is located about 300 nm east-northeast of Majuro, Republic of the Marshall Islands.

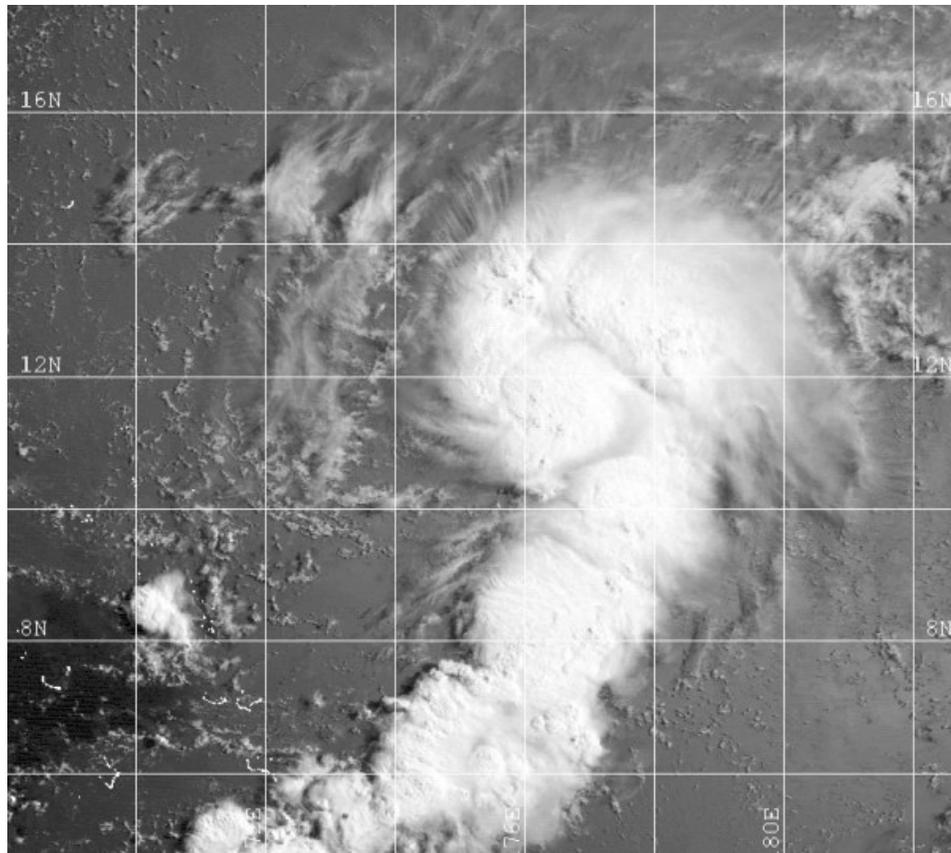


Figure 1-12W-2. 282031Z July 2000 GMS-5 visible image of TS 12W, with convection in the core and a rainband to the south.

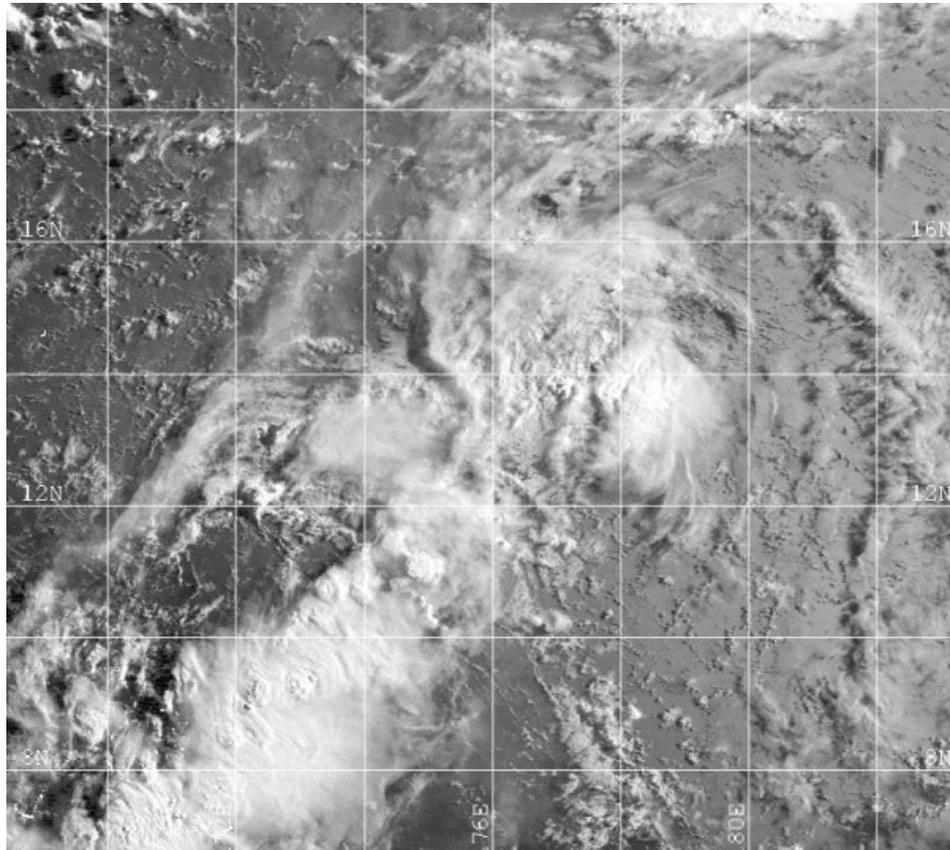
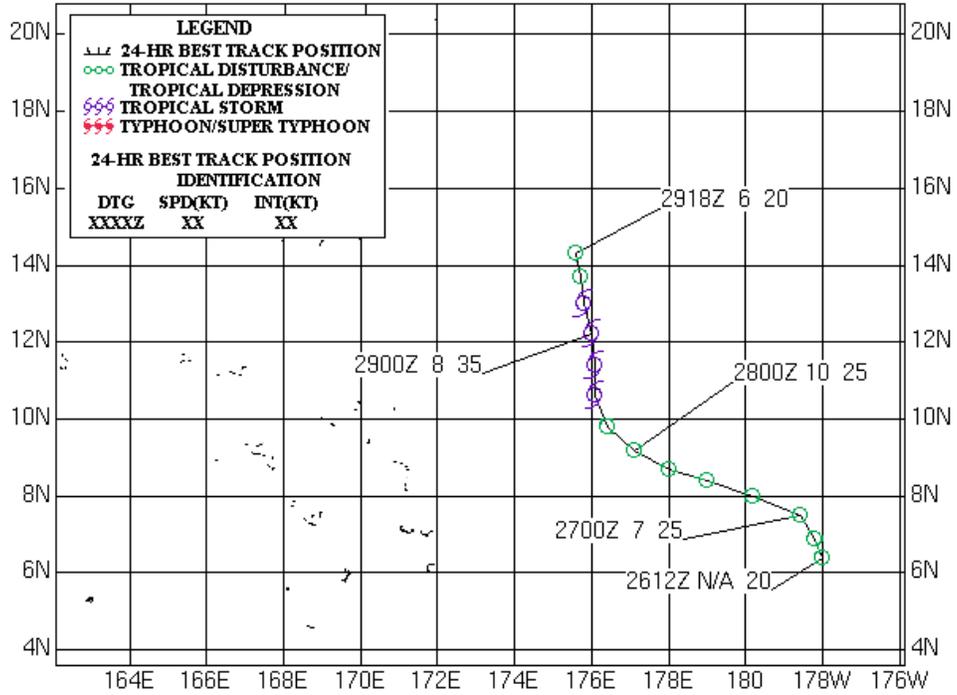


Figure 1-12W-3. 291931Z July 2000 GMS-5 visible image of the remnants of TS 12W, located about 600 nm east-southeast of Wake Island.

**TROPICAL STORM 12W (CHANCHU)
28 - 29 JULY 2000**



Typhoon (TY) 13W (Jejewat*)

First Poor : None

First Fair : 2200Z 31 Jul 00

First TCFA : 2330Z 31 Jul 00

First Warning : 0000Z 01 Aug 00

Last Warning : 0600Z 11 Aug 00

Max Intensity : 125 kts, Gusts to 150 kts

Landfall : 1200Z 10 July 00 over China

Total Warnings : 42

Remarks:

- (1) TY 13W was the 8th named system in the western North Pacific.
- (2) TY 13W intensified from 55 knots at 1200Z on August 1 to 115 knots in 18 hours. The system reached its peak intensity of 125 knots on August 3 with a round 3 nm eye.
- (3) As the system slowly weakened, the eye diameter grew to near 20 nm in diameter. TY 13W experienced a concentric eyewall cycle near 1200Z on August 5th. Afterward, the diameter of the eye increased to 90 nm and could be easily seen in both visible and infrared imagery.
- (4) TY 13W tracked very close to Minamidaito-jima, Japan, about 180 nm east of Okinawa. The minimum sea level pressure observed was 958.9 mb at 0720Z 06 August, with a recorded peak gust of 119.5 knots.
- (5) TY 13W then brushed the northern tip of Okinawa. Observed surface winds peaked with a gust of 68 knots at Kadena Air Base.
- (6) TY 13W subsequently made landfall in China's Zhejiang province. The China Meteorological Administration estimated damages in the province and Shanghai at \$28 million.

* Name assigned by RSMC Tokyo

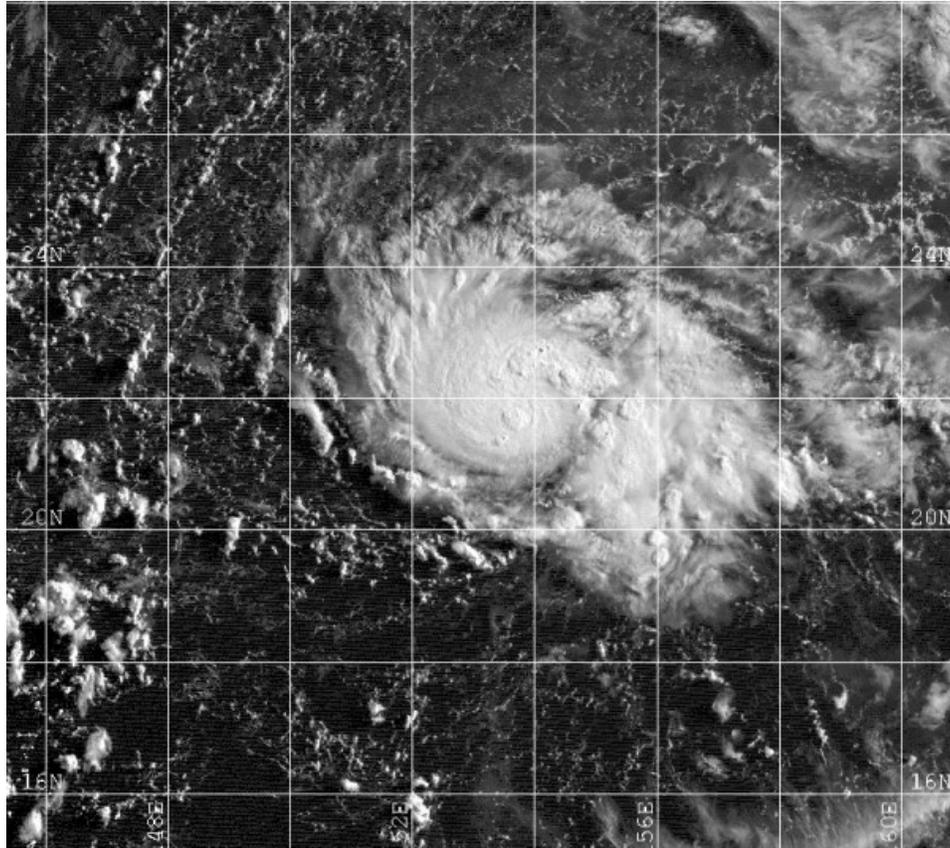


Figure 1-13W-1. 312031Z July 2000 GMS-5 visible image of TY 13W, when the cyclone was located about 750 nm east-northeast of the Mariana Islands.

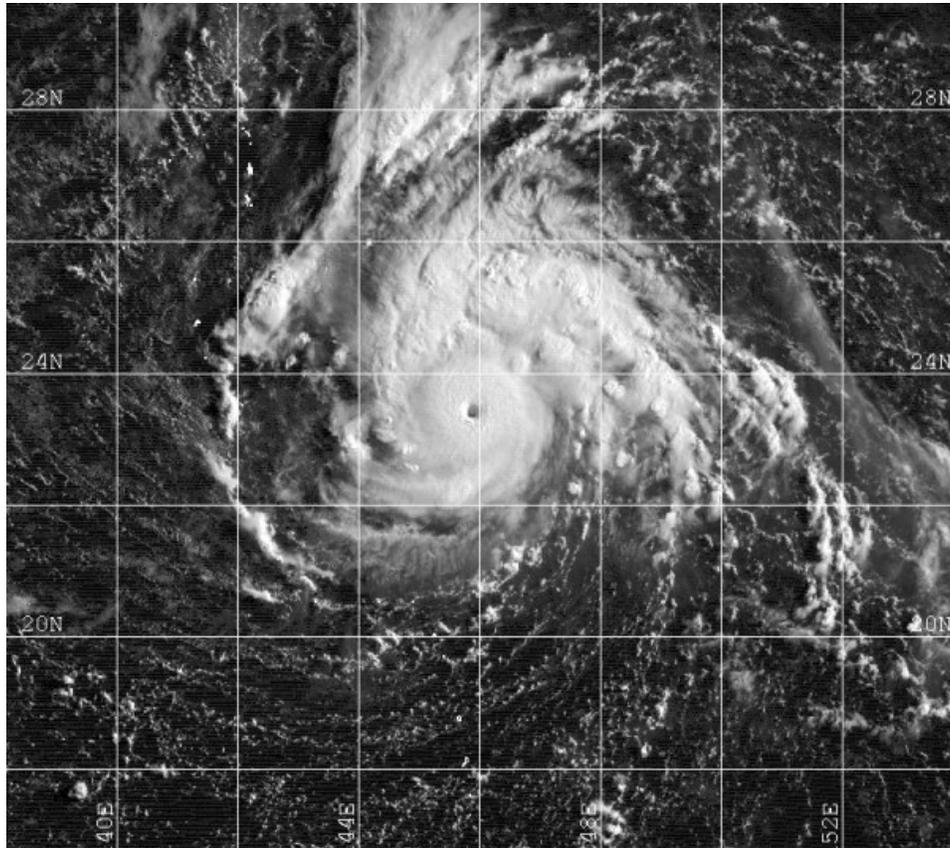


Figure 1-13W-2. 022131Z August 2000 GMS-5 visible image of TY 13W during the period of rapid intensification. At this time, the cyclone is located about 540 nm north of Saipan with a small but well-defined eye.

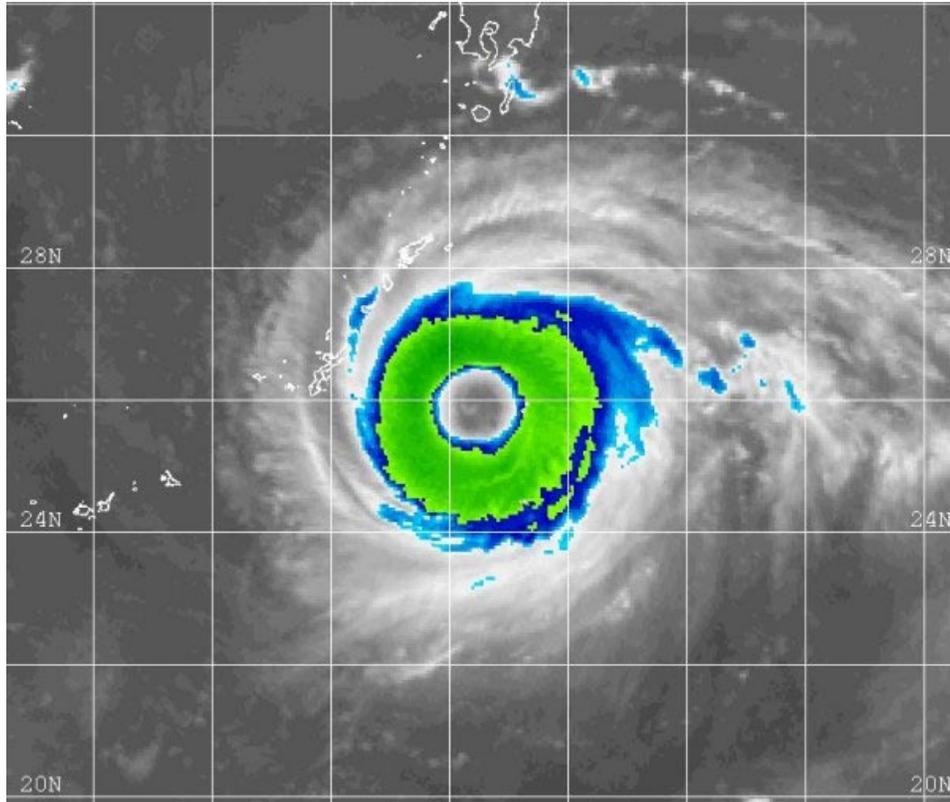


Figure 1-13W-3. 061231Z August 2000 GMS-5 enhanced infrared image of TY 13W after the cyclone completed a complex eyewall replacement cycle. Following the eyewall replacement cycle, the eye expanded to about 90 nm. At this time, the cyclone is located about 120 nm east-southeast of Okinawa.

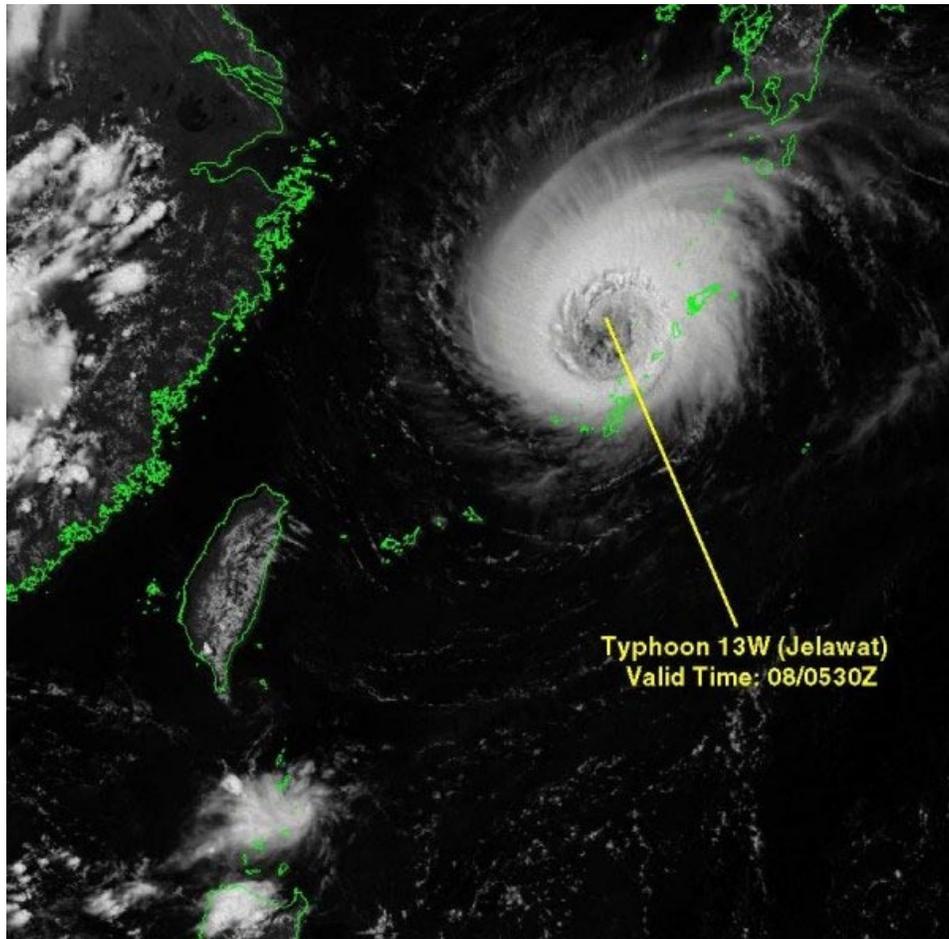


Figure 1-13W-4. 080530Z August 2000 GMS-5 visible image of TY 13W after passage through the Ryukyu Islands.

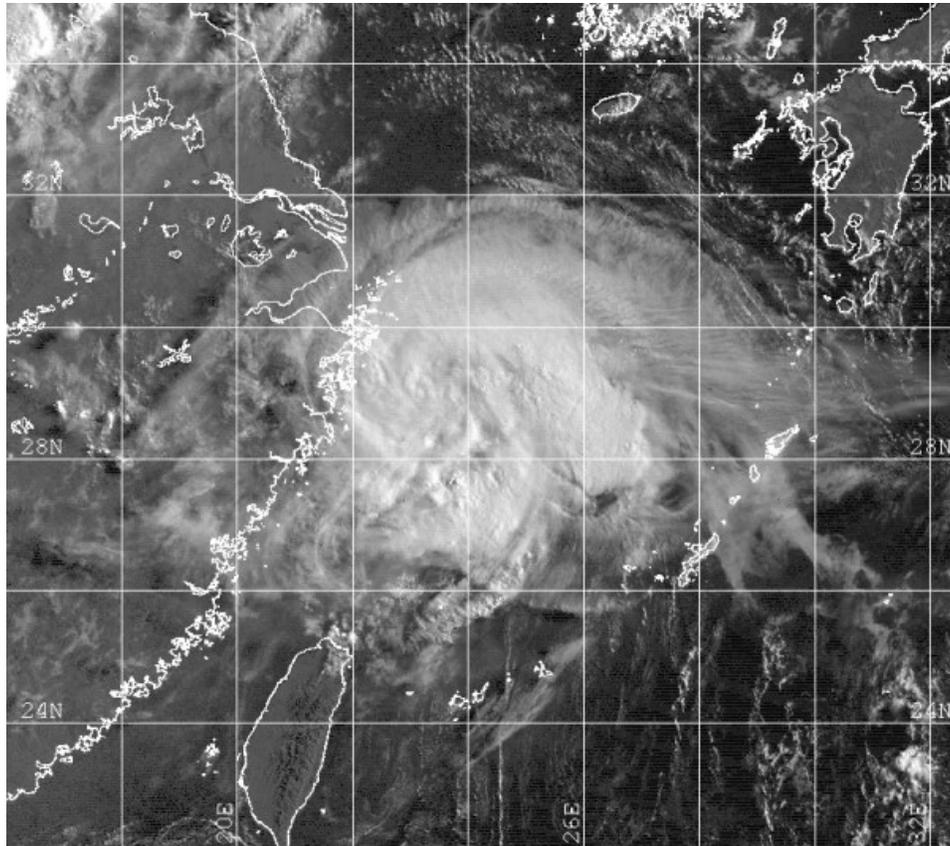
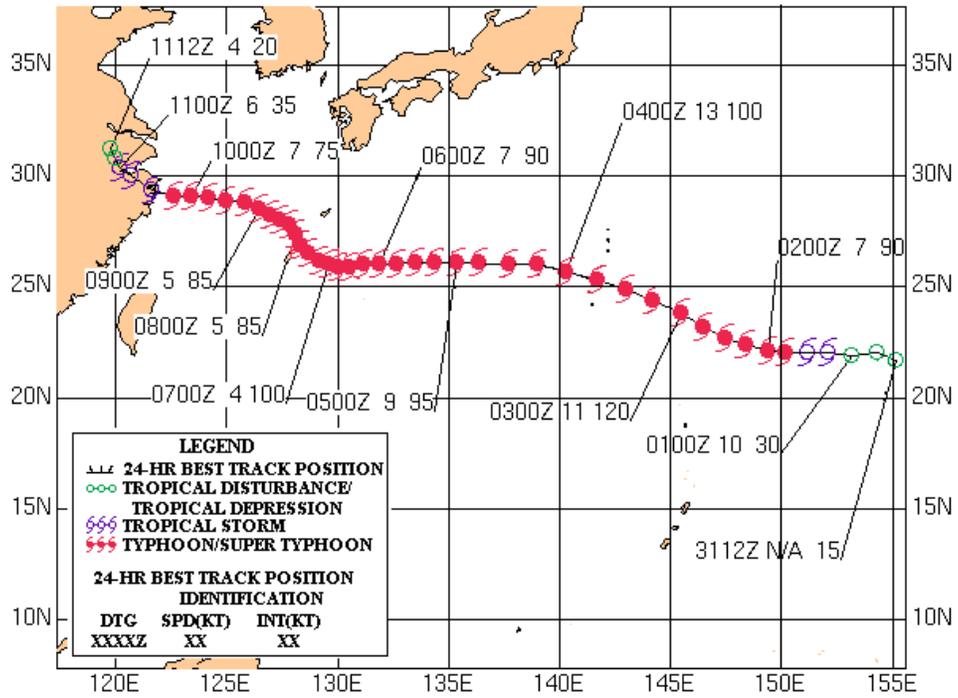


Figure 1-13W-5. 092224Z August 2000 GMS-5 visible image of TY 13W just prior to landfall over Zhejiang province. By this time, the eye of the cyclone is completely obscured and deep convection is limited to the southern periphery.

**TYPHOON 13W (JELAWAT)
01 - 11 AUG 2000**



Tropical Depression (TD) 14W

First Poor : 0600Z 07 Aug 00

First Fair : 0730Z 07 Aug 00

First TCFA : 0030Z 08 Aug 00

First Warning : 0600Z 08 Aug 00

Last Warning : 0000Z 10 Aug 00

Max Intensity : 30 kts, Gusts to 40 kts

Landfall : None

Total Warnings : 8

Remarks : None

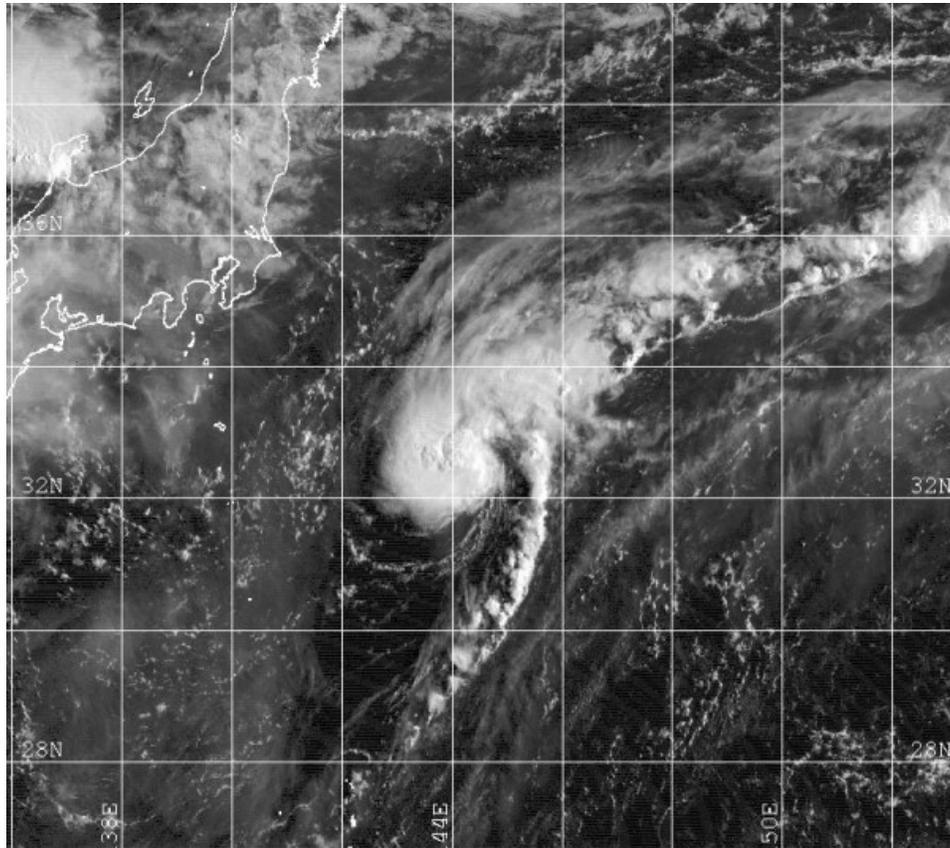
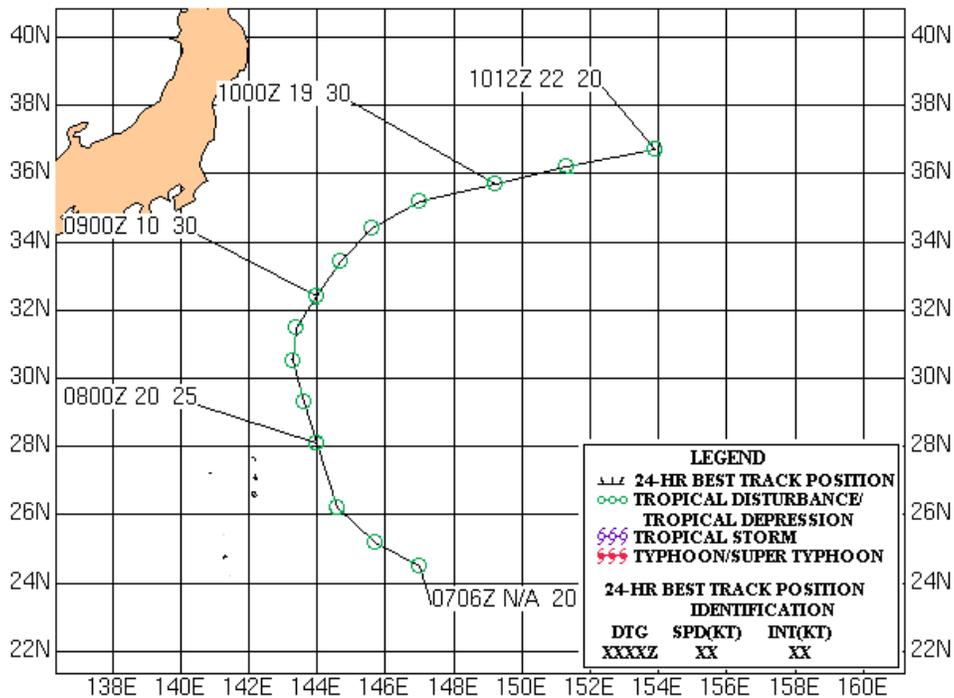


Figure 1-14W-1. 082131Z August 2000 GMS-5 visible image of TD 14W, located about 300 nm southeast of Tokyo, Japan. A central dense overcast can be seen, as well as a weak rainband extending southward.

**TROPICAL DEPRESSION 14W
08 - 10 AUG 2000**



Typhoon (TY) 15W (Ewiniar*)

First Poor : 0600Z 06 Aug 00

First Fair : 0100Z 08 Aug 00

First TCFA : 0300Z 09 Aug 00

First Warning : 0600Z 09 Aug 00

Last Warning : 0600Z 19 Aug 00

Max Intensity : 75 kts, Gusts to 90 kts

Landfall : None

Total Warnings : 41

Remarks :

- (1) This system tracked in a very small, slow cyclonic loop east of Honshu, Japan, in a region of weak to moderate vertical shear and little steering.

* Name assigned by RSMC Tokyo

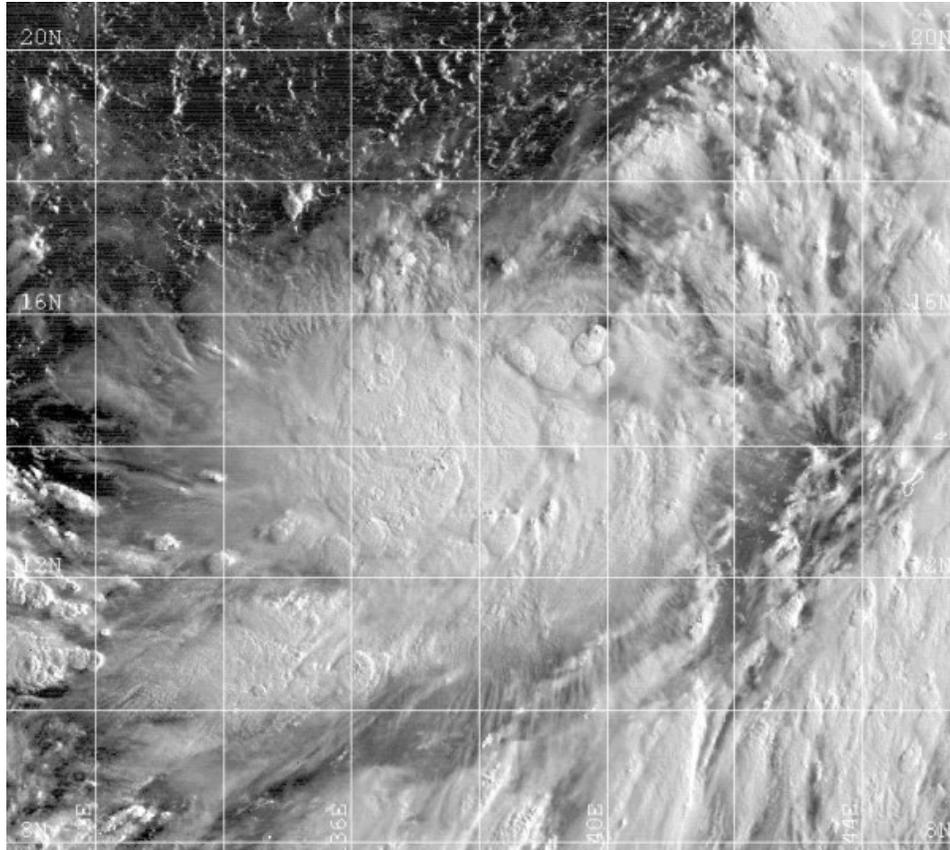


Figure 1-15W-1. 092131Z August 2000 GMS-5 visible image of TY 15W, located about 300 nm west of the Northern Mariana Islands. Convection is massed near the circulation center.

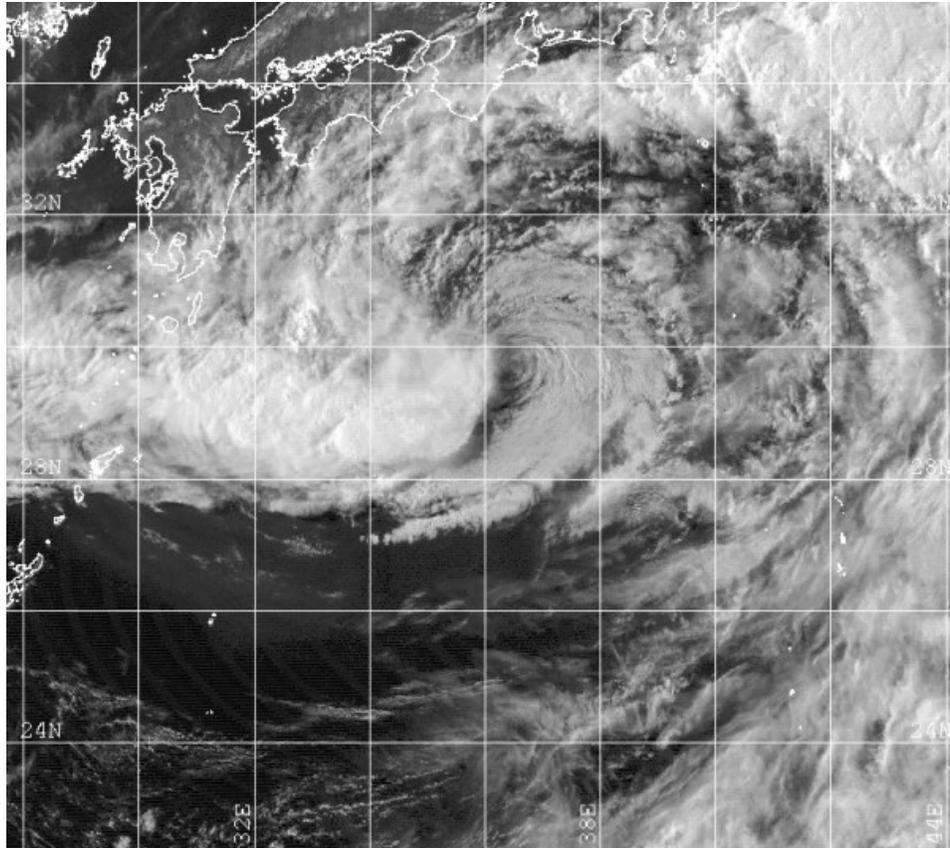


Figure 1-15W-2. 120731Z August 2000 GMS-5 visible image of TY 15W, located about 240 nm south of Honshu. At this time, vertical shear is evident, with the deep convection displaced to the west of the exposed low-level circulation center.

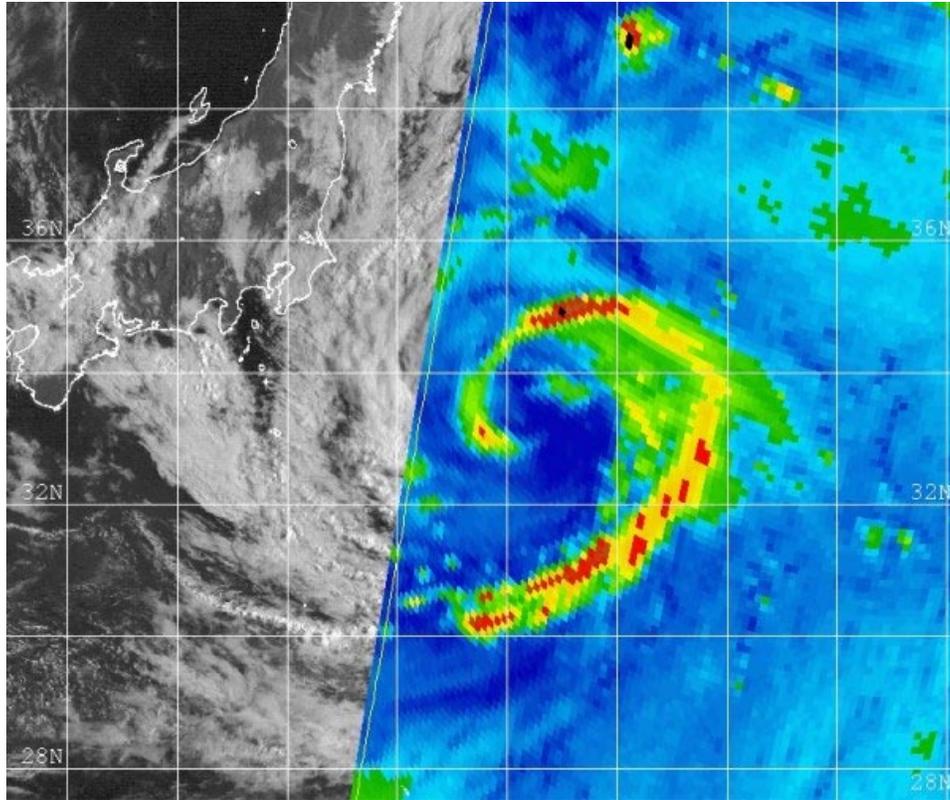


Figure 1-15W-3. 132306Z August 2000 SSM/I 85 GHz image of TY 15W, located about 180 nm east-southeast of Tokyo, Japan. The spiral character of the open eyewall and connected rainband is evident in this image.

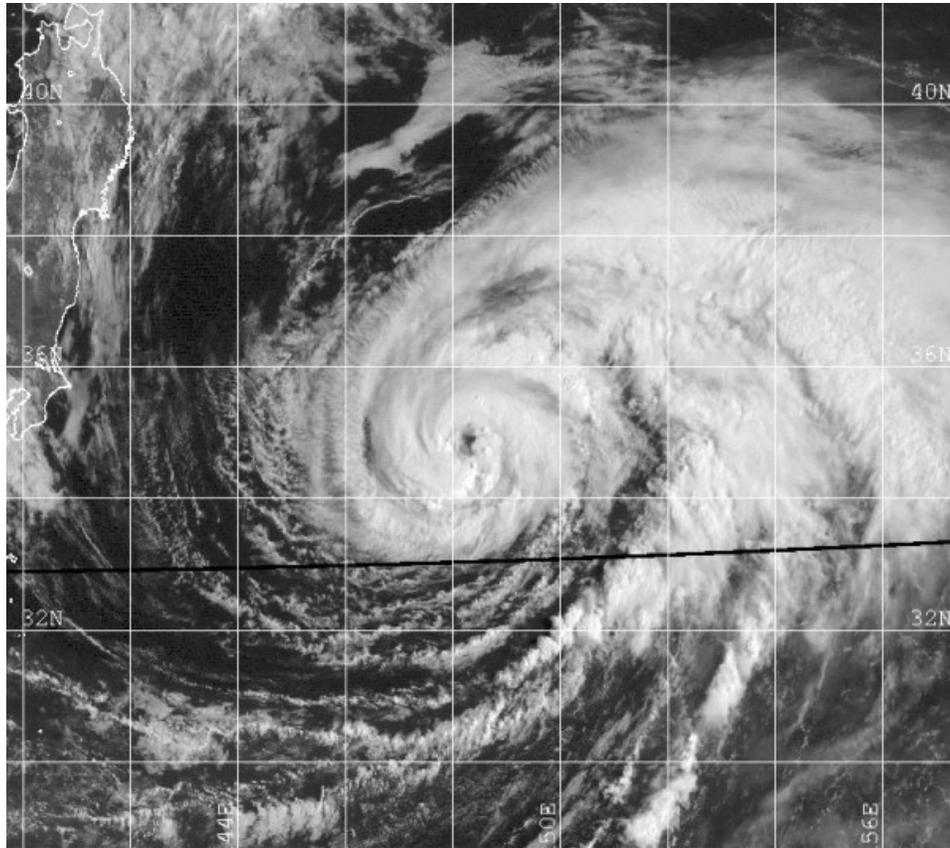


Figure 1-15W-4. 142224Z August 2000 GMS-5 visible image of TY 15W, located about 500 nm east of Tokyo, Japan, with a clear eye, complete eyewall, and banding features on the northeast and east sides of the cyclone.

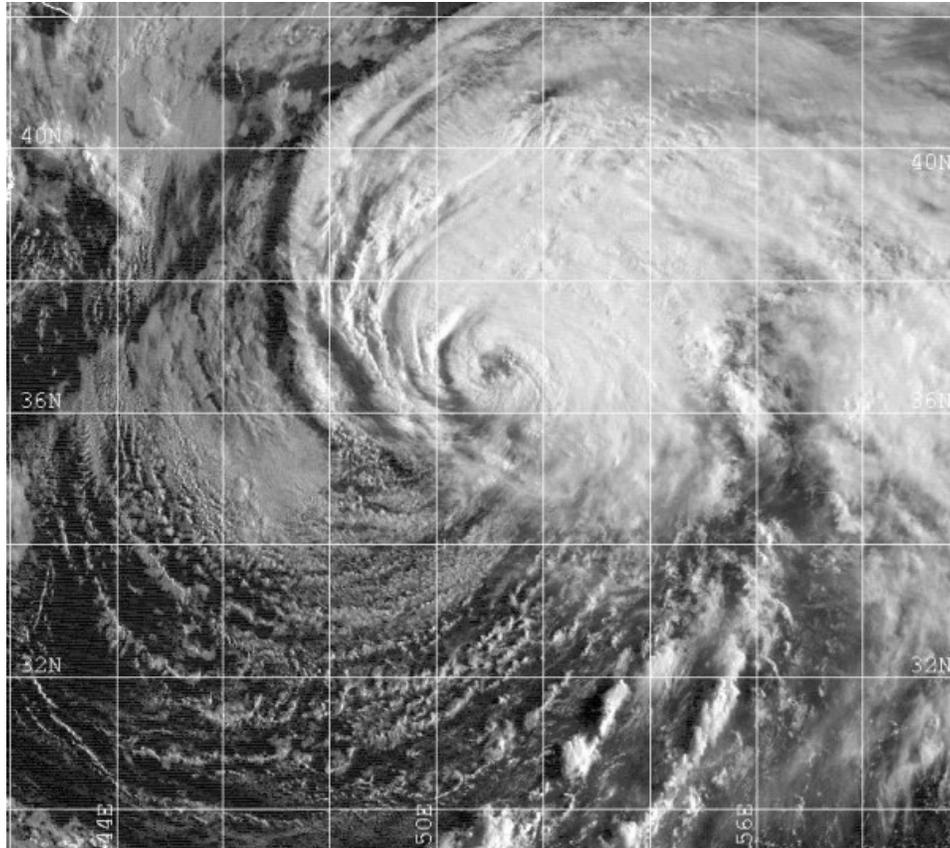
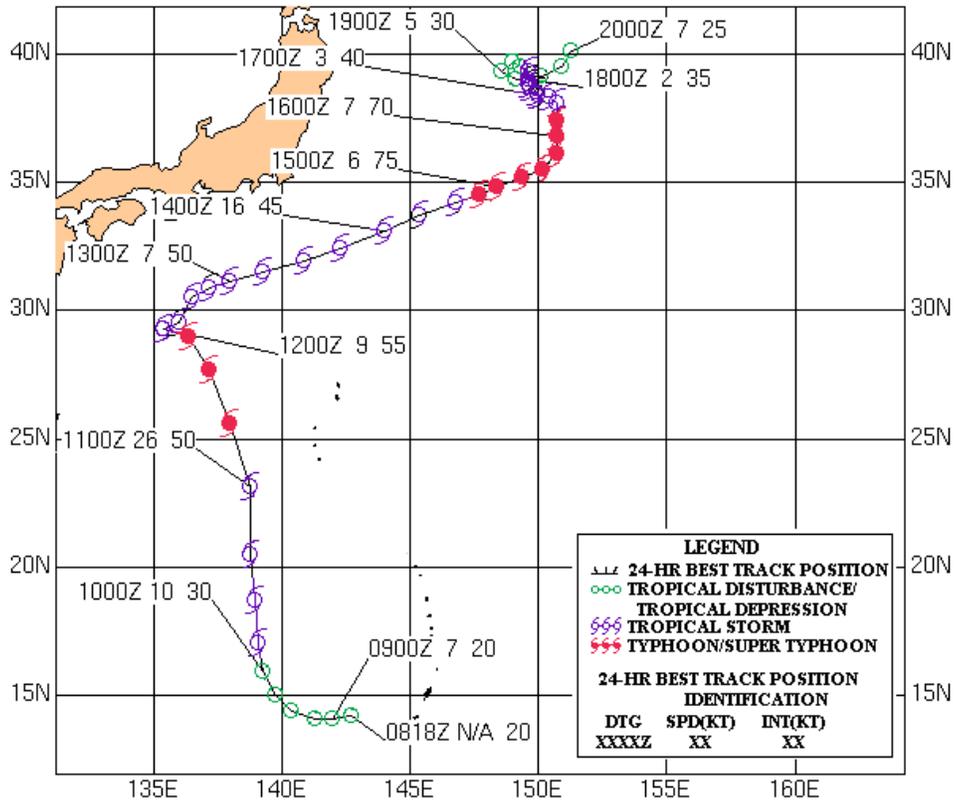


Figure 1-15W-5. 152031Z August 2000 GMS-5 visible image of TY 15W, located about 650 nm east of Tokyo, Japan. At this time, vertical shear is evident with the low-level circulation center partially exposed and the deep convection displaced to the northeast.

**TYPHOON 15W (EWINIAR)
09 - 19 AUG 2000**



Tropical Storm (TS) 16W (Wene*)

First Poor : None

First Fair : None

First TCFA : 0200Z 15 Aug 00

First Warning : 0900Z 15 Aug 00

Last Warning : 0900Z 17 Aug 00

Max Intensity : 55 kts, Gusts to 70 kts.

Landfall : None

Total Warnings : 9 (3 by JTWC, 6 by CPHC and NPMOC Pearl Harbor)

Remarks : None

* Name assigned by CPHC Honolulu

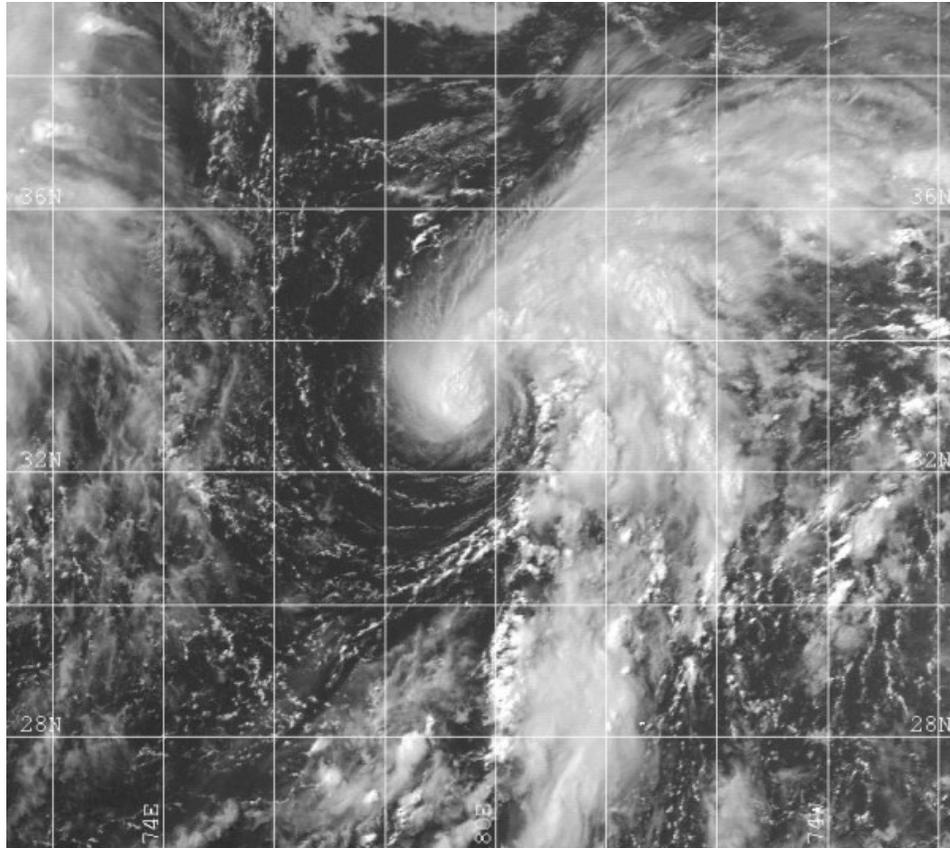


Figure 1-16W-1. 150424Z August 2000 GMS-5 visible image of TS 16W, which shows the cyclone with central convection connected to a broad rain band on the eastern side. Low-level cloud bands can also be seen to the south and west.

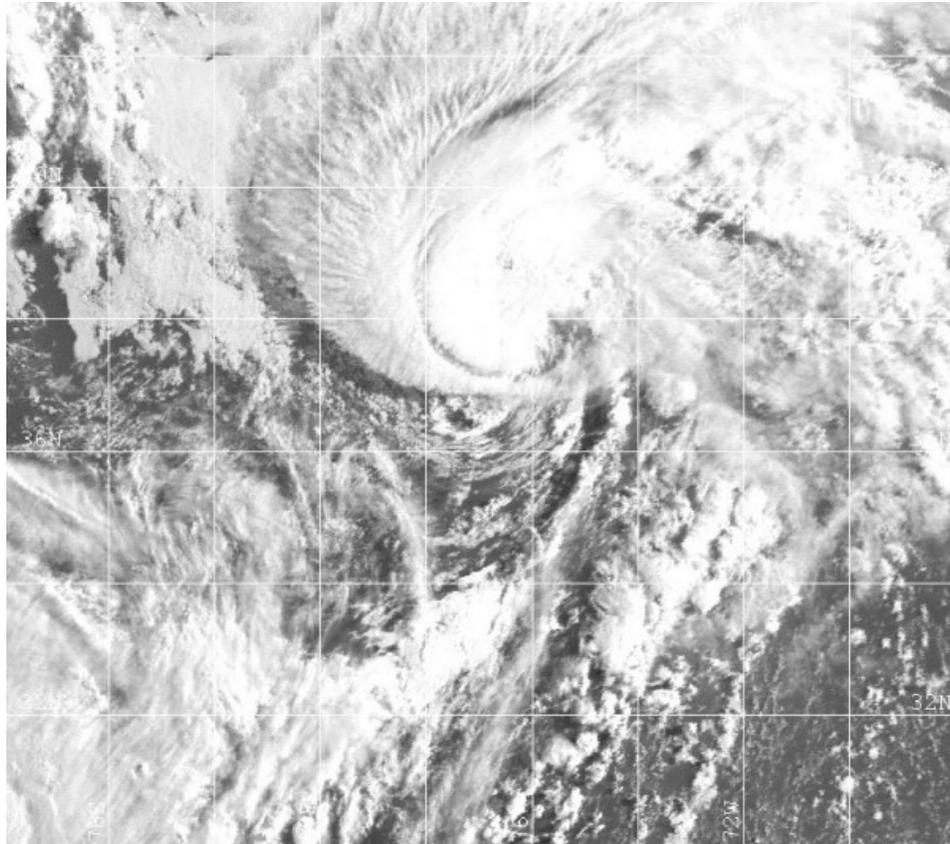
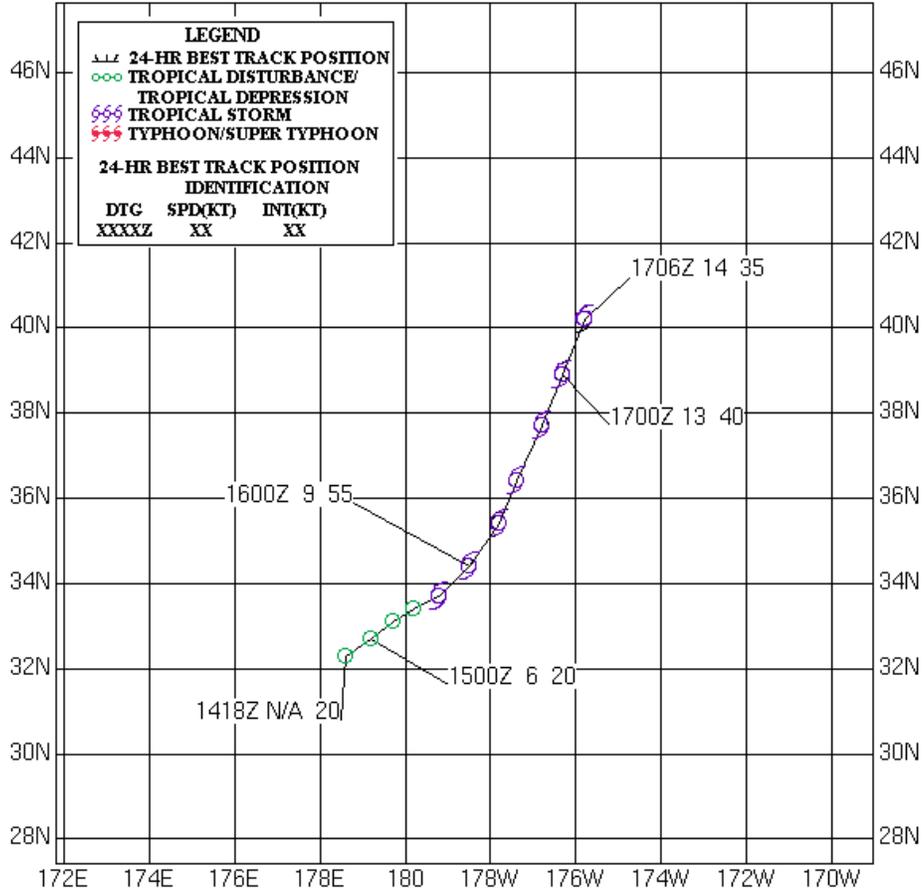


Figure 1-16W-2. 161831Z August 2000 GMS-5 visible image of TS 16W, located about 15 degrees south of the Aleutian Islands with a partially exposed low-level circulation center south of the deep convection.

**TROPICAL STORM 16W (WENE)
15 - 17 AUG 2000**



Tropical Depression (TD) 17W

First Poor : 0000Z 16 Aug 00

First Fair : 0000Z 17 Aug 00

First TCFA : None

First Warning : 1800Z 17 Aug 00

Last Warning : 0000Z 19 Aug 00

Max Intensity : 25 kts, Gusts to 35 kts

Landfall : None

Total Warnings : 6

Remarks : None

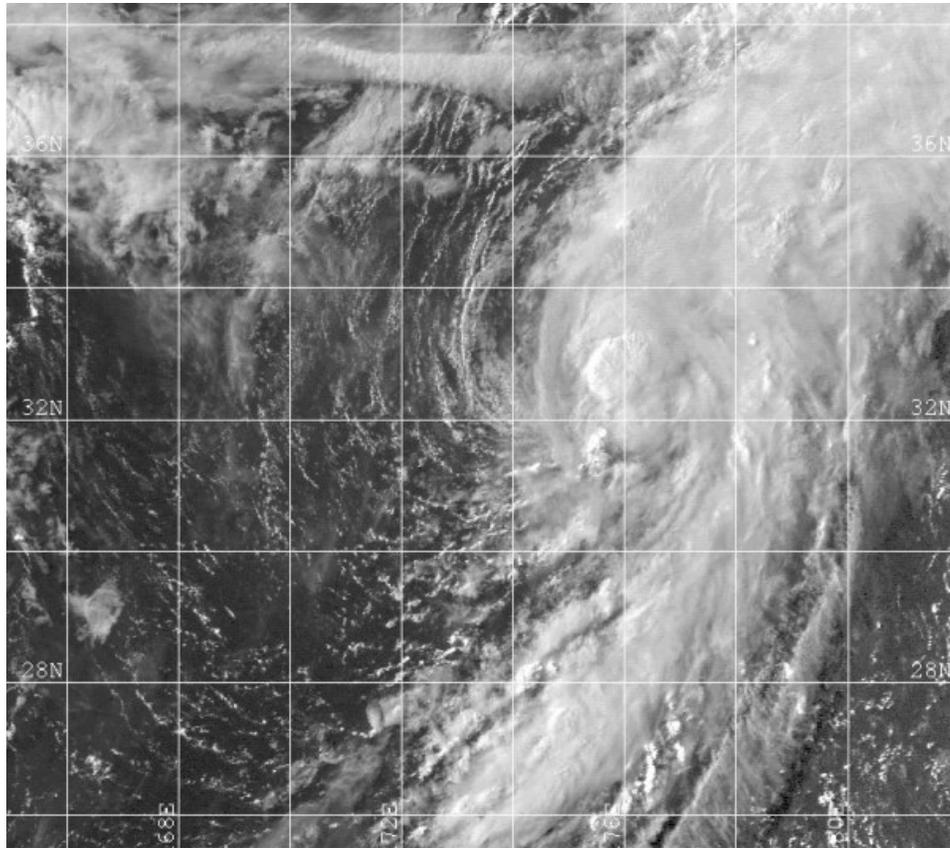
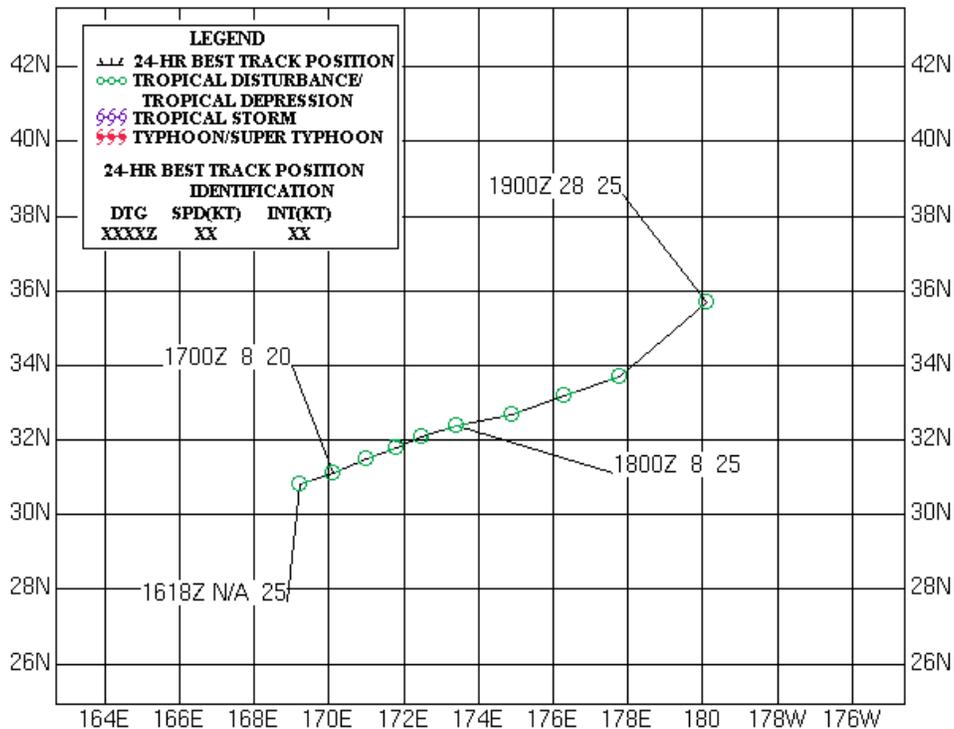


Figure 1-17W-1. 180531Z August 2000 GMS-5 visible image of TD 17W, when the cyclone was located 480 nm northwest of Midway Island. At this time, TD 17W is undergoing extra-tropical transition, with the deep convection displaced about 35 nm to the east of the low-level circulation.

**TROPICAL DEPRESSION 17W
17 - 19 AUG 2000**



Super Typhoon (STY) 18W (Bilis*)

First Poor : 1730Z 15 Aug 00

First Fair : 0000Z 16 Aug 00

First TCFA : 0300Z 18 Aug 00

First Warning : 0600Z 18 Aug 00

Last Warning : 0000Z 24 Aug 00

Max Intensity : 140 kts, Gusts to 170 kts

Landfall : 1400Z 22 Aug 00 over Taiwan, 0300Z 23 Aug 00 over China

Total Warnings : 24

Remarks:

- (1) STY 18W intensified from 90 knots at 1200Z on August 20 to 140 knots in 30 hours, just prior to making landfall over Taiwan.
- (2) The center of STY 18W passed over the coast of southern Taiwan about 1400Z on August 22, then moved inland. Reports indicated 14 fatalities, 80 injured, 400 houses destroyed, and power disruption to 600,000 homes. This was the second typhoon to affect Taiwan in 2000. The island's agricultural, fishery, and forestry industries experienced damages of \$133.5 million.
- (3) STY 18W made final landfall near Jinjian, Fujian province, China. The China Meteorological Administration reported 57 fatalities, 1077 wounded or missing, and economic losses of \$534 million. Quanzhou recorded 220 mm (8.7 inches) of rain. Tornadoes associated with this cyclone were reported to have struck four villages near Yueqing, destroying 20 buildings and damaging at least 130 others.

* Name assigned by RSMC Tokyo

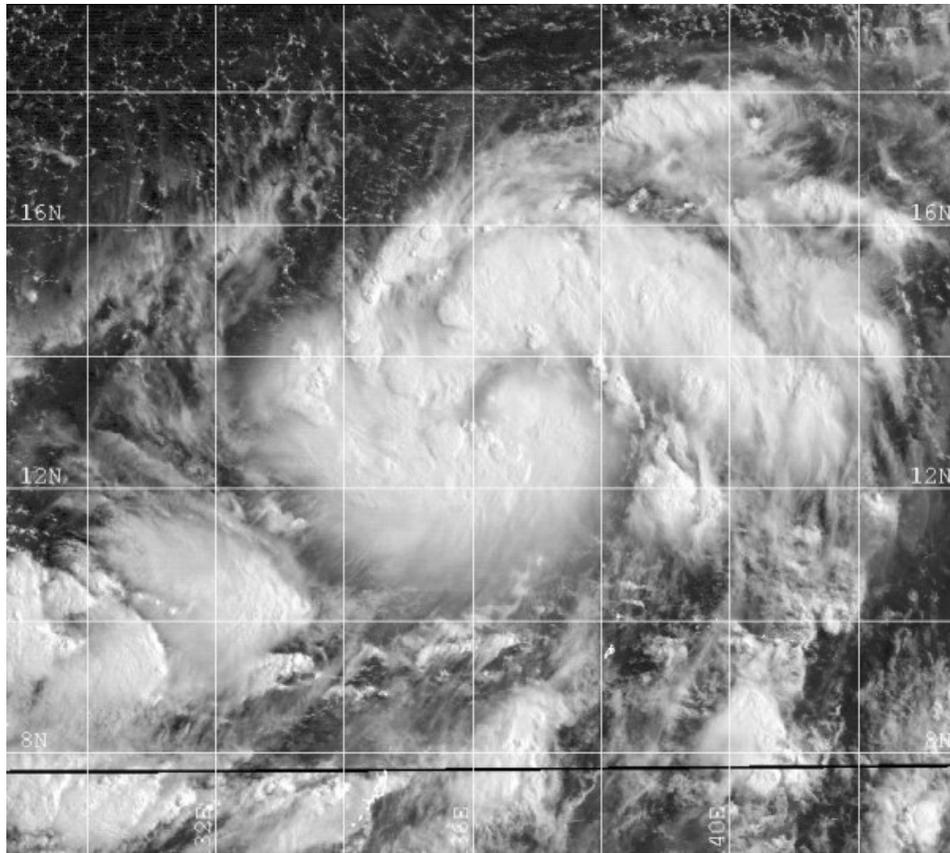


Figure 1-18W-1. 182301Z August 2000 GMS-5 visible image of STY 18W, when the cyclone was located about 260 nm north-northwest of Yap at tropical storm intensity.

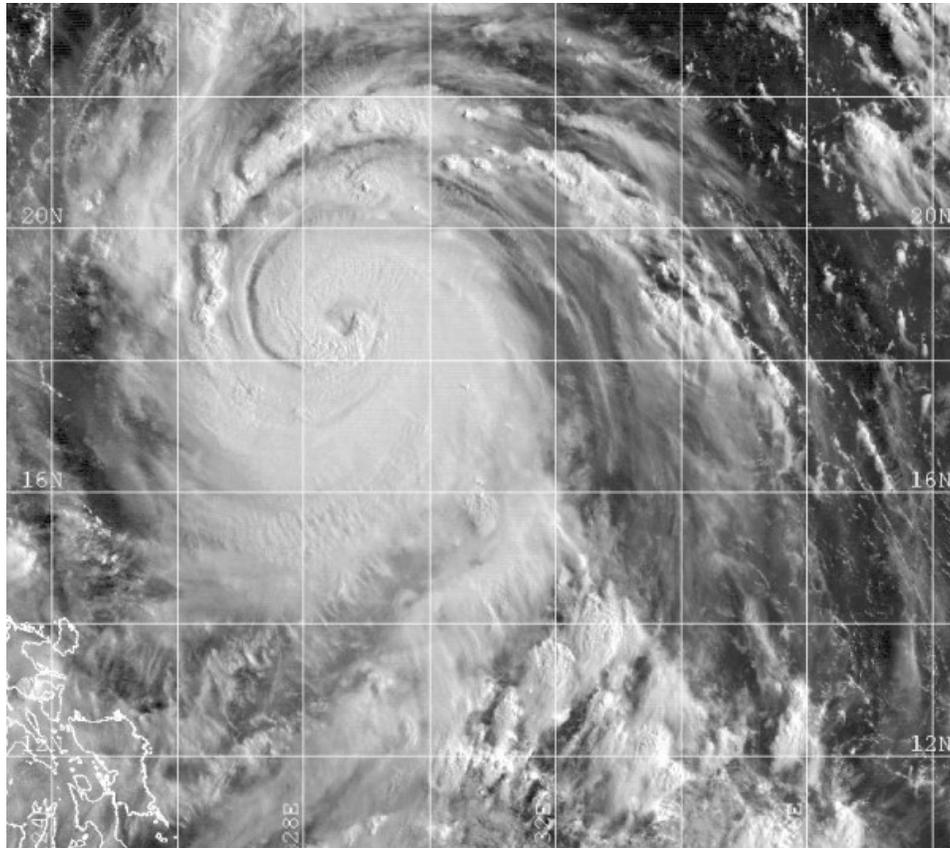


Figure 1-18W-2. 202224Z August 2000 GMS-5 visible image of STY 18W, located about 350 nm east of Luzon, Philippines, with a developing eye and deep convection wrapped completely around the center.

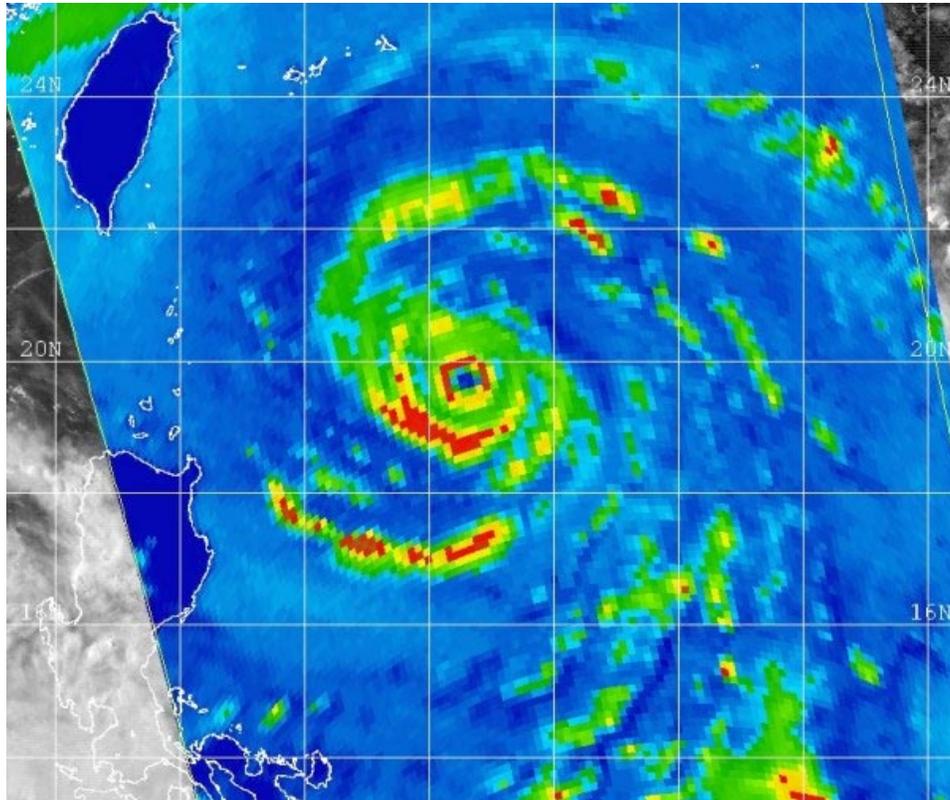


Figure 1-18W-3. 210831Z August 2000 SSMI 85 GHz image of STY 18W just prior to reaching super typhoon intensity. At this time, the cyclone is approximately 400 nm southeast of Taiwan, with concentric eyewalls and strong rainbands to the north and south.

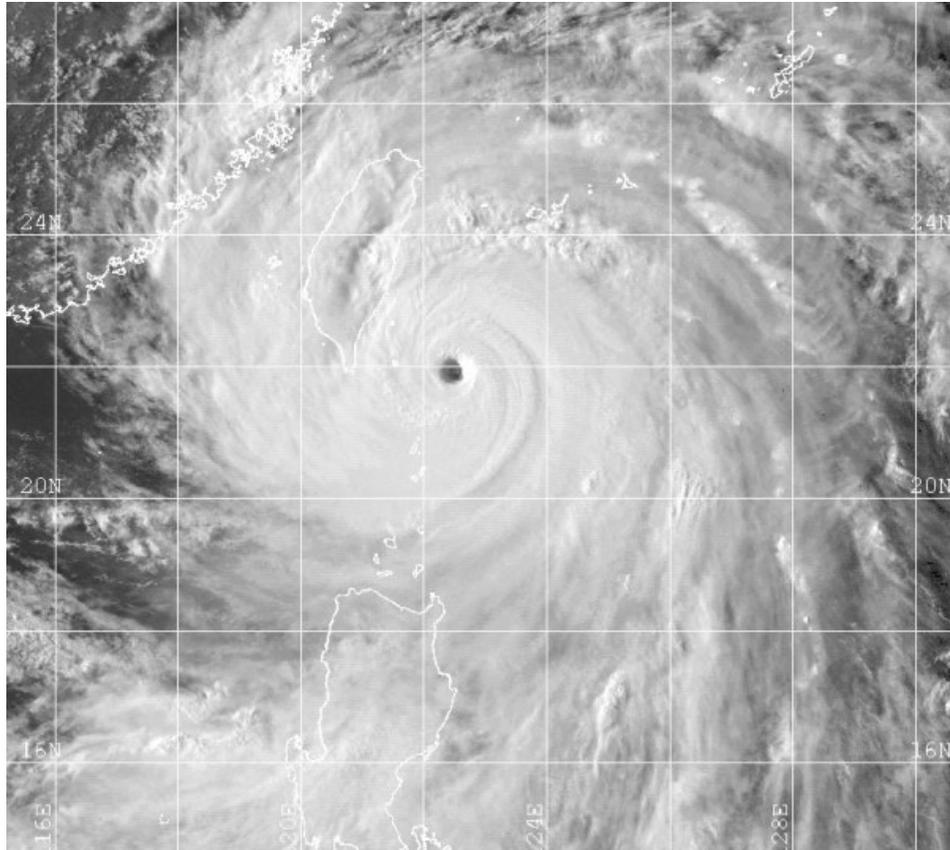


Figure 1-18W-4. 220831Z August 2000 GMS-5 visible image of STY 18W, located 120 nm south-east of Taiwan with a well-defined eye.

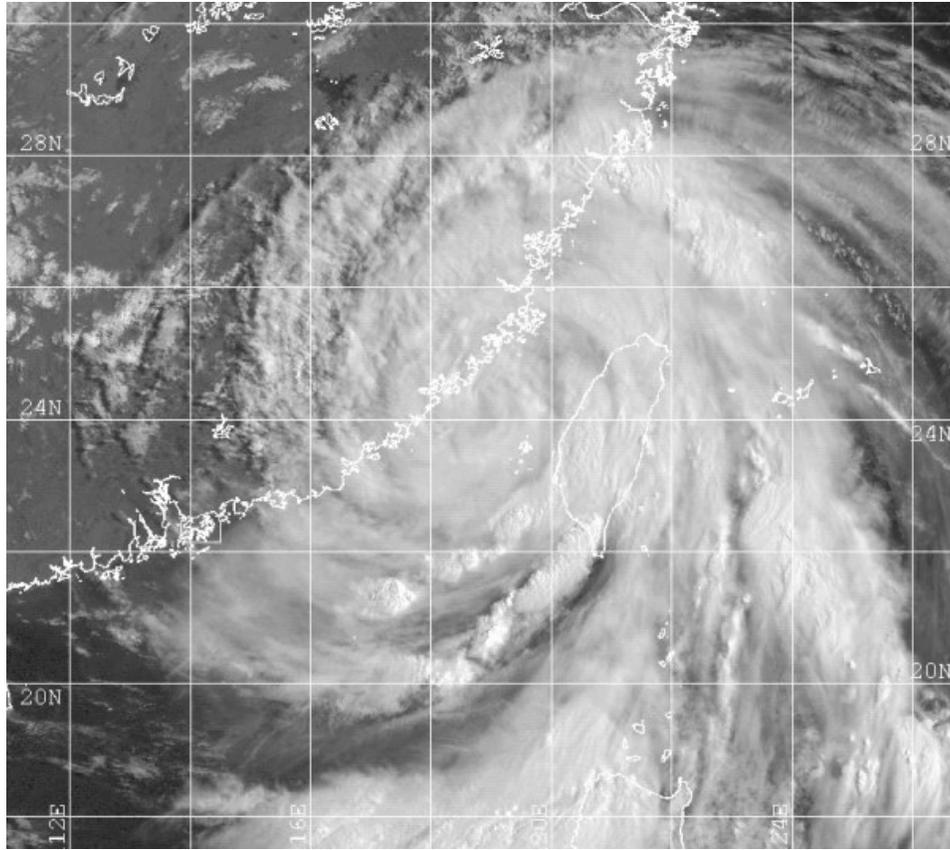
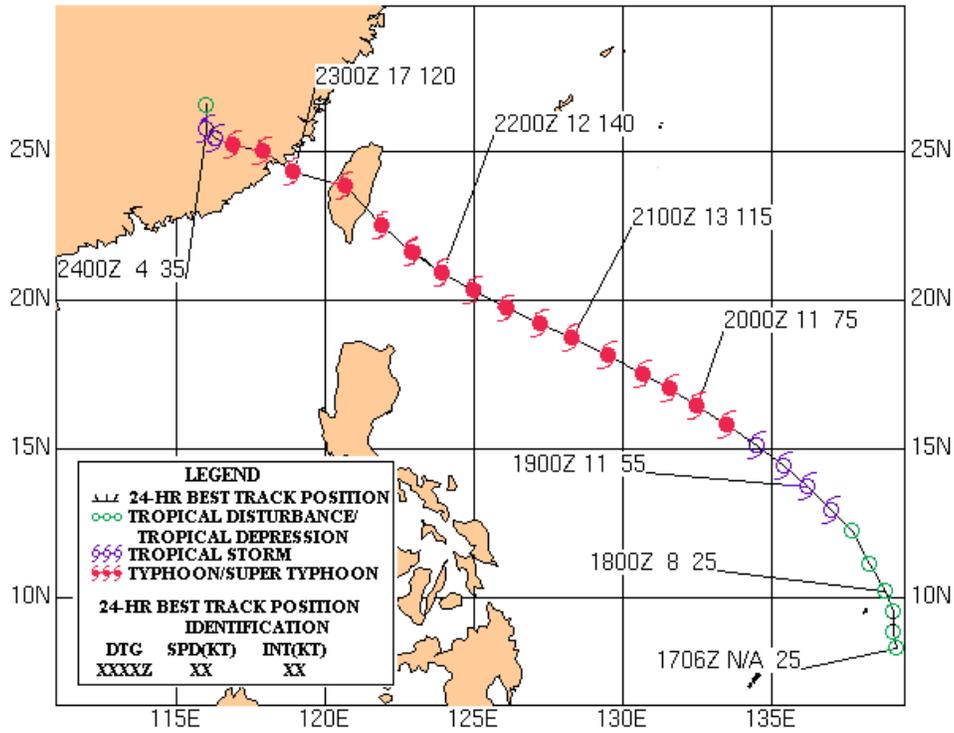


Figure 1-18W-5. 222331Z August 2000 GMS-5 visible image of STY 18W, just prior to making landfall near Quanzhou, China.

**SUPER TYPHOON 18W (BILIS)
18 - 24 AUG 2000**



Tropical Storm (TS) 19W (Kaemi*)

First Poor : 0000Z 17 Aug 00

First Fair : 1530Z 18 Aug 00

First TCFA : 0000Z 19 Aug 00

First Warning : 0600Z 20 Aug 00

Last Warning : 0000Z 23 Aug 00

Max Intensity : 45 kts, Gusts to 55 kts

Landfall : 0600Z 22 Aug 00 over Da Nang, Vietnam

Total Warnings : 12

Remarks:

- (1) Reuters News reported 6 deaths, two capsized tour boats in Halong Bay, and several sunken fishing vessels after TS 19W struck central Vietnam near Da Nang.

* Name assigned by RSMC Tokyo

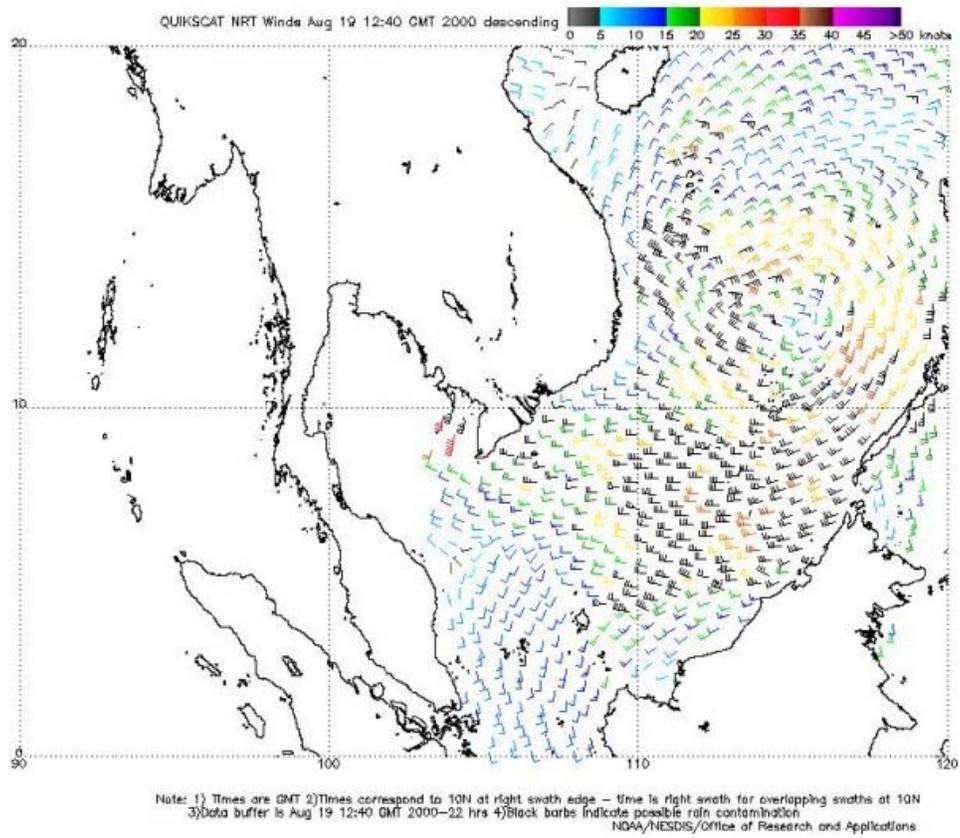


Figure 1-19W-1. 191240Z August 2000 QUIKSCAT image of TS 19W, located about 300 nm east of Cam Ranh Bay, Vietnam.

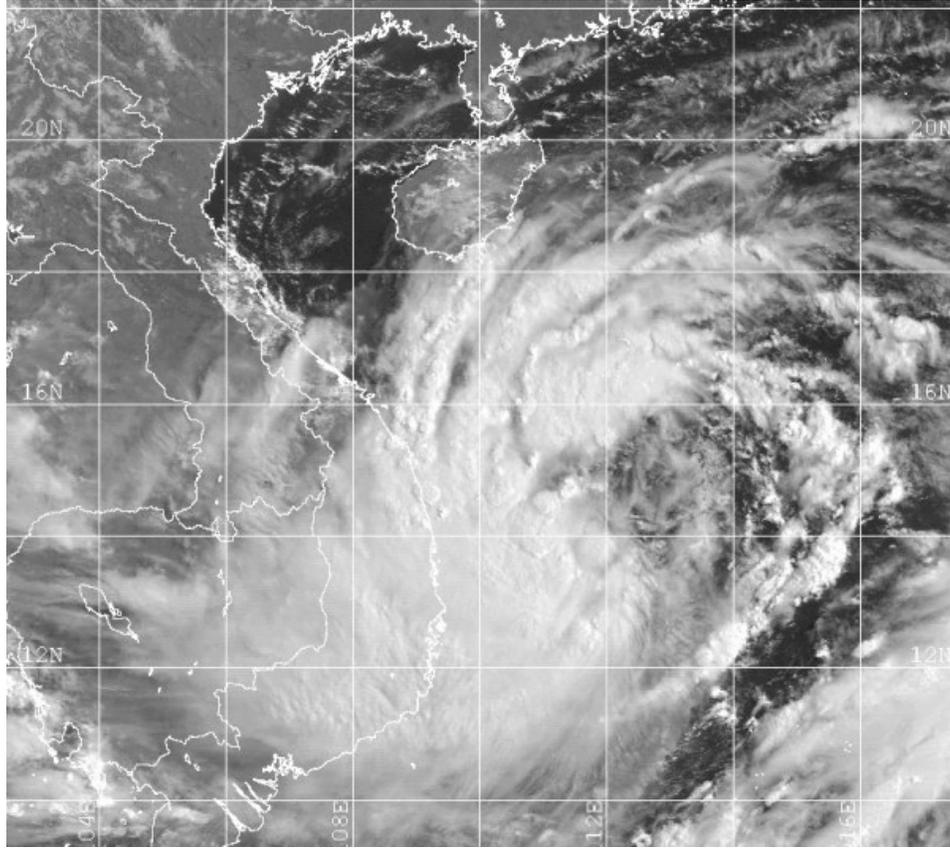


Figure 1-19W-2. 210031Z August 2000 GMS-5 visible image of TS 19W, with more organized deep convection evident around the low-level circulation center.

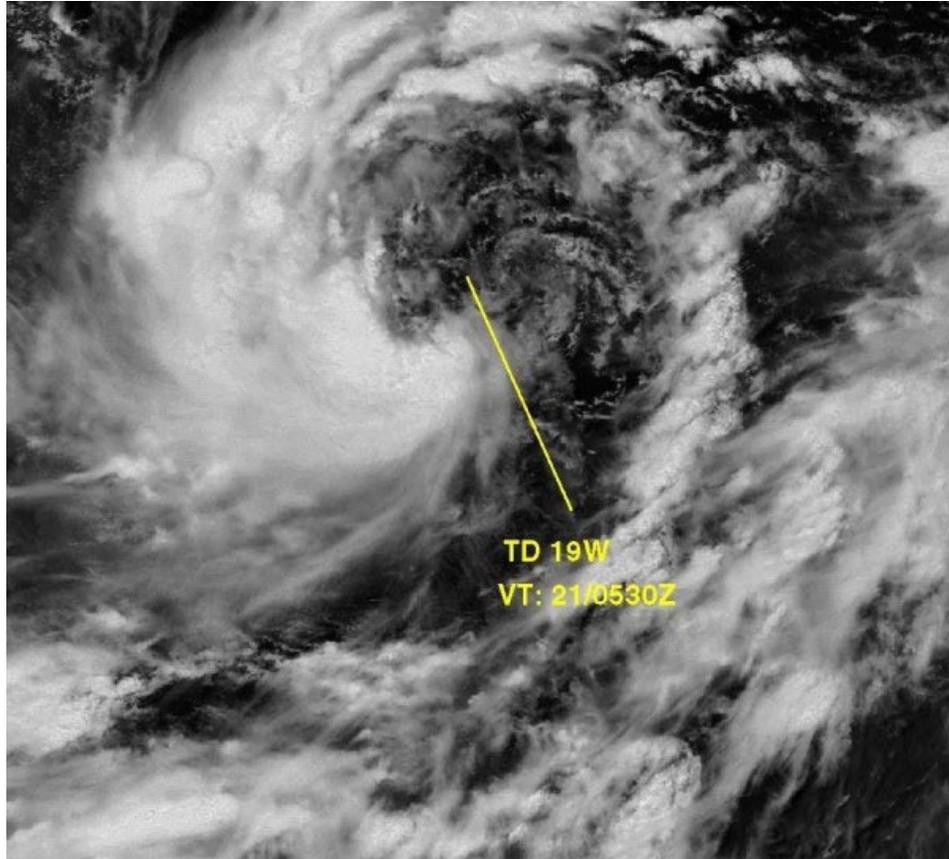
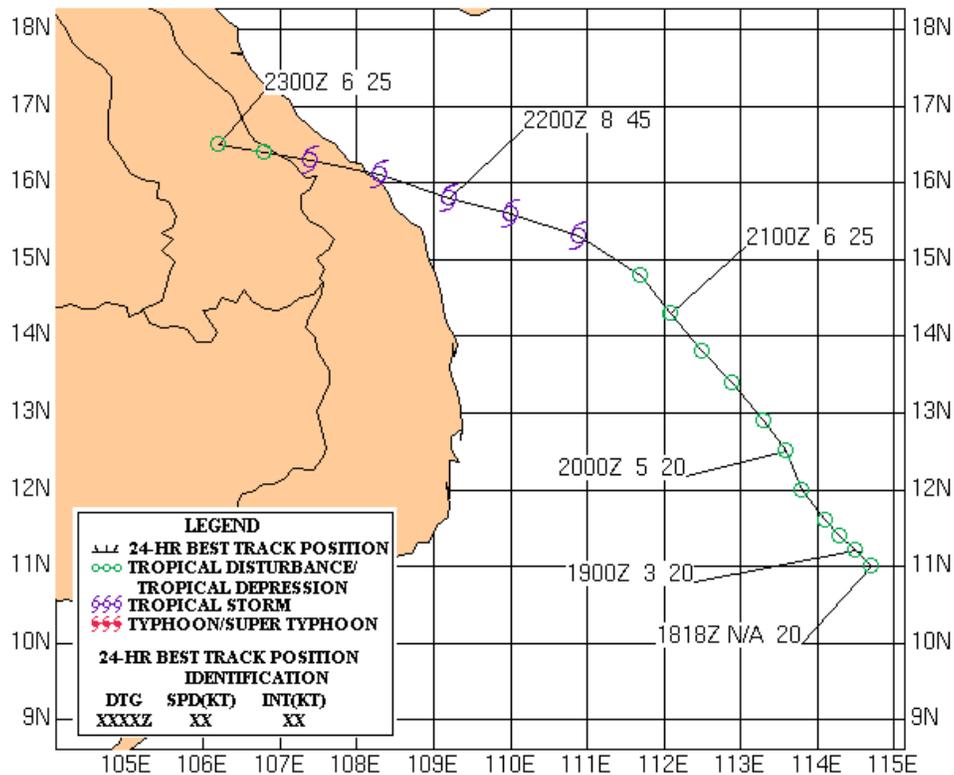


Figure 1-19W-3. 210530Z August 2000 GMS-5 visible image of TS 19W, located about 180 nm east-southeast of Da Nang, Vietnam. The fully exposed low-level circulation center is evident, with the deep convection displaced to the west and extending into a spiral rainband.

**TROPICAL STORM 19W (KAEMI)
20 - 23 AUG 2000**



Typhoon (TY) 20W (Prapiroon*)

First Poor : 0600Z 22 Aug 00

First Fair : 0030Z 23 Aug 00

First TCFA : 2230Z 25 Aug 00

First Warning : 0000Z 26 Aug 00

Last Warning : 0600Z 01 Sep 00

Max Intensity : 75 kts, Gusts to 90 kts

Landfall : 1300Z 31 Aug 00 over North Korea

Total Warnings : 26

Remarks:

- (1) News reports indicated at least 10 fatalities in China (Xiangshui province and on Zhoushan Island) due to TY 20W. Reports further indicated that this cyclone caused the destruction of 7,500 homes and produced 210 mm of rain in Hsinchu, China.
- (2) The cyclone subsequently made landfall over North Korea with news reports indicating 46 people killed in collapsed structures, flooding, and landslides in the Republic of Korea. 29,400 houses were also reported destroyed and another 96,000 reported to have sustained flood damage. Rains associated with this cyclone washed away 470 km of paved roads in the Republic of Korea. Damages in the Republic of Korea were estimated at 12.5 billion Won (Korean money).
- (3) Wind gusts up to 130 mph were recorded on Huksan Island off the southwest coast of the Korean peninsula.

* Name assigned by RSMC Tokyo

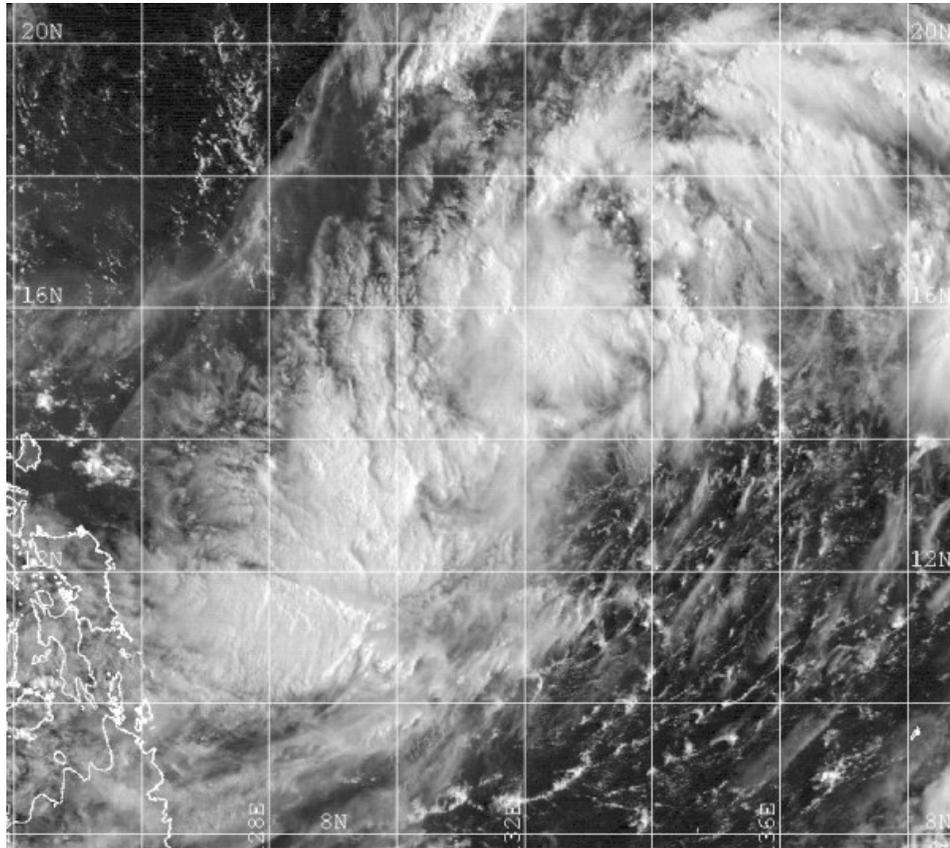


Figure 1-20W-1. 252301Z August 2000 GMS-5 visible image of the incipient disturbance that developed into TY 20W. At this time, the circulation center is located about 550 nm east of Luzon, Philippines.

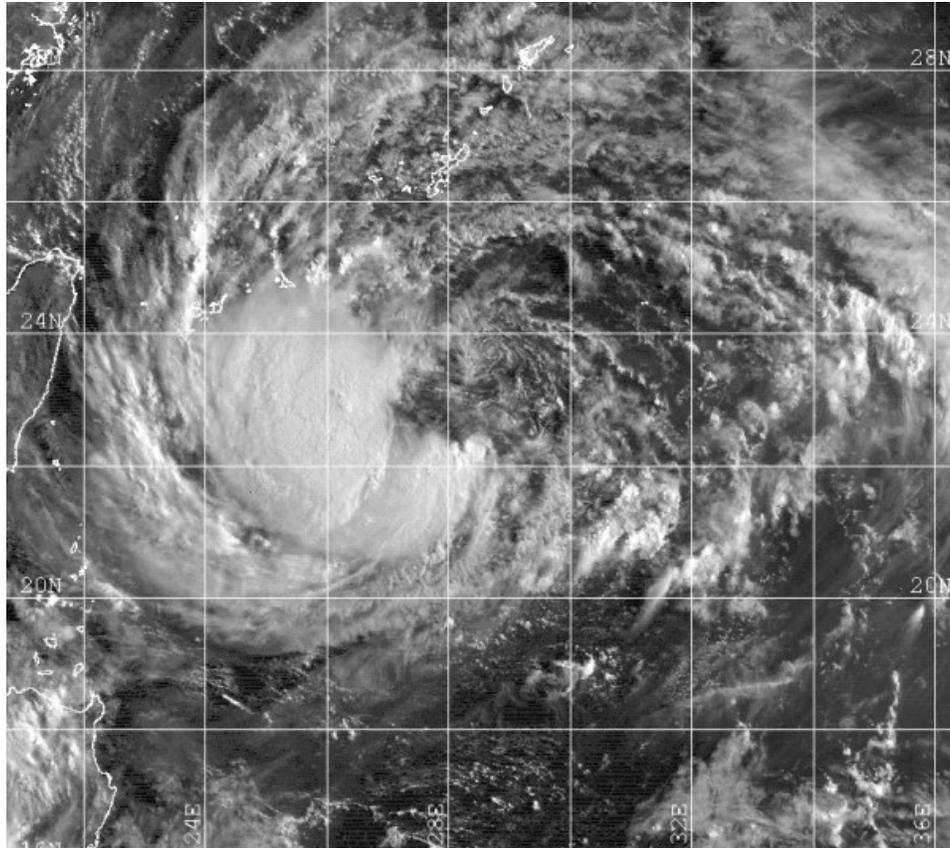


Figure 1-20W-2. 272224Z August 2000 GMS-5 visible image of TY 20W, located about 175 nm south of Okinawa at tropical storm (35 knot) intensity, with a large area of convection to the west.

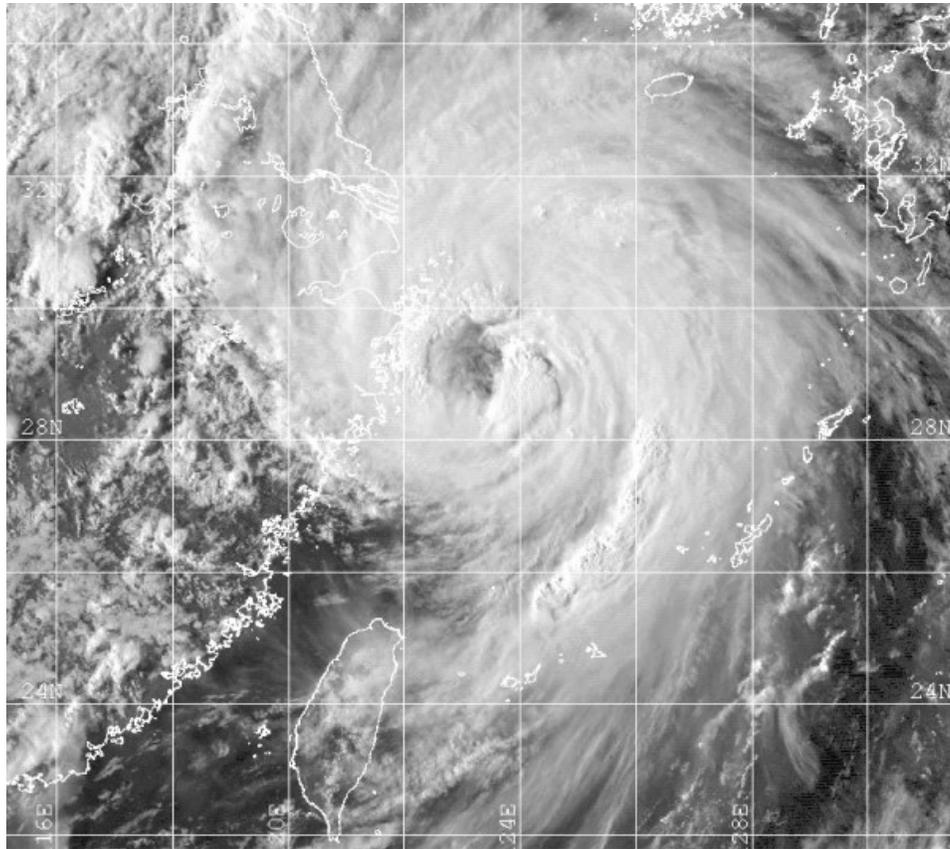


Figure 1-20W-3. 300831Z August 2000 GMS-5 visible image of TY 20W near maximum intensity (75 knots). The cyclone is located about 100 nm off the coast of southeast China and traveling north at 10 knots. A large eye and deep convection in most quadrants are evident, with a rainband located 250 nm to the southeast of the circulation center.

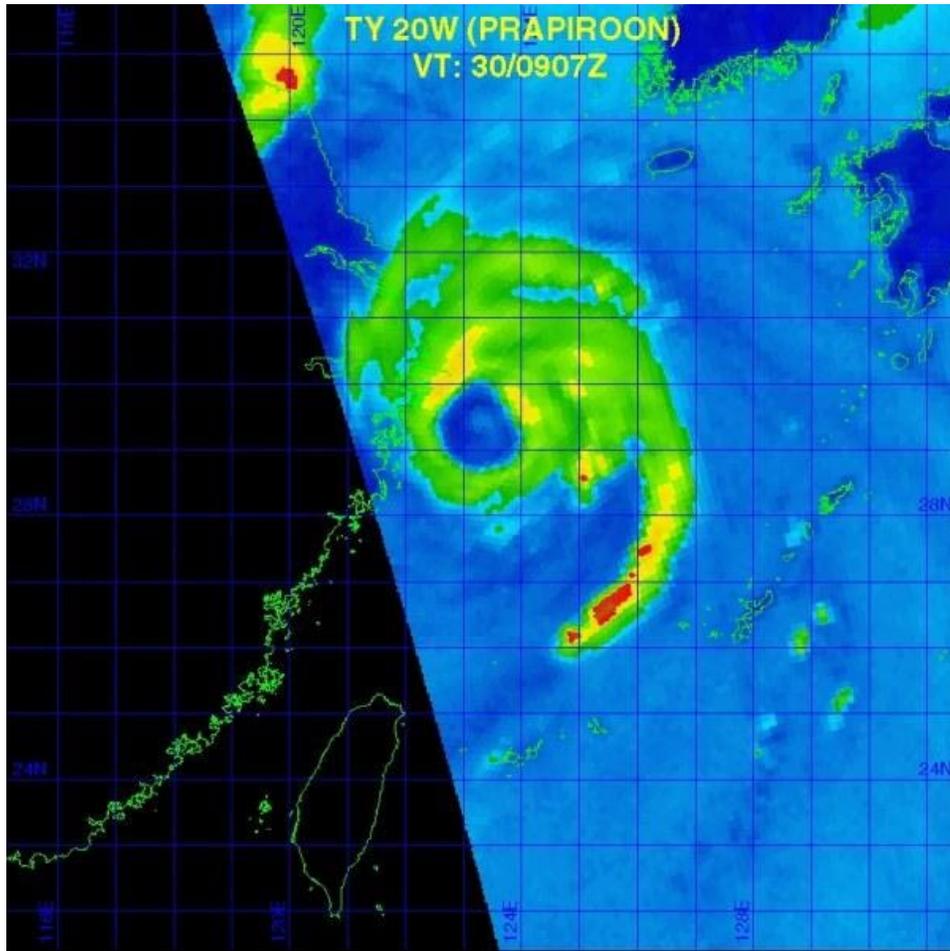
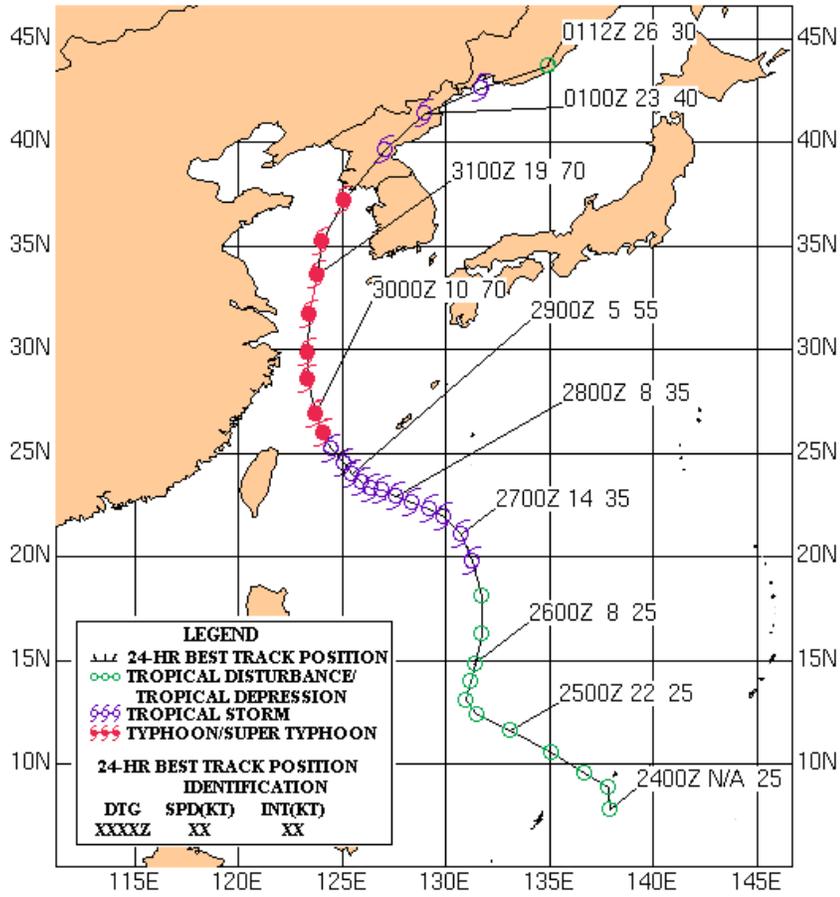


Figure 1-20W-4. 300907Z August 2000 SSMI 85 GHz image of TY 20W, which clearly shows the large eye and the vigorous rainband to the southeast.

**TYPHOON 20W (PRAPIROON)
26 AUG - 01 SEP 2000**



Tropical Storm (TS) 21W (Maria*)

First Poor : 2200Z 26 Aug 00

First Fair : 1200Z 27 Aug 00

First TCFA : 1730Z 27 Aug 00

First Warning : 0000Z 28 Aug 00

Last Warning : 0600Z 01 Sep 00

Max Intensity : 55 kts, Gusts to 70 kts

Landfall : 2000Z 31 Aug 00 east of Hong Kong

Total Warnings : 18

Remarks:

- (1) TS 21W formed and remained in the northeast South China Sea, moving in a very tight U-shaped track for approximately 100 hours before moving inland between Huidong and Haifeng, Guangdong province, China.
- (2) The China Meteorological Administration reported that TS 21W caused 72 fatalities, wounded 772 persons, and caused economic losses estimated at \$317 million.

* Name assigned by RSMC Tokyo

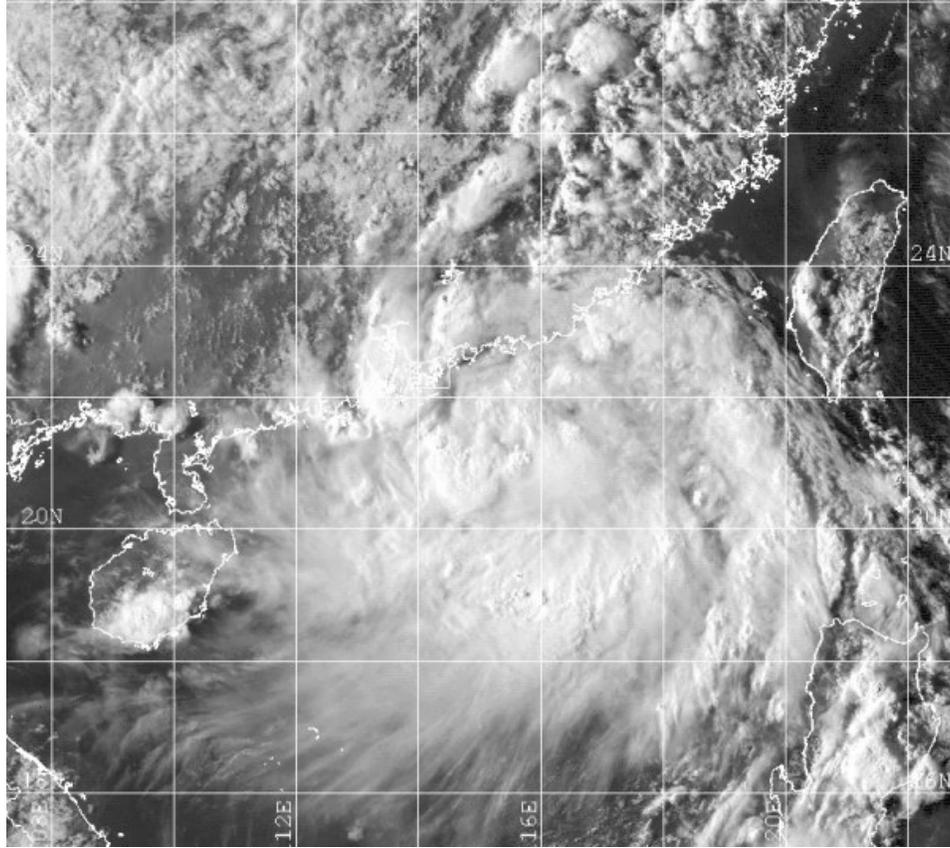


Figure 1-21W-1. 270831Z August 2000 GMS-5 visible image of the broad area of convection south of China which developed into TS 21W.

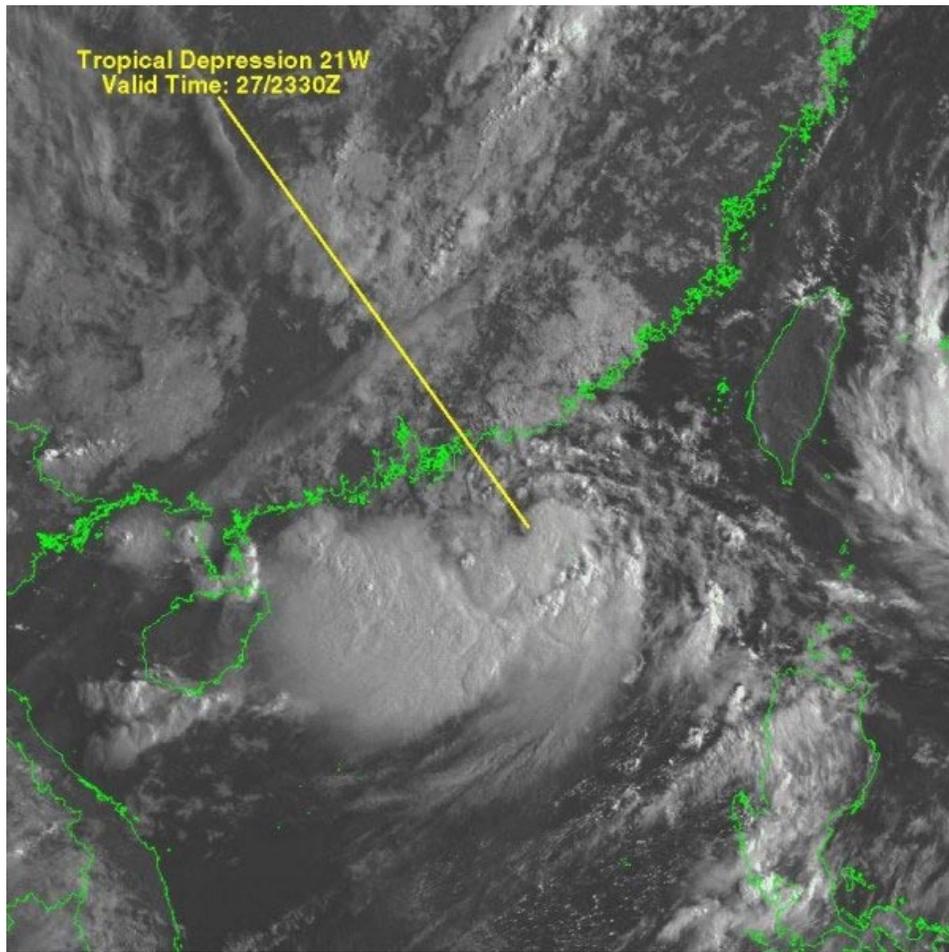


Figure 1-21W-2. 272330Z August 2000 GMS-5 visible image of TS 21W, with the low-level circulation center located about 100 nm east-southeast of Hong Kong, China. Deep convection is seen wrapping around the circulation center, as a large rainband stretches to the west.

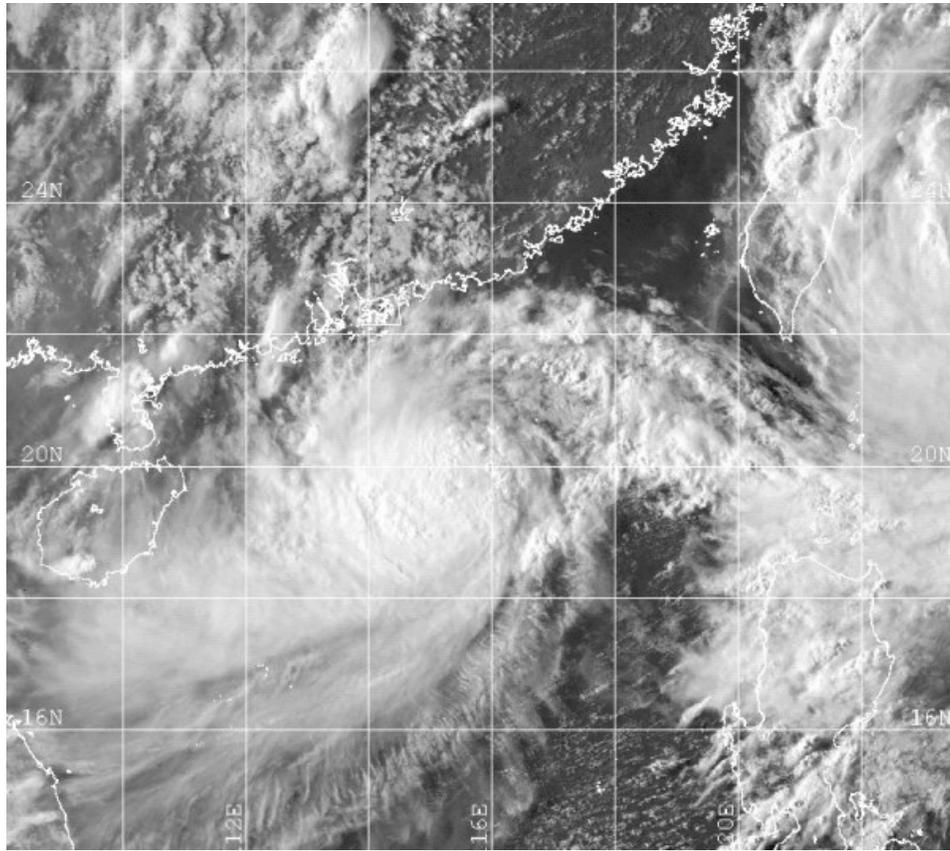


Figure 1-21W-3. 280831Z August 2000 GMS-5 visible image of TS 21W, located about 120 nm east-southeast of Hong Kong with deep convection mainly to the southwest. The banding feature that extends into Luzon Strait appears to suggest linkage or association with TY 20W, which at this time, is located east of Taiwan.

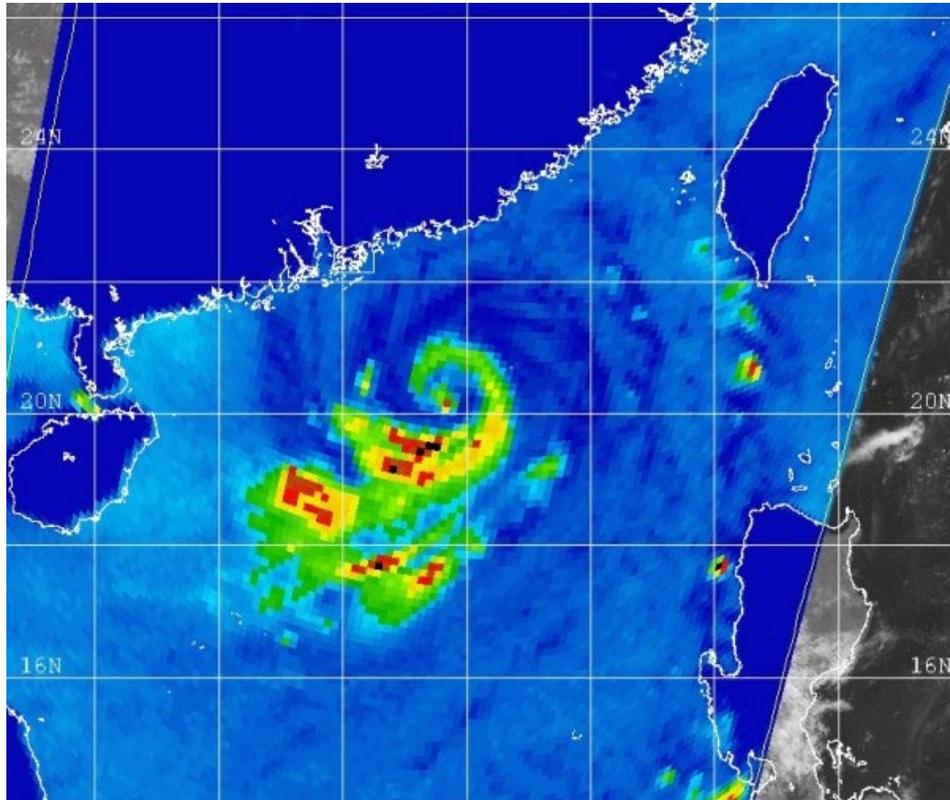


Figure 1-21W-4. 310131Z August 2000 SSMI 85 GHz image of TS 21W, depicting spiral banding around the center. At this time, the cyclone is about 170 nm east-southeast of Hong Kong, moving north at 7 knots.

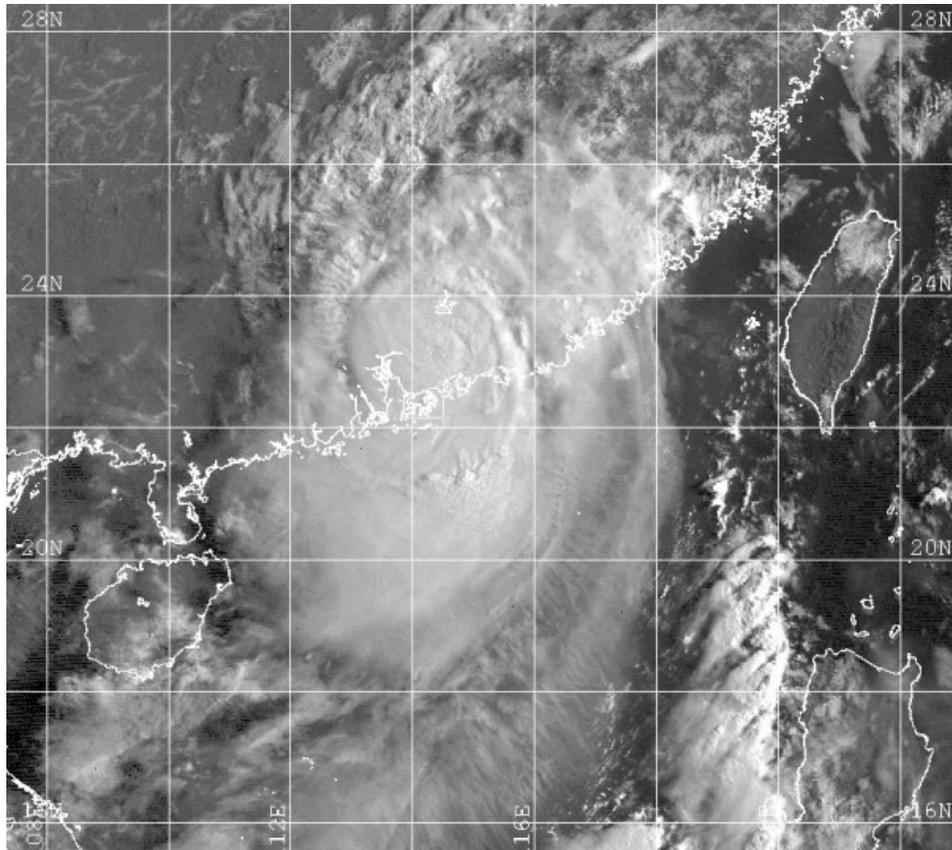
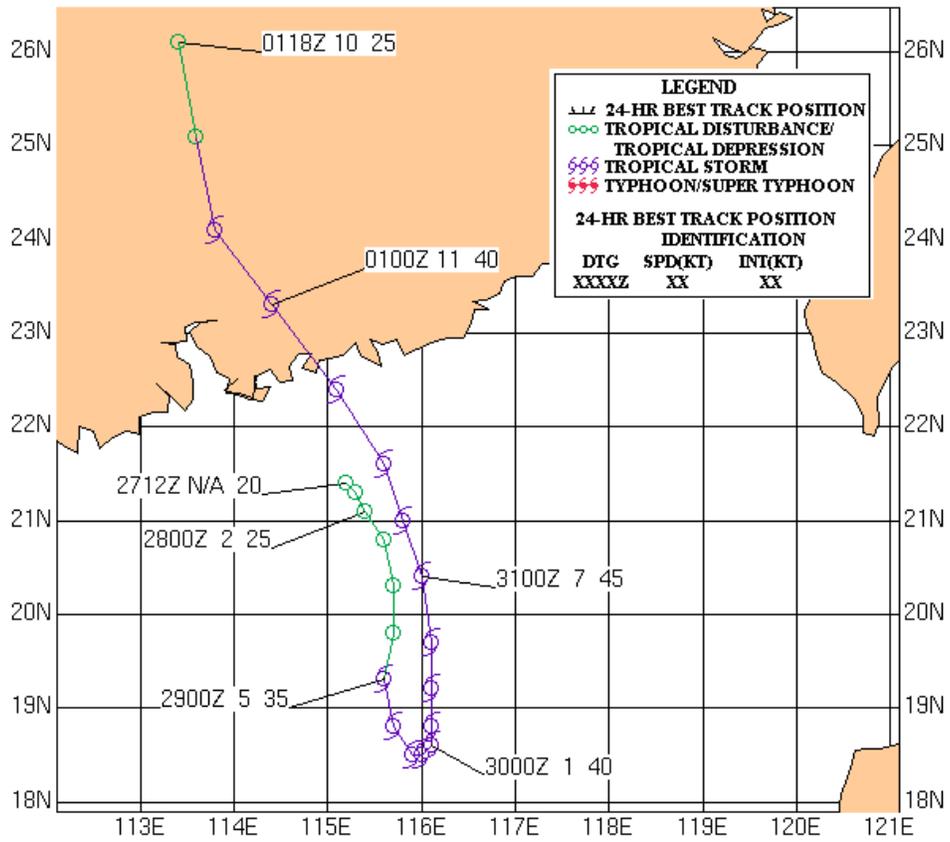


Figure 1-21W-5. 312301Z August 2000 GMS-5 visible image of TS 21W, just after landfall over China, with maximum sustained winds of 55 knots and deep convection still present near the center.

TROPICAL STORM 21W (MARIA)
27 AUGUST - 01 SEPTEMBER 2000



Super Typhoon (STY) 22W (Saomai*)

First Poor : 0600Z 31 Aug 00

First Fair : 0600Z 01 Sep 00

First TCFA : 0130Z 02 Sep 00

First Warning : 1200Z 02 Sep 00

Last Warning : 0600Z 16 Sep 00

Max Intensity : 140 kts, Gusts to 170 kts

Landfall : 2030Z 15 Sep 00

Total Warnings : 56

Remarks:

- (1) STY 22W was a long-lived cyclone that affected Japan and South Korea after passing through the Mariana Islands.
- (2) Rapid intensification occurred between 0600Z on 9 September (90 kts) and 1800Z on 10 September (140 kts): 50 kts in 30 hours.
- (3) Kadena Air Base, Okinawa, recorded more than six inches of rain, with maximum sustained winds of 51 knots and gusts to 76 knots. One U.S. serviceman on Okinawa drowned during storm passage. Yoron Island, north of Okinawa, reported sustained winds of 65 knots.
- (4) The outer edges of STY 22W also affected Zhoushan Island, China, destroying more than 700 homes.
- (5) STY 22W produced over 32 inches of rain in parts of central Japan, killing 7 people, while flooding 12,000 homes and destroying 14.
- (6) The Korea Meteorological Administration (KMA) reported that STY 22W produced 491 mm of heavy rainfall during 12 to 16 September in the southern portion of the Republic of Korea. KMA also reported 6 fatalities, with 990 injured and an estimated 7000 ha of farmland flooded due to this cyclone.

* Name assigned by RSMC Tokyo

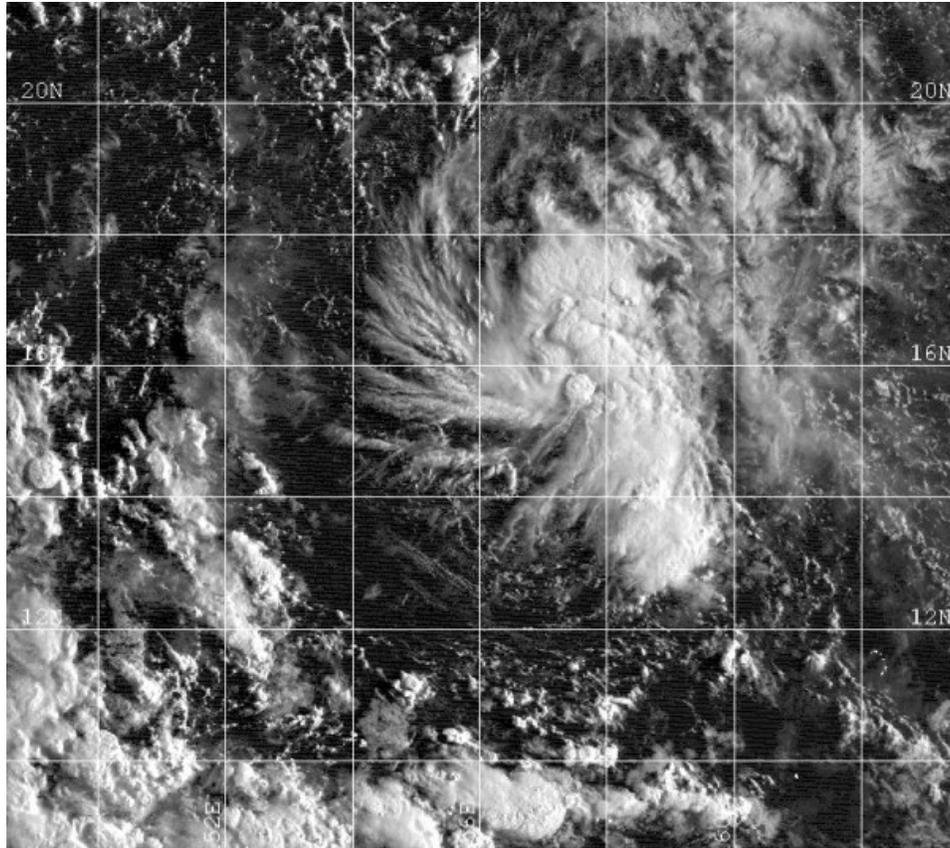


Figure 1-22W-1. 012031Z September 2000 GMS-5 visible image of the disturbance (located about 12 degrees east of the Mariana Islands) that developed into STY 22W.

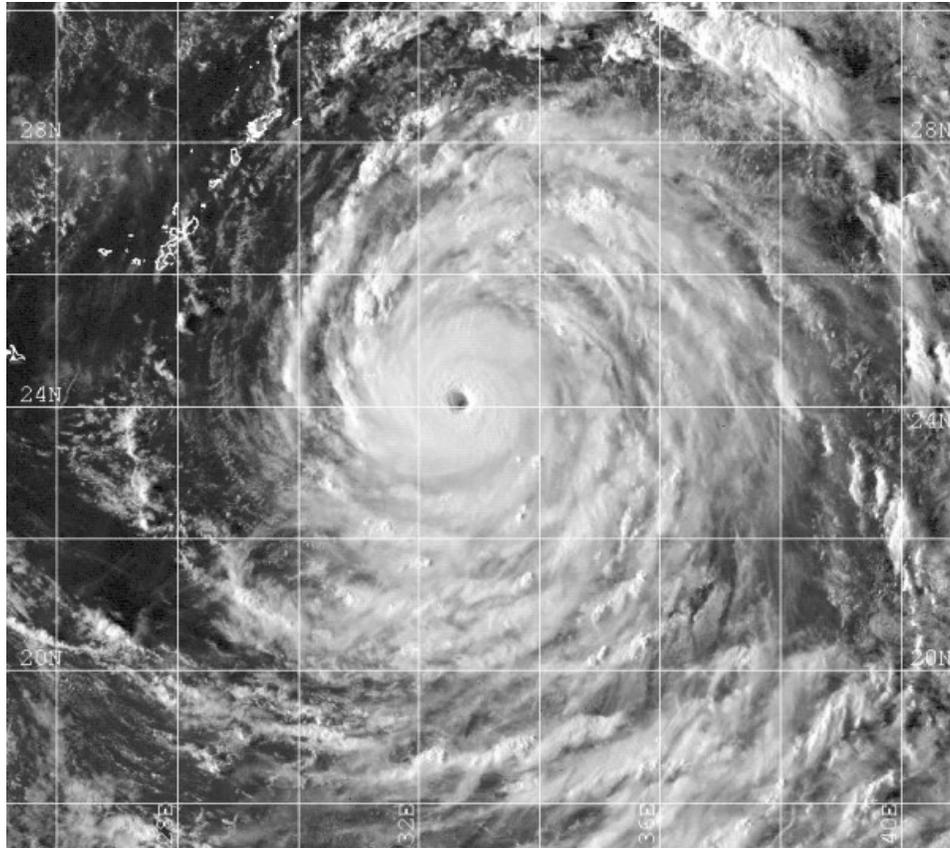


Figure 1-22W-2. 100731Z September 2000 GMS-5 visible image of STY 22W, with a well-defined eye embedded in a symmetric central dense overcast. Outflow can be seen in all directions. At this time, the cyclone is located about 310 nm east-southeast of Okinawa, Japan.

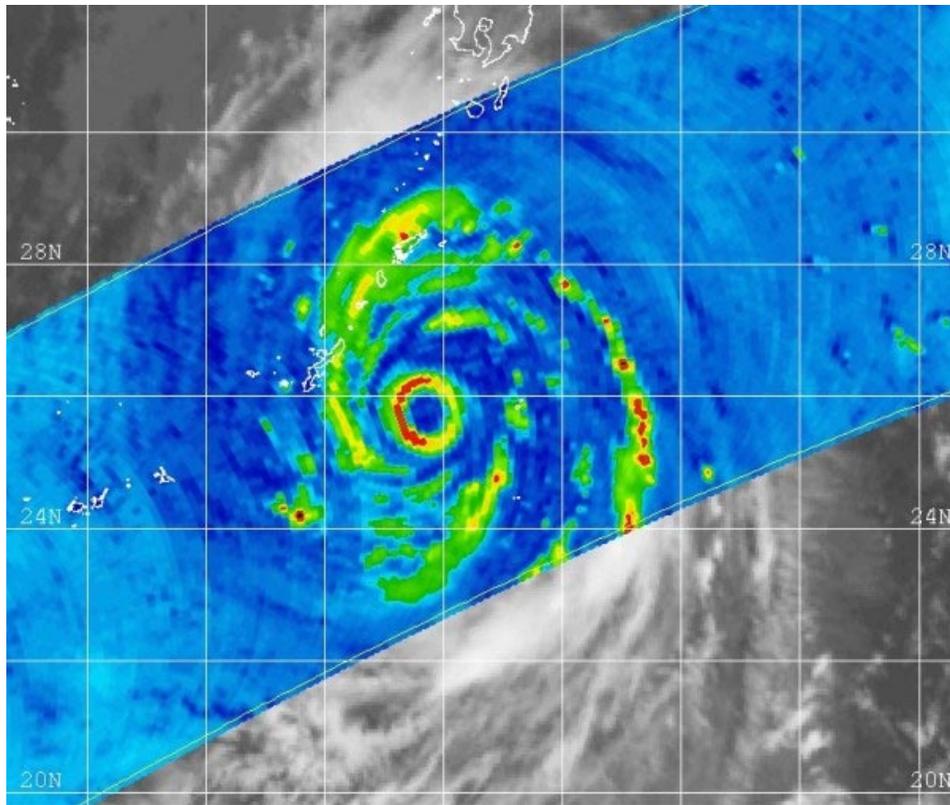


Figure 1-22W-3. 111541Z September 2000 TRMM 85 GHz image of STY 22W, when the cyclone was located about 125 nm east-southeast of Okinawa and less than 24 hours before passing over that island. An intense eyewall is seen, along with several bands around the periphery of the circulation center.

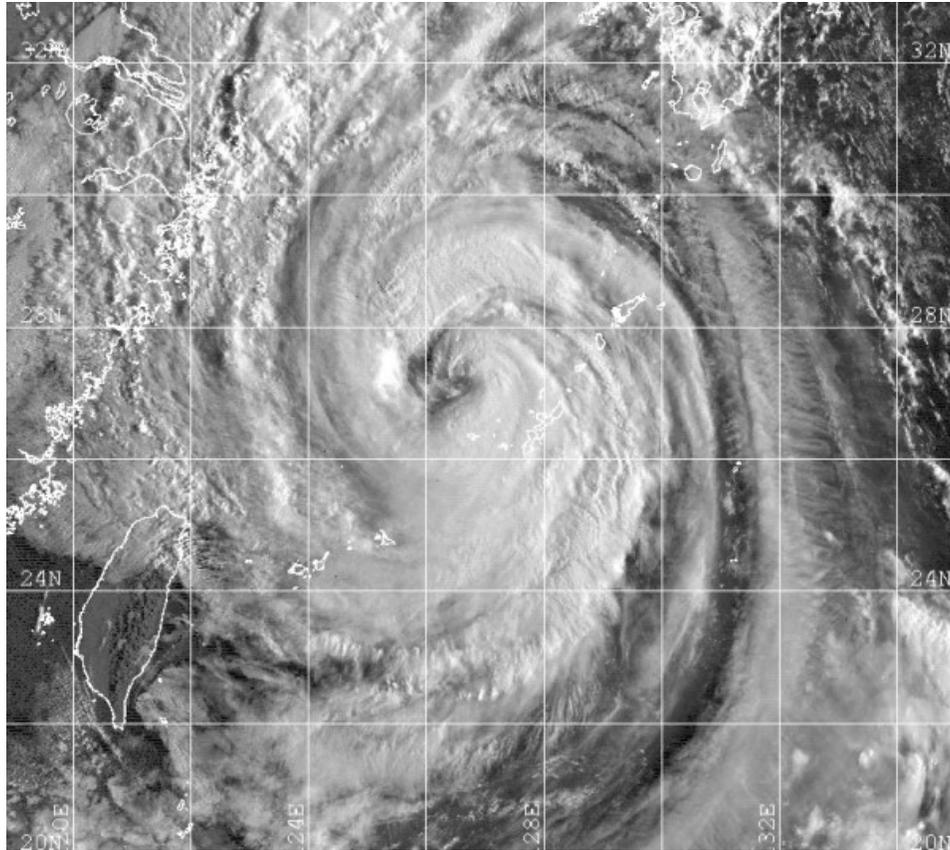


Figure 1-22W-4. 122224Z September 2000 GMS-5 visible image of STY 22W, when the cyclone was located about 75 nm northwest of Okinawa with a filling eye and most of the deep convection only in the eastern semicircle.

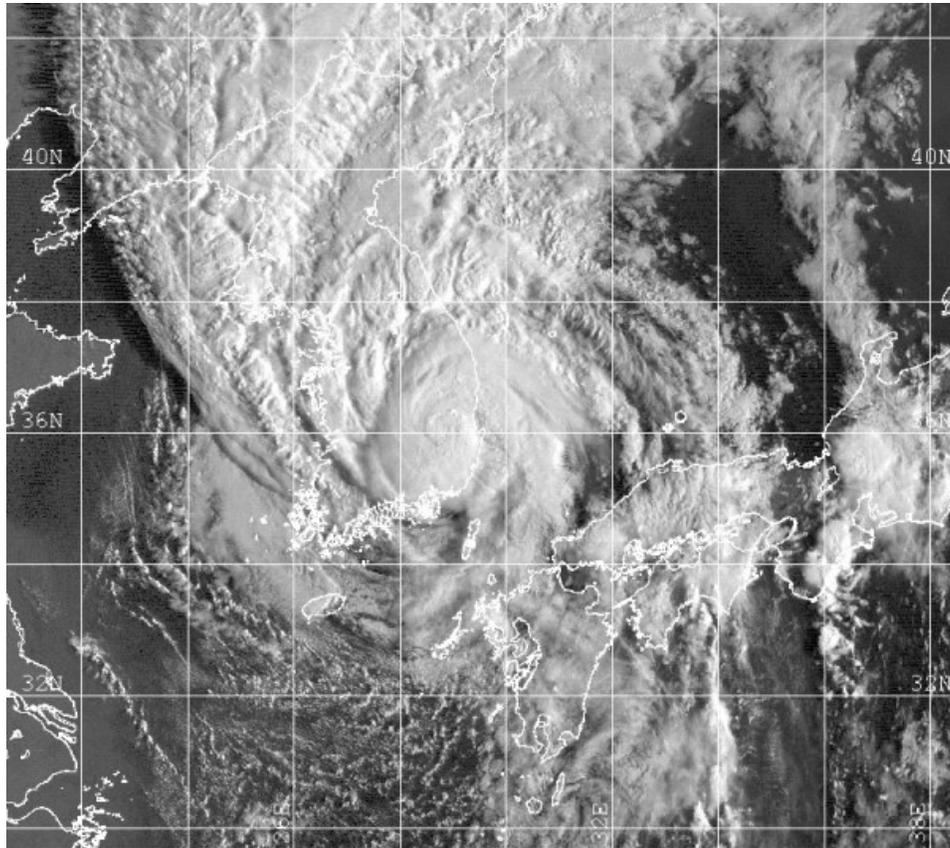
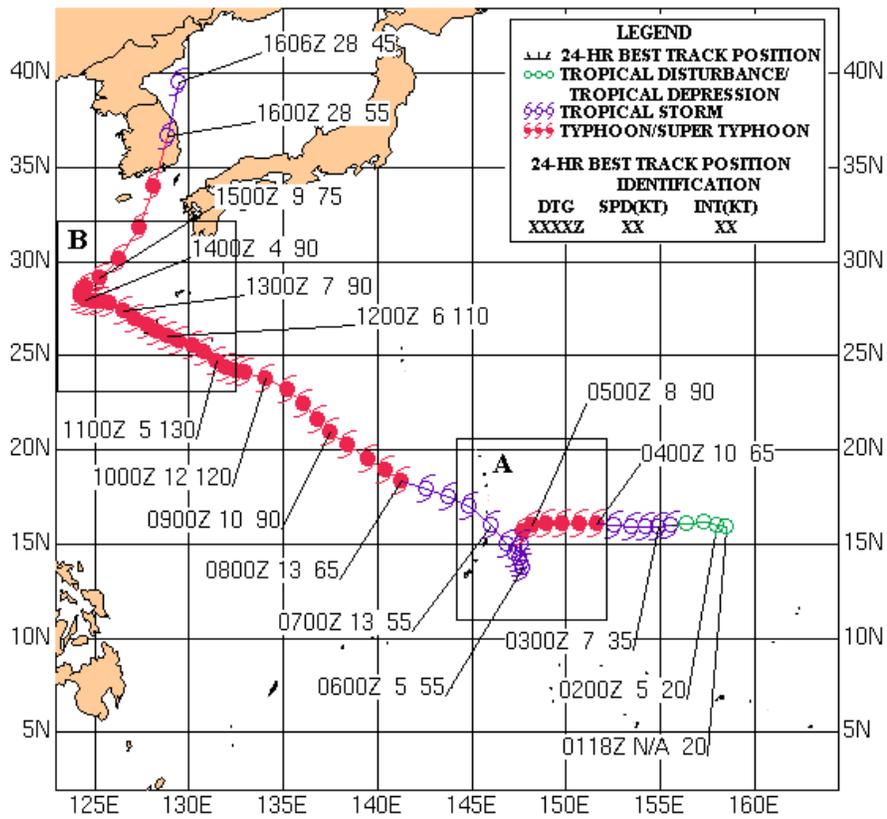
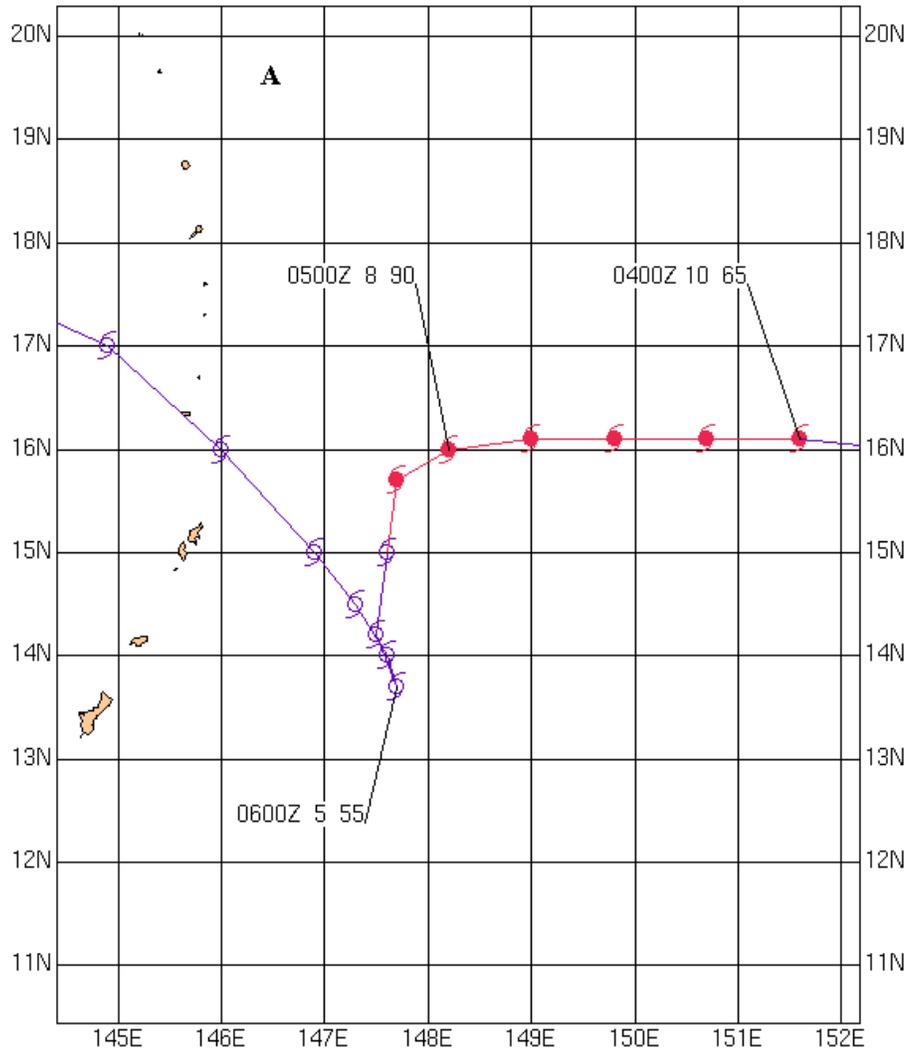


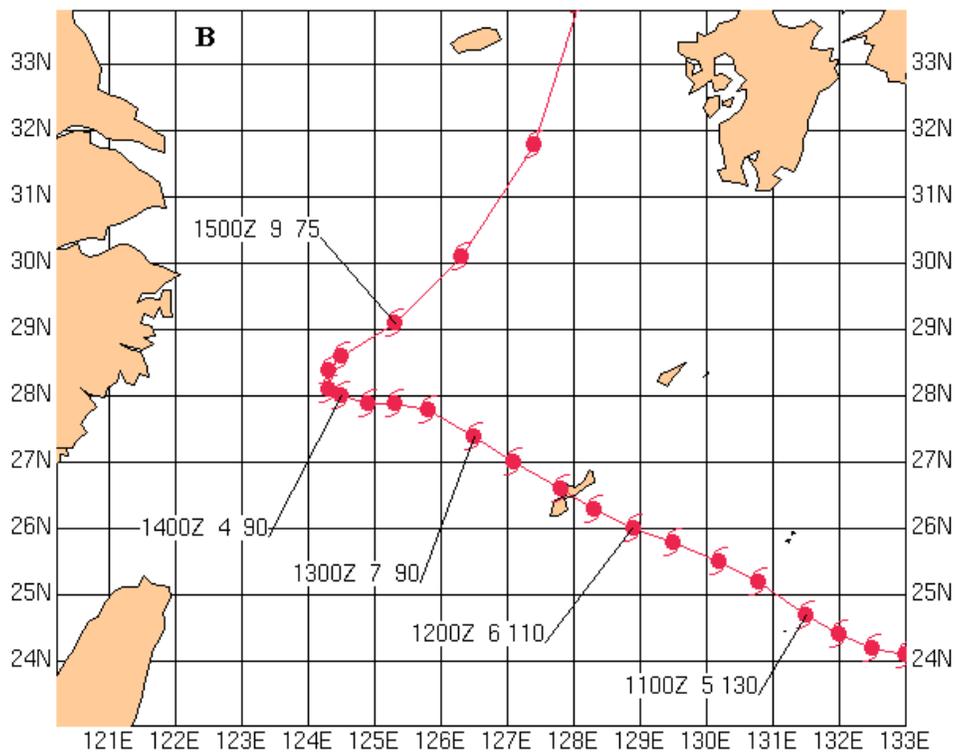
Figure 1-22W-5. 152224Z September 2000 GMS-5 visible image of STY 22W, just a few hours after landfall over South Korea. The cyclone had begun extra-tropical transition, with convection displaced to the north.

**SUPER TYPHOON 22W (SAOMAI)
02 - 16 SEPTEMBER 2000**



See below to view insets "A" and "B" detail





Typhoon (TY) 23W (Wukong*)

First Poor : None

First Fair : 0600Z 04 Sep 00

First TCFA : 0300Z 05 Sep 00

First Warning : 0600Z 05 Sep 00

Last Warning : 0600Z 10 Sep 00

Max Intensity : 95 kts, Gusts to 115 kts

Landfall : 0500Z 10 Sep 00

Total Warnings : 21

Remarks:

- (1) Five fatalities with 2700 homes destroyed were reported in Hainan province, China.
- (2) TY 23W reportedly caused two fatalities and destroyed 3,000 destroyed homes in Ha Tinh, Vietnam.
- (3) Heavy rainfall recorded in Ha Tinh and surrounding districts.

* Name assigned by RSMC Tokyo

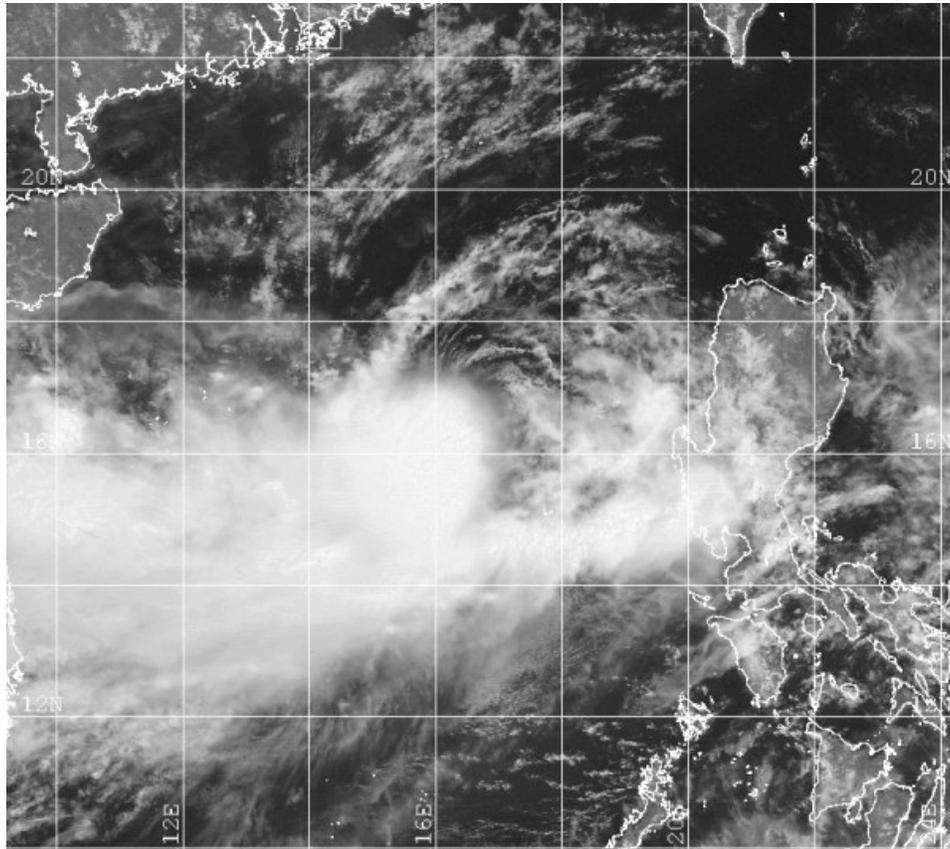


Figure 1-23W-1. 050331Z September 2000 GMS-5 visible image of TY 23W as a developing tropical cyclone of less than 25 knots maximum intensity. The low-level circulation center is evident and located on the northeast periphery of the heavy convection. The cyclone is located about 280 nm west-northwest of Manila at this time.

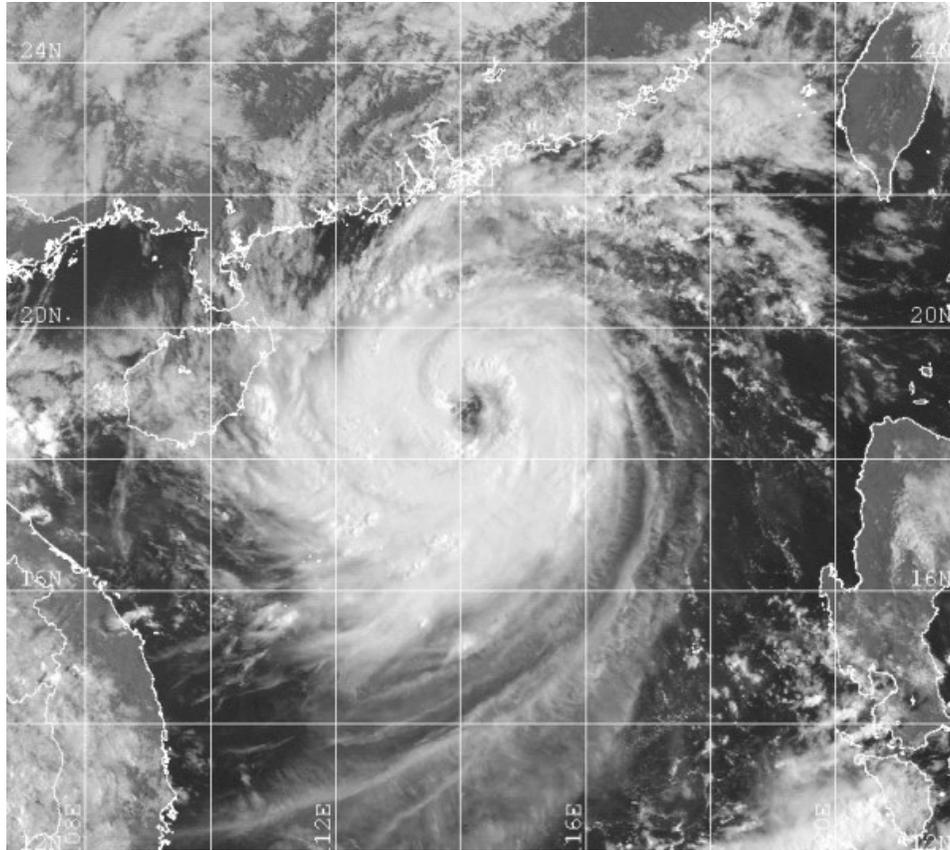


Figure 1-23W-2. 080031Z September 2000 GMS-5 visible image of TY 23W when the cyclone was located about 210 nm east of Hainan Island and tracking westward. Good outflow is seen in all quadrants as well as a clear but irregular eye.

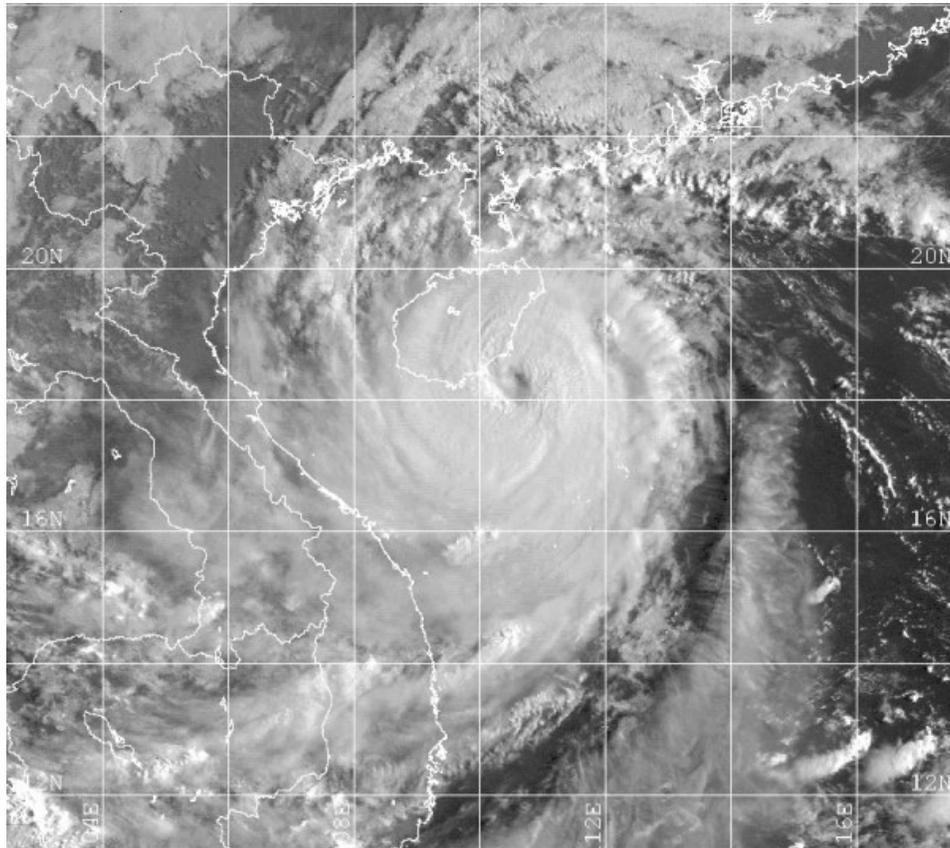
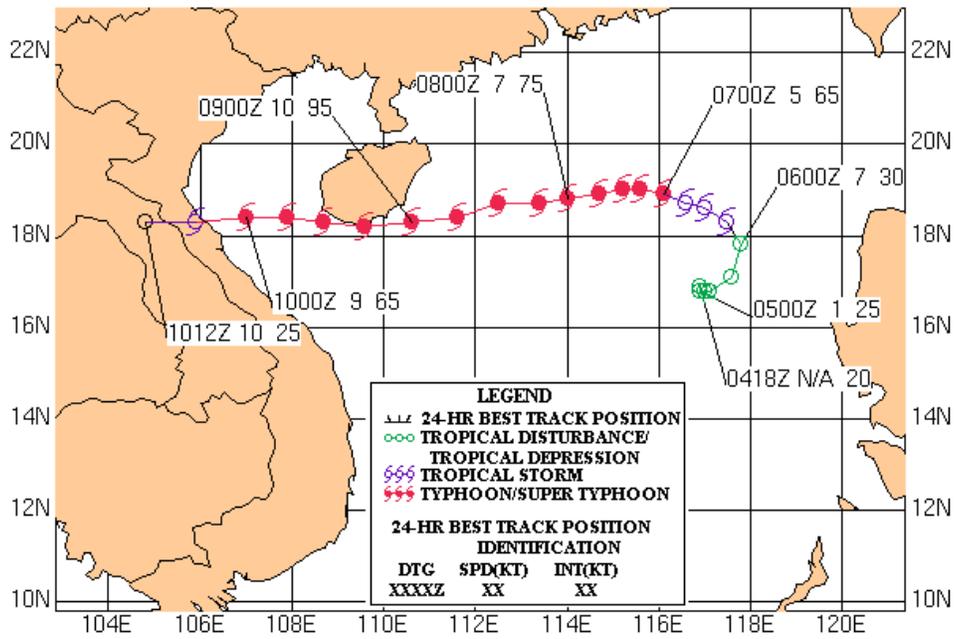


Figure 1-23W-3. 082331Z September 2000 GMS-5 visible image of TY 23W as it began to move along the coast of Hainan Island. A well-defined central dense overcast can be seen surrounding a partially obscured eye.

**TYPHOON 23W (WUKONG)
05 - 10 SEPTEMBER 2000**



Tropical Storm (TS) 24W (Bopha*)

First Poor : 0830Z 04 Sep 00

First Fair : 0600Z 05 Sep 00

First TCFA : 1600Z 05 Sep 00

First Warning : 1800Z 05 Sep 00

Last Warning : 0000Z 12 Sep 00

Max Intensity : 55 kts, Gusts to 70 kts

Landfall : 0000Z 11 Sep 00 over Northern Luzon

Total Warnings : 26

Remarks:

- (1) Rough seas generated by TS 24W capsized a ferry in the waters south of Manila, killing four people.
- (2) The unusual southward track was caused by interaction with STY 22W.

* Name assigned by RSMC Tokyo

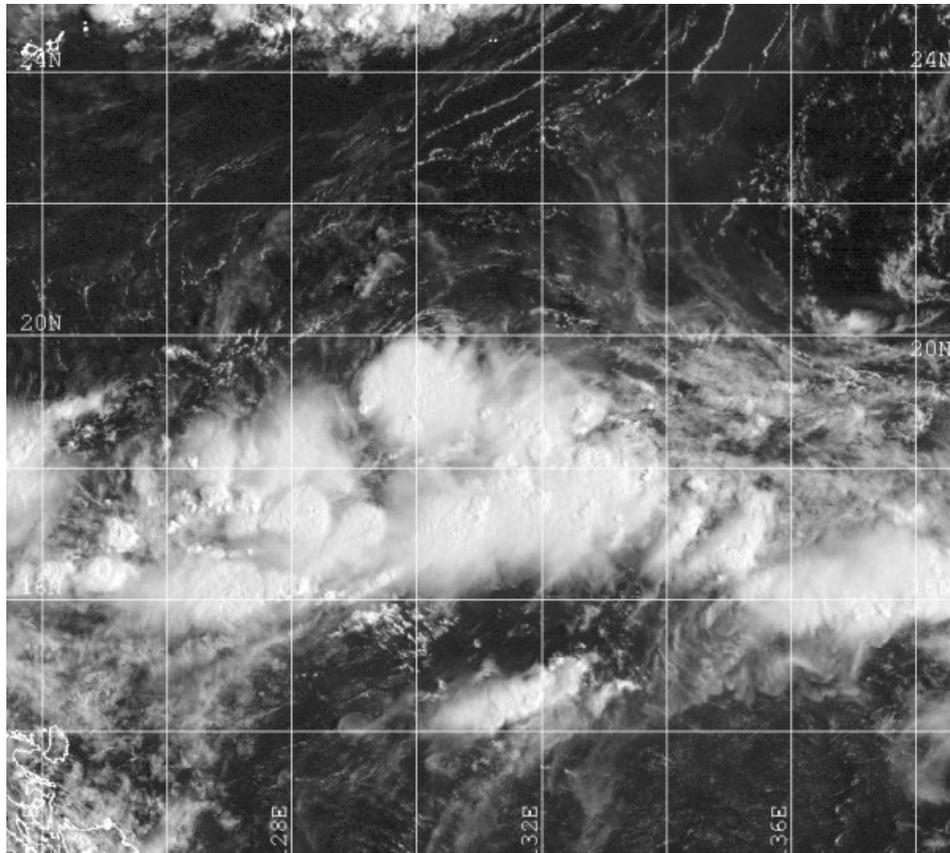


Figure 1-24W-1. 042331Z September 2000 GMS-5 visible image of the tropical disturbance that developed into TS 24W.

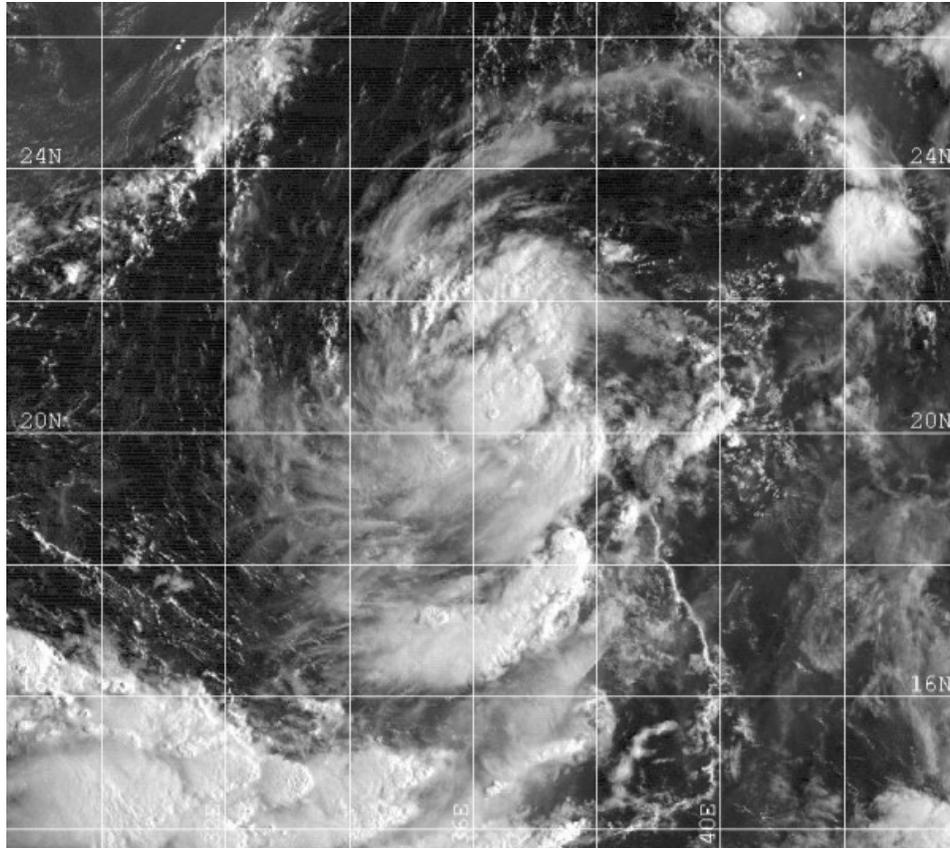


Figure 1-24W-2. 052224Z September 2000 GMS-5 visible image of TS 24W, with convection organized around the central dense overcast and a large convective band evident to the south of the circulation center. At this time, the cyclone is located 570 nm east-southeast of Okinawa.

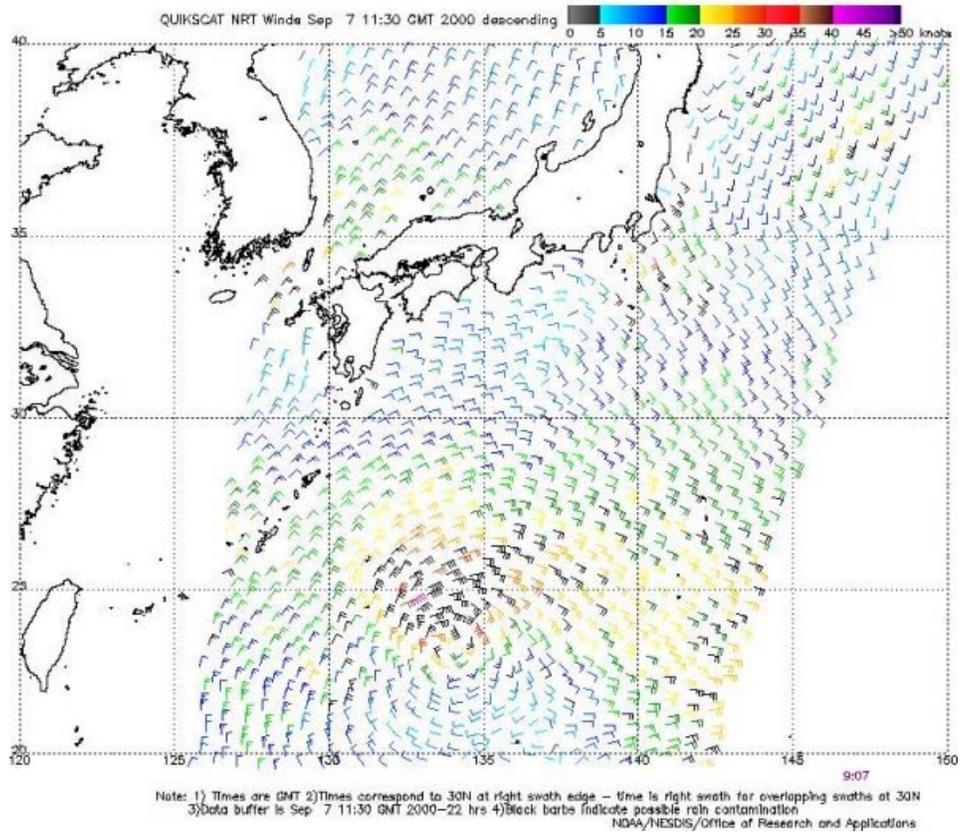


Figure 1-24W-3. 071130Z September 2000 QUIKSCAT image of TS 24W, located 400 nm east-southeast of Okinawa.

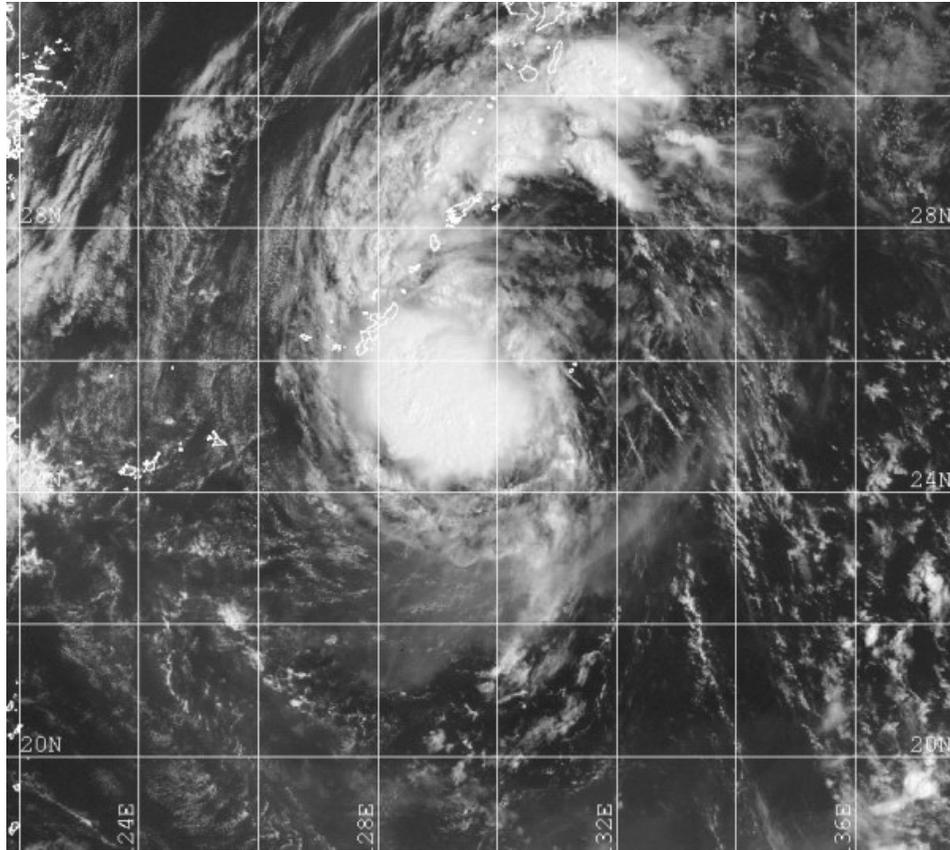


Figure 1-24W-4. 080031Z September 2000 GMS-5 visible image of TS 24W, located about 140 nm east-southeast of Okinawa.

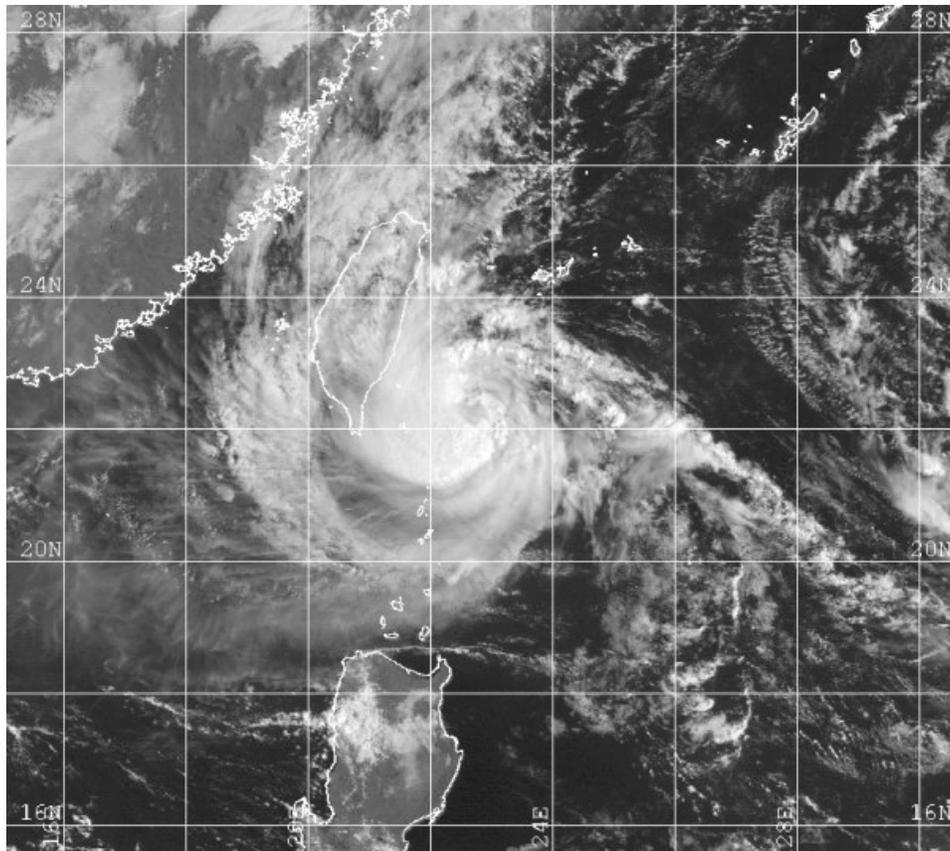
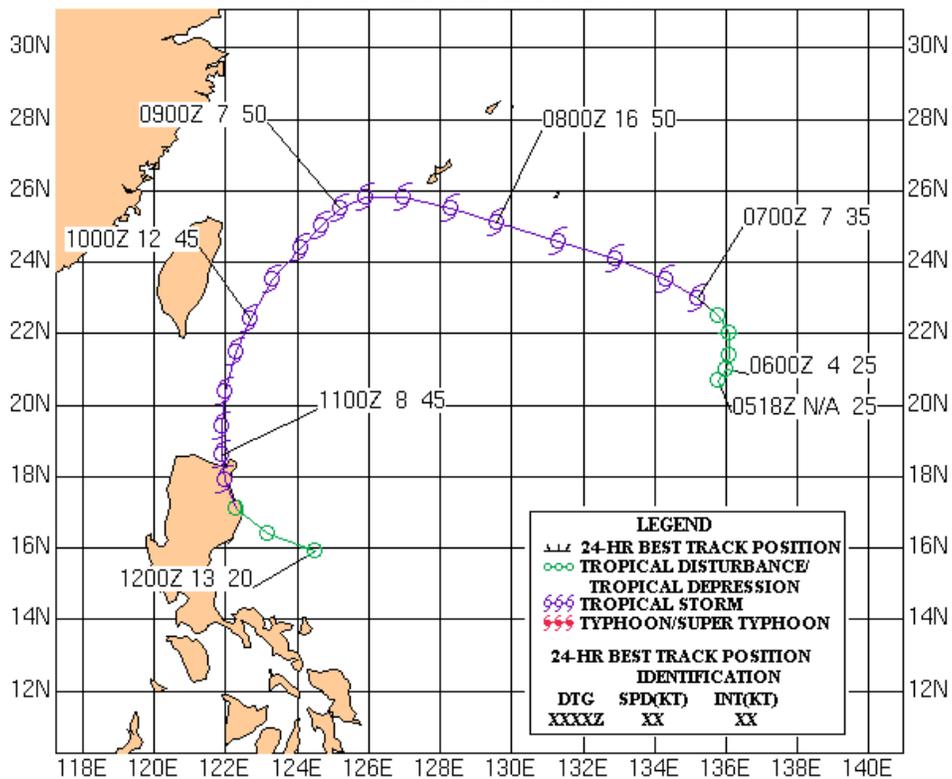


Figure 1-24W-5. 100031Z September 2000 GMS-5 visible image of TS 24W, located just off the southeast coast of Taiwan.

TROPICAL STORM 24W (BOPHA)
05 - 12 SEPTEMBER 2000



Typhoon (TY) 25W (Sonamu*)

First Poor : None

First Fair : None

First TCFA : 0430Z 14 Sep 00

First Warning : 0600Z 14 Sep 00

Last Warning : 0000Z 18 Sep 00

Max Intensity : 75 kts, Gusts to 90 kts

Landfall : None

Total Warnings : 16

Remarks : None

* Name assigned by RSMC Tokyo

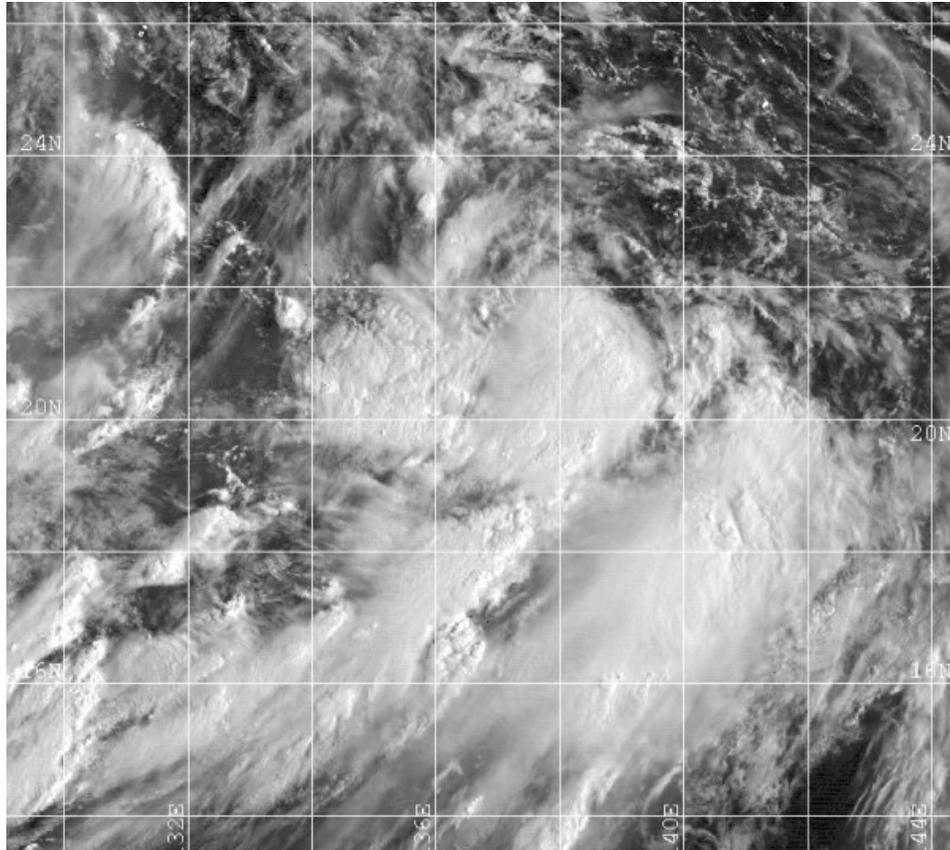


Figure 1-25W-1. 132224Z September 2000 GMS-5 visible image of the broad region of convection southwest of Iwo Jima which developed into TY 25W.

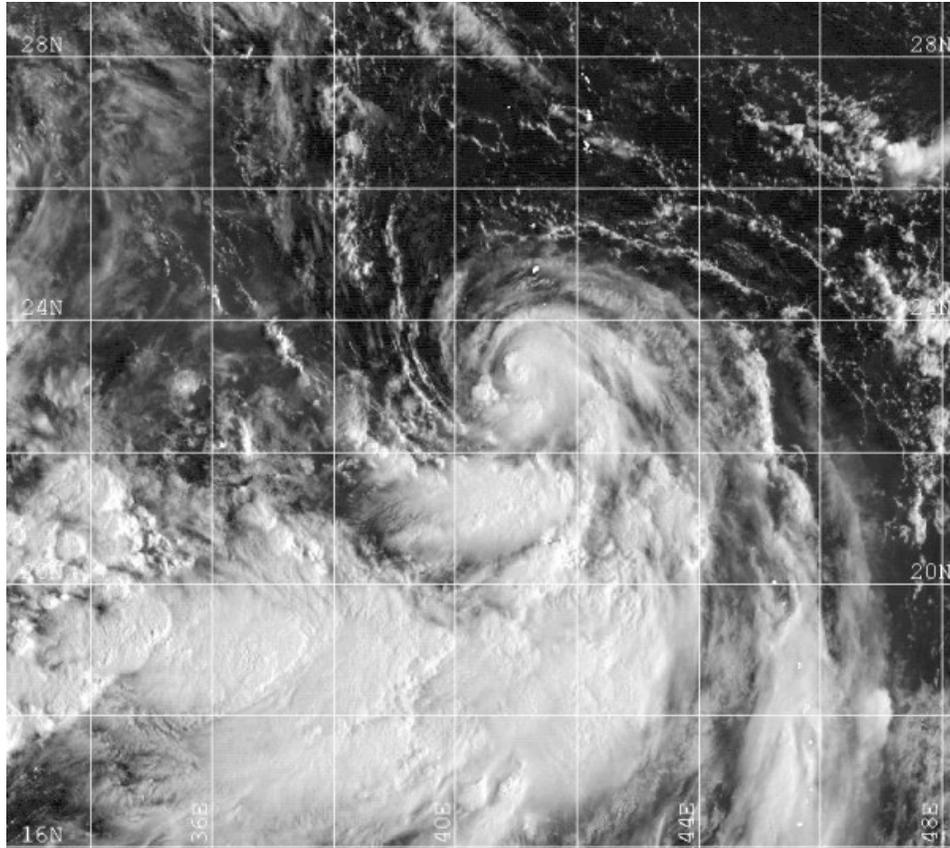


Figure 1-25W-2. 142224Z September 2000 GMS-5 visible image of TY 25W when the cyclone was located 120 nm southwest of Iwo Jima at tropical storm intensity.

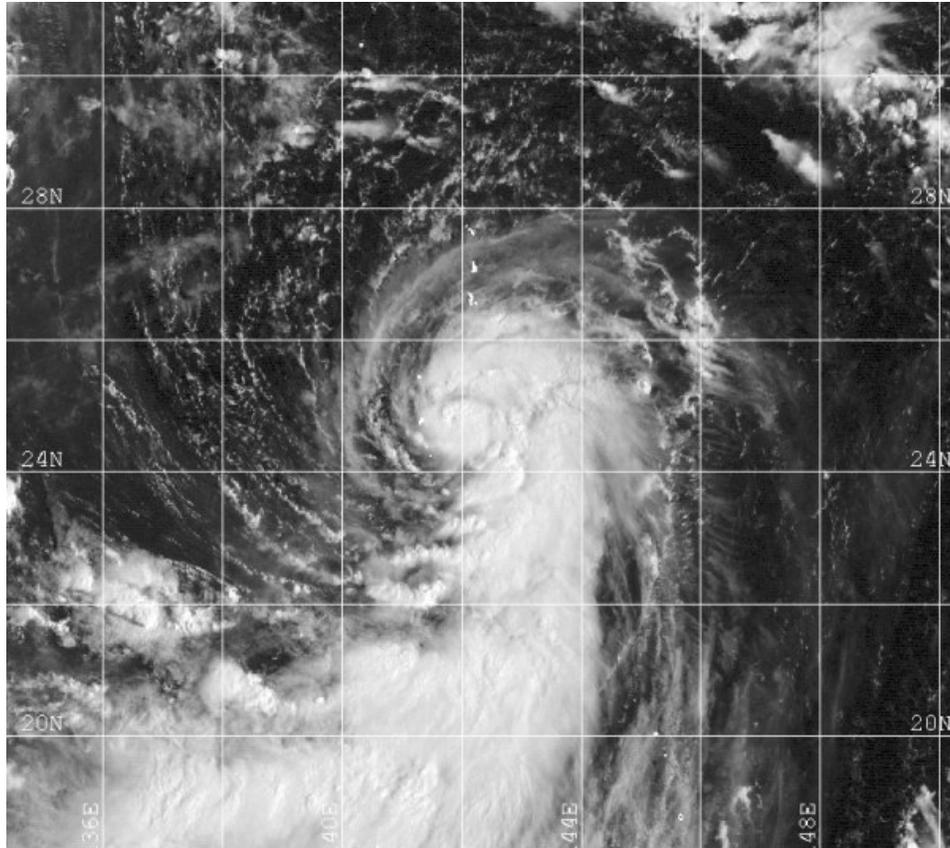


Figure 1-25W-3. 152301Z September 2000 GMS-5 visible image of TY 25W when the cyclone was located just southeast of Iwo Jima with a pinhole eye.

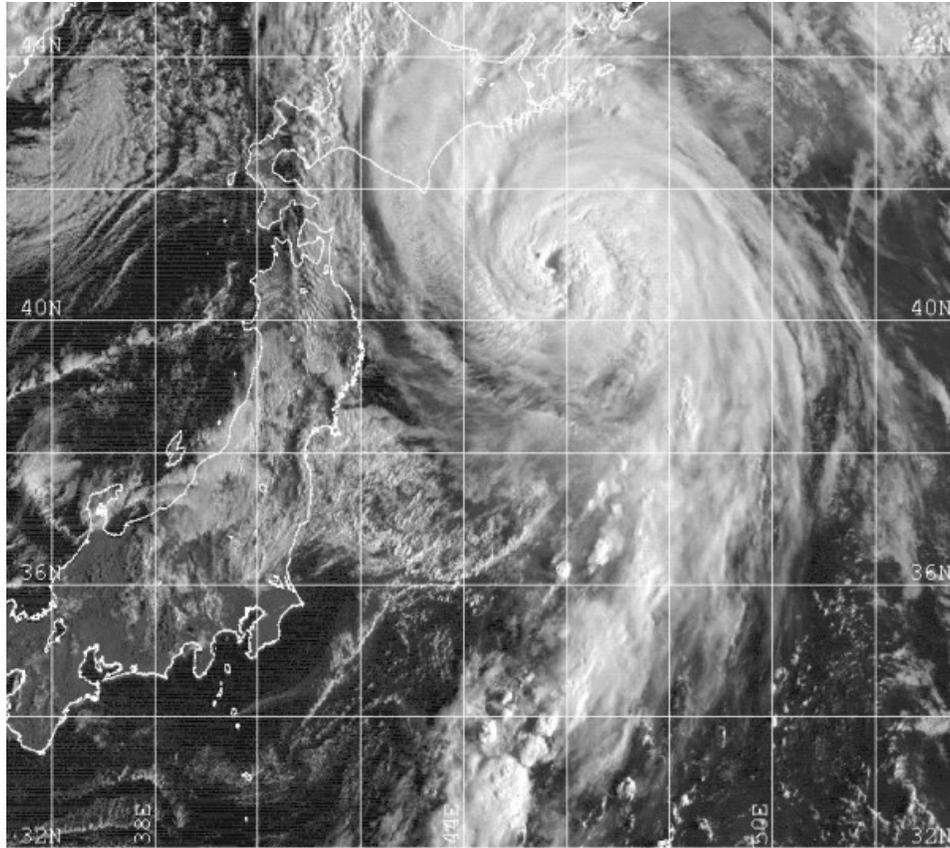
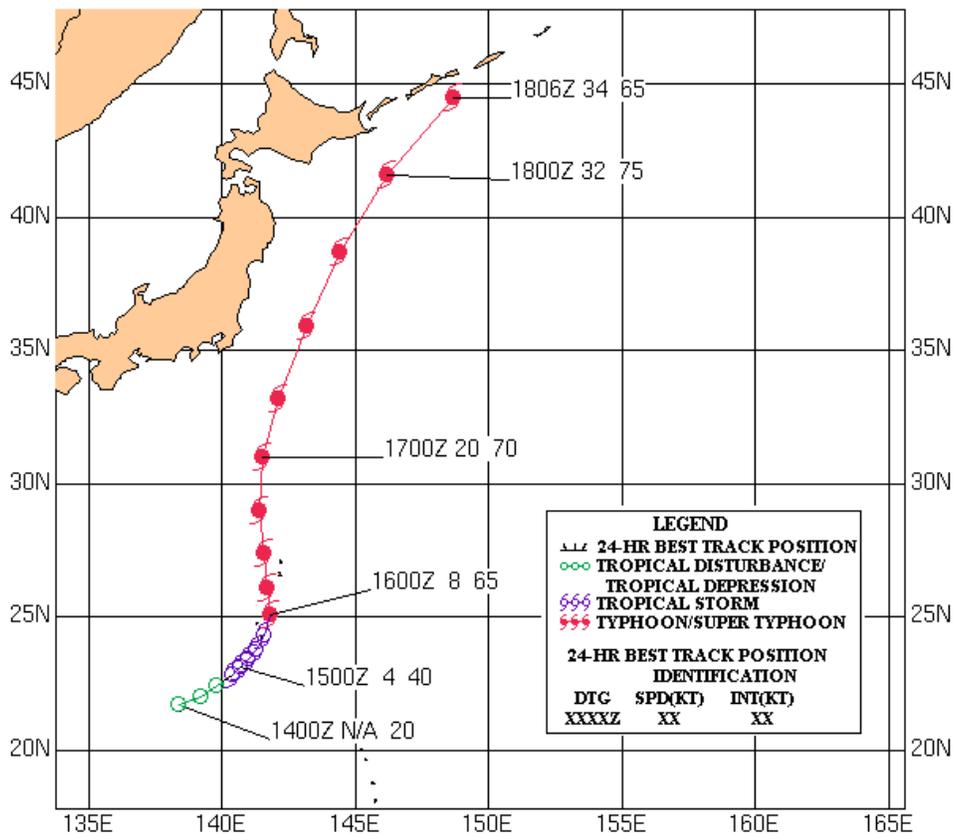


Figure 1-25W-4. 172131Z September 2000 GMS-5 visible image of TY 25W when the cyclone was located about 200 NM northeast of Misawa, Japan. Although an eye was evident, the low-level cloud pattern indicated that extratropical transition was beginning.

**TYPHOON 25W (SONAMU)
14 - 18 SEPTEMBER 2000**



Super Typhoon (STY) 26W (Shanshan*)

First Poor : None

First Fair : 2030Z 15 Sep 00

First TCFA : 0230Z 16 Sep 00

First Warning : 1200Z 17 Sep 00

Last Warning : 0600Z 24 Sep 00

Max Intensity : 130 kts, Gusts to 160 kts

Landfall : None

Total Warnings : 28

Remarks : None

* Name assigned by RSMC Tokyo

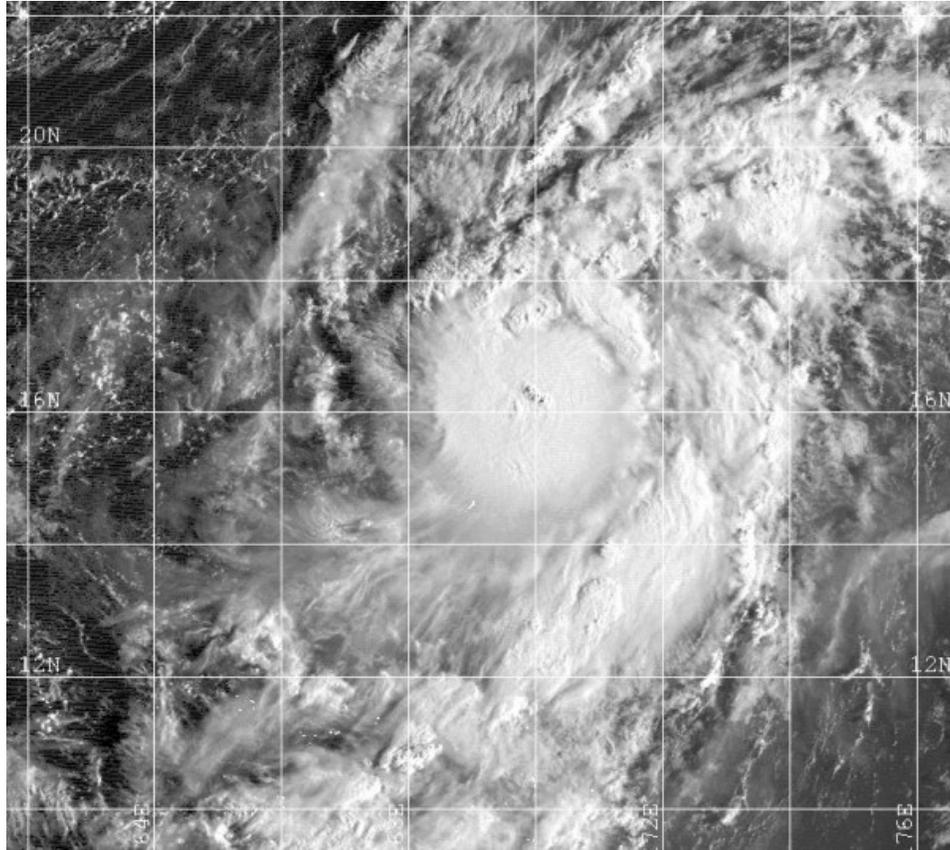


Figure 1-26W-1. 181931Z September 2000 GMS-5 visible image of STY 26W at tropical storm intensity, when the cyclone was located 265 nm southeast of Wake Island.

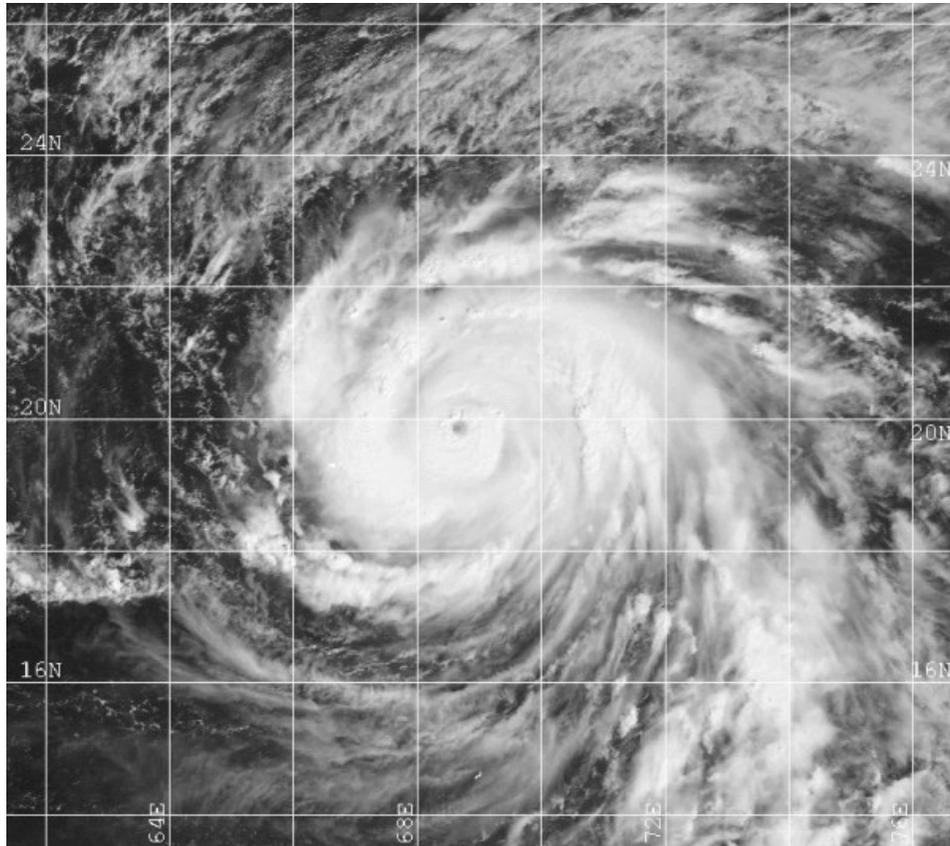


Figure 1-26W-2. 192224Z September 2000 GMS-5 visible image of STY 26W, located about 150 nm east of Wake Island with a small eye and deep convection throughout the eyewall. Several banding features can be seen around the core of the storm.

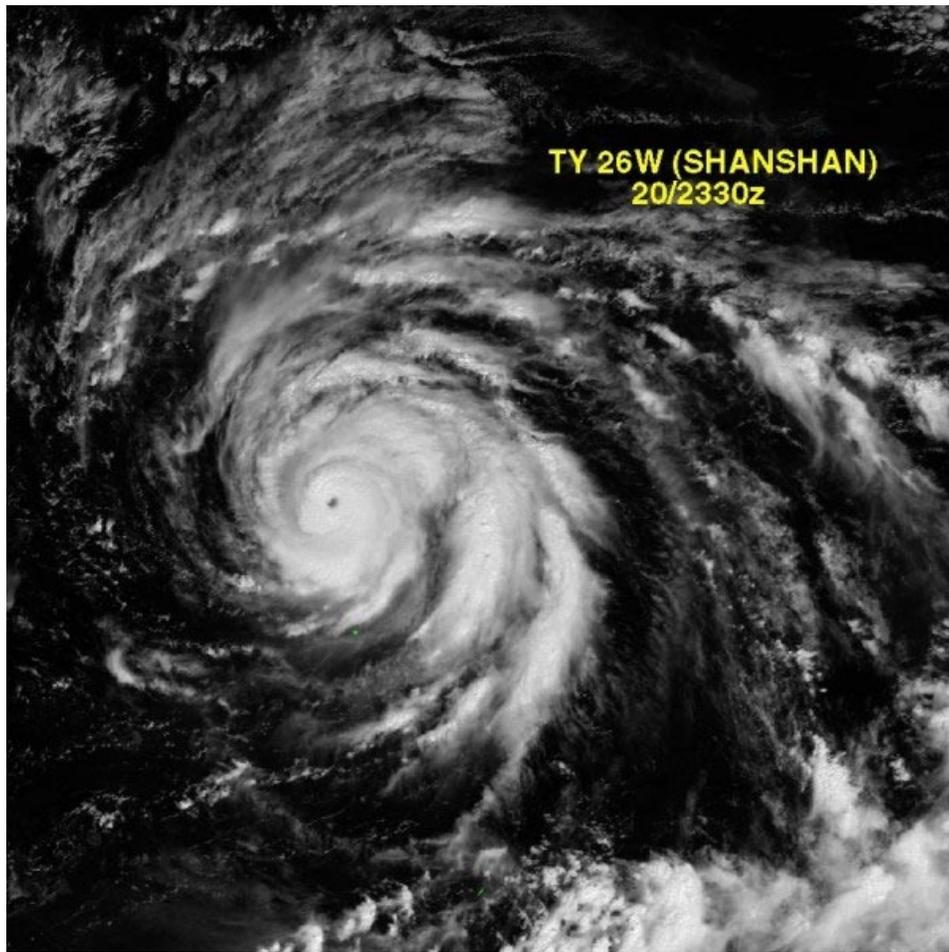


Figure 1-26W-3. 202330Z September 2000 GMS-5 visible image of STY 26W, located about 140 nm north of Wake Island with a clearly defined eye and principal banding features located on the eastern side of the cyclone.

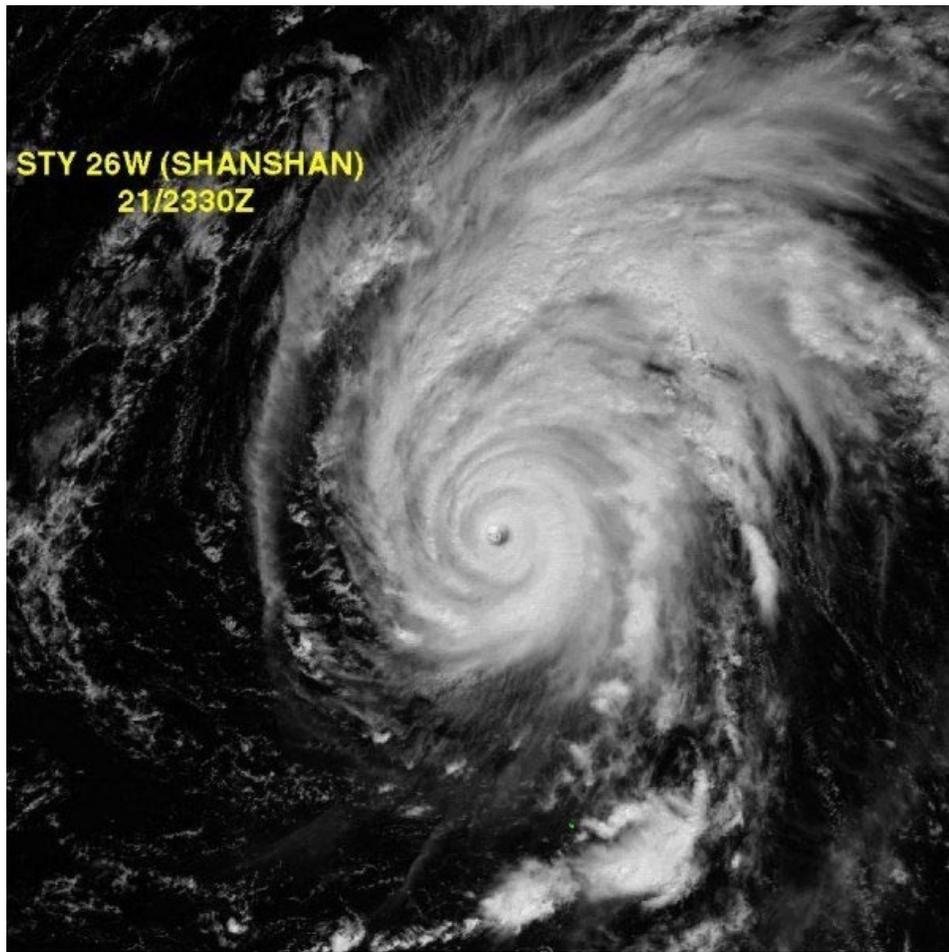


Figure 1-26W-4. 212330Z September 2000 GMS-5 visible image of STY 26W, located about 270 nm north-northwest of Wake Island at peak intensity of 135 knots. A clear, well-defined eye is evident with principal banding features on the northern periphery.

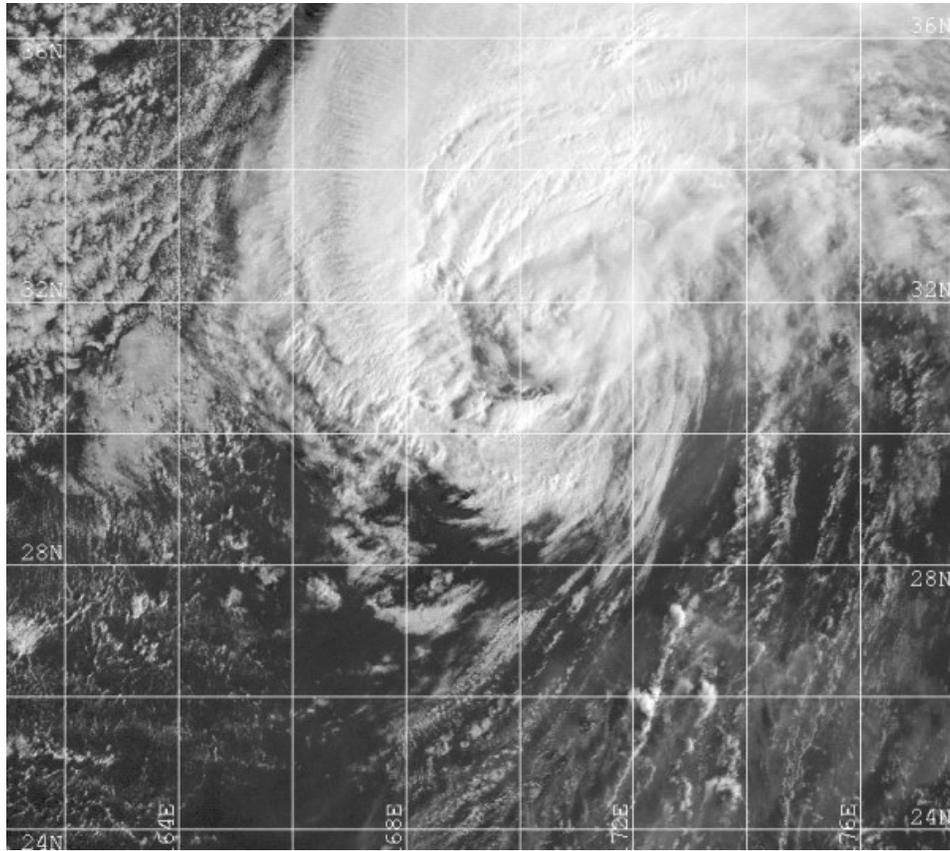
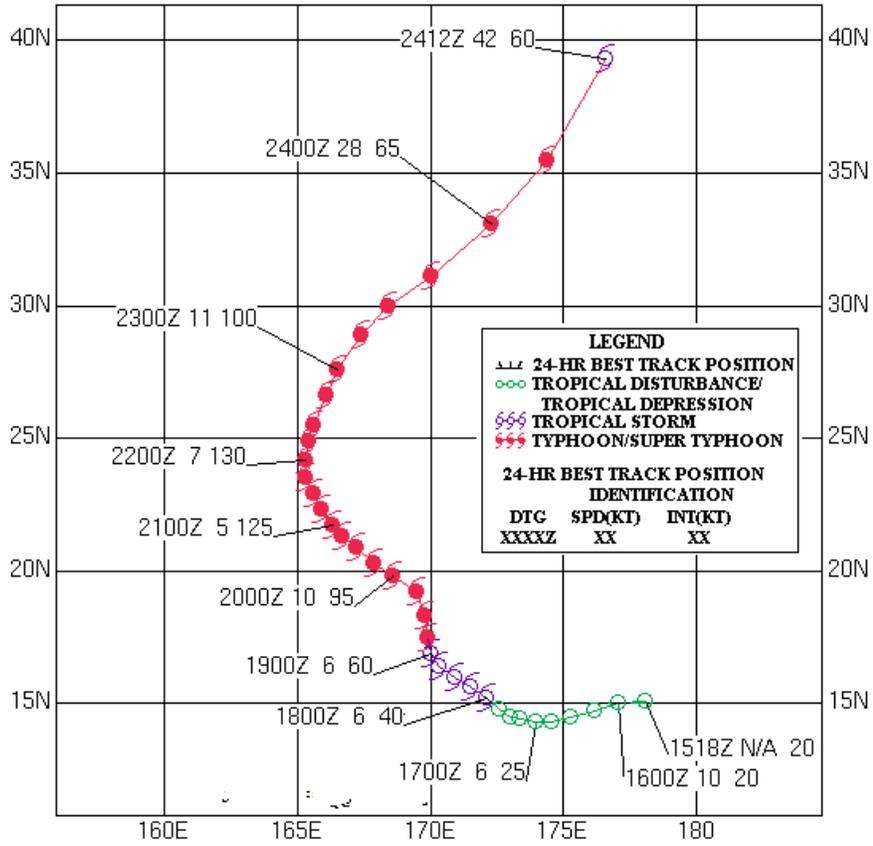


Figure 1-26W-5. 232031Z September 2000 GMS-5 visible image of STY 26W in the weakening phase when the cyclone was located 670 nm west-northwest of Midway Island. Convection is located to the northeast of the circulation center, which is partially exposed due to the increasing westerly vertical shear associated with a mid-latitude trough to the west.

**SUPER TYPHOON 26W (SHANSHAN)
17 - 24 SEPTEMBER 2000**



Tropical Depression (TD) 27W

First Poor : 0600Z 27 Sep 00

First Fair : 1430Z 27 Sep 00

First TCFA : 2230Z 27 Sep 00

First Warning : 1800Z 28 Sep 00

Last Warning : 0600Z 29 Sep 00

Max Intensity : 30 kts, Gusts to 40 kts

Landfall : None

Total Warnings : 7

Remarks : None

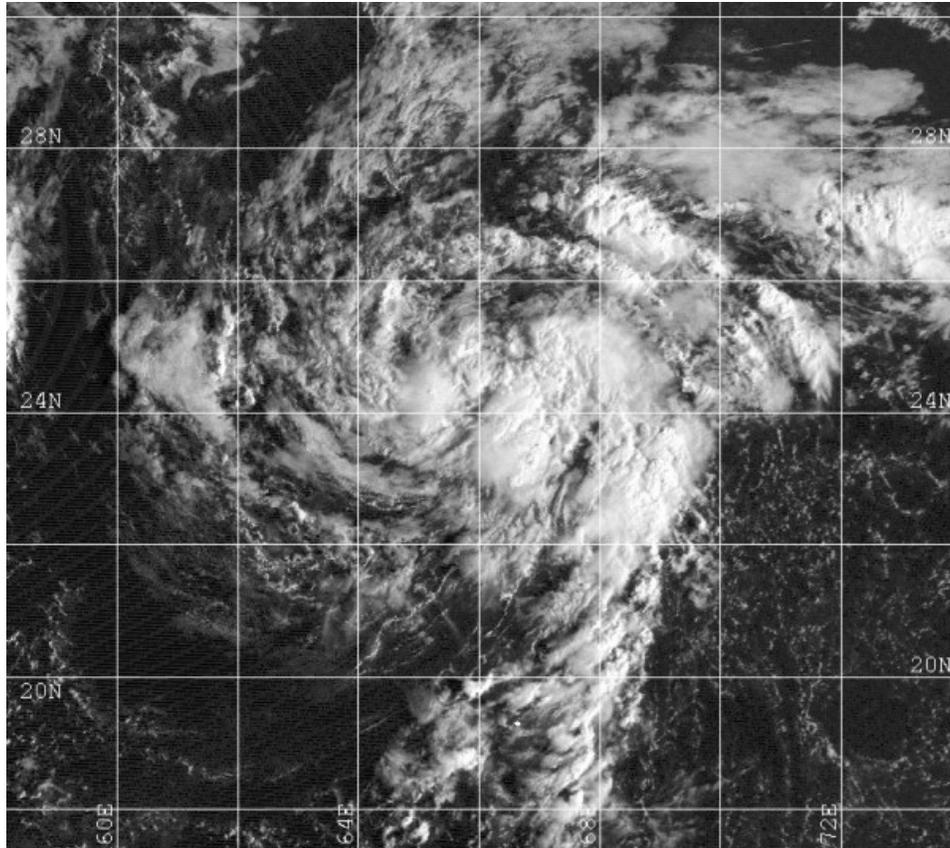


Figure 1-27W-1. 272031Z September 2000 GMS-5 visible image of TD 27W when it was located 295 nm north-northwest of Wake Island. Convection is concentrated east of the circulation center, and the low-level circulation can be seen along the southern periphery.

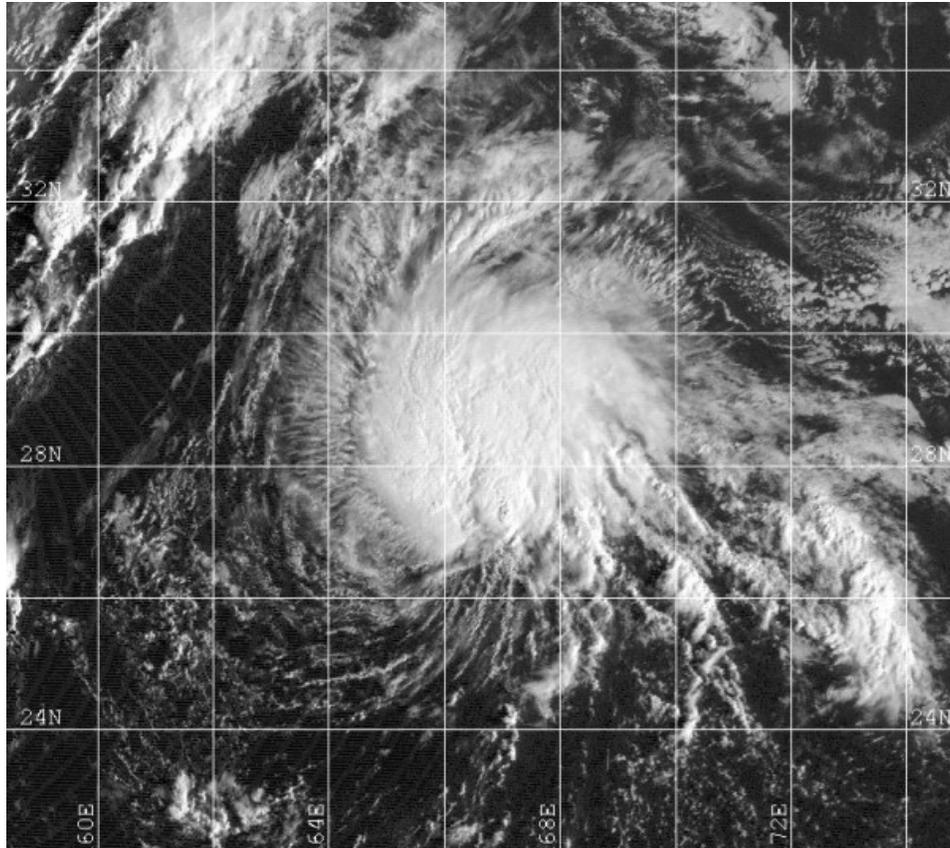


Figure 1-27W-2. 282031Z September 2000 GMS-5 visible image of TD 27W, located about 450 nm north-northwest of Wake Island with a partially exposed low-level circulation center south of the deep convection.

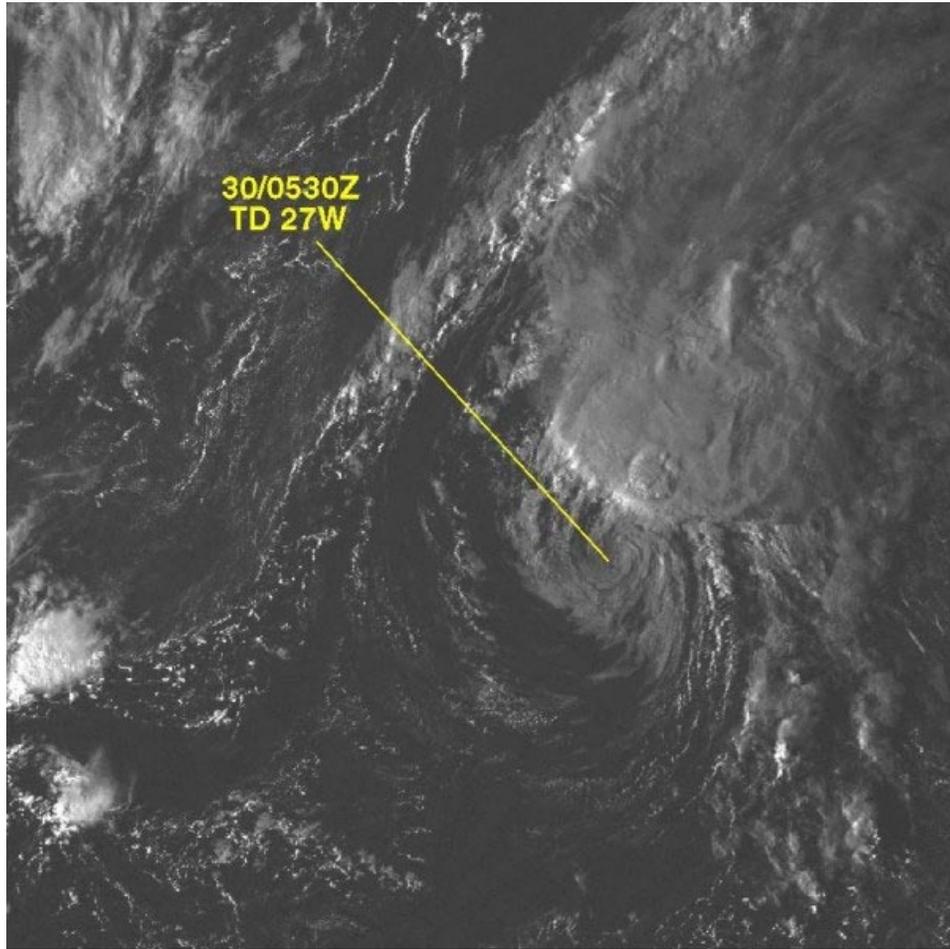
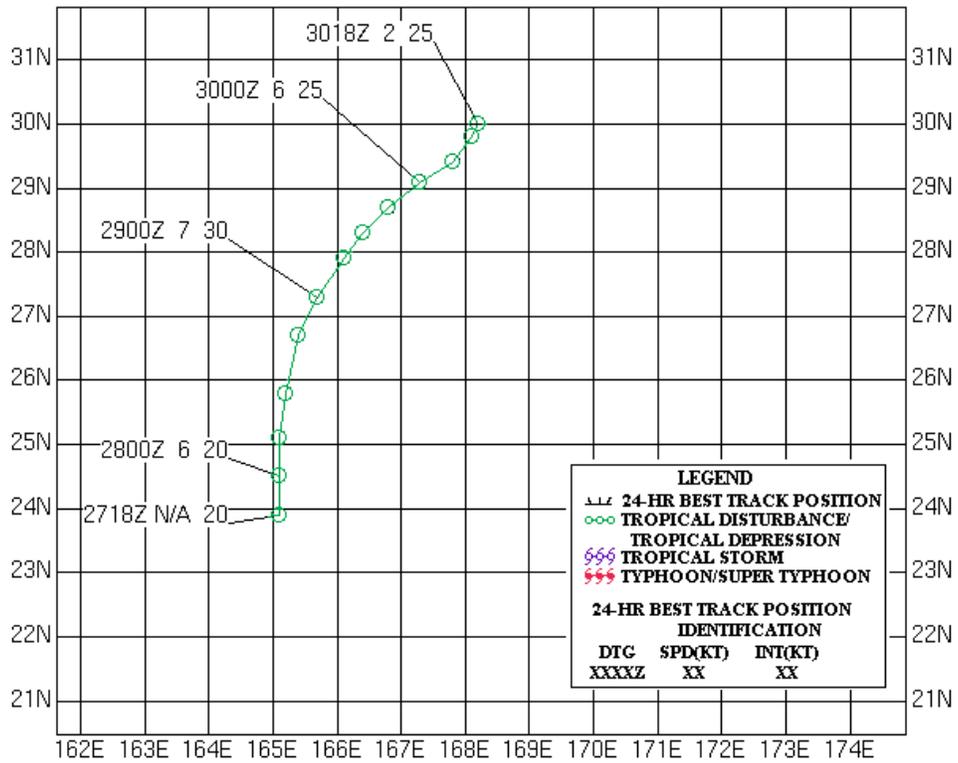


Figure 1-27W-3. 300530Z September 2000 GMS-5 visible image of TD 27W, located about 600 nm north of Wake Island with an exposed low-level circulation center and deep convection displaced to the north-northeast of the center.

**TROPICAL DEPRESSION 27W
28 - 30 SEPTEMBER 2000**



Tropical Storm (TS) 28W

First Poor : 0600Z 04 Oct 00

First Fair : 1930Z 04 Oct 00

First TCFA : None

First Warning : 1800Z 06 Oct 00

Last Warning : 0600Z 13 Oct 00

Max Intensity : 40 kts, Gusts to 50 kts

Landfall : None

Total Warnings : 27

Remarks : None

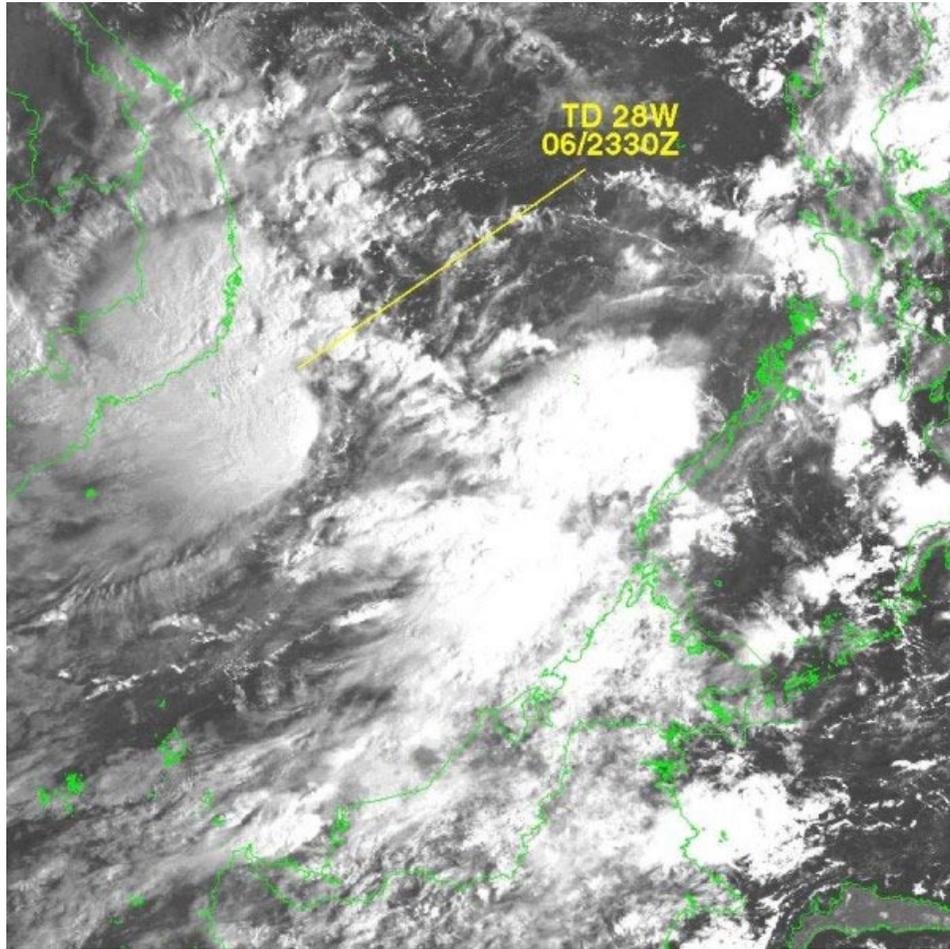


Figure 1-28W-1. 062330Z September 2000 GMS-5 visible image of TS 28W, when the cyclone was located east-southeast of Cam Ranh Bay, Vietnam at tropical depression intensity.

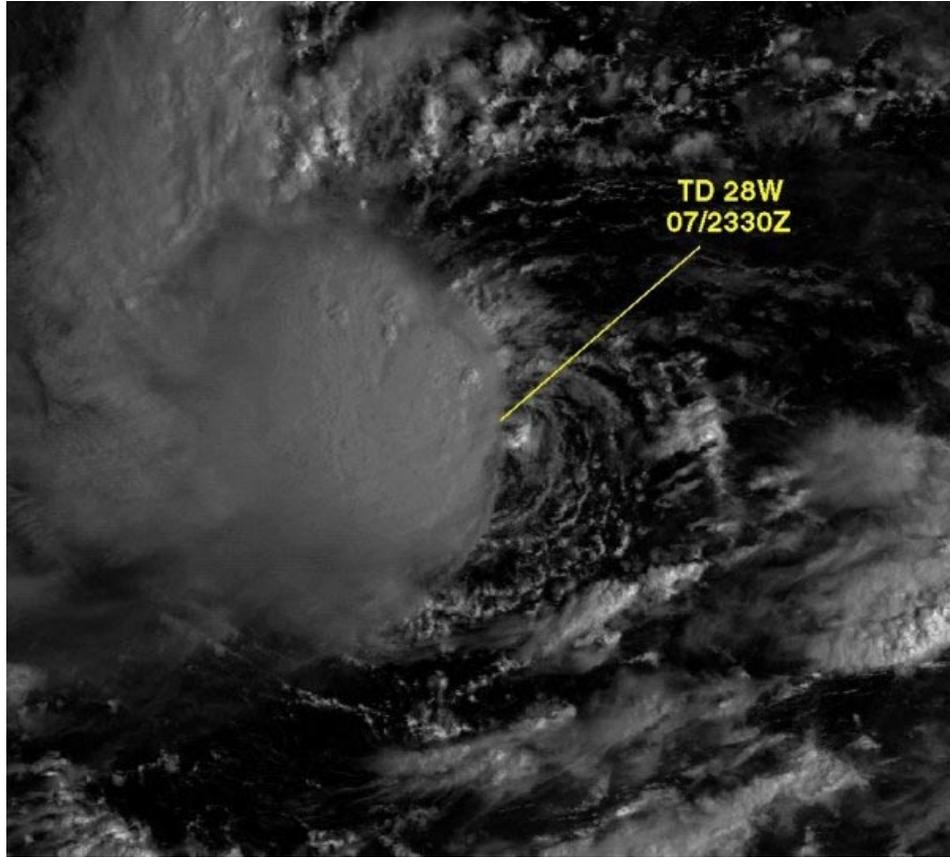
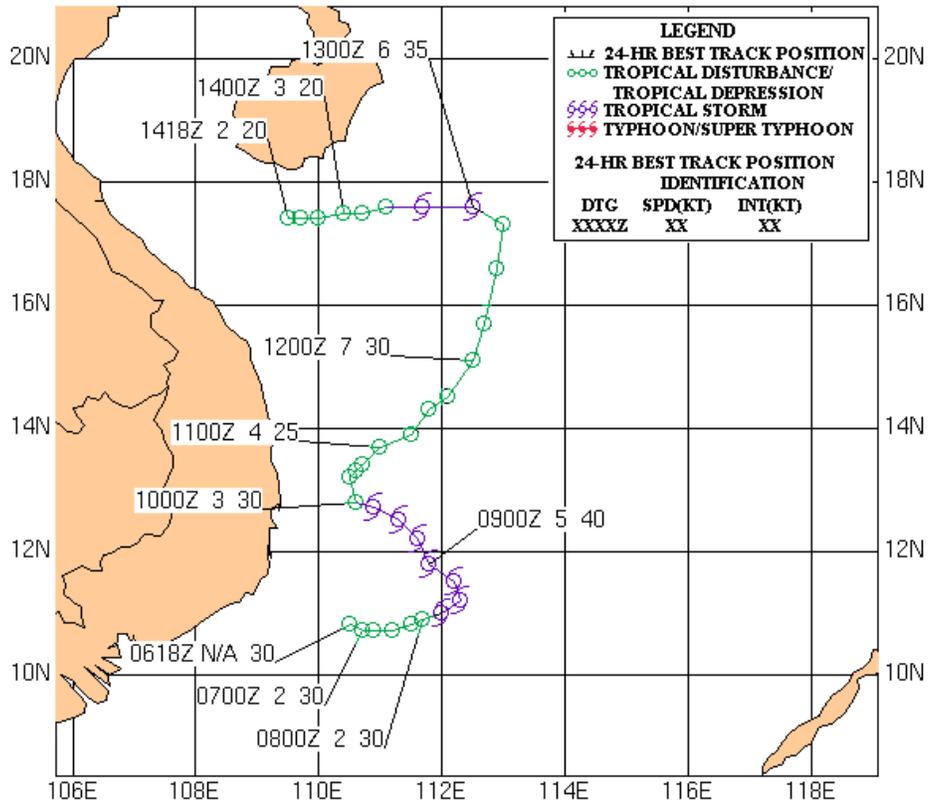


Figure 1-28W-2. 072330Z September 2000 GMS-5 visible image of TS 28W located about 130 nm east-southeast of Cam Rahn Bay, Vietnam. The low-level circulation center is exposed as a result of easterly shear, with most of the convection concentrated on the western periphery of the low-level circulation.

**TROPICAL STORM 28W
06 - 13 OCTOBER 2000**



Typhoon (TY) 29W (Yagi*)

First Poor : 0600Z 20 Oct 00

First Fair : 1400Z 20 Oct 00

First TCFA : 0830Z 21 Oct 00

First Warning : 1800Z 21 Oct 00

Last Warning : 0600Z 28 Oct 00

Max Intensity : 105 kts, Gusts to 130 kts

Landfall : None

Total Warnings : 27

Remarks :

- (1) TY 29W underwent a period of rapid intensification beginning at 0600Z 24 Oct, intensifying 35 kts (from 65 kts to 105 kts) in 12 hours.
- (2) The cyclone moved in an anticyclonic loop just west of Okinawa.

* Name assigned by RSMC Tokyo

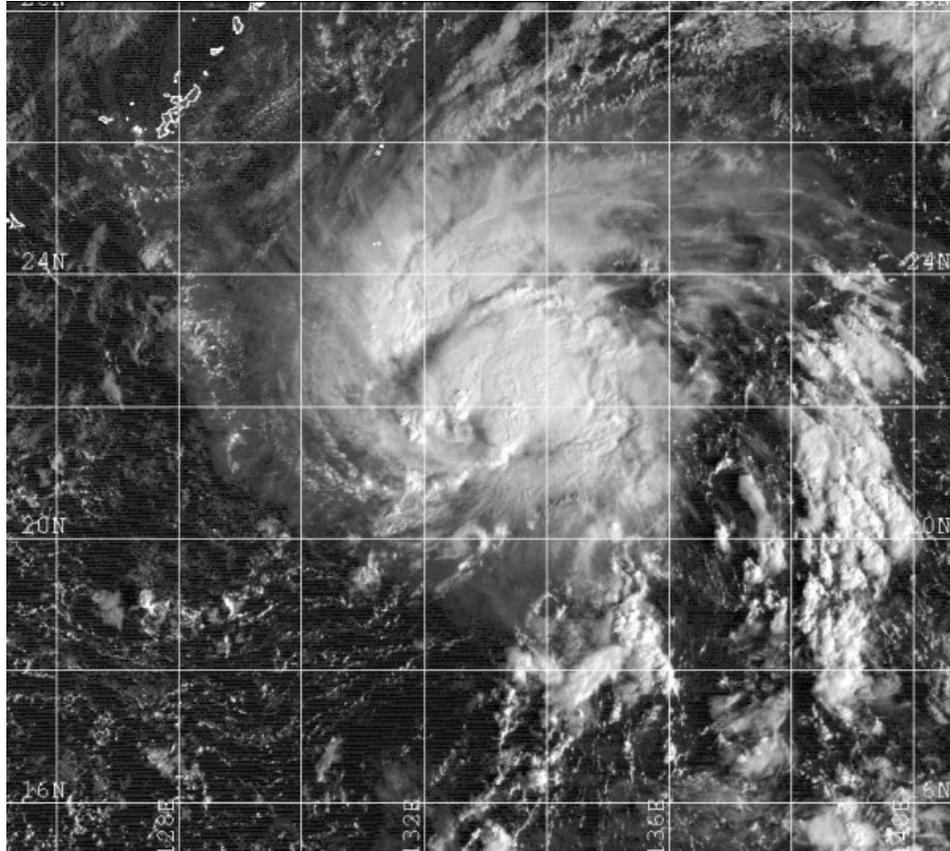


Figure 1-29W-1. 222202Z October 2000 GMS-5 visible image of TY 29W, located approximately 400 nm southeast of Naha, Japan, with convection concentrated in the northwest-northeast quadrants.

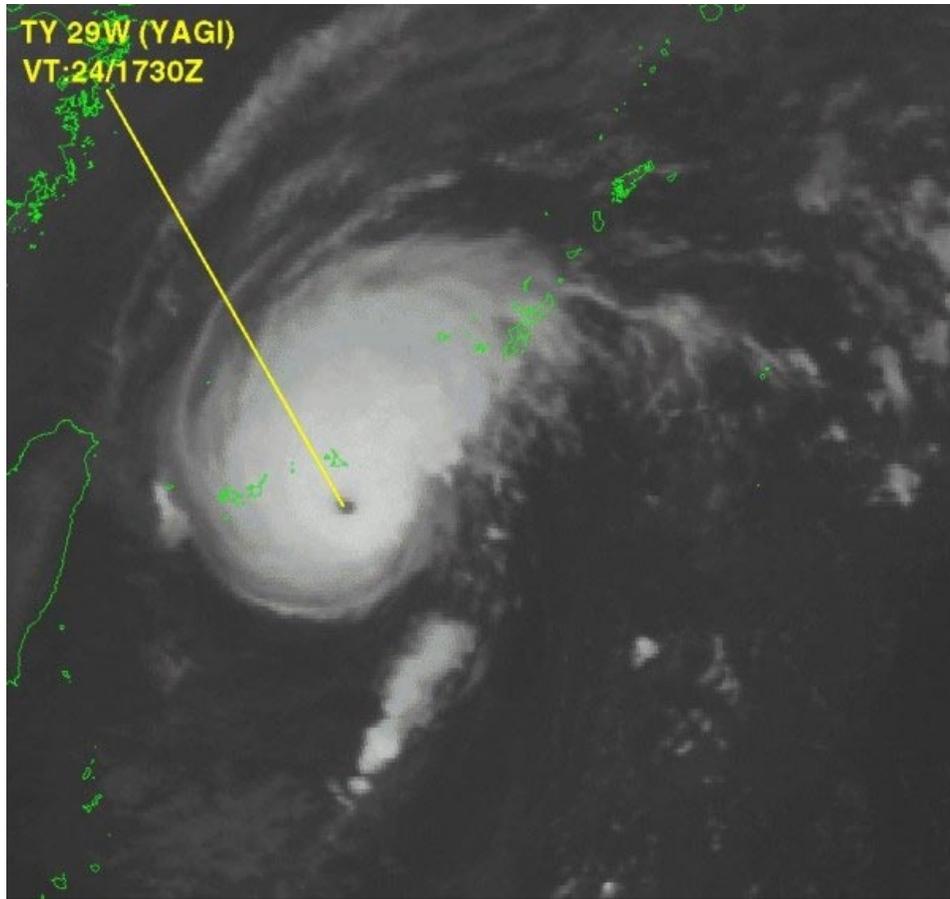


Figure 1-29W-2. 241730Z October 2000 GMS-5 infrared image of TY 29W, located 50 nm south of Miyako Island, Japan. The storm is near peak intensity of 105 knots, with a cloud-free eye.

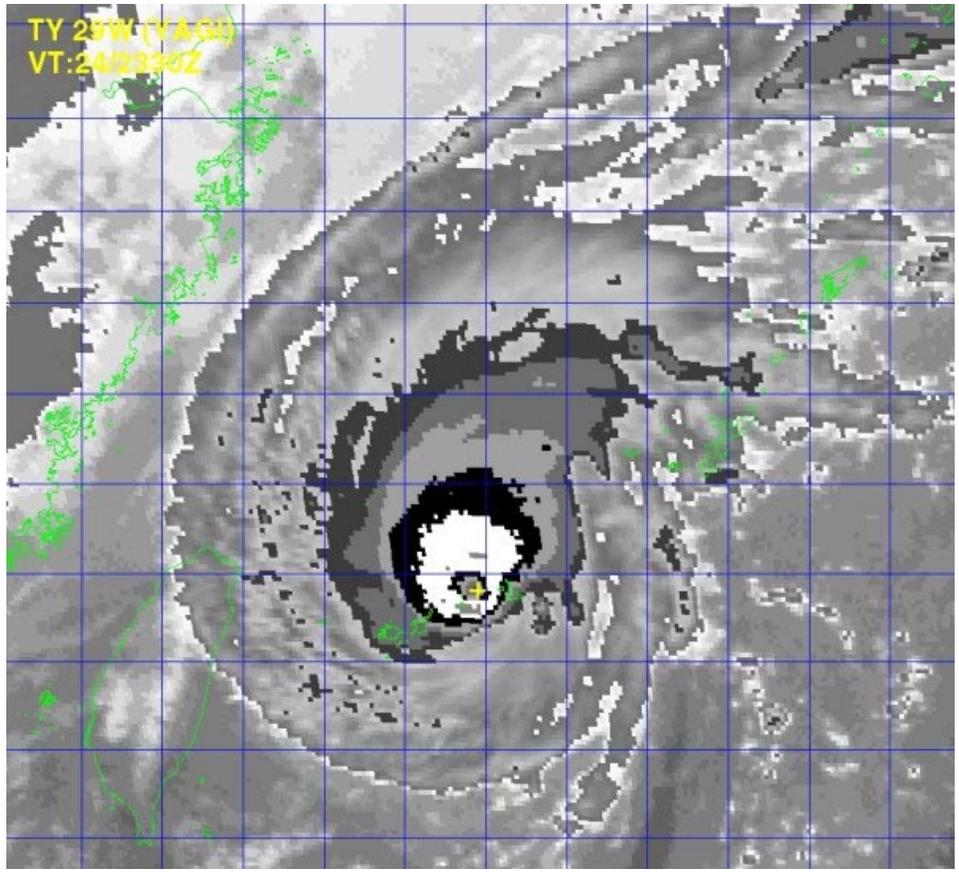


Figure 1-29W-3. 242330Z October 2000 GMS-5 infrared image of TY 29W, located 20 nm west of Miyako Island, Japan, with a cloud-free eye.

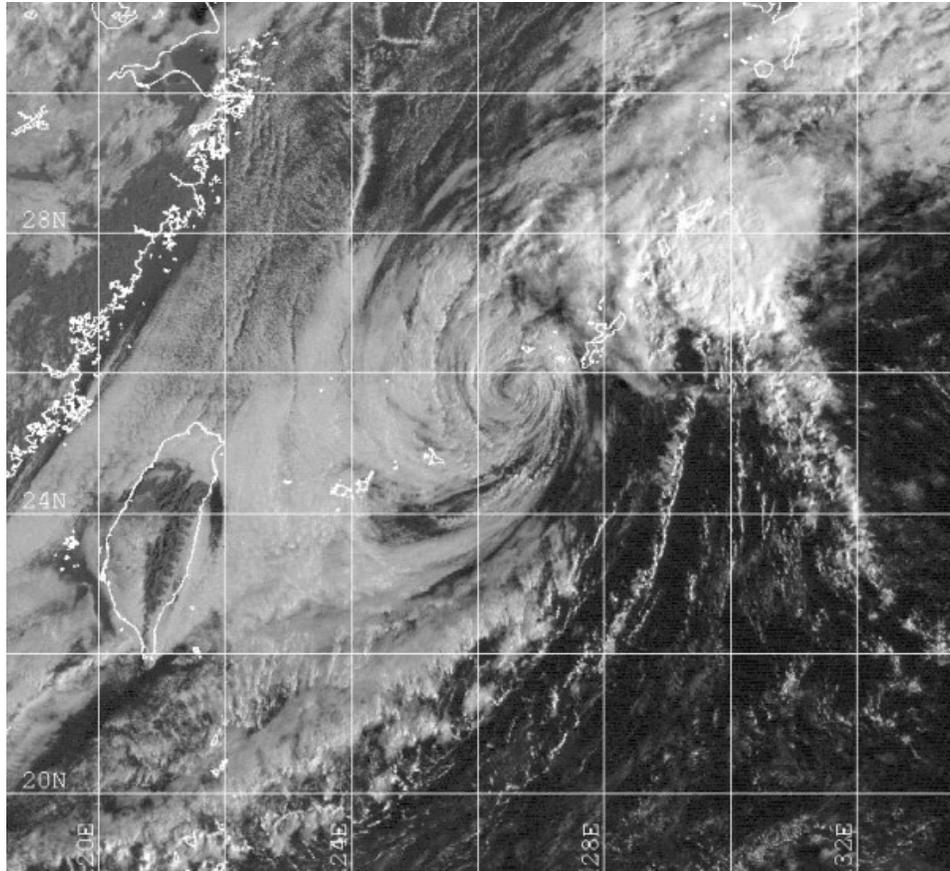
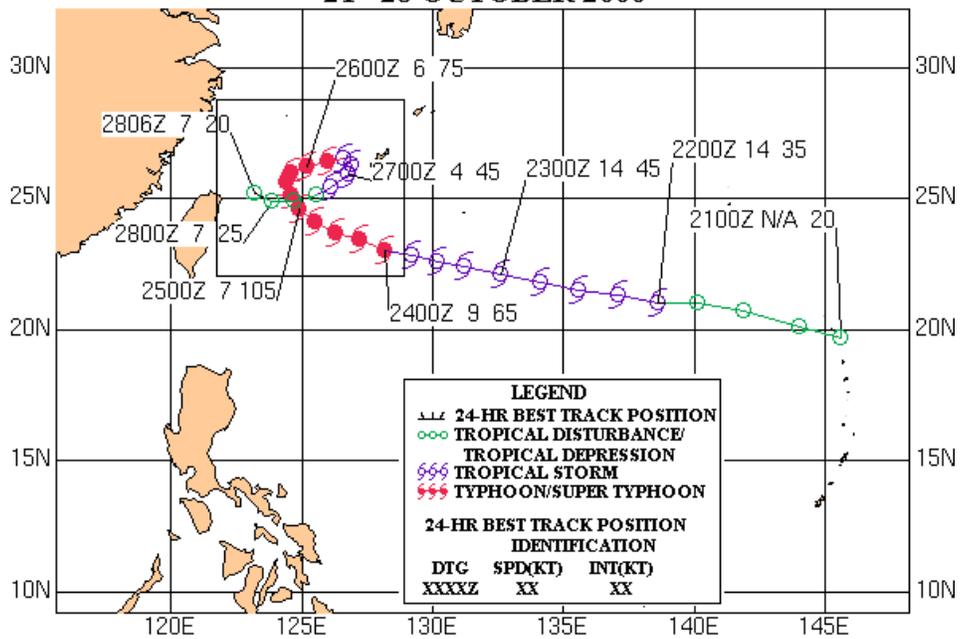
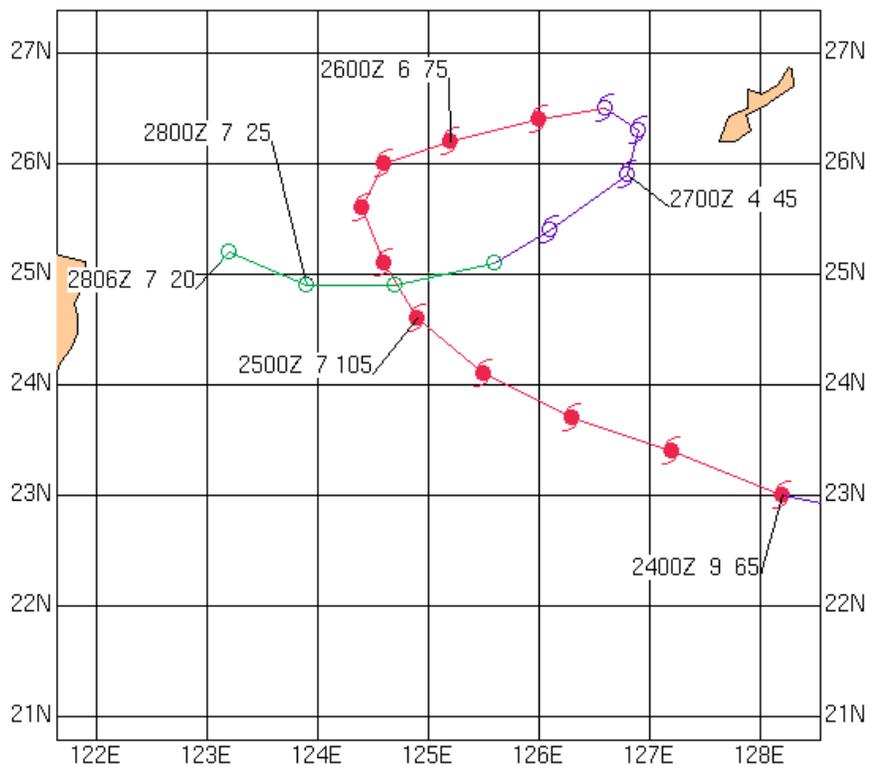


Figure 1-29W-4. 262301Z October 2000 GMS-5 visible image of TY 29W, located 50 nm southwest of Naha, Japan, with a fully exposed low-level circulation center and deep convection displaced 180 nm to the northeast.

**TYPHOON 29W (YAGI)
21 - 28 OCTOBER 2000**



See below to view inset detail



Typhoon (TY) 30W (Xangsane*)

First Poor : 0600Z 24 Oct 00

First Fair : 0030Z 25 Oct 00

First TCFA : 0530Z 25 Oct 00

First Warning : 1200Z 25 Oct 00

Last Warning : 1800Z 01 Nov 00

Max Intensity : 90 kts, Gusts to 110 kts

Landfall : 1800Z 27 Oct 00 over Southern Luzon, Philippines

Total Warnings : 30

Remarks :

- (1) The Associated Press (AP) reported TY 30W killed 40 people, left 100,000 homeless, and caused damages estimated at \$27.45 million in the Philippines.
- (2) TY 30W tracked parallel to the east coast of Taiwan at typhoon intensity. The AP reported that flooding led to 59 deaths on the island, with damage estimated at \$500 million.
- (3) Reuters reported a Singapore airlines plane crashed while attempting to take off on a closed runway at Taipei as TY 30W skirted the coast of Taiwan, killing 82 of the 179 passengers. Poor visibility caused by TY 30W may have been a factor.

* Name assigned by RSMC Tokyo

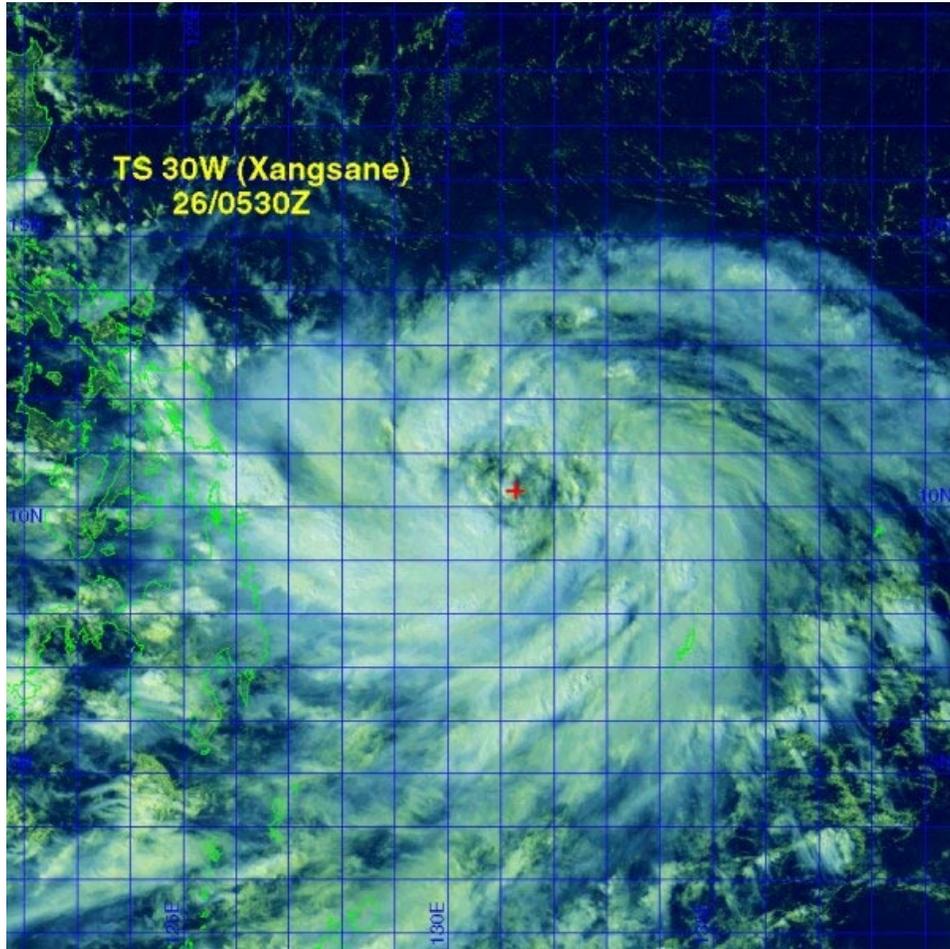


Figure 1-30W-1. 260530Z October 2000 multi-spectral image of TY 30W, located about 280 nm east of Mindanao, at an estimated intensity of 55 kts.

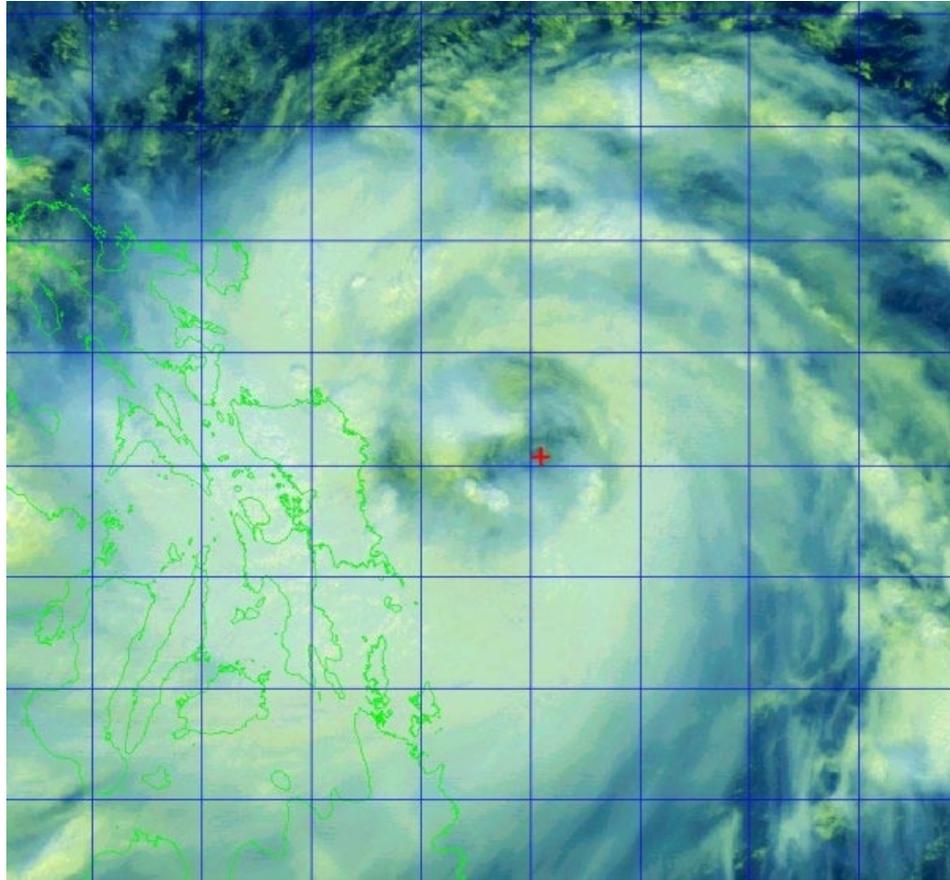


Figure 1-30W-2. 270230Z October 2000 multi-spectral image of TY 30W, located 200 nm north-east of Surigao, Philippines, at an estimated intensity of 65 kts.

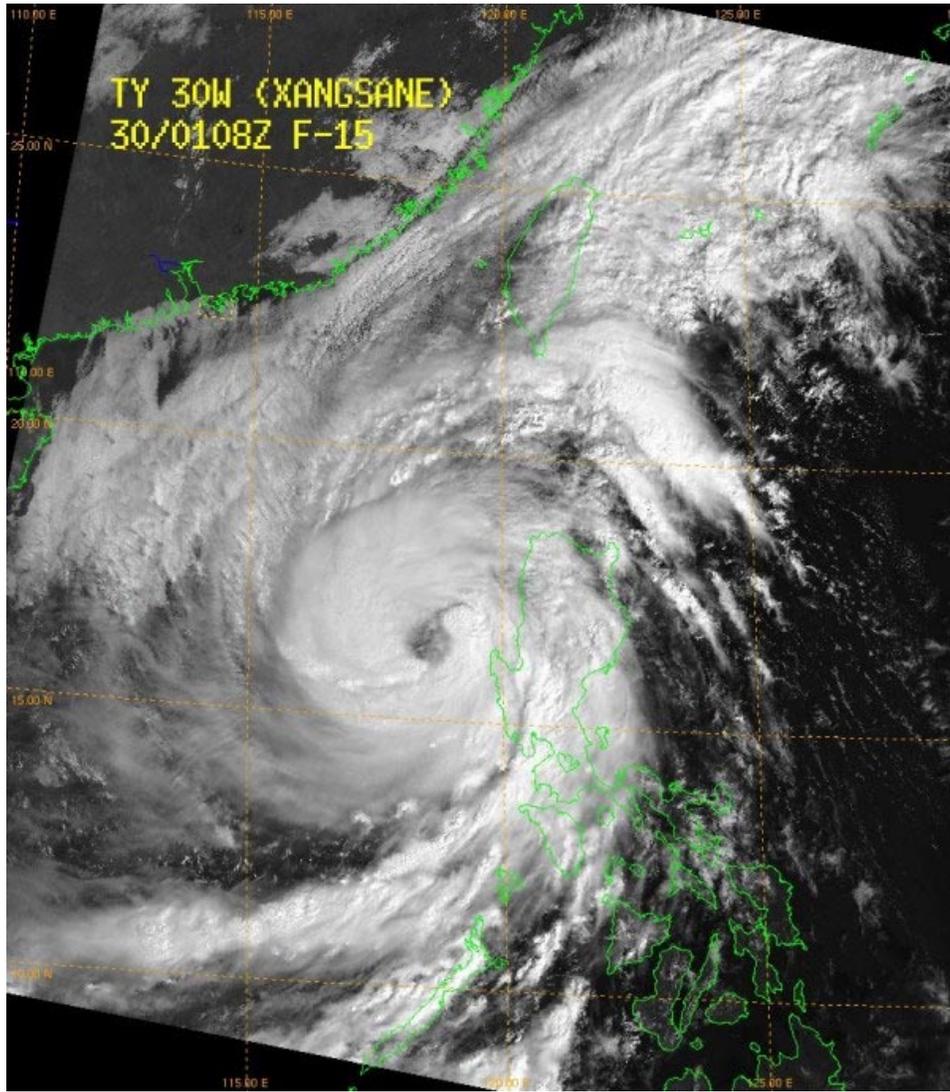


Figure 1-30W-3. 300108Z October 2000 DMSP visible image of TY 30W, located 360 nm south-southwest of Taiwan, with a well-developed eye and an estimated intensity of 90 knots.

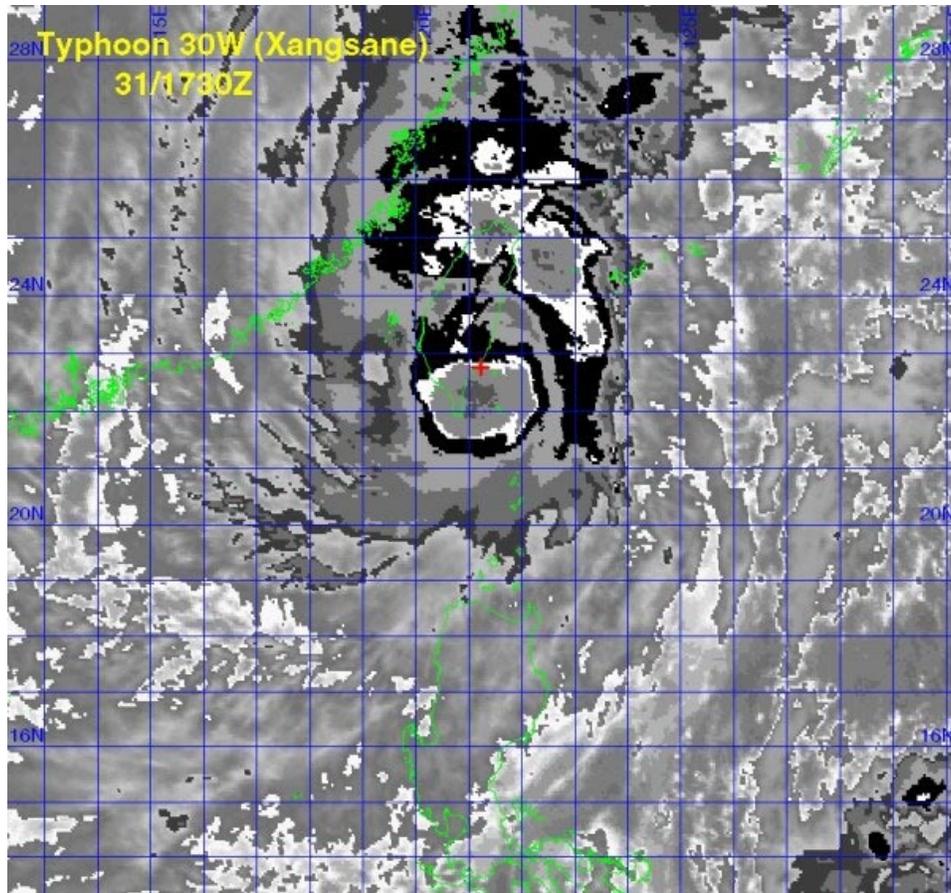


Figure 1-30W-4. 311730Z October 2000 GMS-5 enhanced infrared image of TY 30W, located just off the southeast coast of Taiwan.

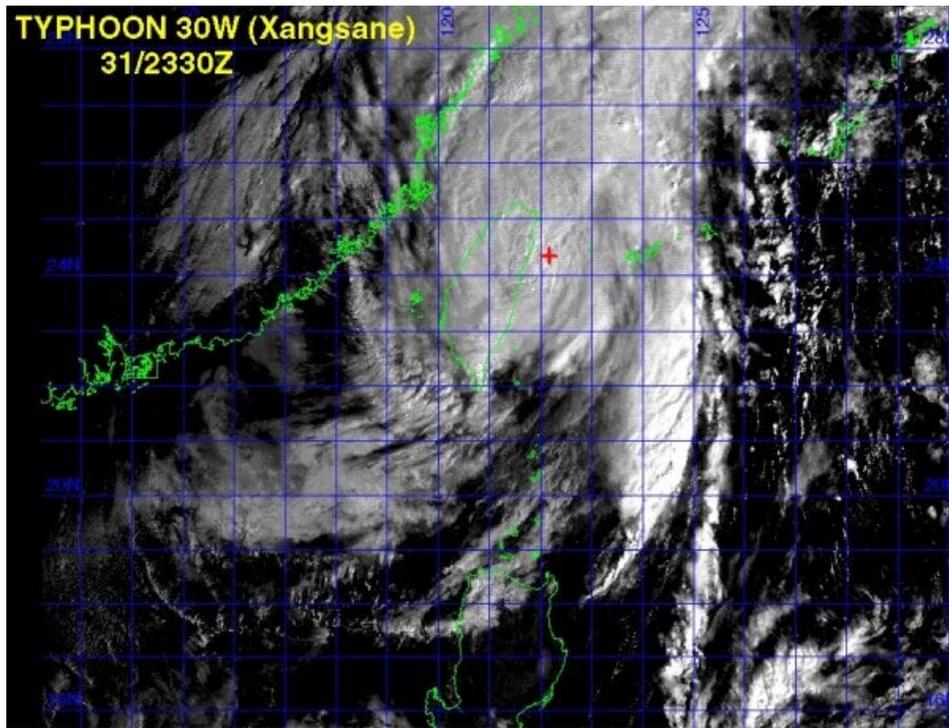
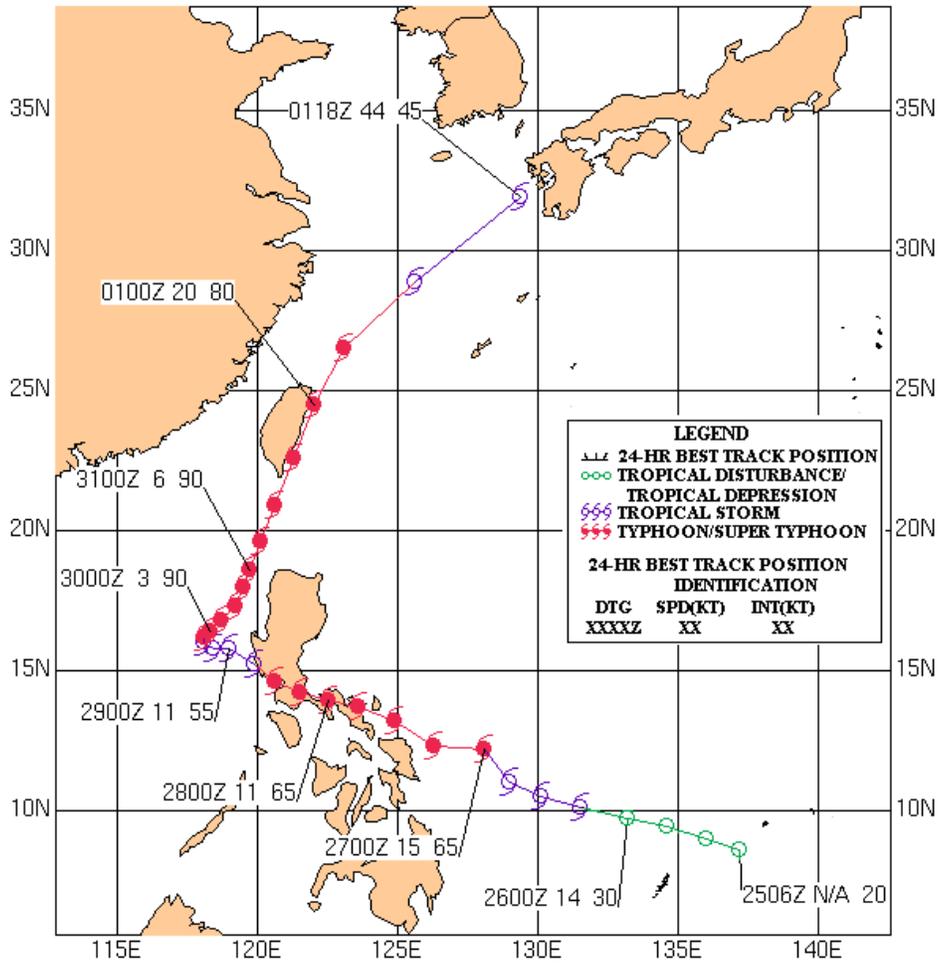


Figure 1-30W-5. 312330Z October 2000 GMS-5 visible image of TY 30W, located just off the east coast of Taiwan. At this time, the cyclone has a broad circulation and appears to have begun extra-tropical transition.

**TYPHOON 30W (XANGSANE)
25 OCTOBER - 01 NOVEMBER 2000**



Typhoon (TY) 31W (Bebinca*)

First Poor : 0600Z 28 Oct 00

First Fair : 0600Z 30 Oct 00

First TCFA : 2200Z 30 Oct 00

First Warning : 0000Z 31 Oct 00

Last Warning : 0000Z 08 Nov 00

Max Intensity : 85 kts, Gusts to 105 kts

Landfall : 1600Z 02 Nov 00 over Luzon, Philippines.

Total Warnings : 33

Remarks:

(1) The Associated Press reported that 26 people were killed when TY 31W tracked over Luzon, Phillipines.

* Name assigned by RSMC Tokyo

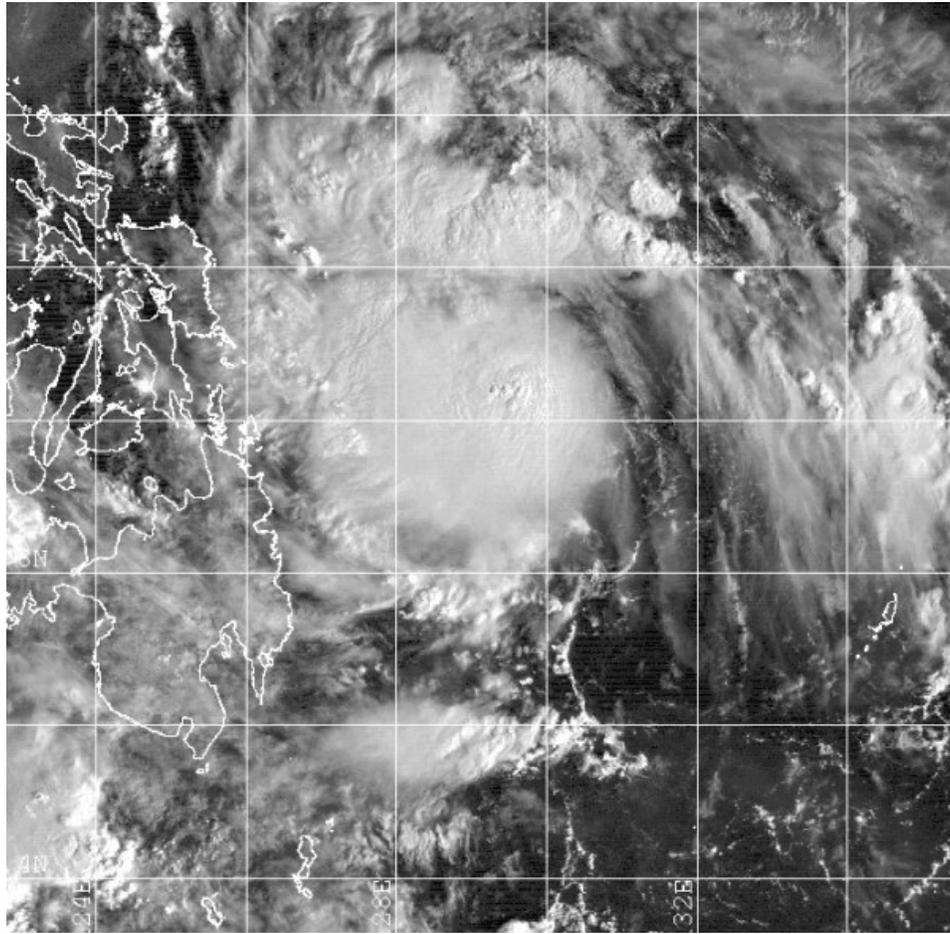


Figure 1-31W-1. 312224Z October 2000 GMS-5 visible image of TY 31W at tropical depression intensity, when the cyclone was located 310 nm east-southeast of Surigao, Philippines.

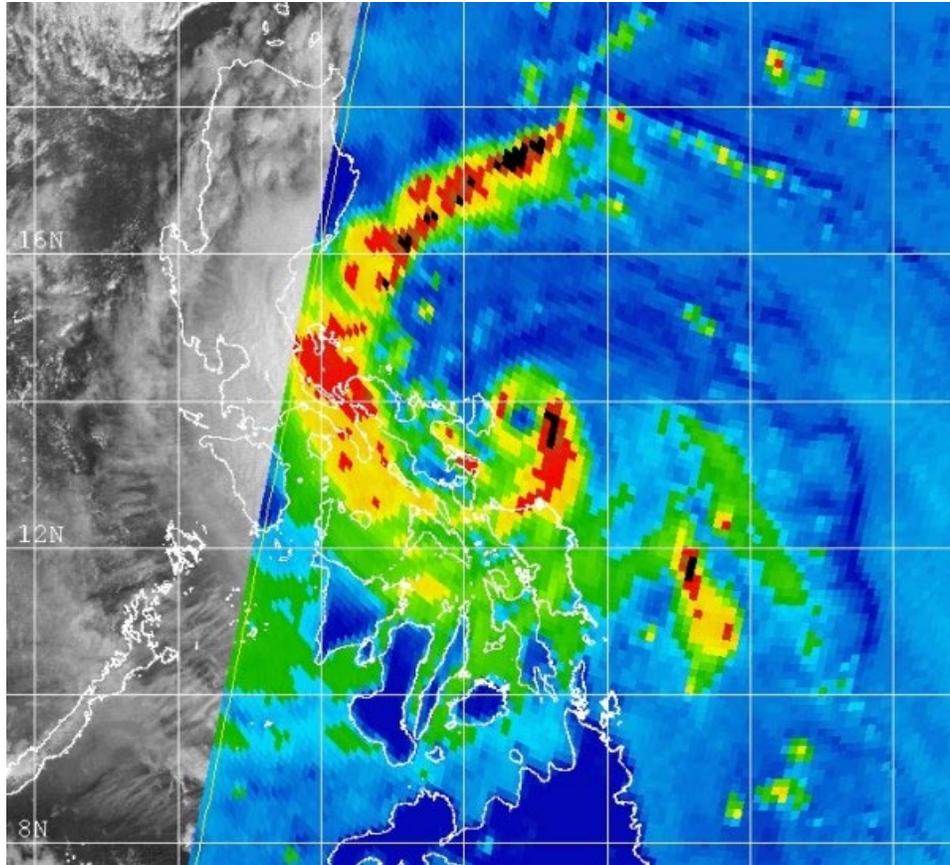


Figure 1-31W-2. 012331Z November 2000 SSMI 85 GHz image of TY 31W, when the cyclone was located just east of Catanduanes Island, Philippines. At this time, the cyclone has an estimated intensity of 55 knots.

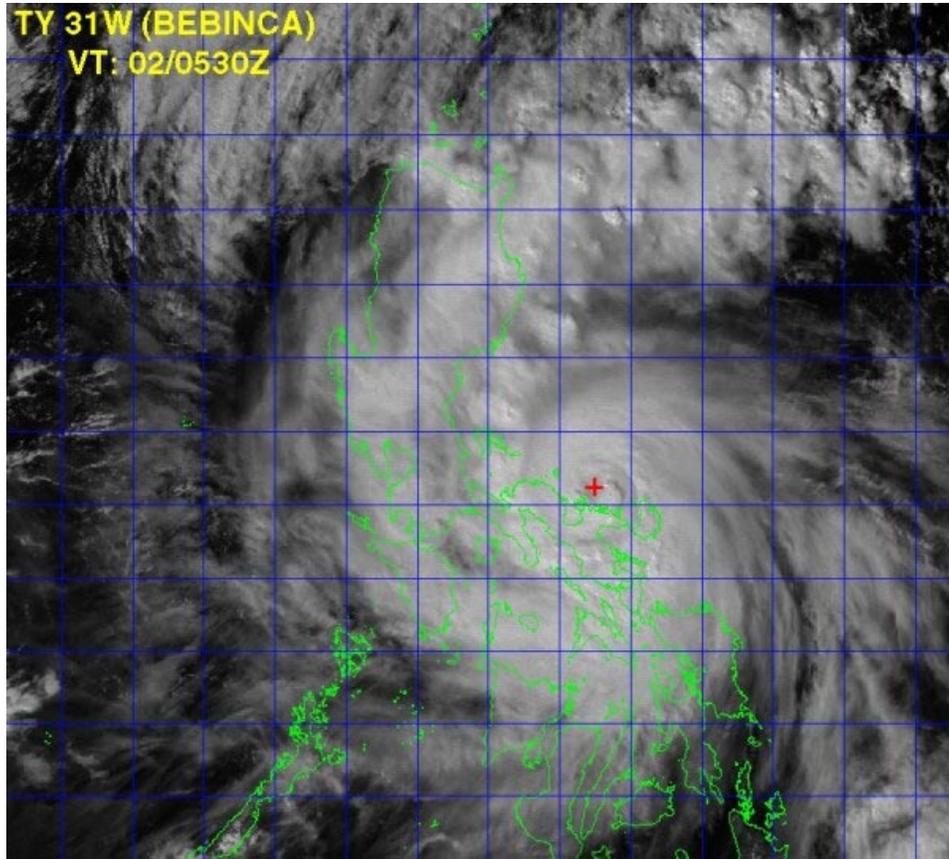


Figure 1-31W-3. 020530Z November 2000 GMS-5 visible image of TY 31W, when the cyclone was located approximately 210 nm east-southeast of Manila, Philippines, with a developing eye.

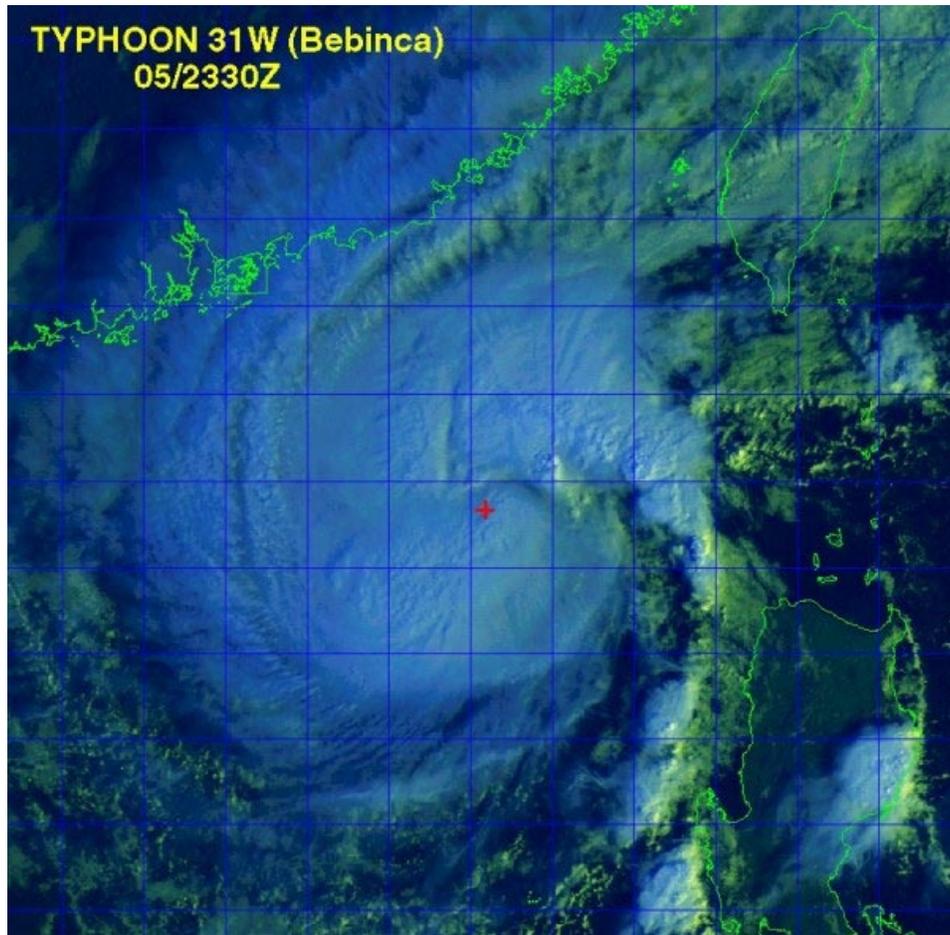


Figure 1-31W-4. 052330Z November 2000 multi-spectral image of TY 31W, located about 230 nm south-southeast of Hong Kong with an estimated intensity of 65 knots.

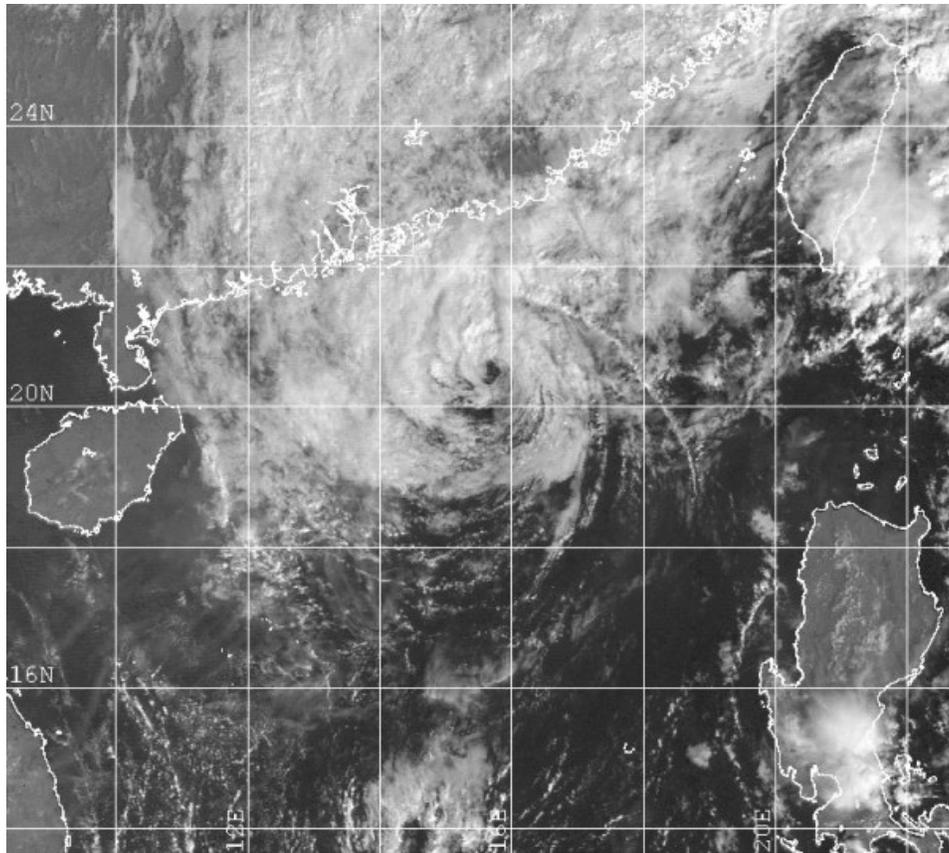
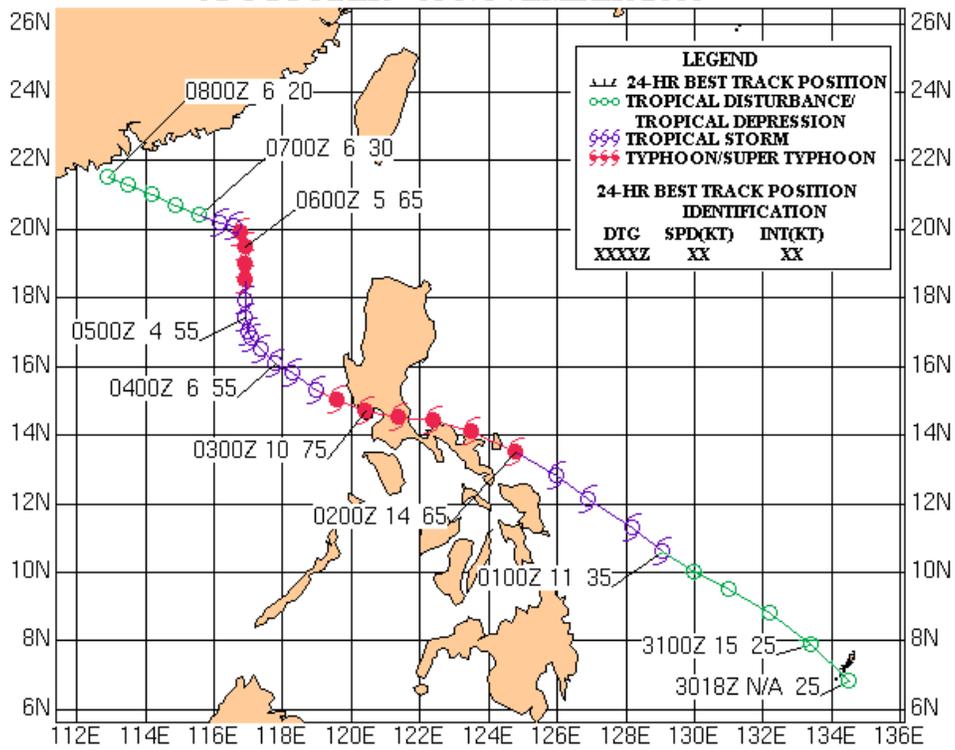


Figure 1-31W-5. 070031Z November 2000 GMS-5 visible image of TY 31W, located south of Hong Kong with a completely exposed low-level circulation.

**TYPHOON 31W (BEBINCA)
31 OCTOBER - 08 NOVEMBER 2000**



Tropical Depression (TD) 32W

First Poor : 0600Z 06 Nov 00

First Fair : 0600Z 07 Nov 00

First TCFA : 2200Z 07 Nov 00

First Warning : 0000Z 08 Nov 00

Last Warning : 1800Z 09 Nov 00

Max Intensity : 30 kts, Gusts to 40 kts

Landfall : None

Total Warnings : 8

Remarks : None

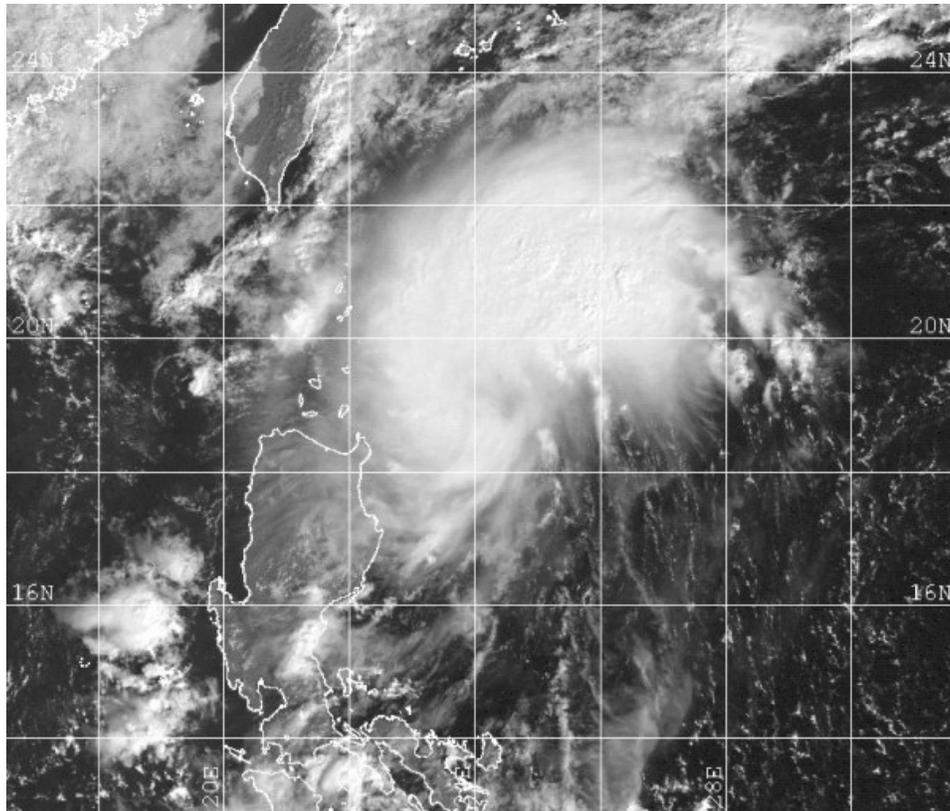


Figure 1-32W-1. 080031Z November 2000 GMS-5 visible image of TD 32W, located about 180 nm southeast of Taiwan.

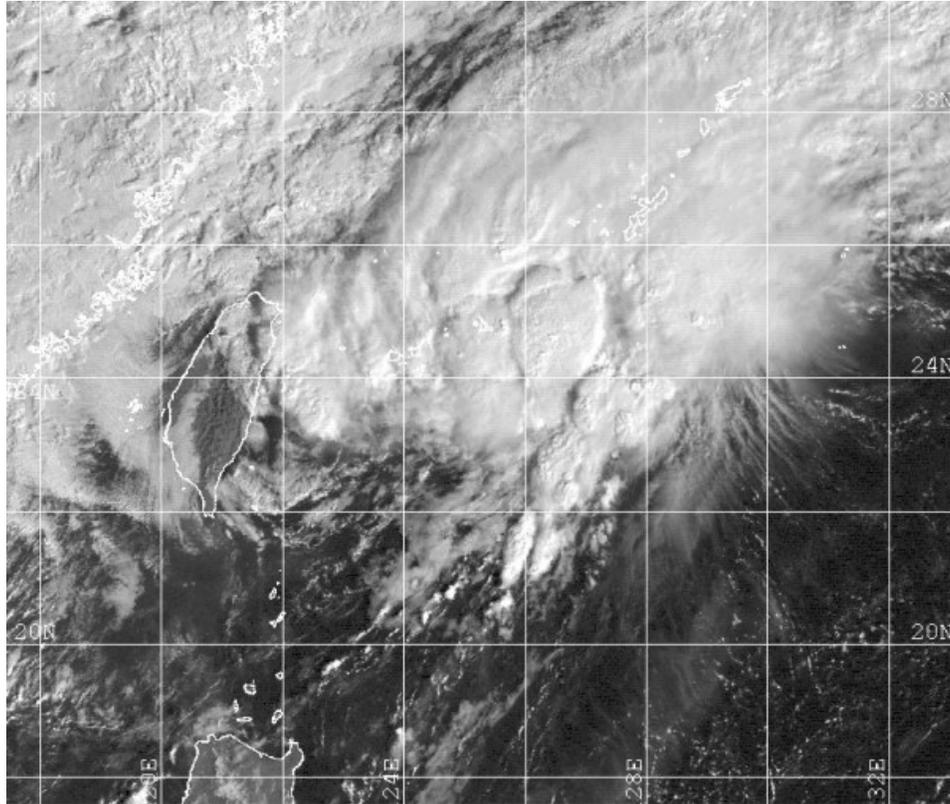


Figure 1-32W-2. 082331Z November 2000 GMS-5 visible image of TD 32W, when the cyclone was located about 120 nm east of Taiwan. Strong vertical shear is evident, with convection located to the northeast of the cyclone center.

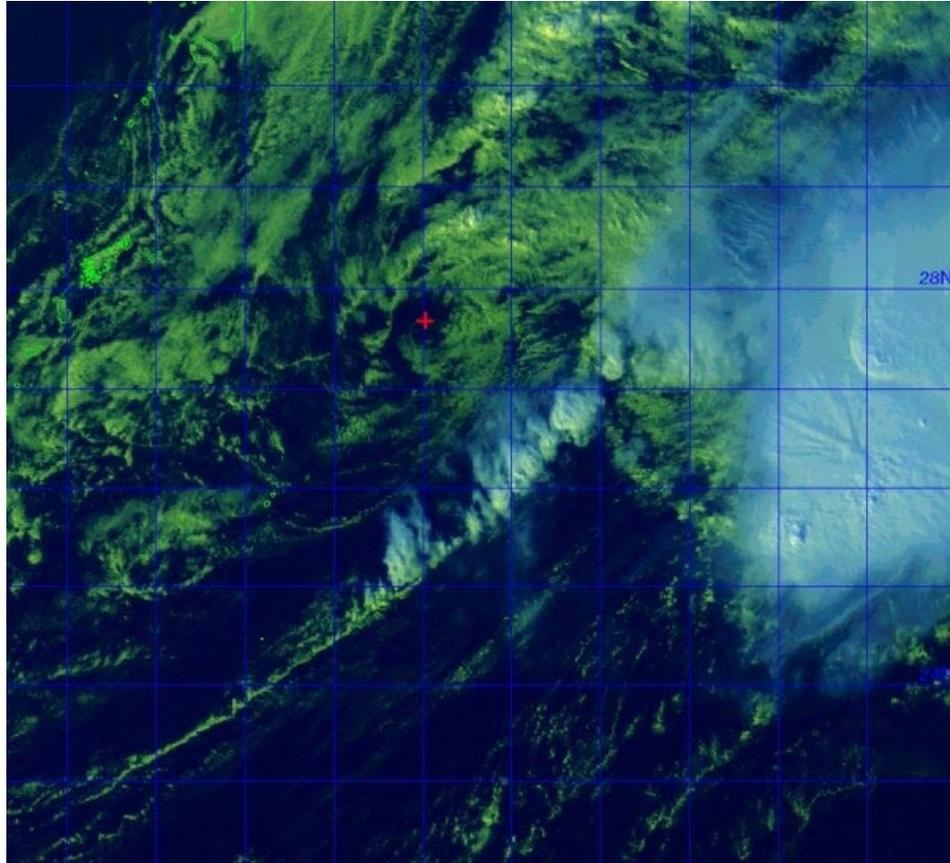
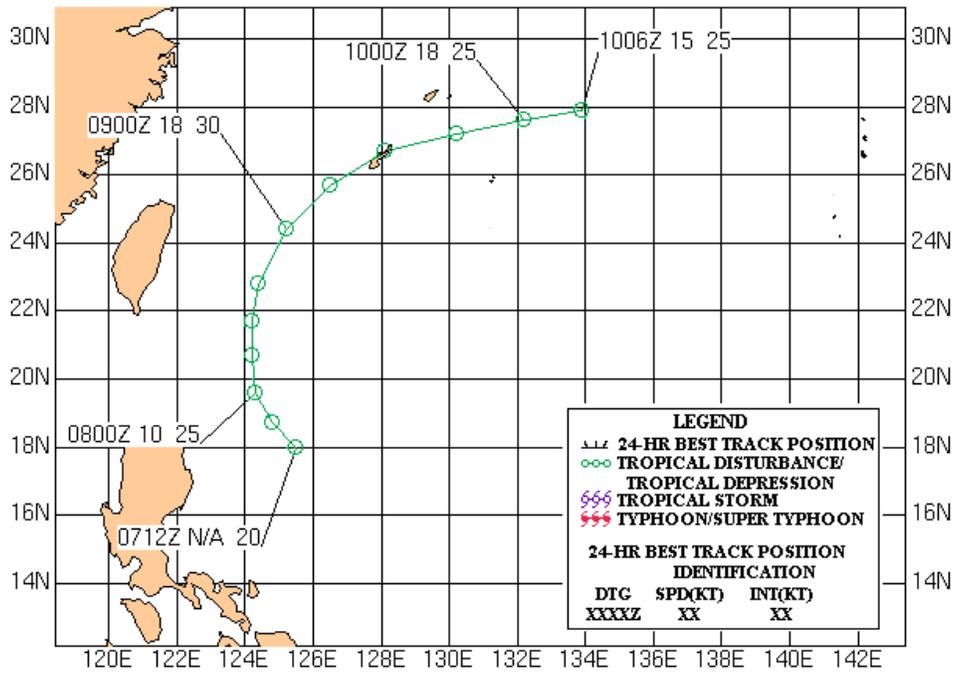


Figure 1-32W-3. 100530Z November 2000 multi-spectral image of TD 32W, located about 220 nm east-northeast of Okinawa, Japan, with a completely exposed low-level circulation.

**TROPICAL DEPRESSION 32W
08 - 09 NOVEMBER 2000**



Typhoon (TY) 33W (Rumbia*)

First Poor : 0600Z 25 Nov 00

First Fair : None

First TCFA : 1900Z 27 Nov 00

First Warning : 0000Z 28 Nov 00

Last Warning : 0000Z 08 Dec 00

Max Intensity : 50 kts, Gusts to 65 kts

Landfall : 1800Z 30 Nov 00 over central Philippines

Total Warnings : 36

Remarks : None

* Name assigned by RSMC Tokyo

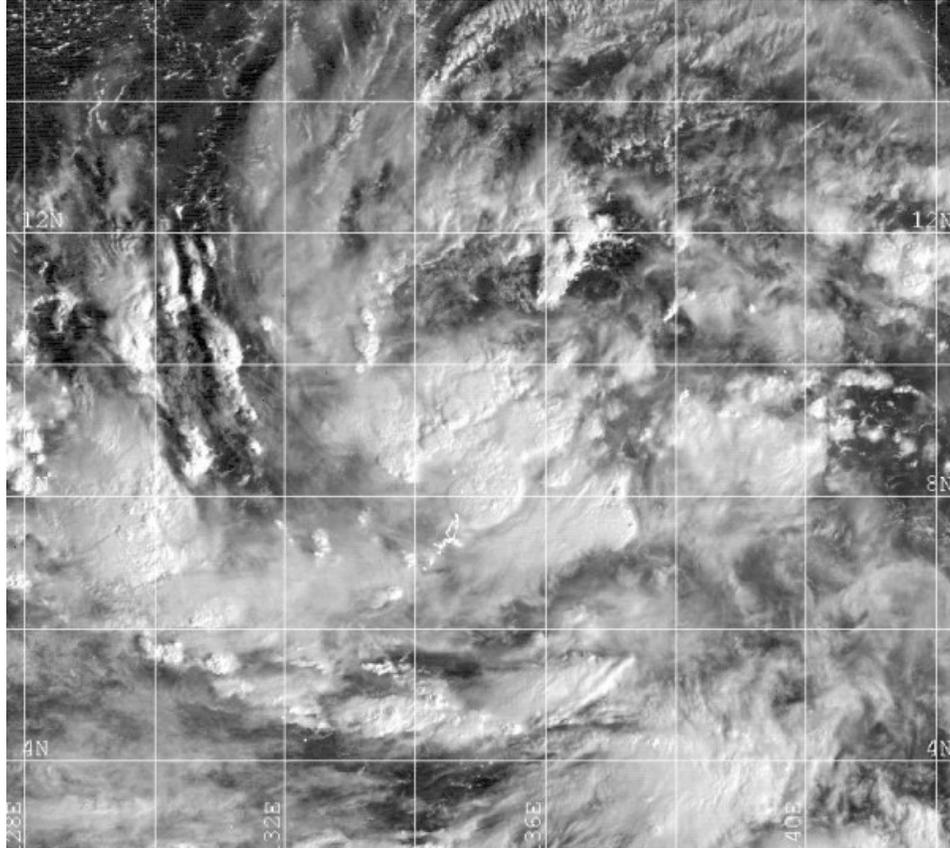


Figure 1-33W-1. 262224Z November 2000 GMS-5 visible image of the disturbance, located about 450 nm east of Mindanao Island, which became TS 33W.

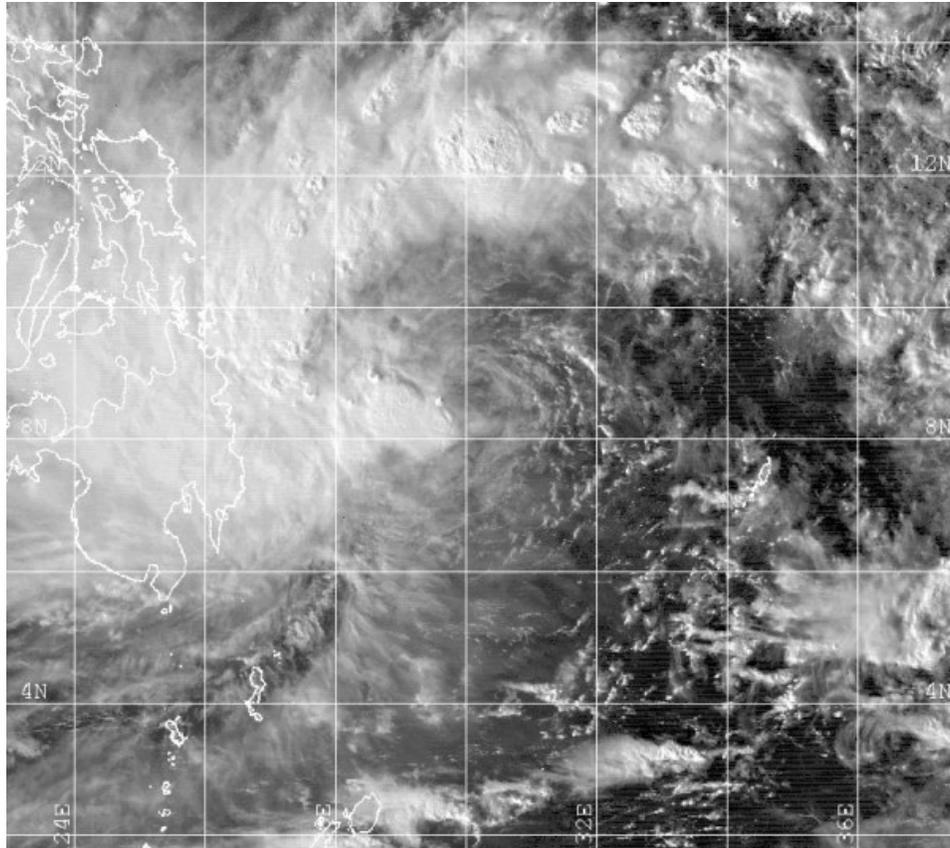


Figure 1-33W-2. 290731Z November 2000 GMS-5 visible image of TS 33W, located about 200 nm east of Mindanao Island. At this time, the convection is concentrated to the west of the cyclone center.

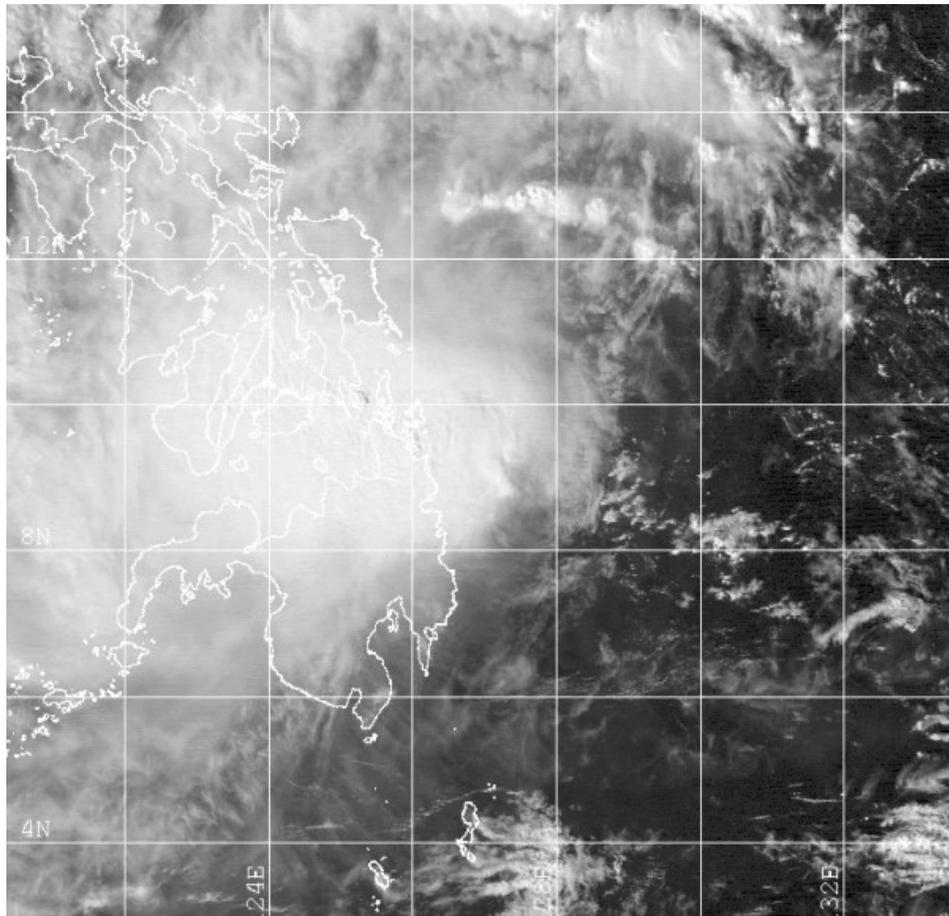
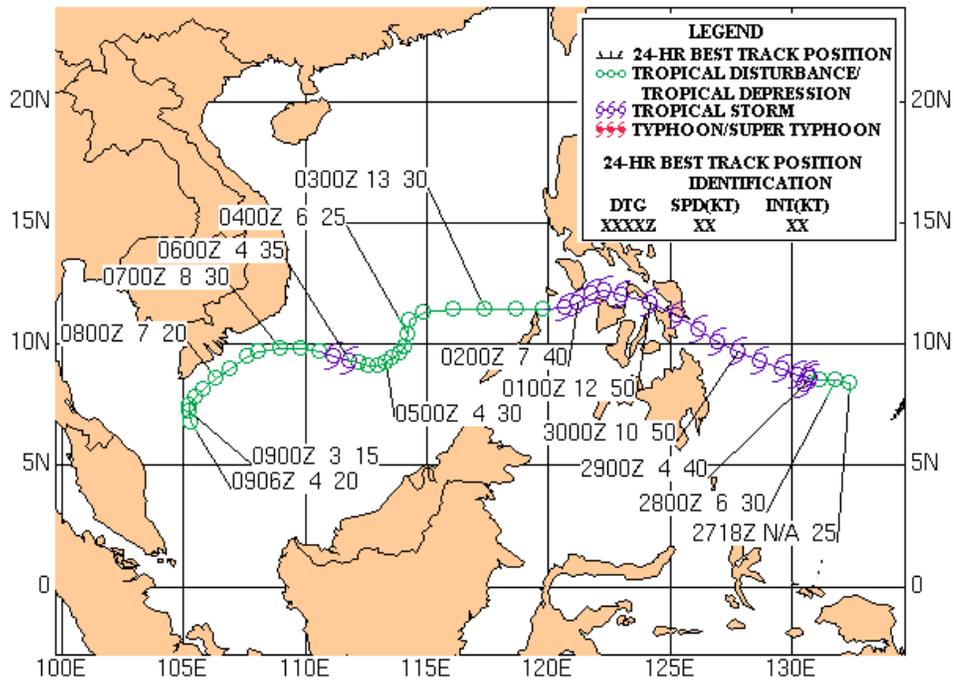


Figure 1-33W-3. 300631Z November 2000 GMS-5 visible image of TS 33W, located about 100 nm north of Mindanao Island, with the low-level circulation center located west of the deep convection.

TROPICAL STORM 33W (RUMBIA)
28 NOVEMBER - 08 DECEMBER 2000



Typhoon (TY) 34W (Soulik*)

First Poor : 0030Z 28 Dec 00

First Fair : 0600Z 28 Dec 00

First TCFA : 1930Z 28 Dec 00

First Warning : 0000Z 29 Dec 00

Last Warning : 0000Z 05 Jan 01

Max Intensity : 110 kts, Gusts to 135 kts

Landfall : None

Total Warnings : 29

Remarks:

- (1) Rapidly intensified from 45 knots to 115 knots in 18 hours
- (2) Rapidly weakened from a peak 115 knots to 55 knots in 18 hours
- (3) Interacted with baroclinic zone near 0000Z 03 Jan 01. After reaching the baroclinic zone, turned anti-cyclonically and dissipated.

* Name assigned by RSMC Tokyo

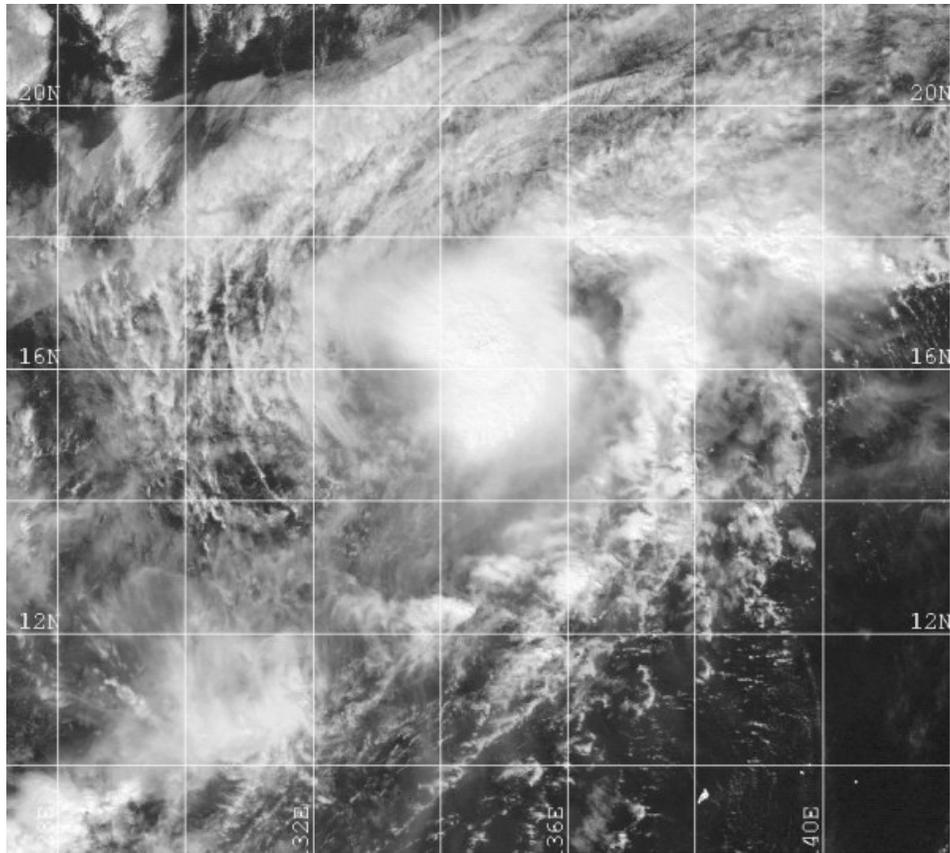


Figure 1-34W-1. 020331Z January 2001 GMS-5 visible image of TY 34W, located about 600 nm west-northwest of Agana, Guam.

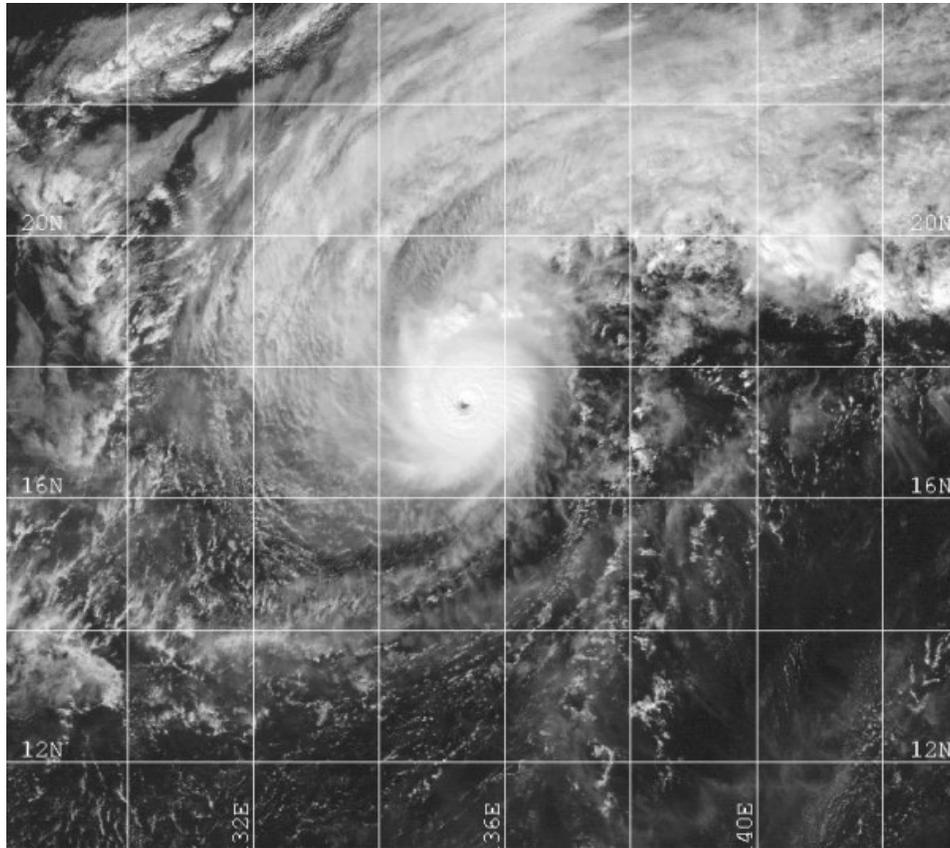


Figure 1-34W-2. 030401Z January 2001 GMS-5 visible image of TY 34W, located about 570 nm south of Iwo Jima. At this time, a tiny well-defined eye embedded in a central dense overcast is visible.

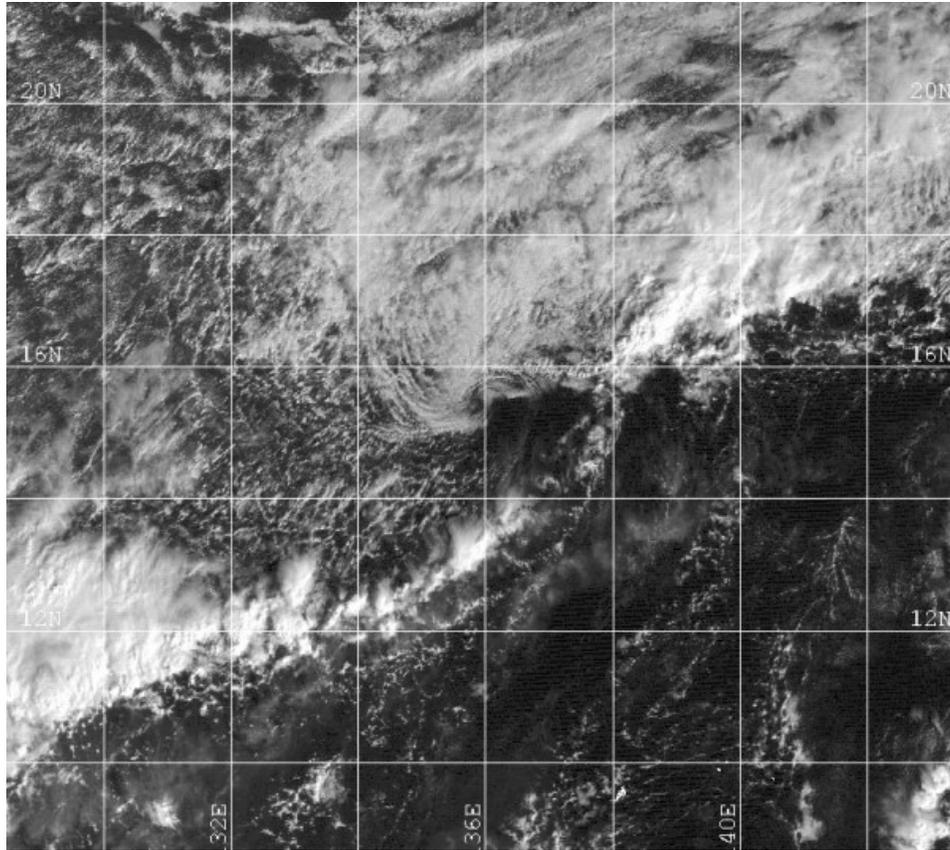
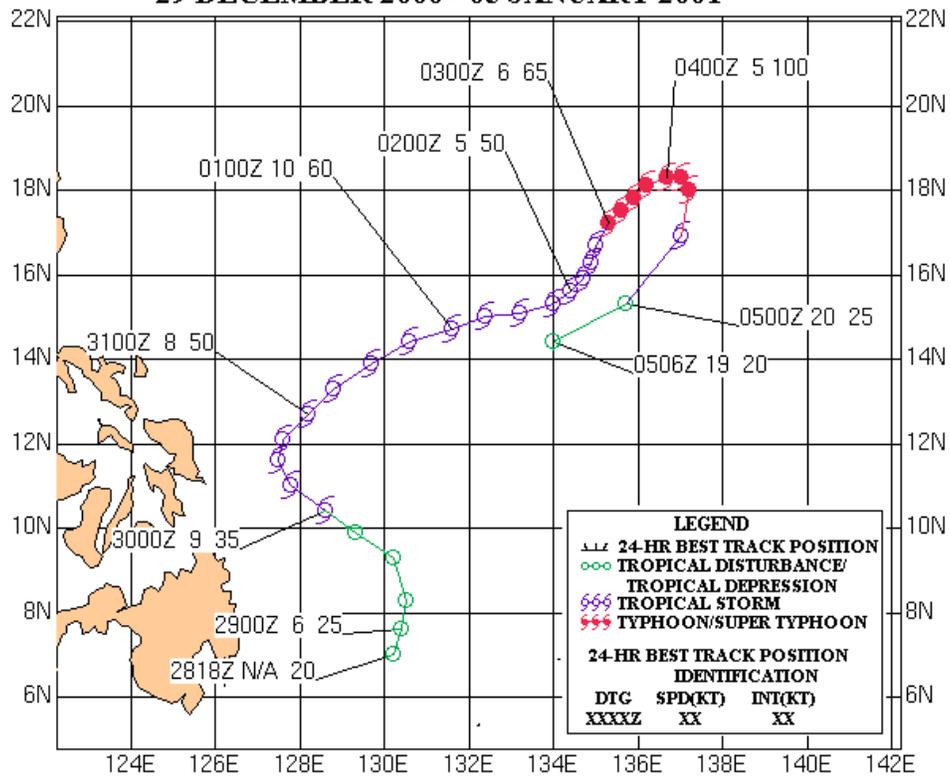


Figure 1-34W-3. 042331Z January 2001 GMS-5 visible image of TY 34W. The completely exposed low-level circulation is located in the Philippine Sea, with strong vertical shear evident in the imagery.

TYPHOON 34W (SOULIK)
29 DECEMBER 2000 - 05 JANUARY 2001



Tropical Cyclone (TC) 01B

First Poor : 1800Z 12 October 00

First Fair : 1800Z 14 October 00

First TCFA : 0630Z 15 October 00

First Warning : 0000Z 16 October 00

Last Warning : 1200Z 18 October 00

Max Intensity : 35 kts, Gusts to 45 kts

Landfall : None

Total Warnings : 6

Remarks : None

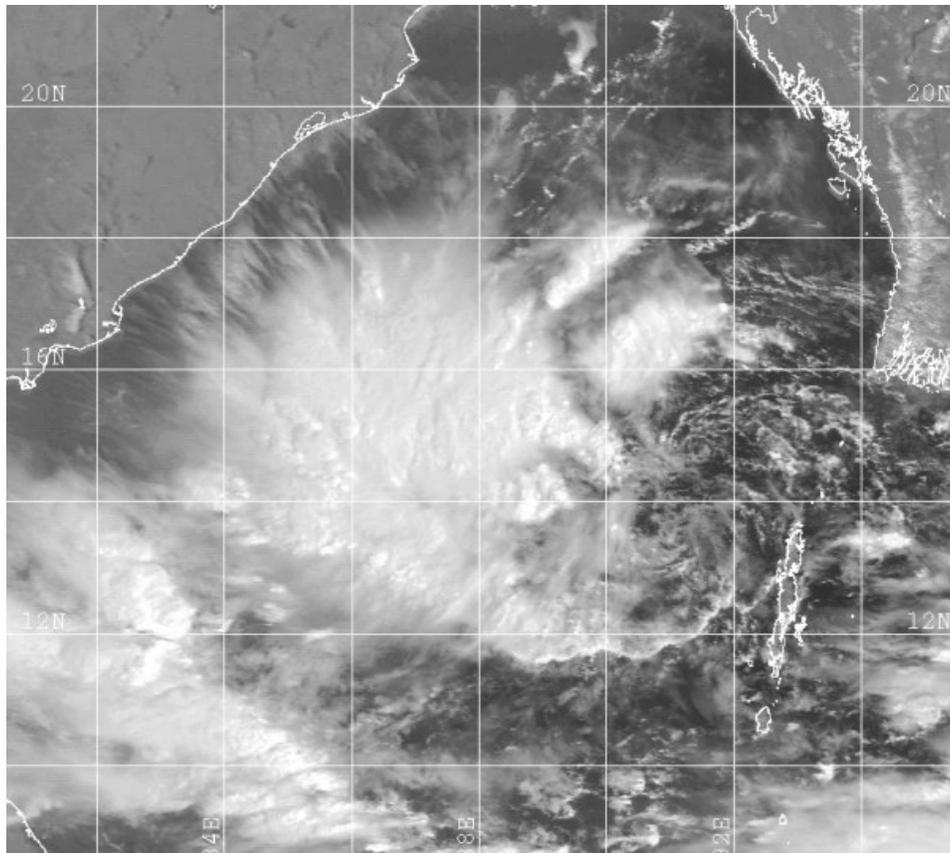


Figure 1-01B-1. 140231Z August 2000 visible image of the disturbance that became TC 01B, located about 110 nm west of the Andaman Islands with an exposed low-level circulation center.

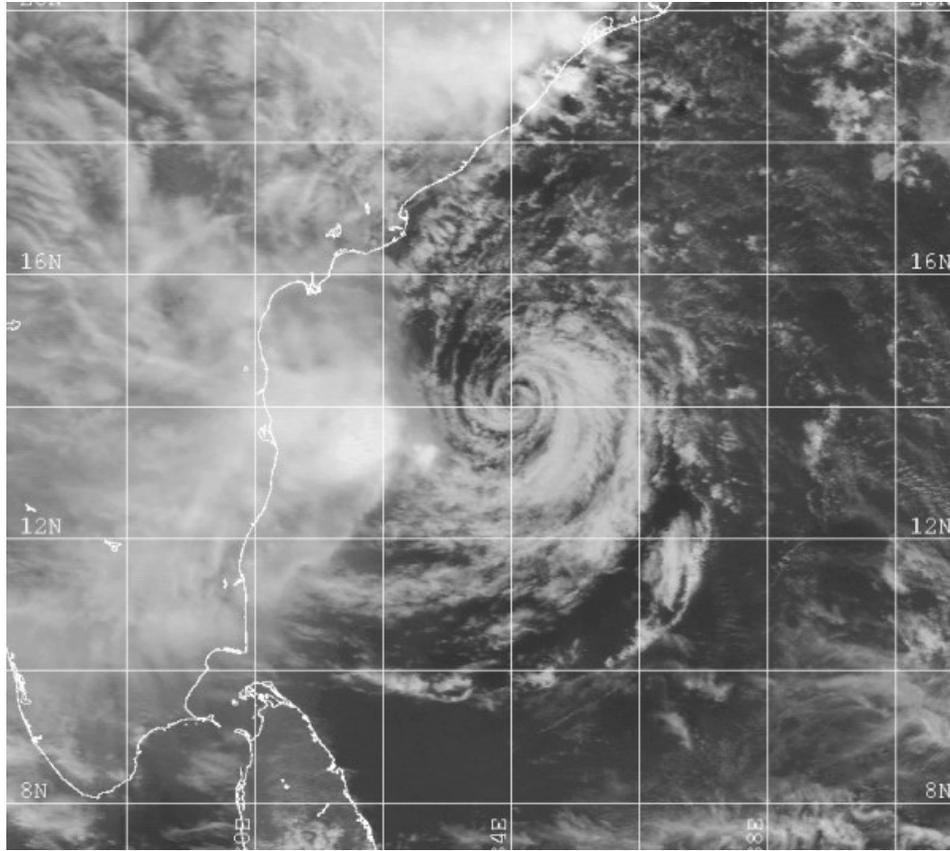


Figure 1-01B-2. 170731Z August 2000 visible image of TC 01B, located about 200 nm east of Madras, India. At this time, there is an exposed low-level circulation with little associated convection.

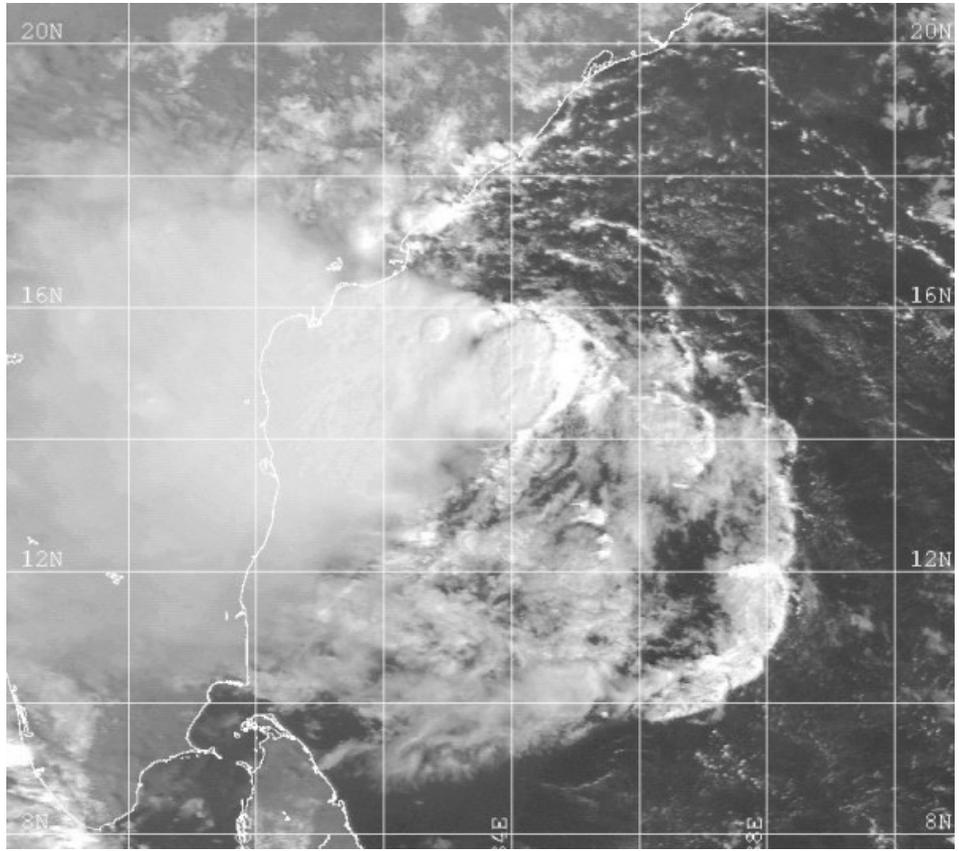
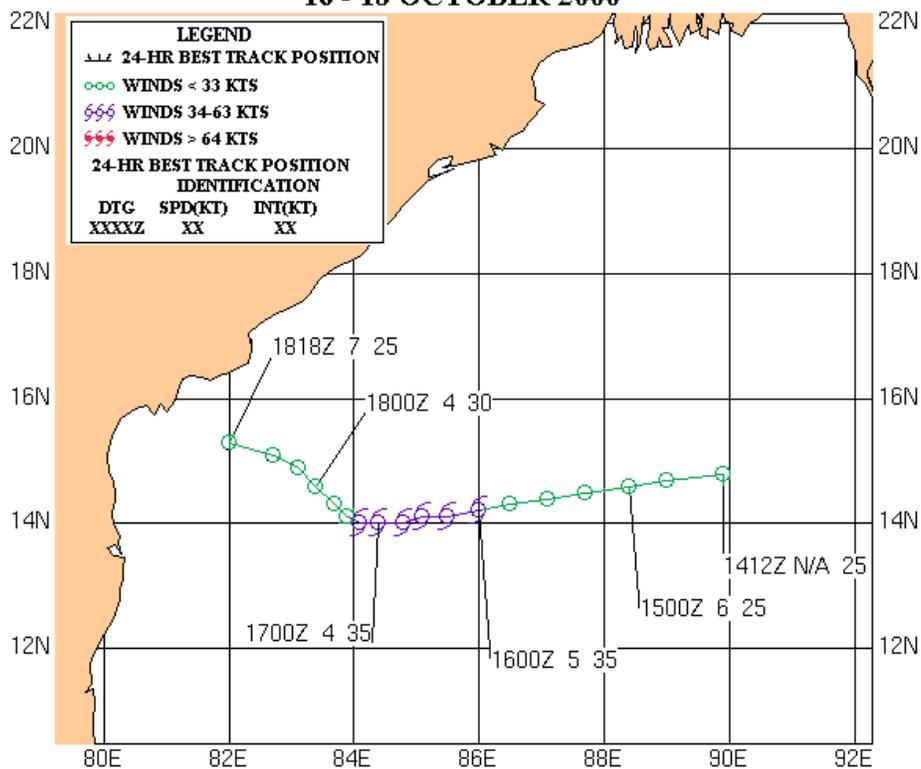


Figure 1-01B-3. 180231Z August 2000 visible image of TC 01B, located about 160 nm east-southeast of Masulipatnam, India. The very disorganized convection is displaced to the west of the circulation center.

**TROPICAL CYCLONE 01B
16 - 18 OCTOBER 2000**



Tropical Cyclone (TC) 02B

First Poor : 0230Z 25 October 00

First Fair : 1800Z 25 October 00

First TCFA : 1700Z 26 October 00

First Warning : 1800Z 27 October 00

Last Warning : 0600Z 28 October 00

Max Intensity : 35 kts, Gusts to 45 kts

Landfall : 0000Z 28 October 00

Total Warnings : 2

Remarks :

- (1) Twenty-five people were killed and hundreds reported missing as TC 02B made landfall southeast of Calcutta.
- (2) News agencies reported estimated winds between 45 and 55 kts and a 4 to 7 ft tidal surge as the cyclone made landfall.
- (3) Several hundred fishing boats were capsized and at least 100 mechanized fishing boats and fishermen were reported missing.

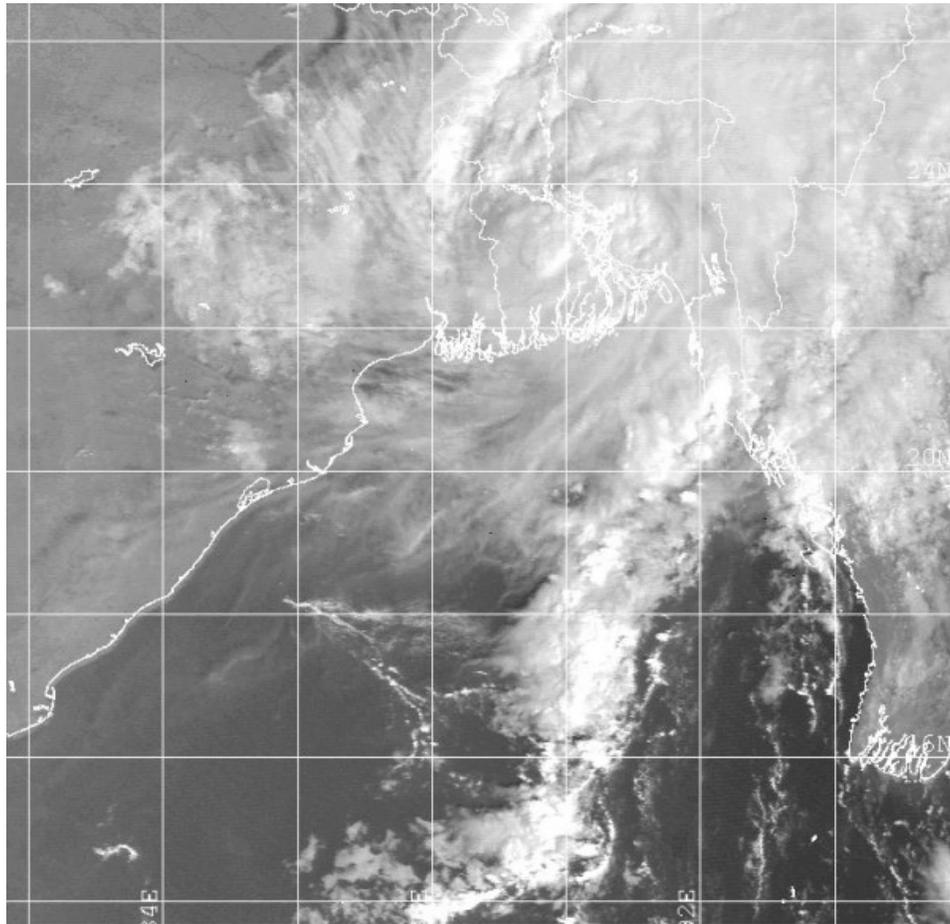
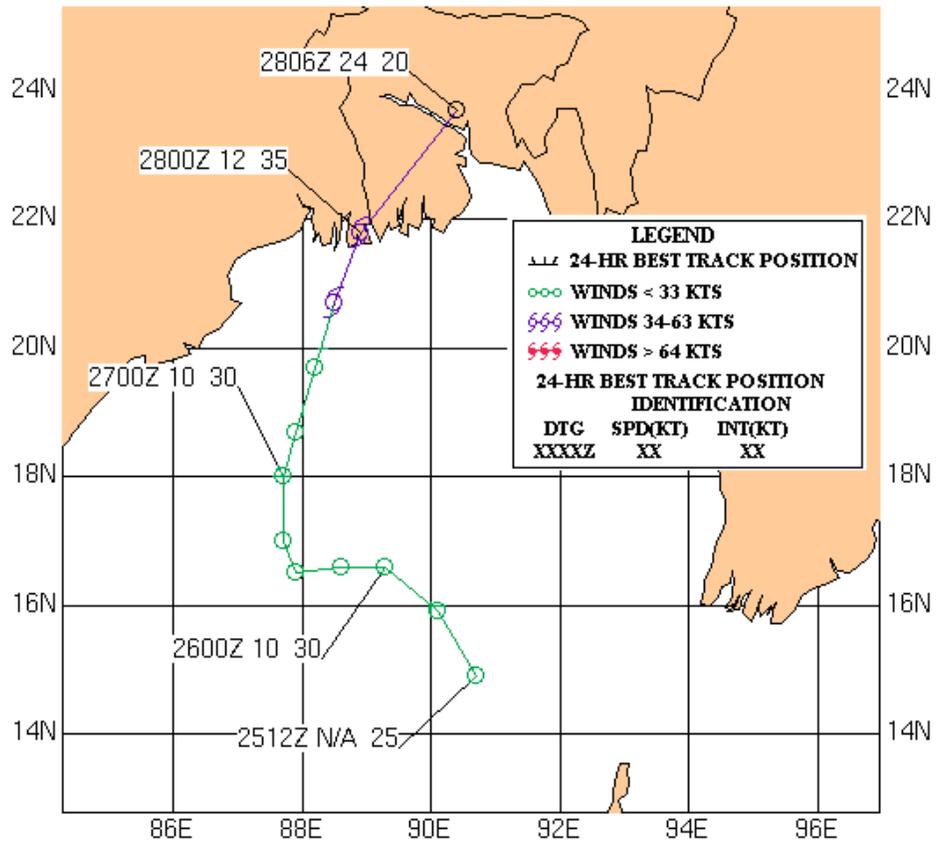


Figure 1-02B-1. 280131Z August 2000 visible image of TC 02B as it was making landfall about 45 nm southeast of Calcutta with estimated winds of 35 knots. At this time, deep convection lies to the east of the circulation center, with a trailing rainband extending southward into the Bay of Bengal.

**TROPICAL CYCLONE 02B
27 - 28 OCTOBER 2000**



Tropical Cyclone (TC) 03B

First Poor : 2100Z 25 Nov 00

First Fair : 0200Z 26 Nov 00

First TCFA : 0700Z 26 Nov 00

First Warning : 1200Z 26 Nov 00

Last Warning : 0600Z 05 Dec 00

Max Intensity : 75 kts, Gusts to 90 kts

Landfall : 1200Z 29 Nov 00 over southern India

Total Warnings : 16

Remarks :

- (1) TC 03B made landfall in southern Tamil Nadu, India, with estimated maximum sustained winds of 80 mph.
- (2) According to news reports, 6 people were killed.

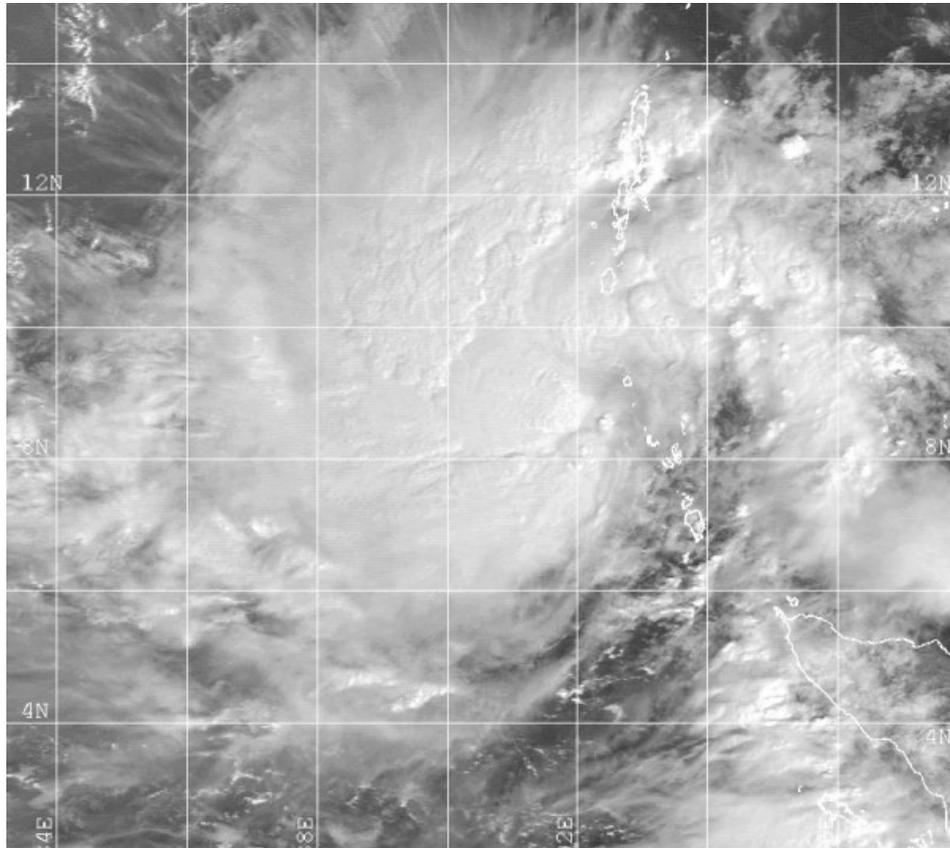


Figure 1-03B-1. 260131Z November 2000 visible image of the disturbance that became TC 03B, located south-southwest of the Andaman Islands. At this time, numerous convective elements can be seen in a broad area between 8N and 12N and 88E and 96E.

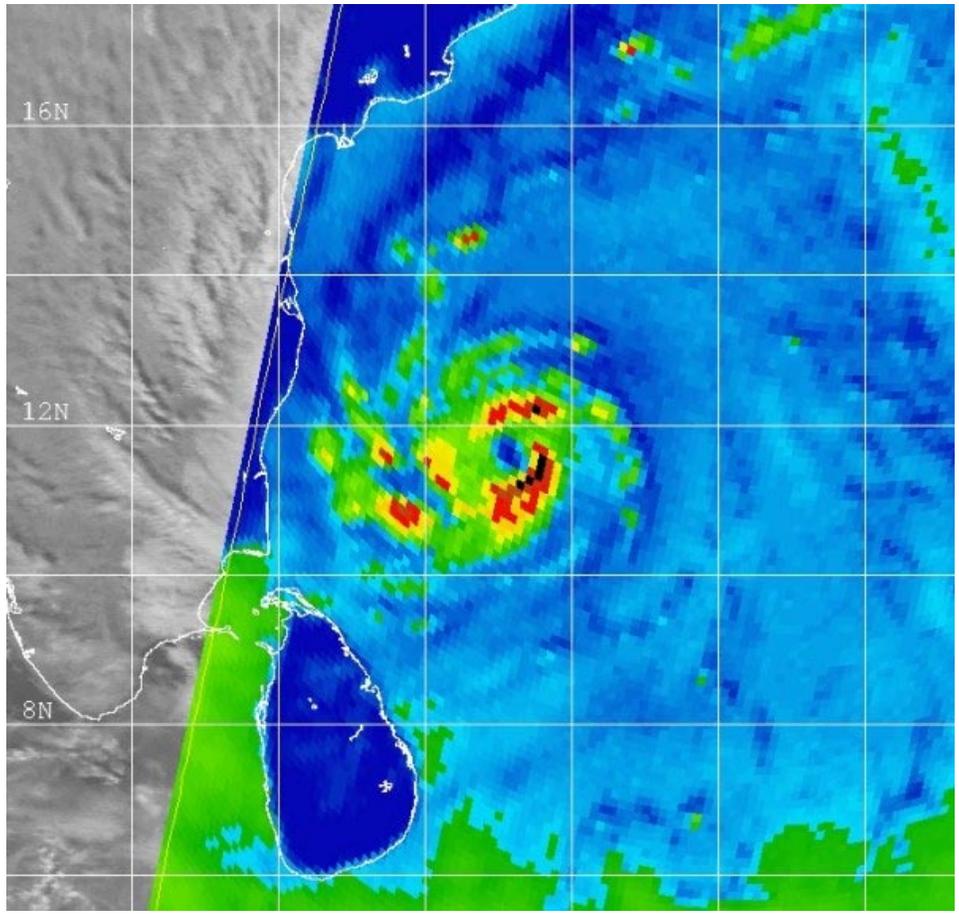


Figure 1-03B-2. 280231Z November 2000 SSMI 85GHz image of TC 03B, located about 180 nm east of Cuddalore, India with a ragged eye evident in the imagery.

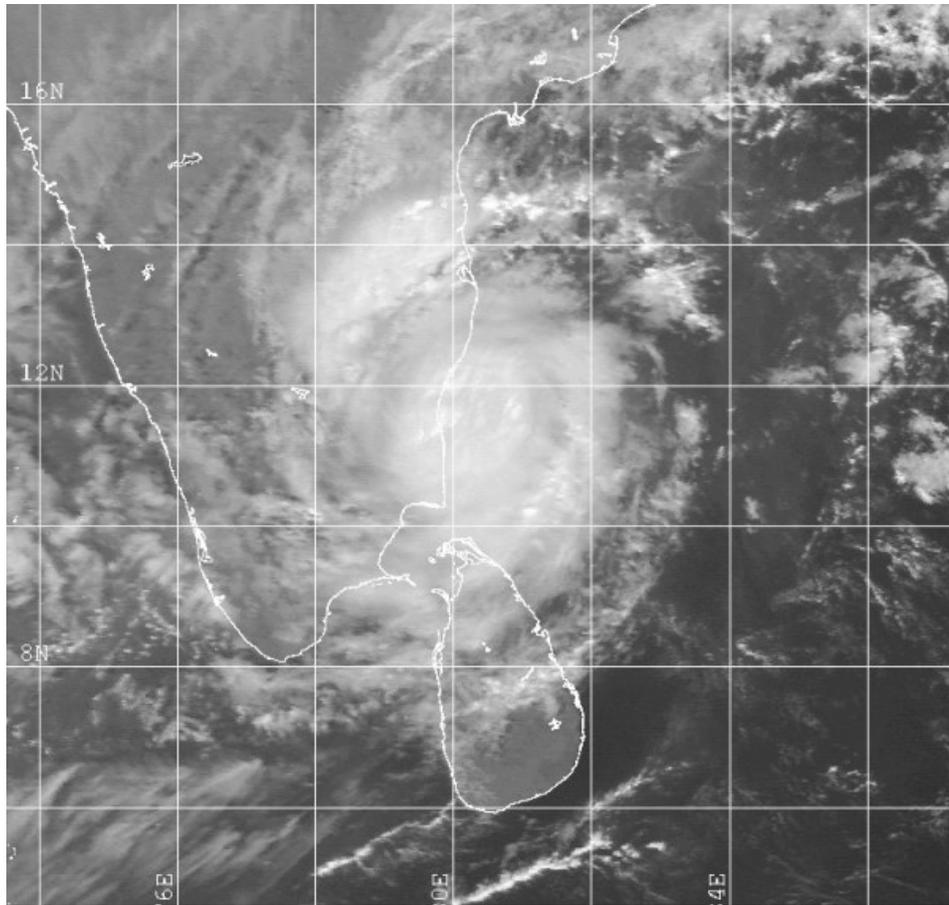


Figure 1-03B-3. 290331Z November 2000 visible image of TC 03B, located just off India. A majority of the convection is located near the center of circulation.

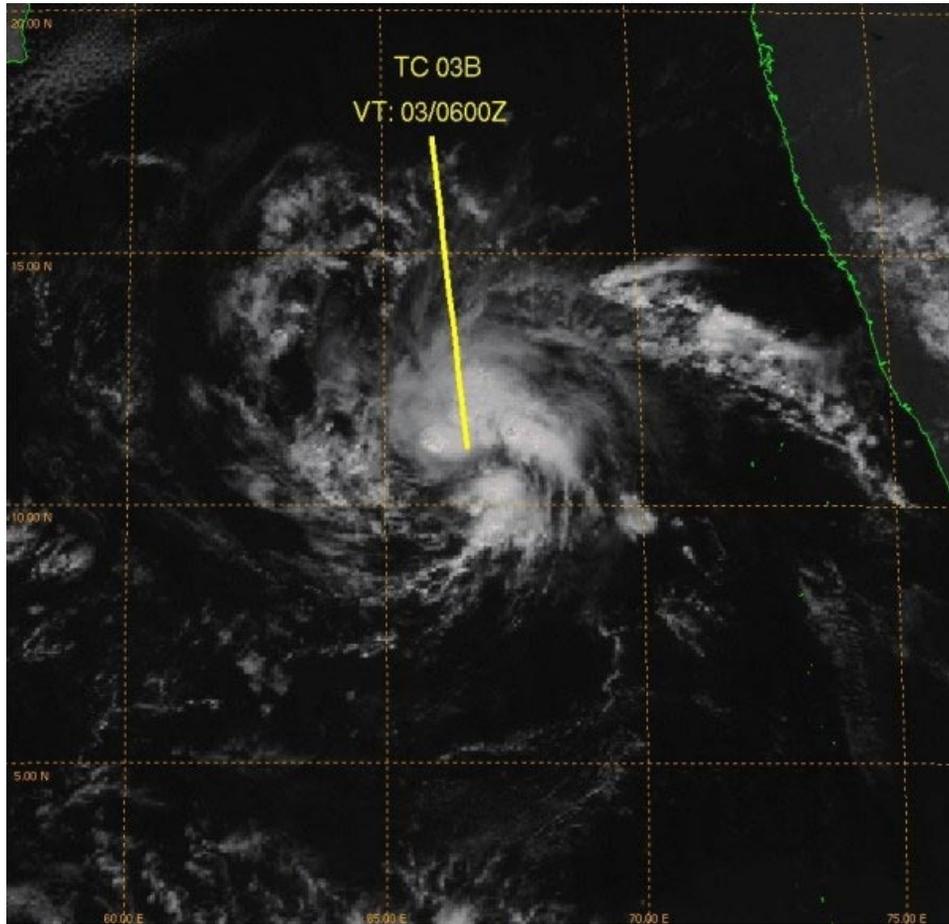
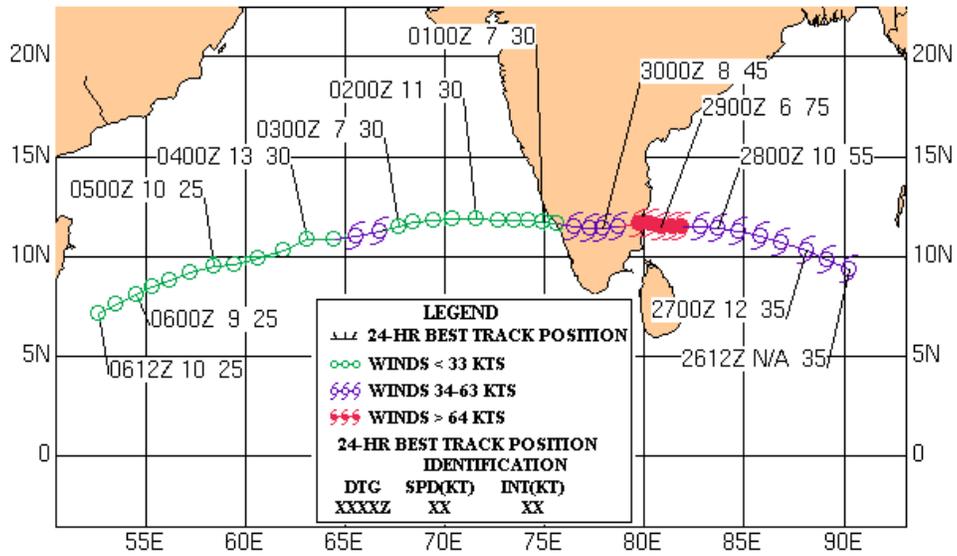


Figure 1-03B-4. 030530Z December 2000 visible image of TC 03B, located west of India in the Arabian Sea. At this time, the convection is concentrated on the northern side of the low-level circulation center, with a weak band evident on the southern side.

**TROPICAL CYCLONE 03B
26 NOVEMBER - 05 DECEMBER 2000**



Tropical Cyclone (TC) 04B

First Poor : 1800Z 21 Dec 00

First Fair : 0000Z 23 Dec 00

First TCFA : 0700Z 23 Dec 00

First Warning : 0600Z 25 Dec 00

Last Warning : 1800Z 28 Dec 00

Max Intensity : 60 kts, Gusts to 75 kts

Landfall : 1200Z 26 Dec 00 over Sri Lanka; 0000Z 28 Dec 00 over Southern India

Total Warnings : 8

Remarks:

(1) Five people were killed and 500,000 left homeless when TC 04B made landfall in Sri Lanka.

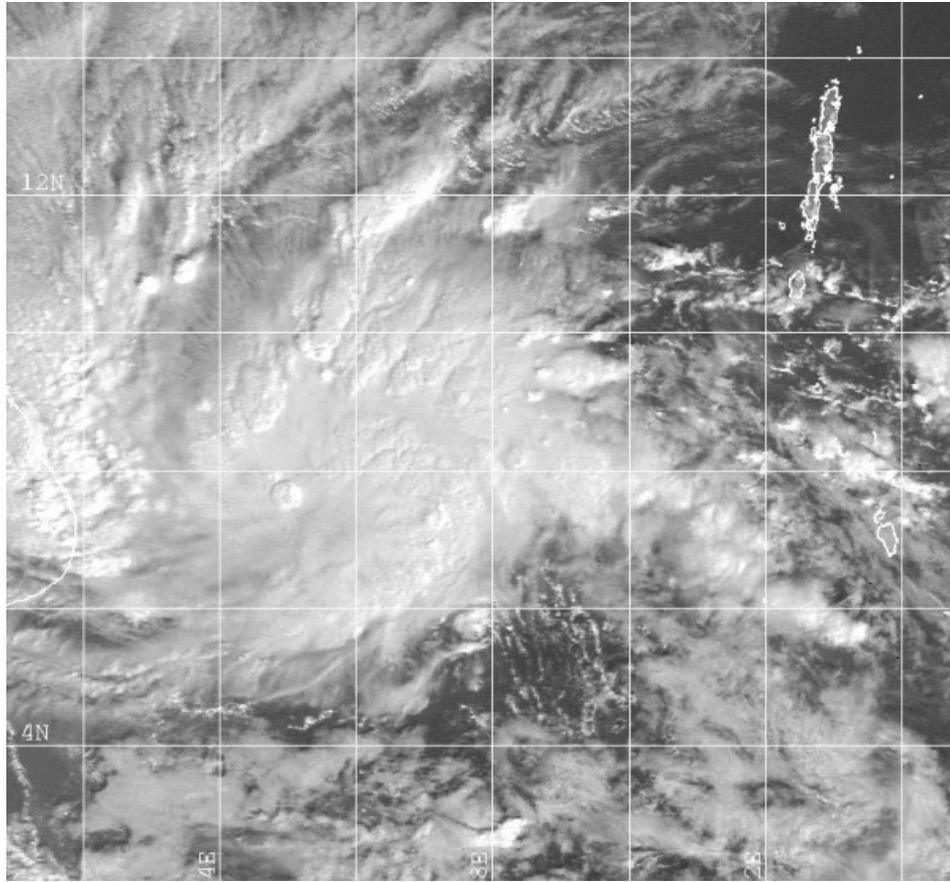


Figure 1-04B-1. 230131Z December 2000 GMS-5 visible image of TC 04B, located about 120 nm east of Sri Lanka. Note the numerous thunderstorms concentrated around the circulation center.

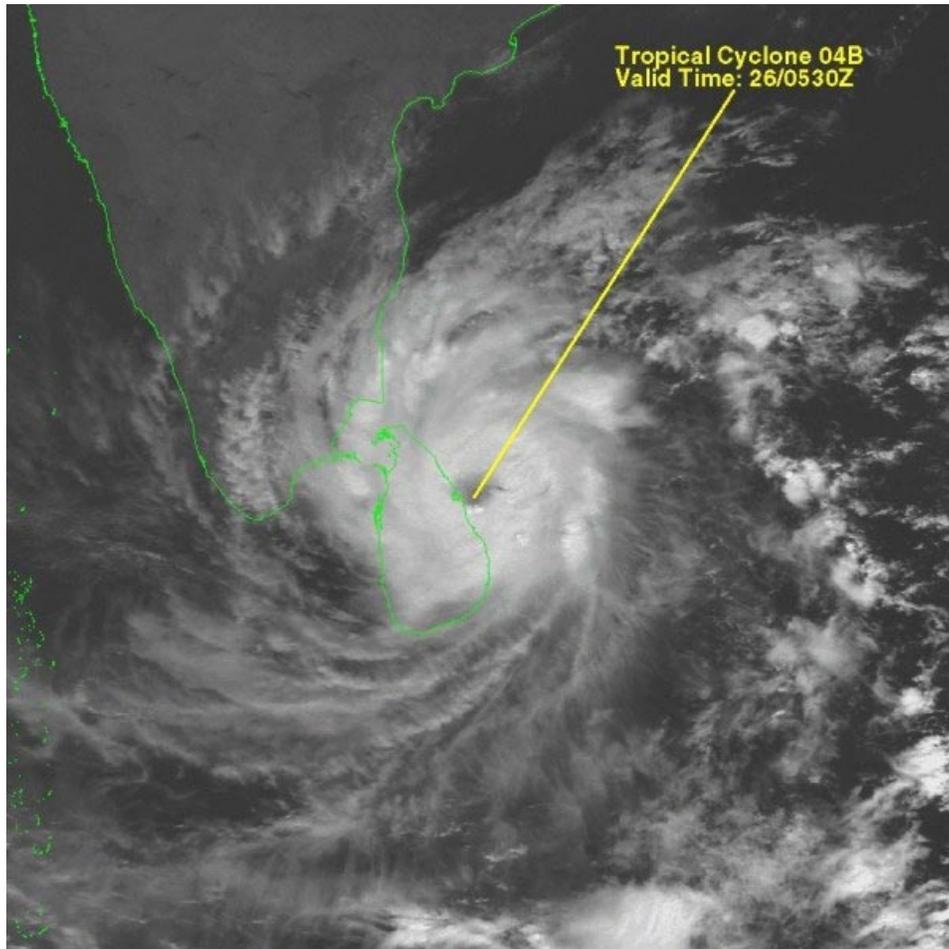


Figure 1-04B-2. 260530Z December 2000 visible image of TC 04B making landfall south of Trincomalee in eastern Sri Lanka.

**TROPICAL CYCLONE 04B
23 - 28 OCTOBER 2000**

