

2. SOUTH PACIFIC AND SOUTH INDIAN OCEAN TROPICAL CYCLONES

2.1 GENERAL

In accordance with CINCPACINST 3140.1 (series), Southern Hemisphere tropical cyclones are numbered sequentially from 01 July through 30 June to reflect the Southern Hemisphere tropical season.

For warning message delineation, the Southern Hemisphere Area of Responsibility (AOR) is divided into two basins: the South Indian (west of 135 East longitude) and the South Pacific Ocean (east of 135 East longitude). The suffixes "S" (South Indian Ocean) and "P" (South Pacific Ocean) are appended to the tropical cyclone number to differentiate warnings for these basins. For this report, the Southern Hemisphere AOR is broken down into three sub-basins, reflecting primary cyclogenesis areas: South Indian (west of 105 East longitude), Australia (105 East longitude to 165 East longitude), and South Pacific (east of 165 East longitude).

2.2 SUMMARY

Table 2-1 lists the significant tropical cyclones during the 2000 season and can be compared to the climatological mean presented in Table 2-2. Table 2-3 compares this year's tropical cyclone activity in the Southern Hemisphere sub-basins to previous years and climatology. Composites of the tropical cyclone best tracks for the Southern Hemisphere appear following Table 2-3.

Table 2-1 SOUTHERN HEMISPHERE TROPICAL CYCLONES FOR 2000 (01 JULY 1999 - 30 JUNE 2000)					
TC	NAME	PERIOD	NUMBER ISSUED	EST MAX SFC WINDS KTS (M/SEC)	MSLP (MB)
01S	Ilsa	10 Dec 17 Dec	18	60 (31)	980
02S	John	11 Dec 15 Dec	14	130 (67)	910
03S	Astride	25 Dec 01 Jan	16	65 (33)	976
04S	Babiola	05 Jan 12 Jan	14	90 (46)	954
05P	Iris	07 Jan 10 Jan	7	70 (36)	972
06S	-	21 Jan 23 Jan	9	30 (15)	1000
07P	Jo	24 Jan 27 Jan	7	65 (33)	976
08S	Connie	25 Jan 02 Feb	25	120 (62)	922
09S	Kirrily	27 Jan 01 Feb	12	85 (44)	958
10S	Damienne	01 Feb 02 Feb	3	50 (26)	987
11S	Leone-Eline	04 Feb 23 Feb	44	115 (59)	927
12S	Felicia	21 Feb 24 Feb	7	65 (33)	976
13P	Kim	24 Feb 29 Feb	(12)*	100 (51)	944

Table 2-1 SOUTHERN HEMISPHERE TROPICAL CYCLONES FOR 2000 (01 JULY 1999 - 30 JUNE 2000)

14P	Steve	26 Feb 10 Mar	36	65 (33)	976
15S	Gloria	28 Feb 05 Mar	21	50 (26)	987
16S	Norman	01 Mar 08 Mar	15	120 (62)	922
17S	-	01 Mar 05 Mar	9	35 (18)	997
18P	Leo	06 Mar 08 Mar	(5)*	55 (28)	984
19P	Mona	08 Mar 11 Mar	(8)*	80 (41)	963
20S	Olga	15 Mar 19 Mar	8	50 (26)	987
21S	Hudah	24 Mar 09 Apr	40	125 (64)	916
22P	Tessi	01 Apr 03 Apr	5	50 (26)	987
23P	Vaughan	03 Apr 07 Apr	9	50 (26)	987
24S	Paul	13 Apr 21 Apr	18	130 (67)	910
25P	Neil	15 Apr 17 Apr	7	40 (21)	994
26S	Innocente	15 Apr 19 Apr	8	45 (23)	991
27S	Rosita	17 Apr 20 Apr	7	125 (64)	916
JTWC TOTAL			359		
()NPMOC TOTAL			(25)		
GRAND TOTAL			384		

*WARNINGS ISSUED BY NPMOC

Table 2-2 DISTRIBUTION OF SOUTH PACIFIC AND SOUTH INDIAN OCEAN TROPICAL CYCLONES FOR 1958 - 2000

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTALS
1958-1977 AVE*	-	-	-	0.4	1.5	3.6	6.1	5.8	4.7	2.1	0.5	-	24.7
1981	0	0	0	1	3	2	6	5	3	3	1	0	24
1982	1	0	0	1	1	3	9	4	2	3	1	0	25
1983	1	0	0	1	1	3	5	6	3	5	0	0	25
1984	1	0	0	1	2	5	5	10	4	2	0	0	30
1985	0	0	0	0	1	7	9	9	6	3	0	0	35
1986	0	0	1	0	1	1	9	9	6	4	2	0	33
1987	0	1	0	0	1	3	6	8	3	4	1	1	28
1988	0	0	0	0	2	3	5	5	3	1	2	0	21
1989	0	0	0	0	2	1	5	8	6	4	2	0	28
1990	2	0	1	1	2	2	4	4	10	2	1	0	29
1991	0	0	1	1	1	3	2	5	5	2	1	1	22
1992	0	0	1	1	2	5	4	11	3	2	1	0	30
1993	0	0	1	1	0	5	7	7	2	2	2	0	27
1994	0	0	0	0	2	4	8	4	9	3	0	0	30
1995	0	0	0	0	2	2	5	4	5	4	0	0	22
1996	0	0	0	0	1	3	7	6	6	4	1	0	28
1997	1	1	1	2	2	6	9	8	3	1	3	1	38
1998	1	0	0	3	2	3	7	9	6	6	0	0	37
1999	1	0	1	1	1	6	6	8	7	2	0	0	33

Table 2-2 DISTRIBUTION OF SOUTH PACIFIC AND SOUTH INDIAN OCEAN TROPICAL CYCLONES FOR 1958 - 2000

2000	0	0	0	0	0	3	6	5	7	6	0	0	27
(1981-2000)													
MEAN	0.4	0.1	0.4	0.7	1.5	3.5	6.2	6.8	5.0	3.2	0.9	0.2	28.6
CASES	8	2	7	14	29	70	124	135	99	63	18	3	572

* (GRAY, 1978)

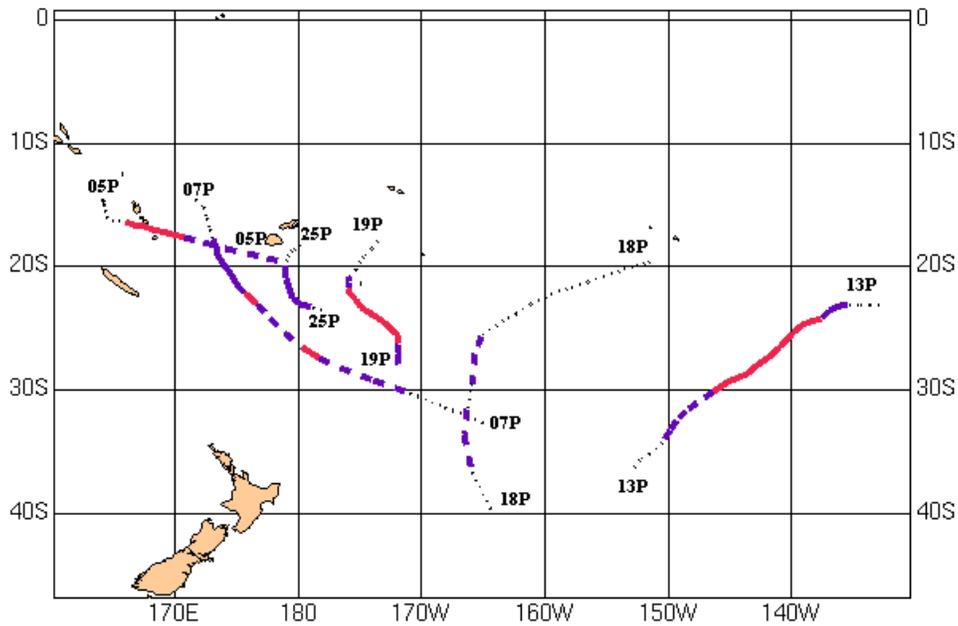
The criteria used in TABLE 2-2 are as follows:

- 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.
- 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.

Table 2-3 ANNUAL VARIATION OF SOUTHERN HEMISPHERE TROPICAL CYCLONE BY OCEAN BASIN

YEAR	SOUTH IN- DIAN	AUSTRALIAN	SOUTH PACIFIC	TOTAL
	(WEST OF 105E)	(105E - 165E)	(EAST OF 165E)	
1958-1977 AVER- AGE*	8.4	10.3	5.9	24.6
1981	13	8	3	24
1982	12	11	2	25
1983	7	6	12	25
1984	14	14	2	30
1985	14	15	6	35
1986	14	16	3	33
1987	9	8	11	28
1988	14	2	5	21
1989	12	9	7	28
1990	18	8	3	29
1991	11	10	1	22
1992	11	6	13	30
1993	10	16	1	27
1994	16	10	4	30
1995	11	7	4	22
1996	13	11	4	28
1997	17	5	16	38
1998	12	10	15	37
1999	13	16	4	33
2000	10	12	5	27
(1981-2000)				
TOTAL	251	200	121	572
AVERAGE	12.6	10.0	6.1	28.6

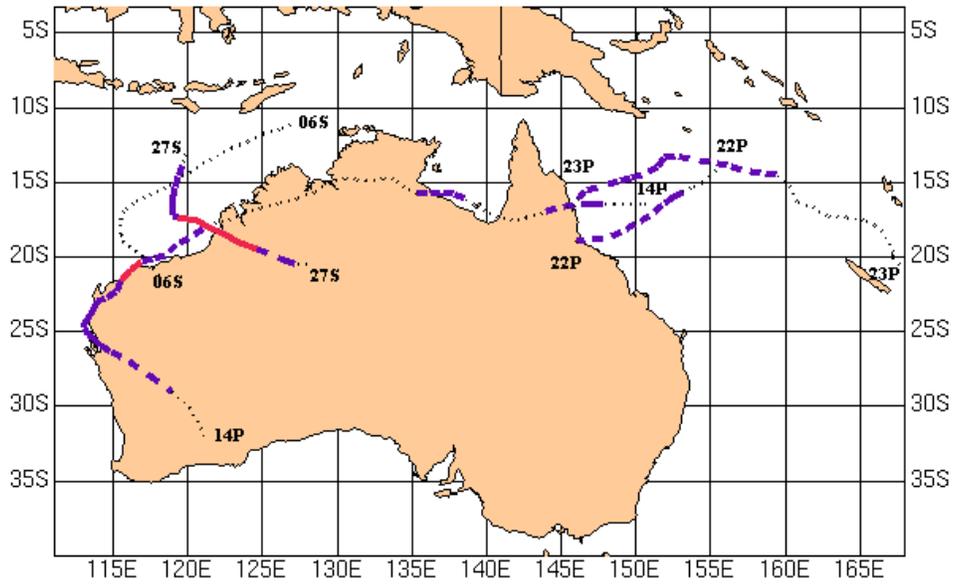
* (Gray,1978)



**SOUTH PACIFIC OCEAN
TROPICAL CYCLONES
07 JAN 00 - 21 APR 00**

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

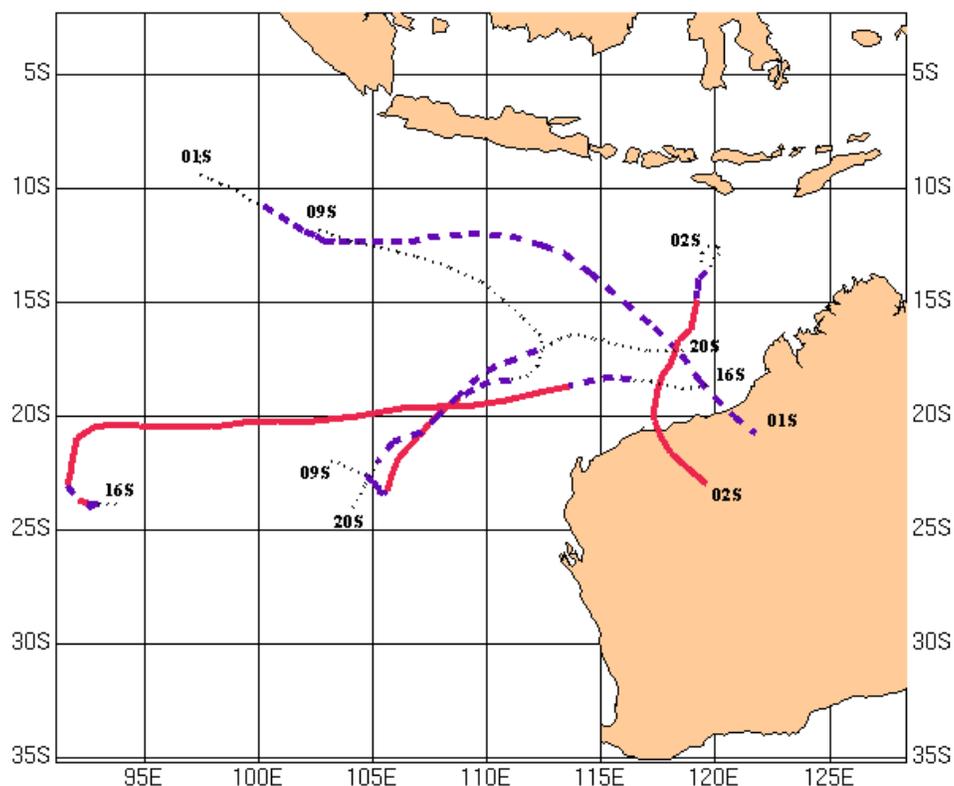
TC 05P (IRIS)	07 JAN 00 - 10 JAN 00
TC 07P (JO)	24 JAN 00 - 27 JAN 00
TC 13P (KIM)	24 FEB 00 - 29 FEB 00
TC 18P (LEO)	06 MAR 00 - 08 MAR 00
TC 19P (MONA)	08 MAR 00 - 11 MAR 00
TC 25P (NEIL)	15 APR 00 - 17 APR 00



**AUSTRALIA REGION
TROPICAL CYCLONES
21 JAN 00 - 20 APR 00**

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

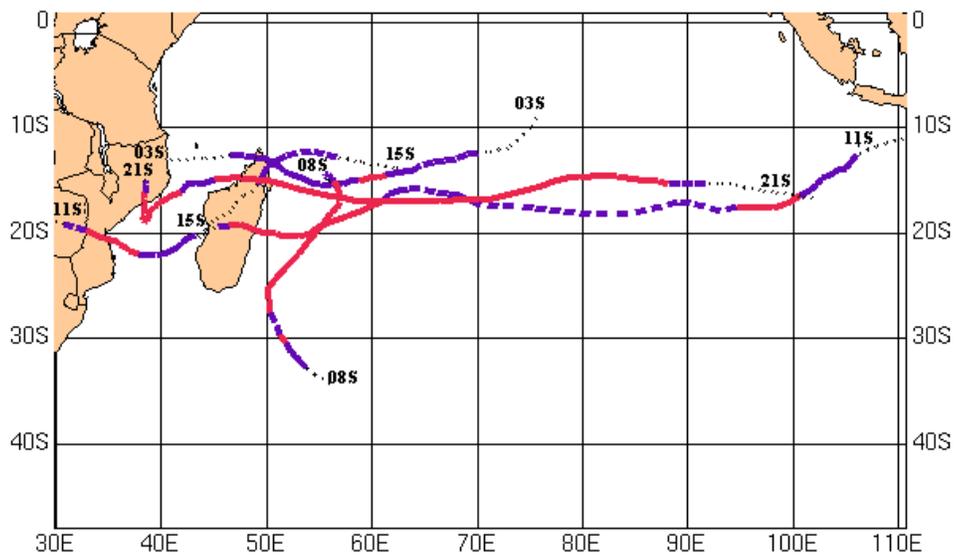
TC 06S	21 JAN 00 - 23 JAN 00
TC 14P (STEVE)	11 DEC 99 - 15 DEC 99
TC 22P (TESSI)	01 APR 00 - 03 APR 00
TC 23P (VAUGHAN)	03 APR 00 - 07 APR 00
TC 27S (ROSITA)	17 APR 00 - 20 APR 00



**AUSTRALIA REGION
TROPICAL CYCLONES
10 DEC 99 - 19 MAR 00**

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

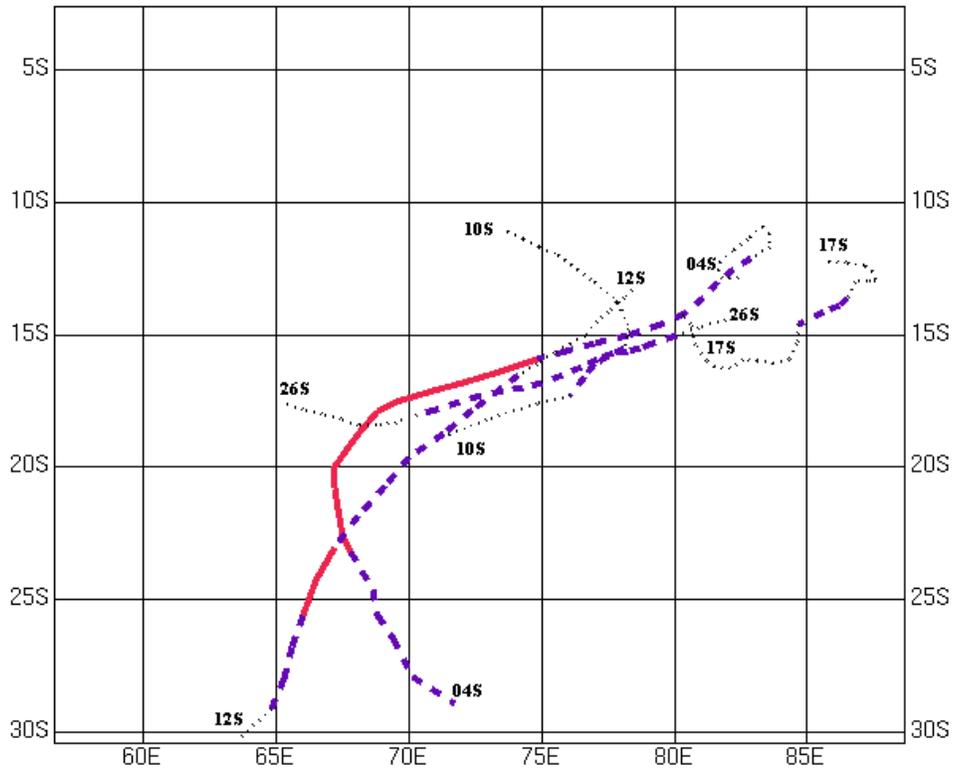
TC 01S (ILSA)	10 DEC 99 - 17 DEC 99
TC 02S (JOHN)	11 DEC 99 - 15 DEC 99
TC 09S (KIRRILY)	27 JAN 00 - 01 FEB 00
TC 16S (NORMAN)	01 MAR 00 - 08 MAR 00
TC 20S (OLGA)	15 MAR 00 - 19 MAR 00



**SOUTH INDIAN OCEAN
TROPICAL CYCLONES
25 DEC 99 - 17 APR 00**

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

TC 03S (ASTRIDE)	25 DEC 99 - 01 JAN 00
TC 08S (CONNIE)	25 JAN 00 - 02 FEB 00
TC 11S (LEON-ELINE)	04 FEB 00 - 23 FEB 00
TC 15S (GLORIA)	28 FEB 00 - 05 MAR 00
TC 21S (HUDAH)	24 MAR 00 - 09 APR 00



**SOUTH INDIAN OCEAN
TROPICAL CYCLONES
05 JAN 00 - 19 APR 00**

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

TC 04S (BABIOLA)	05 JAN 00 - 12 JAN 00
TC 10S (DAMIENNE)	01 FEB 00 - 02 FEB 00
TC 12S (FELICIA)	21 FEB 00 - 24 FEB 00
TC 17S	01 MAR 00 - 08 MAR 00
TC 26S (INNOCENTE)	15 APR 00 - 19 APR 00

Tropical Cyclone (TC) 01S (Ilsa*)

First Poor : None

First Fair : 0830Z 10 Dec 99

First TCFA : 1630Z 10 Dec 99

First Warning : 1800Z 11 Dec 99

Last Warning : 1200Z 15 Dec 99

Max Intensity : 60 kts, Gusts to 75 kts

Landfall : 0430Z 17 Dec 99

Total Warnings : 18

Remarks : None

* Name assigned by Perth TCWC

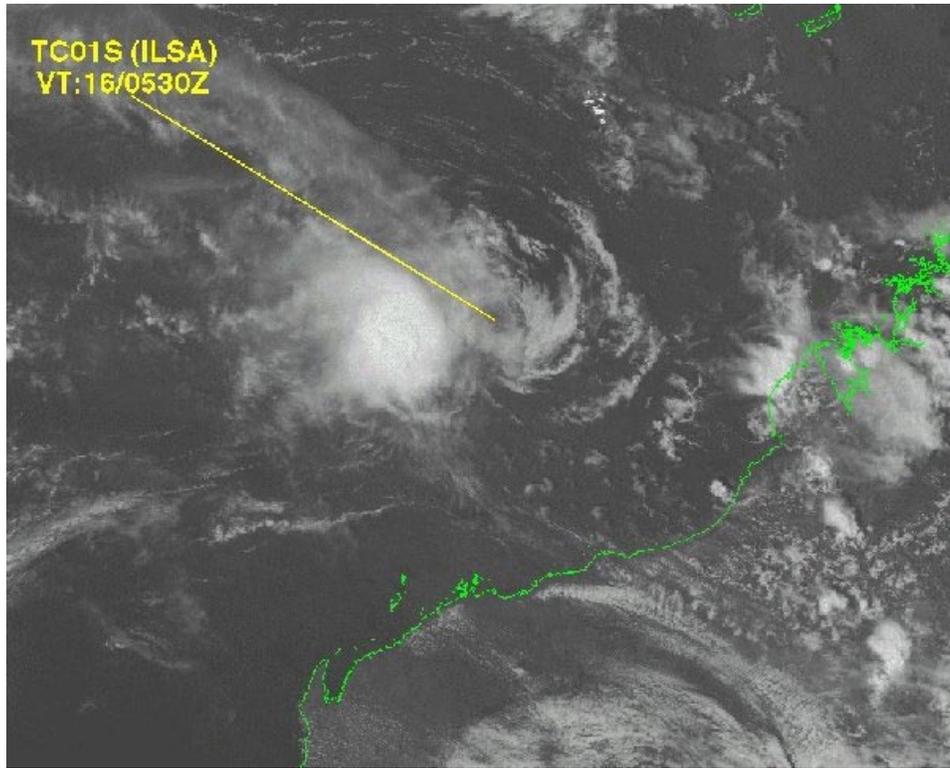
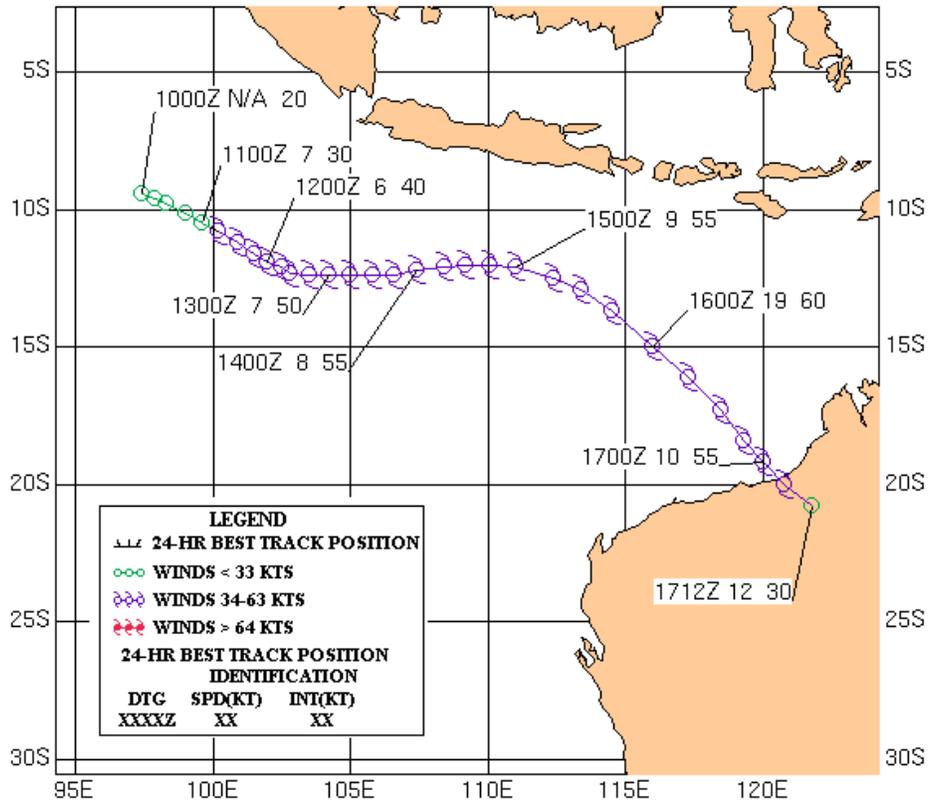


Figure 2-01S-1. 160530Z December 1999 visible satellite imagery of TC 01S, located west of the Kimberly region of Western Australia. At this time, the low-level circulation center is completely exposed, with the convection displaced approximately 70 nm to the west-southwest.

TROPICAL CYCLONE 01S (ILSA)
10 - 17 DECEMBER 1999



Tropical Cyclone (TC) 02S (John*)

First Poor : 1800Z 07 Dec 99

First Fair : 1800Z 09 Dec 99

First TCFA : 0500Z 10 Dec 99

First Warning : 1800Z 11 Dec 99

Last Warning : 1200Z 15 Dec 99

Max Intensity : 130 kts, Gusts to 160 kts

Landfall : 2200Z 14 Dec 99

Total Warnings : 14

Remarks : None

* Name assigned by Perth TCWC

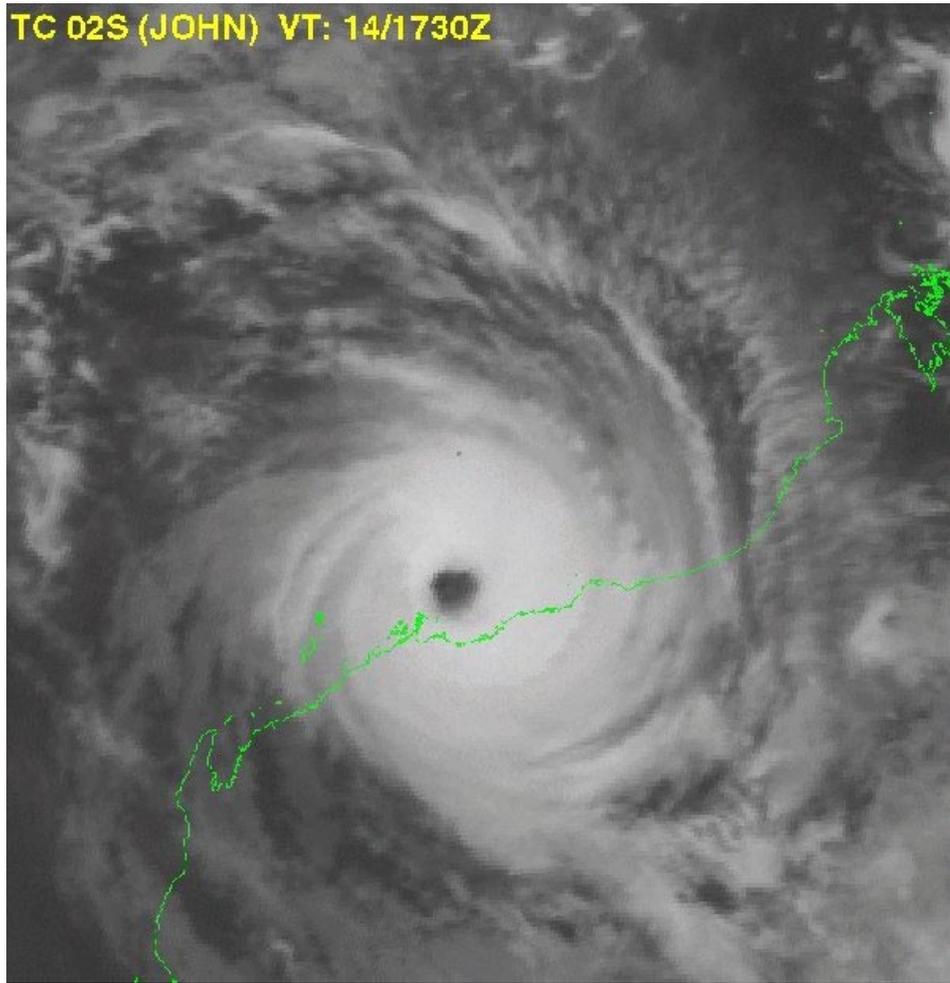


Figure 2-02S-1. 141730Z December 1999 infrared satellite imagery of TC 02S, located just north of Whim Creek, Australia with a cloud free 33 nm diameter eye.

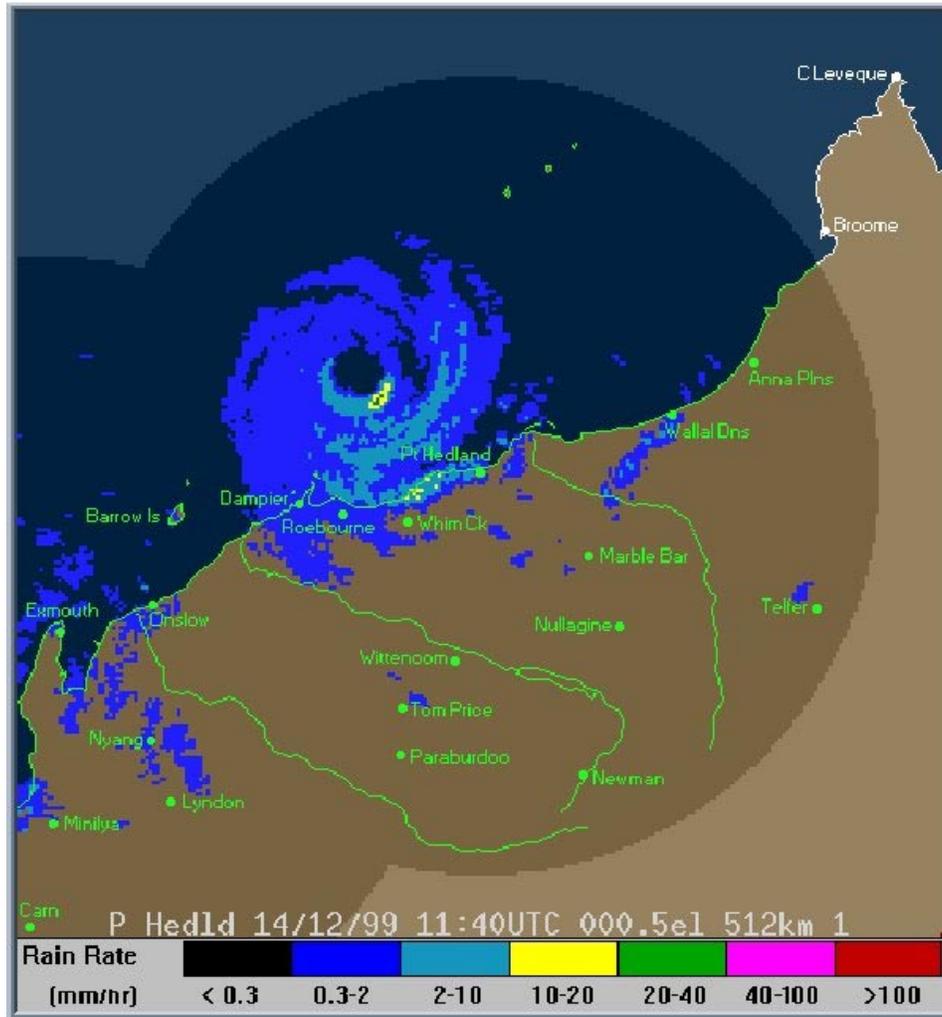
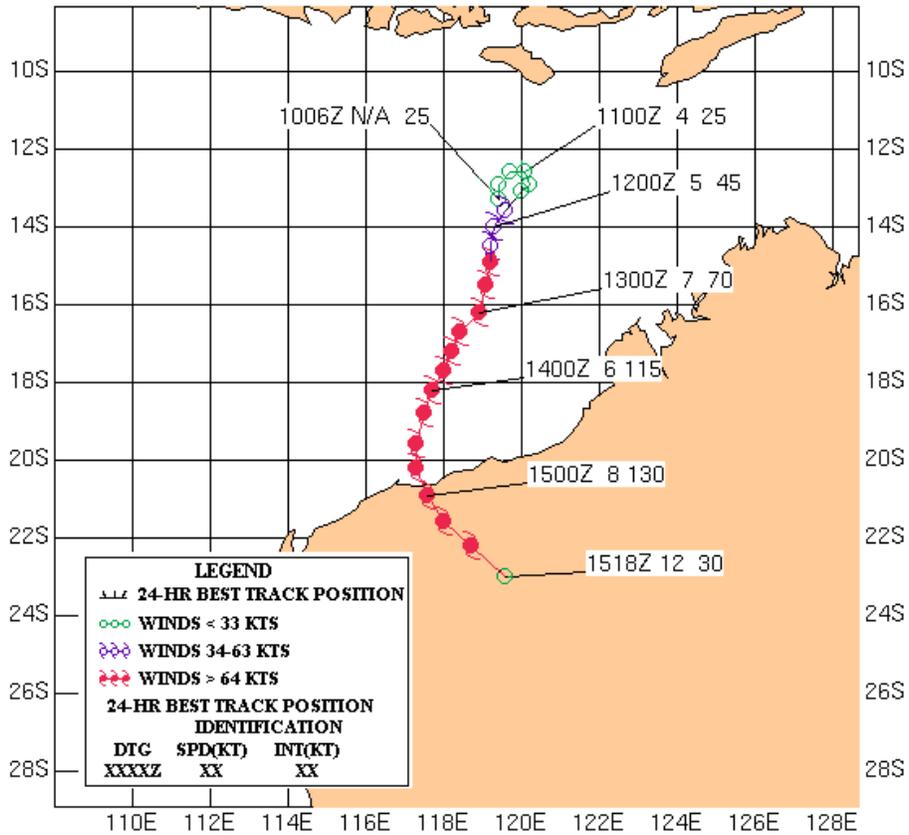


Figure 2-02S-2. 141140Z December 1999 0.5 degree elevation angle radar image of TC 02S from Port Hedland, Australia. At this time, an extensive area of rain, including rain bands to the southeast and southwest, was evident, with the heaviest regions of rain located south and southeast of the eye.

TROPICAL CYCLONE 02S (JOHN)
11 - 15 DECEMBER 2000



Tropical Cyclone (TC) 03S (Astride*)

First Poor : 1800Z 22 Dec 99

First Fair : 1800Z 23 Dec 99

First TCFA : 0230Z 24 Dec 99

First Warning : 0000Z 25 Dec 99

Last Warning : 0000Z 01 Jan 00

Max Intensity : 65 kts, Gusts to 90 kts

Landfall : 1800Z 31 Dec 99 over northern Madagascar; 0000Z 03 Jan 00 as it dissipated over Mozambique

Total Warnings : 16

Remarks : None

* Name assigned by RSMC La Reunion

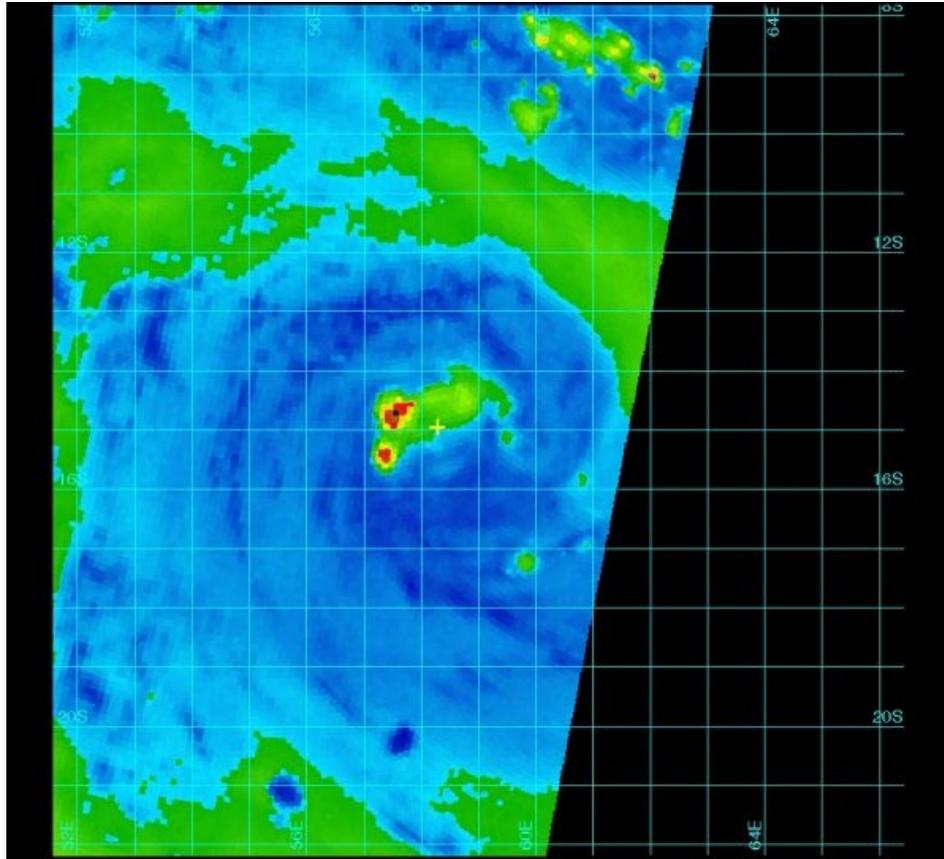
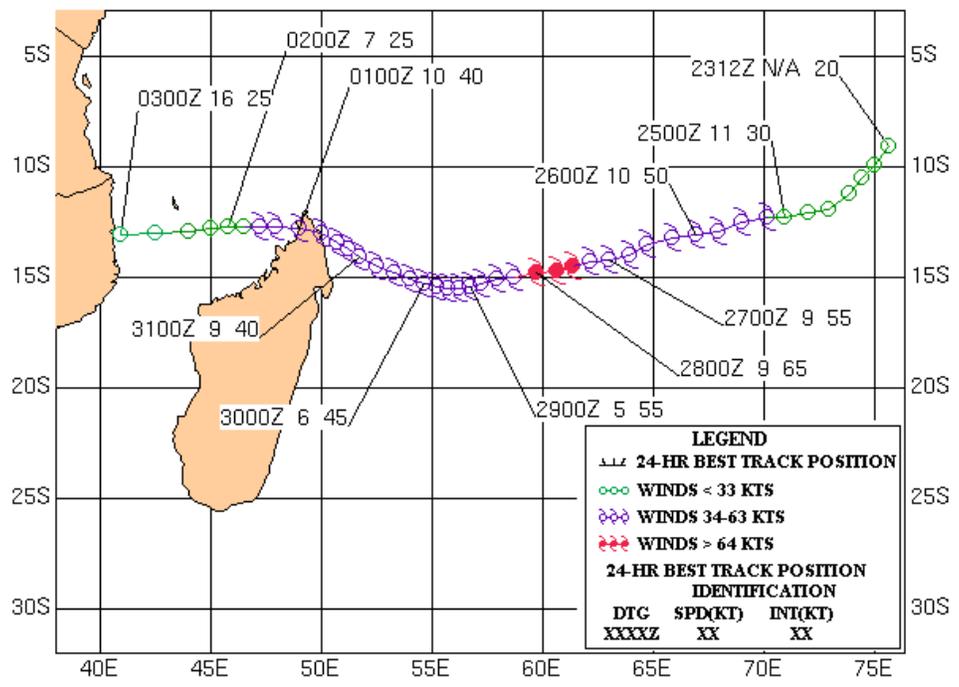


Figure 2-03S-1. 280445Z December 1999 SSMI 85 GHz of TC 03S, located north of Mauritius and La Reunion, with a partially exposed low-level circulation center and deep convection confined primarily to the northern half of the system.

TROPICAL CYCLONE 03S (ASTRIDE)
25 DECEMBER 1999 - 01 JANUARY 2000



Tropical Cyclone (TC) 04S (Babiola*)

First Poor : 1000Z 01 Jan 00

First Fair : 0730Z 03 Jan 00

First TCFA : 1630Z 03 Jan 00

First Warning : 1800Z 05 Jan 00

Last Warning : 0000Z 12 Jan 00

Max Intensity : 90 kts, Gusts to 110 kts

Landfall : None

Total Warnings : 14

Remarks : None

* Name assigned by RSMC La Reunion

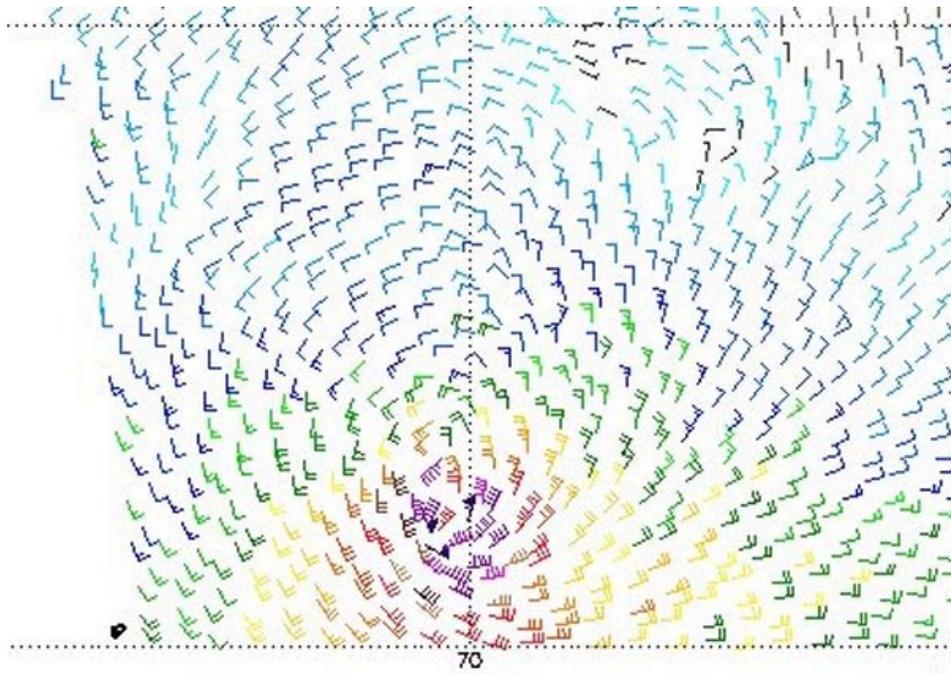


Figure 2-04S-1. 090119Z January 2000 QUIKSCAT image of TC 04S, located northeast of Mauritius, with core winds south to southwest of the center.

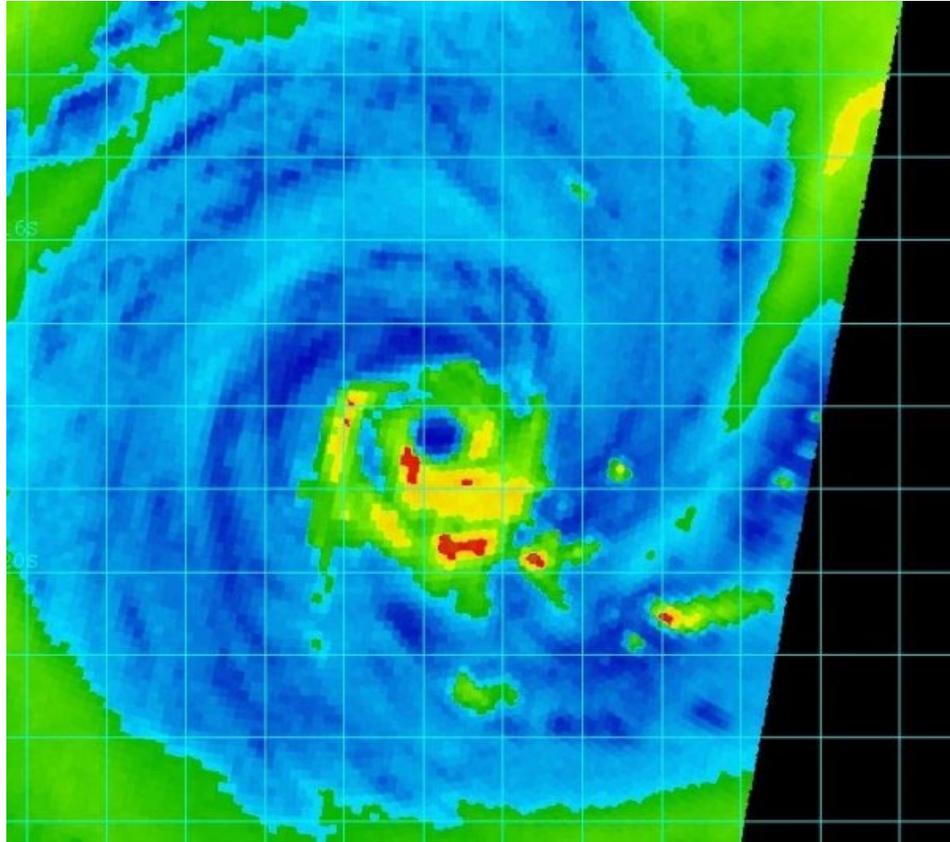
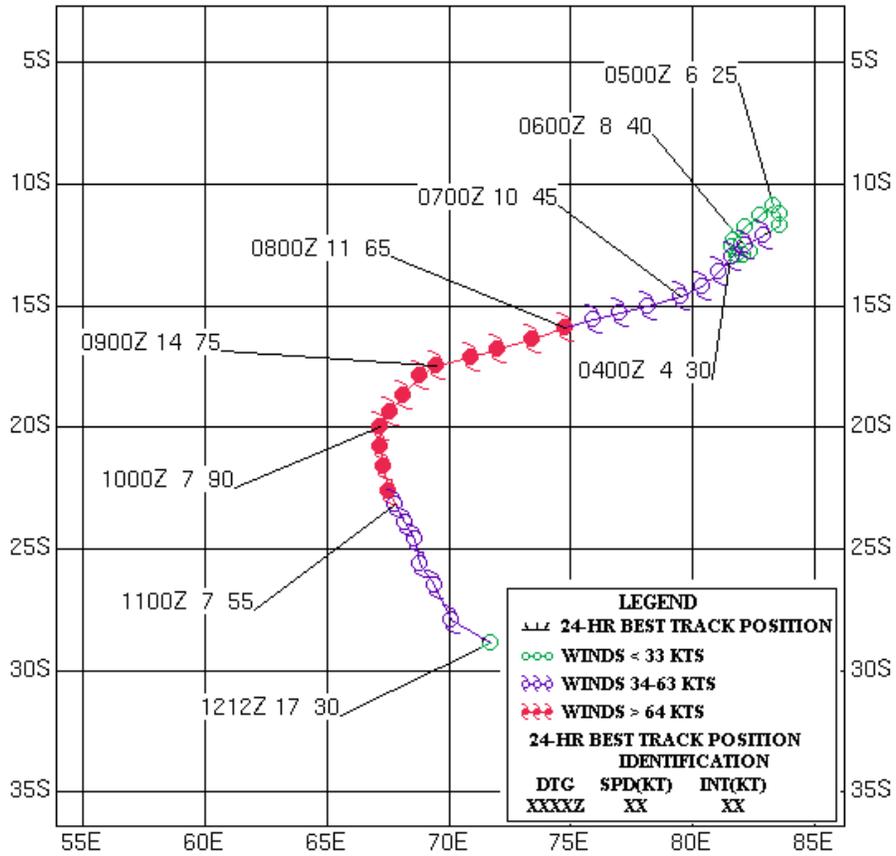


Figure 2-04S-2. 090406Z January 2000 TRMM 85 GHz image of TC 04S, with a 25 nm eye and banding feature south of the eye.

TROPICAL CYCLONE 04S (BABIOLA)
05 - 12 JANUARY 2000



Tropical Cyclone (TC) 05P (Iris*)

First Poor : 0600Z 06 Jan 00

First Fair : 1900Z 06 Jan 00

First TCFA : 2330Z 06 Jan 00

First Warning : 1800Z 07 Jan 00

Last Warning : 1800Z 10 Jan 00

Max Intensity : 70 kts, Gusts to 85 kts

Landfall : None

Total Warnings : 7

Remarks : None

* Name assigned by RSMC Nadi

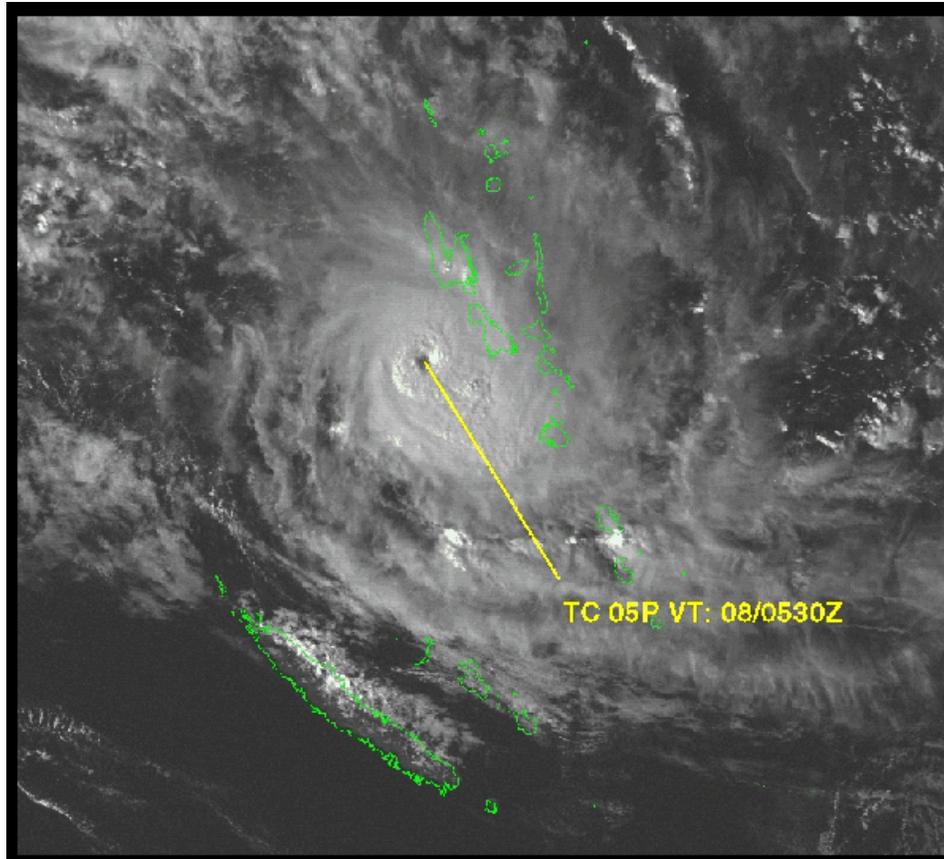
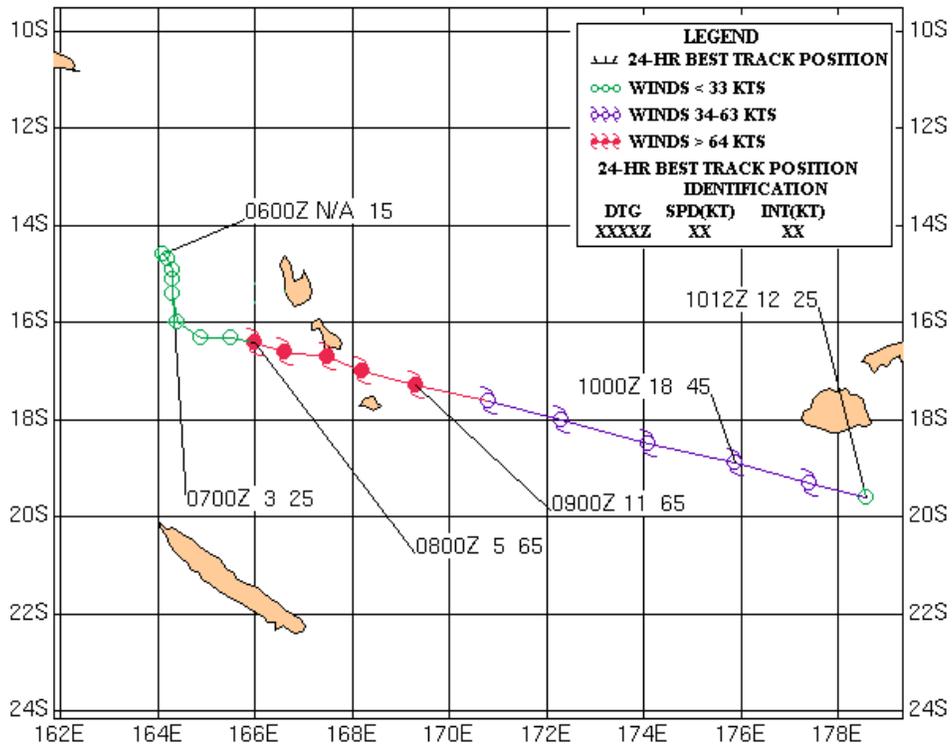


Figure 2-05P-1. 080530Z January 2000 visible satellite imagery of TC 05P as a tightly wrapped, symmetric system located just west of Malakula, Vanuatu.

TROPICAL CYCLONE 05P (IRIS)
07 - 10 JANUARY 2000



Tropical Cyclone (TC) 06S

First Poor : 1800Z 18 Jan 00

First Fair : 2300Z 18 Jan 00

First TCFA : 0230Z 20 Jan 00

First Warning : 0000Z 21 Jan 00

Last Warning : 0000Z 23 Jan 00

Max Intensity : 30 kts, Gusts to 40 kts

Landfall : 0000Z 23 Jan 00 west of Port Hedland, Australia

Total Warnings : 9

Remarks : None

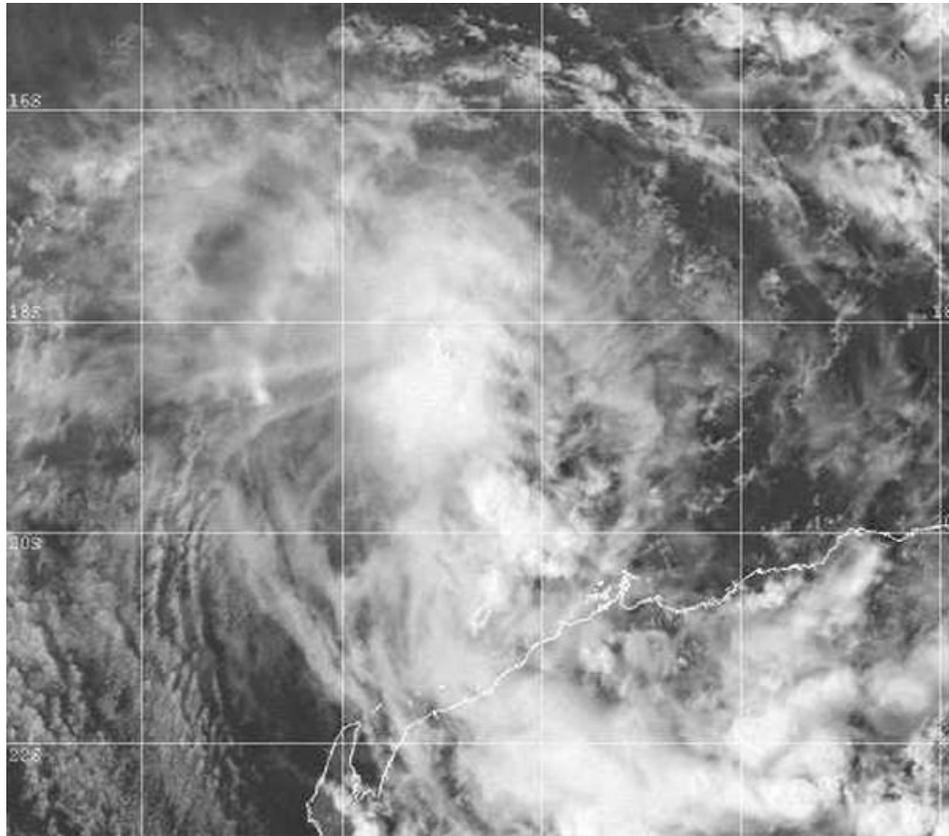
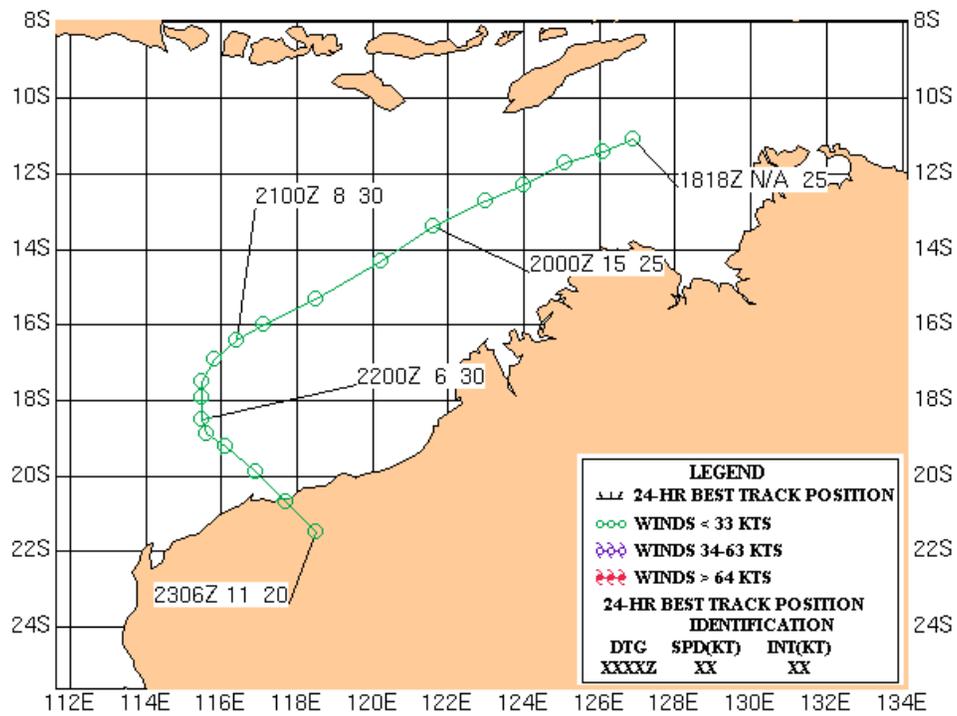


Figure 2-06S-1. 220631Z January 2000 visible satellite image of TC 06S, located about 210 nm north-northeast of Learmonth, Australia. At this time, the system was relatively unorganized with the majority of the convection confined to a small area west of the circulation center.

TROPICAL CYCLONE 06S
21 - 23 JANUARY 2000



Tropical Cyclone (TC) 07P (Jo*)

First Poor : 0100Z 21 Jan 00

First Fair : 1700Z 21 Jan 00

First TCFA : 0800Z 23 Jan 00

First Warning : 0000Z 24 Jan 00

Last Warning : 0000Z 27 Jan 00

Max Intensity : 65 kts, Gusts to 80 kts

Landfall : None

Total Warnings : 7

Remarks : None

* Name assigned by RSMC Nadi

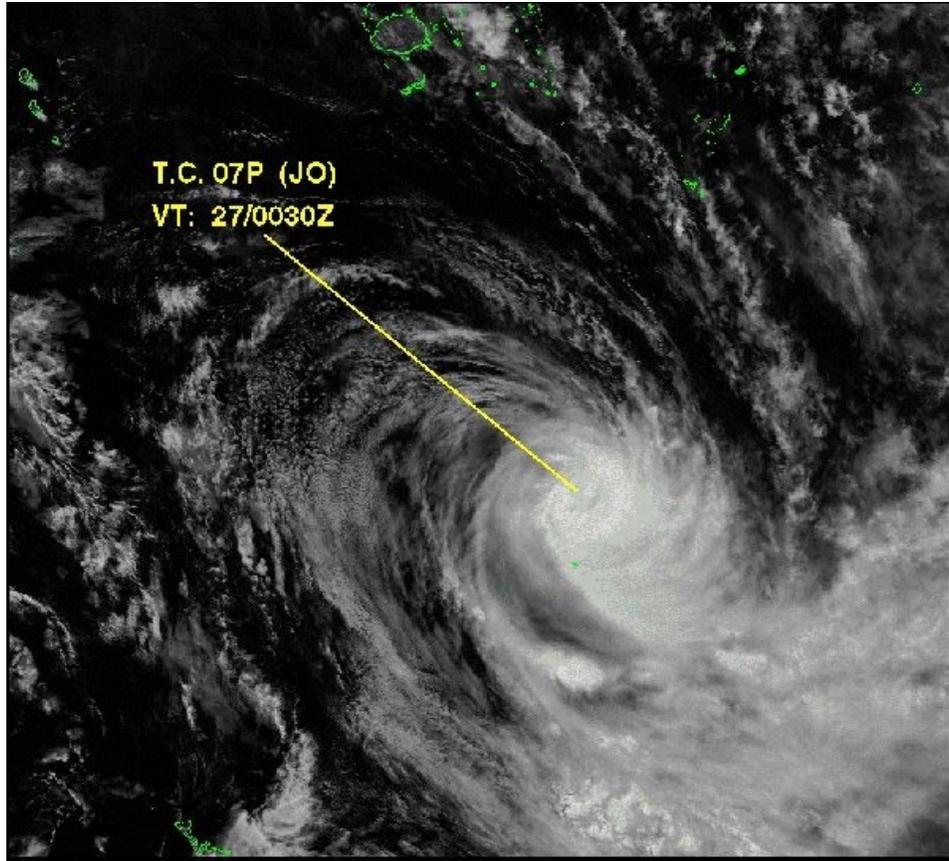
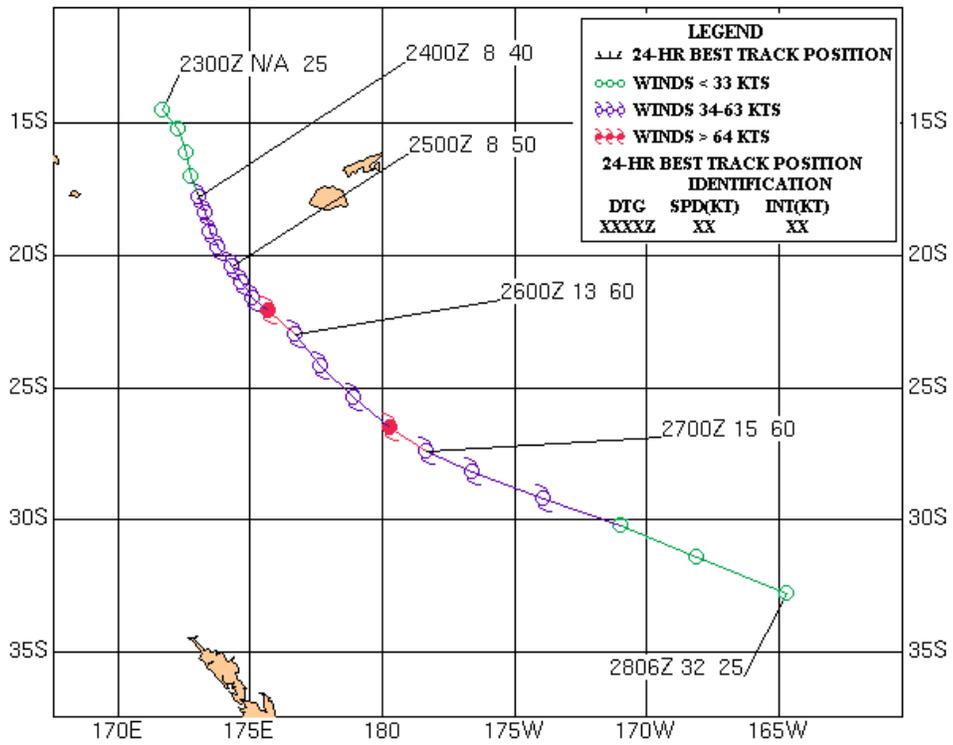


Figure 2-07P-1. 270030Z January 2000 visible satellite image of TC 07P, located south-southeast of the Fiji Islands. The cyclone was beginning its extra-tropical transition at this time, evident from the cold air stratocumulus clouds to the south and west of the circulation.

TROPICAL CYCLONE 07P (JO)
24 - 27 JANUARY 2000



Tropical Cyclone (TC) 08S (Connie*)

First Poor : 0000Z 24 Jan 00

First Fair : 0700Z 25 Jan 00

First TCFA : 1000Z 25 Jan 00

First Warning : 1800Z 25 Jan 00

Last Warning : 0600Z 02 Feb 00

Max Intensity : 120 kts, Gusts to 145 kts

Landfall : None

Total Warnings : 25

Remarks:

(1) News reports indicated TC 08S caused two fatalities on Reunion Island, with 100 homes destroyed.

* Name assigned by RSMC La Reunion

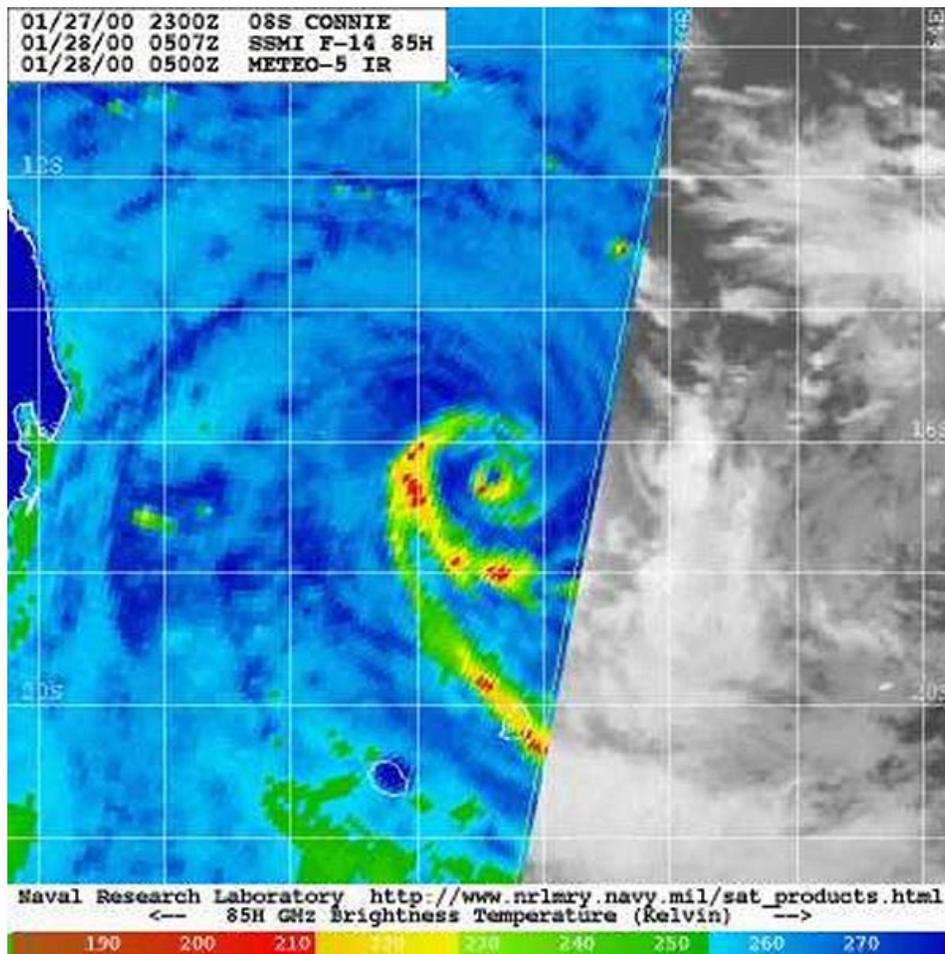
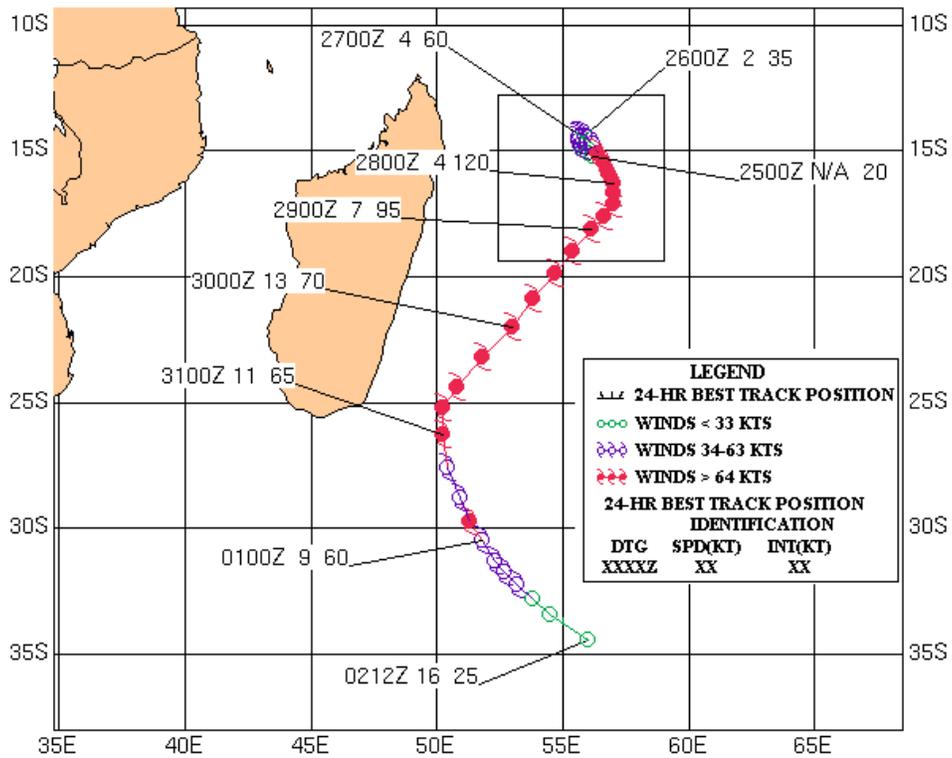
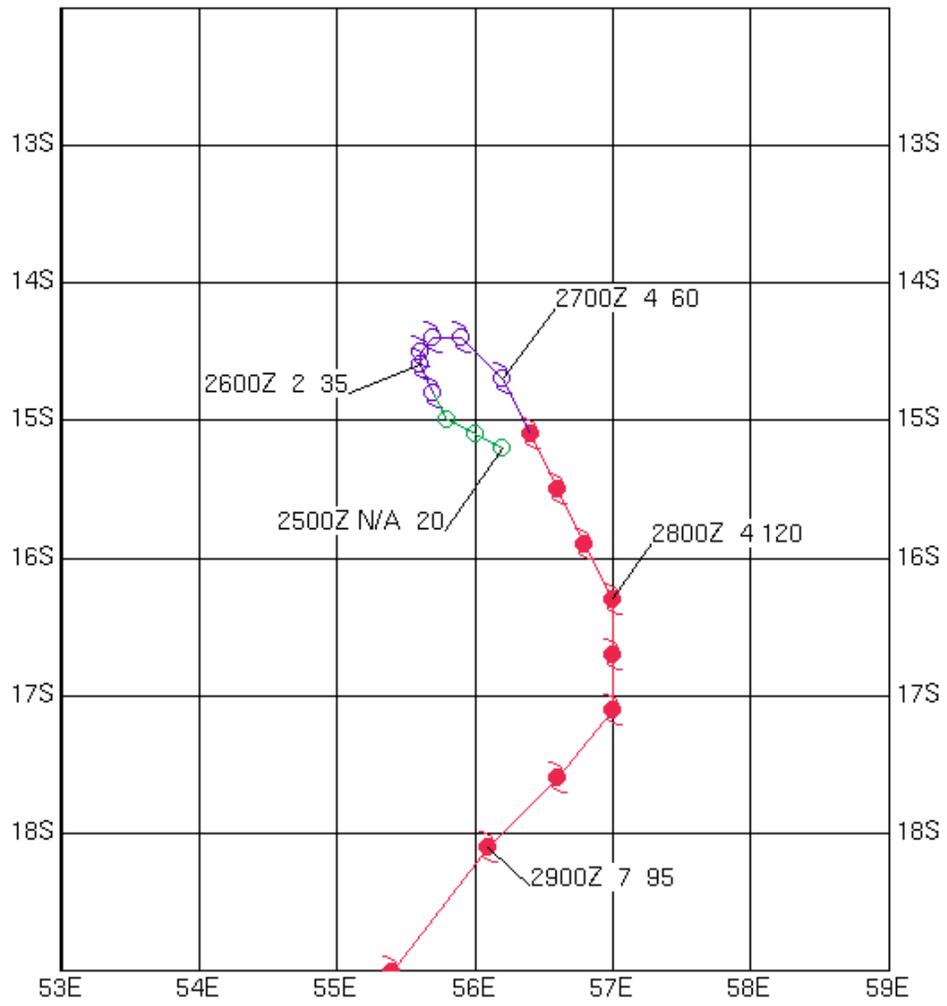


Figure 2-08S-1. 280507Z January 2000 SSMI 85 GHz image of TC 08S, located north-northeast of Reunion and Mauritius Islands, with estimated winds of 115 kts, a tightly wound eye, and rainbands south and west wrapping into the low-level circulation center.

TROPICAL CYCLONE 08S (CONNIE)
25 JANUARY - 02 FEBRUARY 2000



See below to view inset detail



Tropical Cyclone (TC) 09S (Kirrily*)

First Poor : 0500Z 23 Jan 00

First Fair : 0700Z 25 Jan 00

First TCFA : 2130Z 26 Jan 00

First Warning : 0600Z 27 Jan 00

Last Warning : 1800Z 01 Feb 00

Max Intensity : 85 kts, Gusts to 105 kts

Landfall : None

Total Warnings : 12

Remarks : None

* Name assigned by Perth TCWC

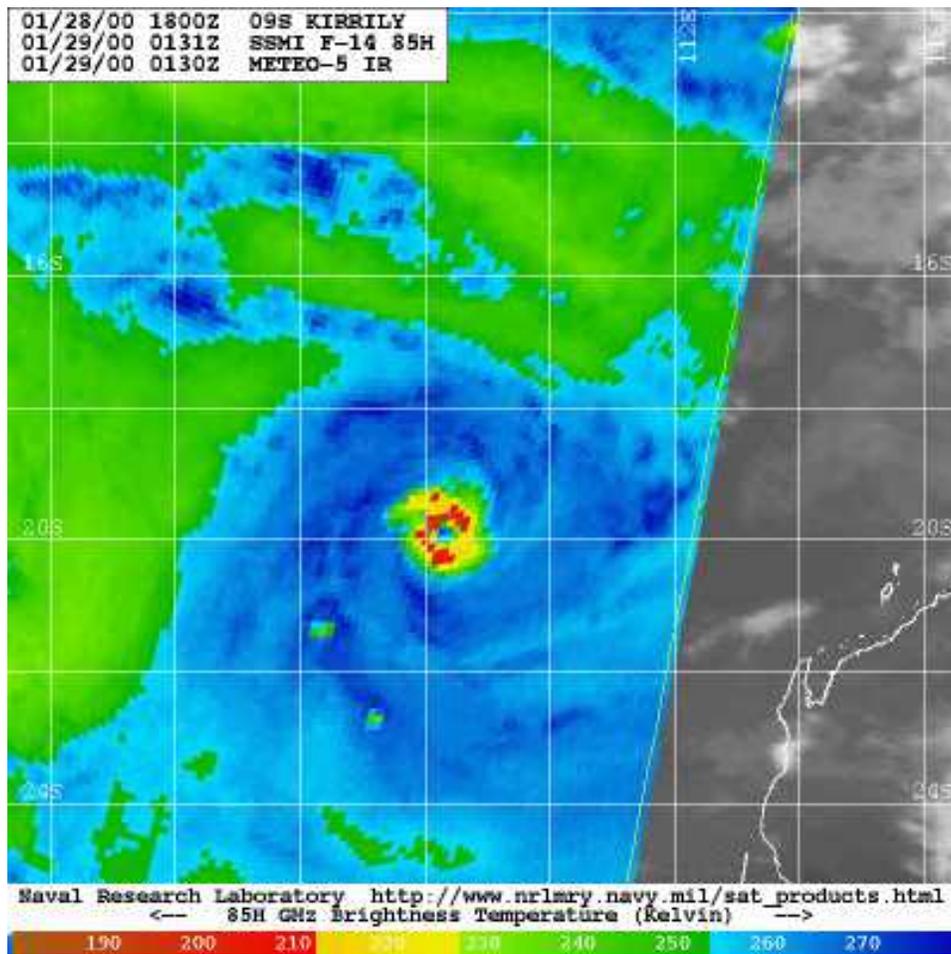
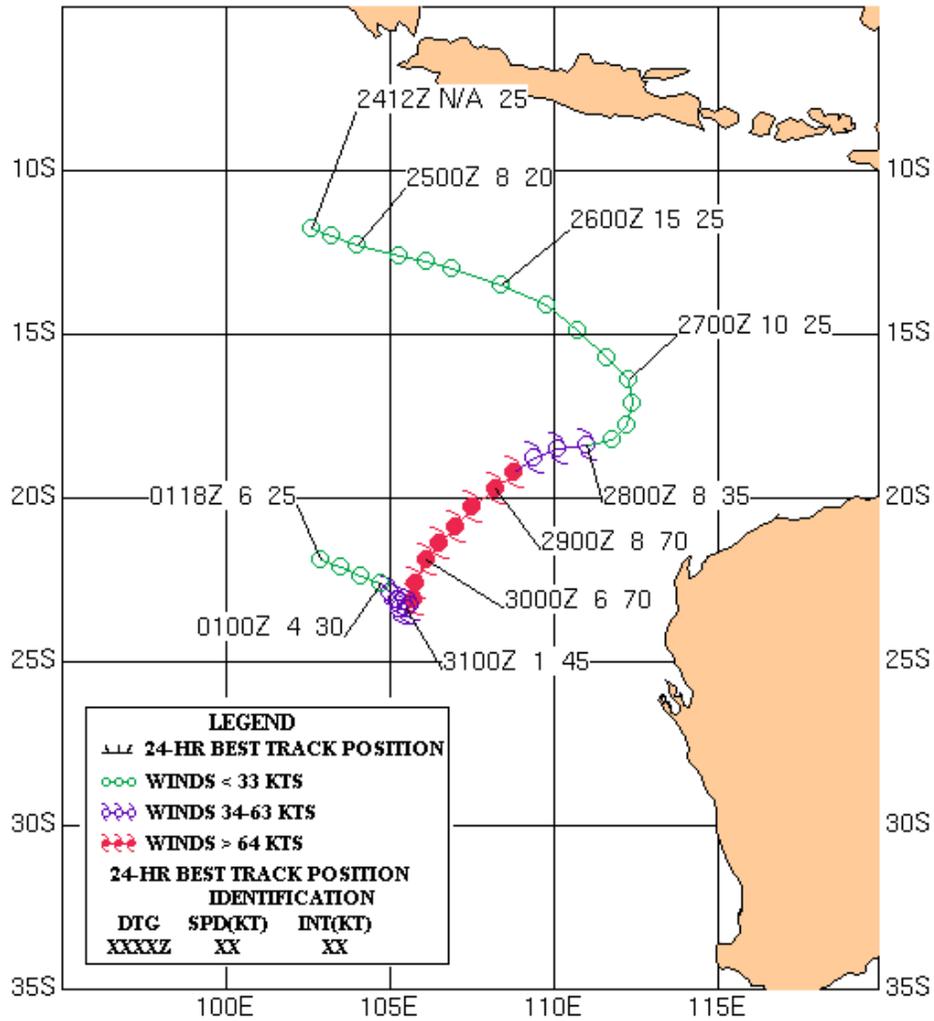


Figure 2-09S-1. 290131Z January 2000 SSMI 85 GHz image of TC 09S, located west-northwest of the Kimberly region of Western Australia, when the storm had an estimated intensity of 70 knots. The deep convection is limited solely to the thick eyewall at this time.

TROPICAL CYCLONE 09S (KIRRILY)
27 JANUARY - 01 FEBRUARY 2000



Tropical Cyclone (TC) 10S (Damienne*)

First Poor : 0000Z 27 Jan 00

First Fair : 0500Z 31 Jan 00

First TCFA : 0130Z 01 Feb 00

First Warning : 1800Z 01 Feb 00

Last Warning : 1800Z 02 Feb 00

Max Intensity : 50 kts, Gusts to 65 kts

Landfall : None

Total Warnings : 3

Remarks : None

* Name assigned by RSMC La Reunion

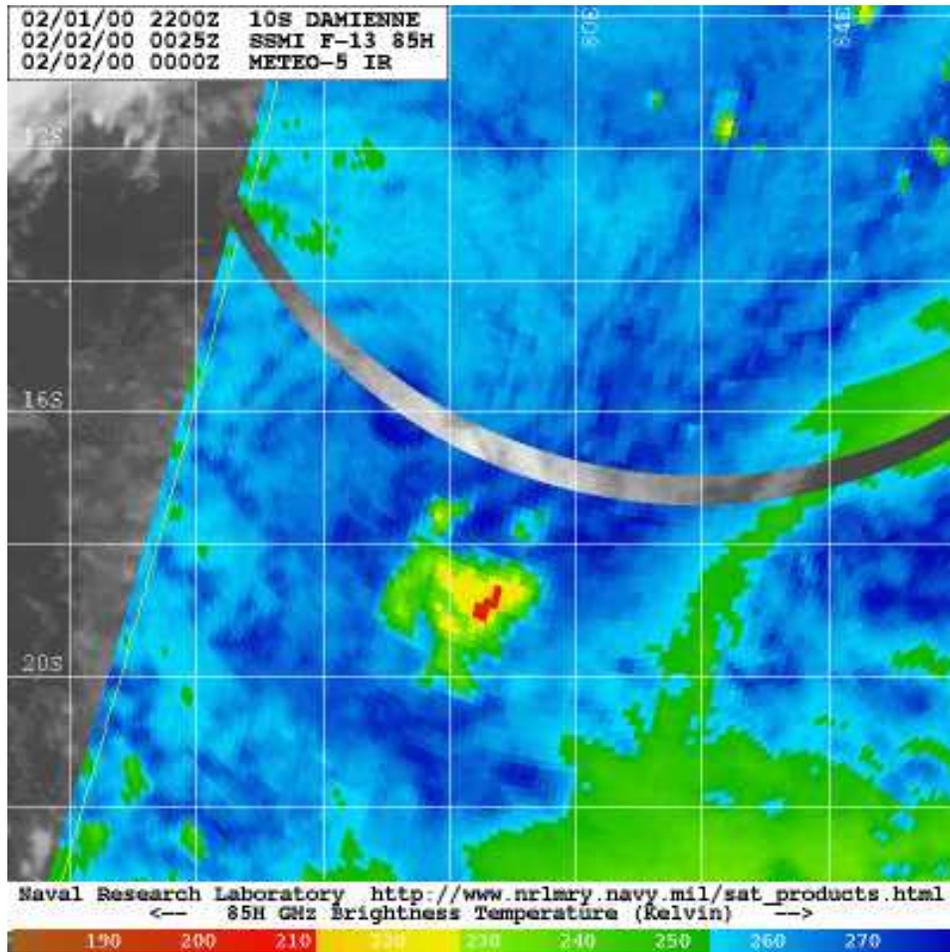
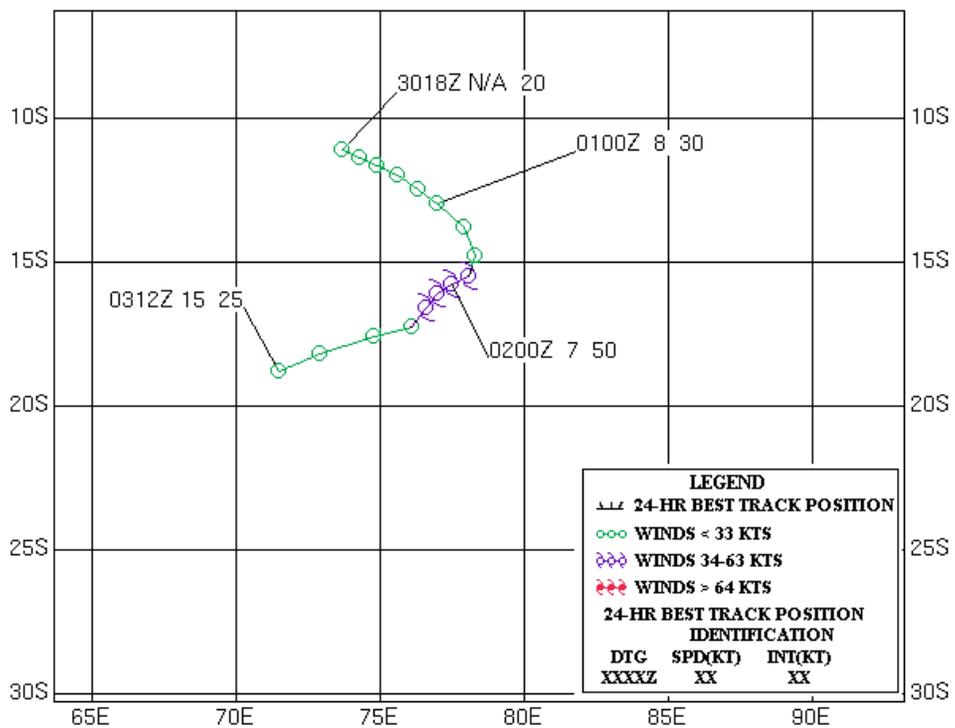


Figure 2-10S-1. 020025Z February 2000 SSMI 85 GHz image of TC 10S, located southeast of Diego Garcia with an estimated intensity of 50 knots. The low-level circulation is evident northwest of the convection, indicative of a high vertical wind shear environment.

TROPICAL CYCLONE 10S (DAMIENNE)
01 - 02 FEBRUARY 2000



Tropical Cyclone (TC) 11S (Leone-Eline*)

First Poor : 1800Z 02 Feb 00

First Fair : 0300Z 03 Feb 00

First TCFA : 1400Z 03 Feb 00

First Warning : 0000Z 04 Feb 00

Last Warning : 0000Z 23 Feb 00

Max Intensity : 115 kts, Gusts to 140 kts

Landfall : 1600Z 17 Feb 00 over Madagascar; 1730Z 22 Feb 00 over Mozambique

Total Warnings : 44

Remarks:

- (1) Reuters reported 5 fatalities and thousands left homeless when TC 11S made landfall in Madagascar.
- (2) TC 11S made landfall over Mozambique with winds in excess of 85 kts. According to Reuters, flooding caused by the cyclone killed over 200 people and left a half million homeless.
- (3) The Associated Press reported that continued flooding from TC 11S and TC 15S killed an estimated 700 people.

* Leone assigned by Perth TCWC Eline assigned by RSMC La Reunion

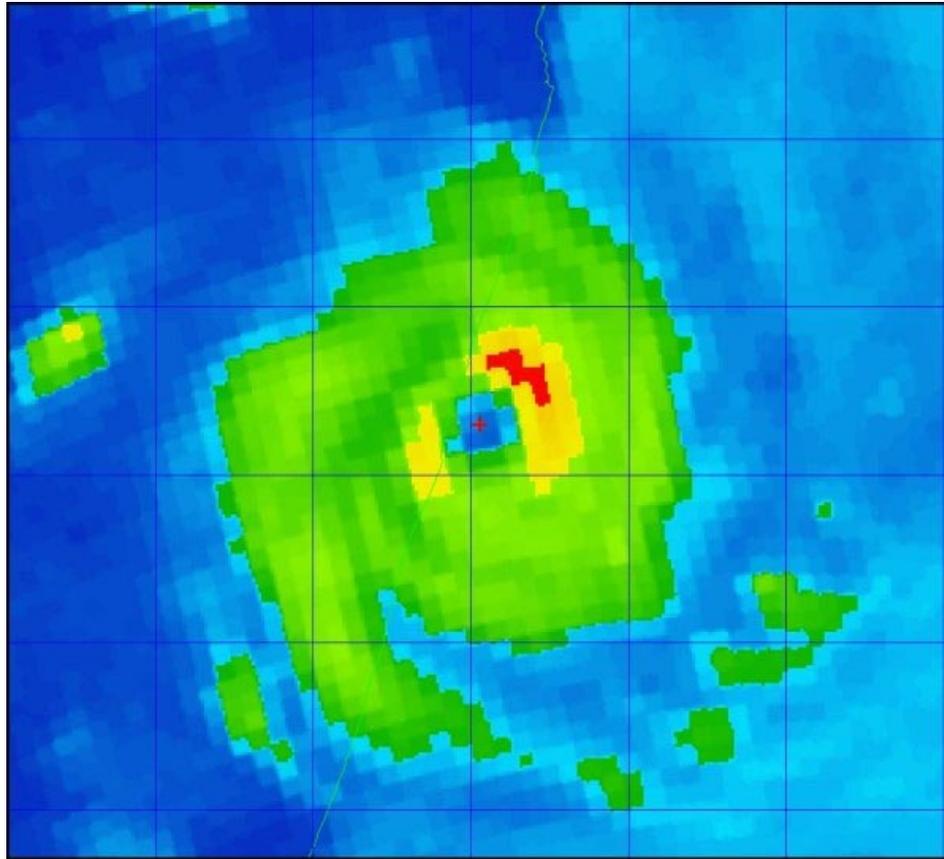


Figure 2-11S-1. 171455Z February 2000 SSMI 85 GHz image of TC 11S, located on the eastern coast of central Madagascar, with a 16 nm eye and estimated best track winds of 80 kts.

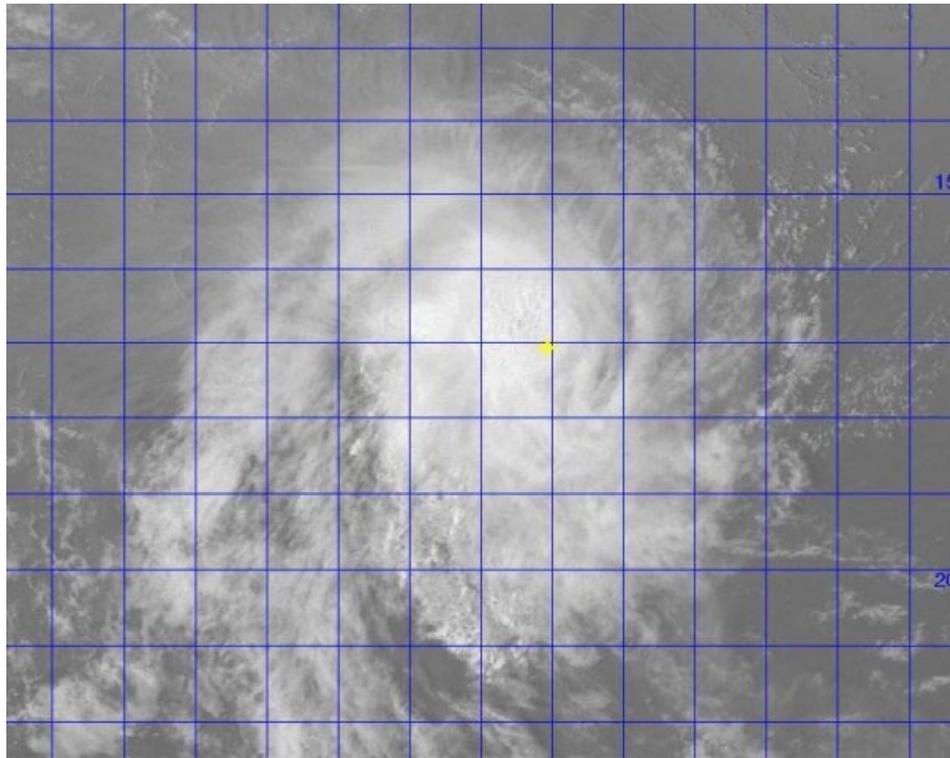
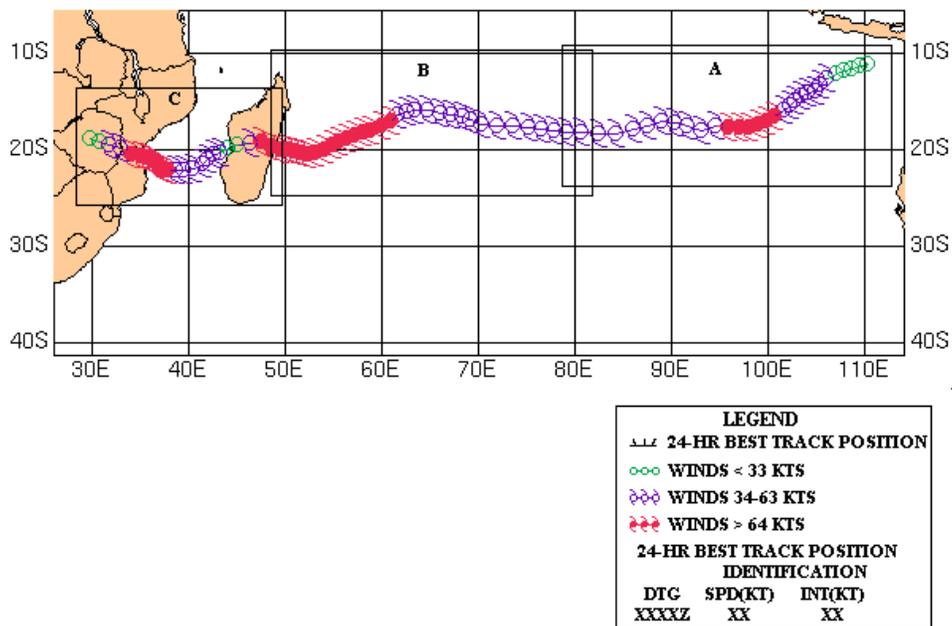
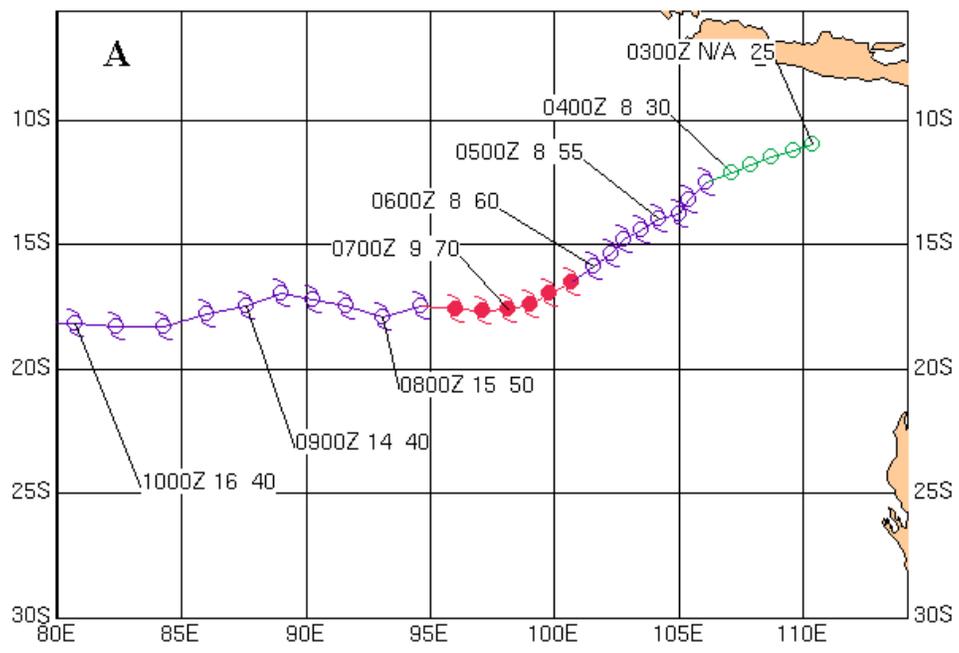


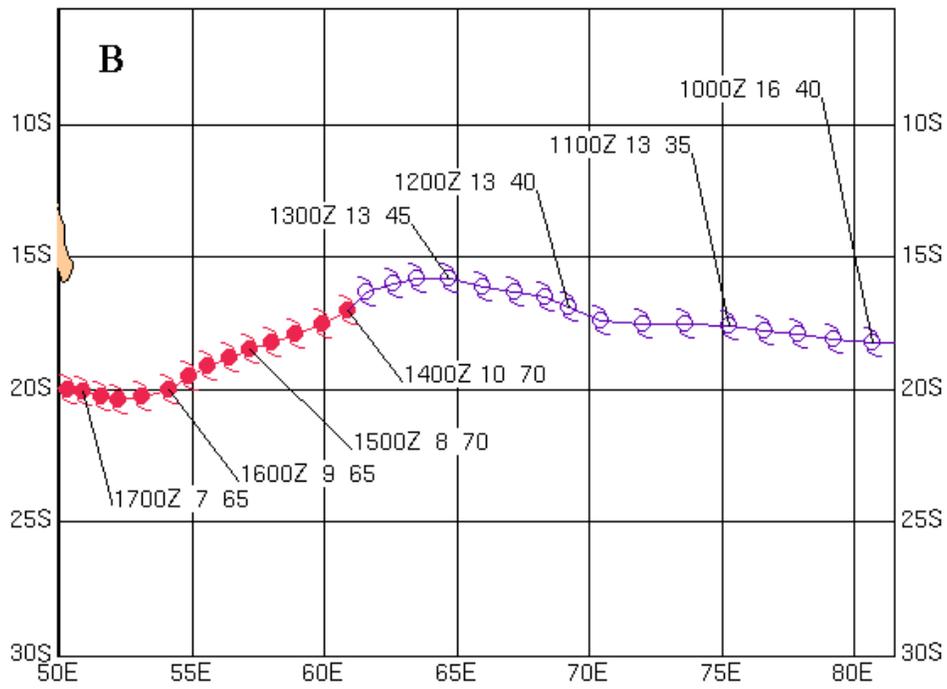
Figure 2-11S-2. 020830Z February 2000 visible satellite image of TC 11S, with deep convection obscuring the low-level circulation center.

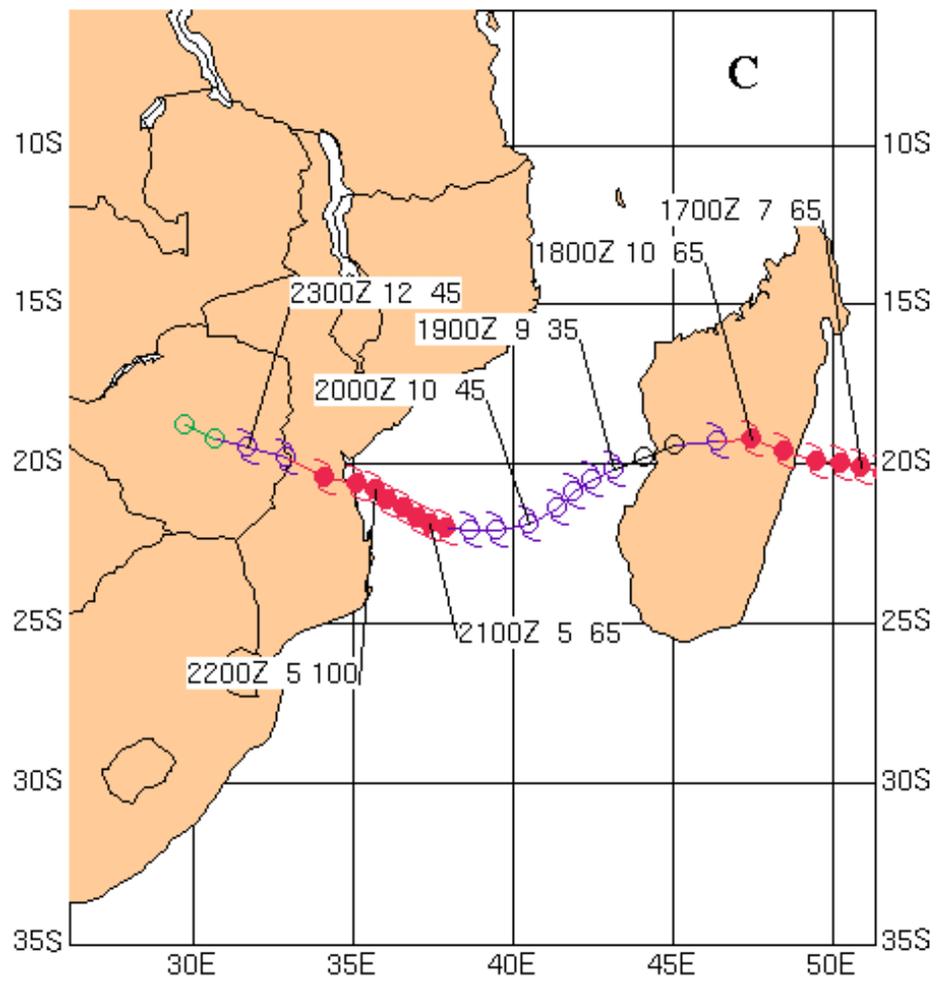
TROPICAL CYCLONE 11S (LEONE-ELINE)
04 - 23 FEBRUARY 2000



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







Tropical Cyclone (TC) 12S (Felicia*)

First Poor : 1800Z 17 Feb 00

First Fair : 0800Z 19 Feb 00

First TCFA : 0530Z 20 Feb 00

First Warning : 0000Z 21 Feb 00

Last Warning : 0000Z 24 Feb 00

Max Intensity : 65 kts, Gusts to 80 kts

Landfall : None

Total Warnings : 7

Remarks : None

* Name assigned by RSMC La Reunion

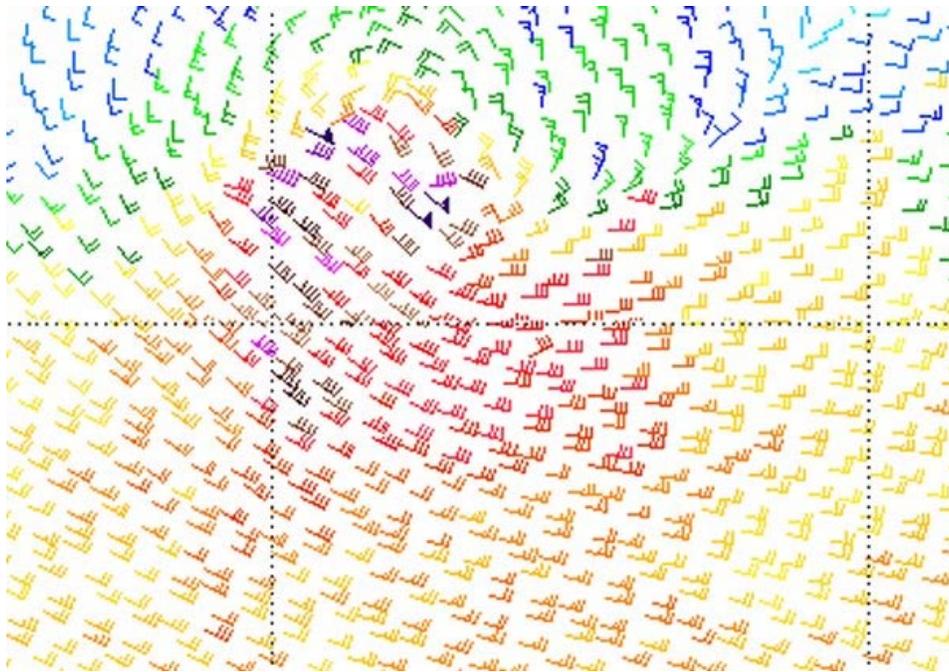
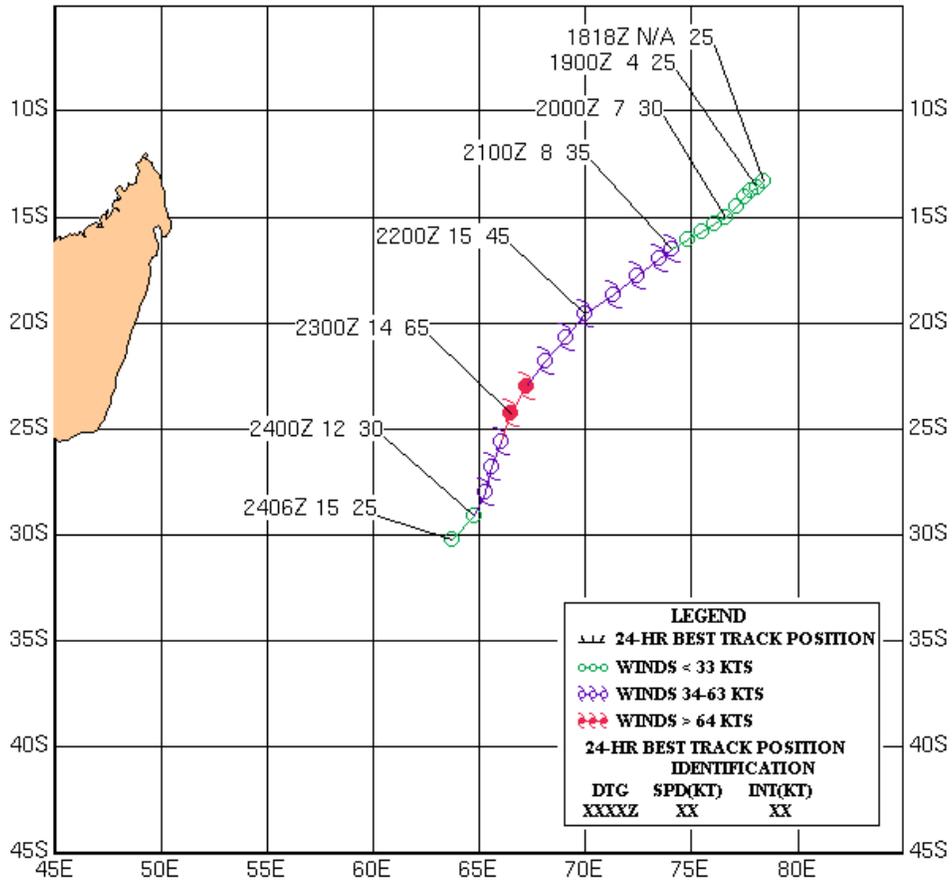


Figure 2-12S-1. 211250Z February 2000 QUIKSCAT image of TC 12S, located south of Diego Garcia. At this time, the maximum winds are concentrated on the southern quadrants of the circulation.

TROPICAL CYCLONE 12S (FELICIA)
21 - 24 FEBRUARY 2000



Tropical Cyclone 13P (Kim*)

First Poor : No Advisory east of 180 degrees

First Fair : No Advisory east of 180 degrees

First TCFA : 1730Z 23 Feb 00

First Warning : 0600Z 24 Feb 00

Last Warning : 1800Z 29 Feb 00

Max Intensity : 100 kts, Gusts to 125 kts

Landfall : None

Total Warnings : 12

Remarks : None

* Name assigned by RSMC Nadi

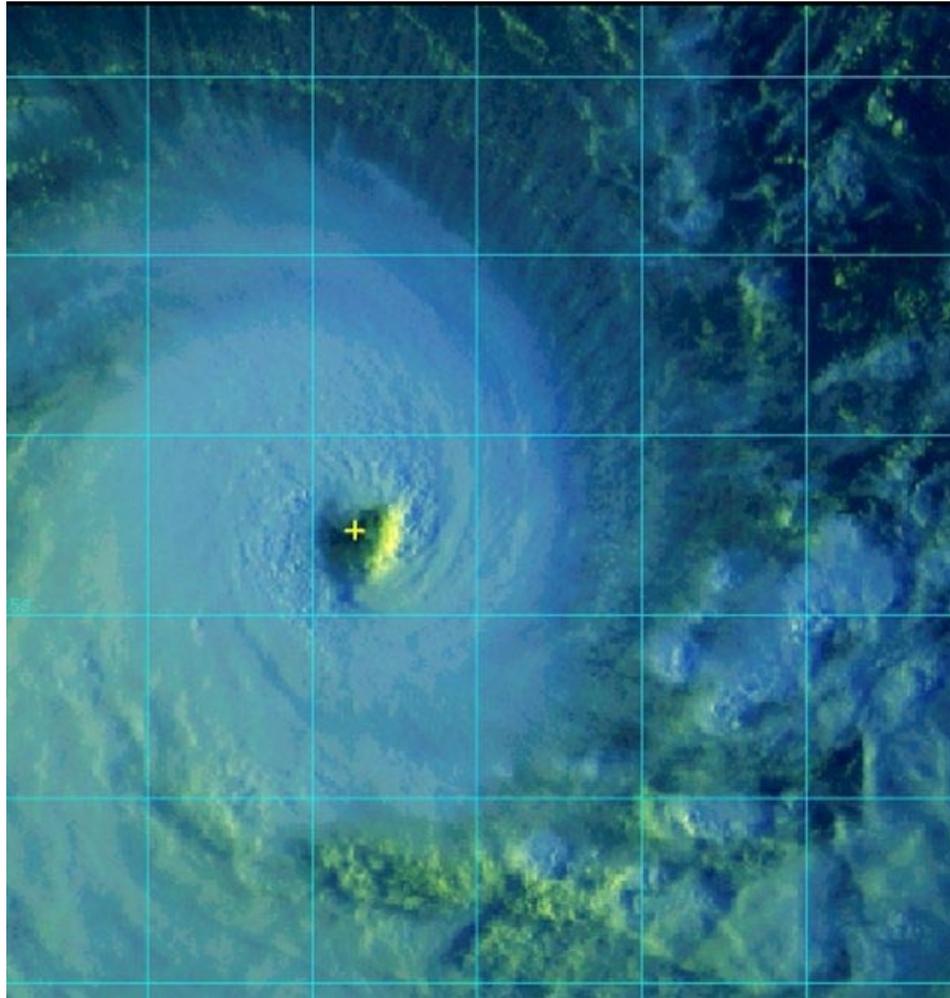
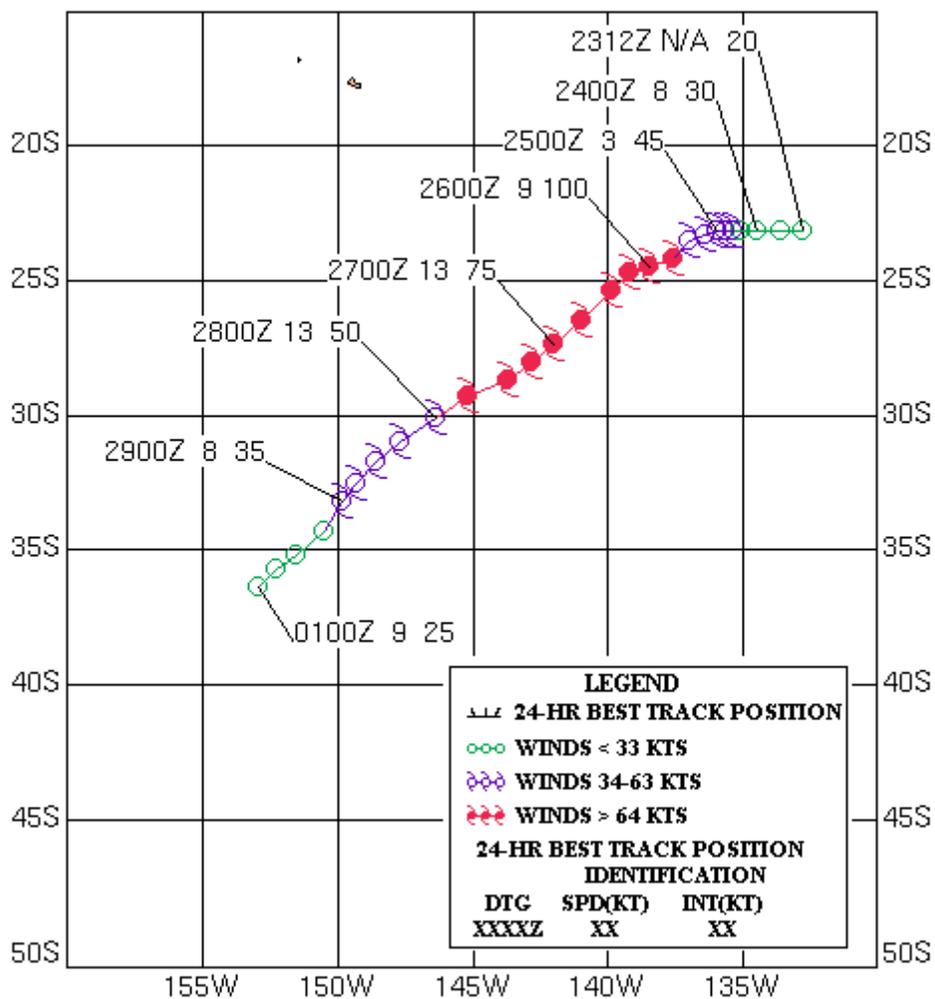


Figure 1-13P-1. 260222Z February 2000 multi-spectral satellite image of TC 13P, located south-east of Tahiti with an estimated intensity of 100 knots. A slightly irregular eye is evident in this image.

**TROPICAL CYCLONE 13P (KIM)
23 FEBRUARY - 01 MARCH 2000**



Tropical Cyclone (TC) 14P (Steve*)

First Poor : 0600Z 24 Feb 00

First Fair : 1700Z 25 Feb 00

First TCFA : 0100Z 26 Feb 00

First Warning : 1800Z 26 Feb 00

Last Warning : 1200Z 10 Mar 00

Max Intensity : 65 kts, Gusts to 80 kts

Landfall : 0600Z 27 Feb 00 over Cape York Penninsula; 1800Z 29 Feb 00 over Northern Territory; 1200Z 06 Mar 00 over the Dampier coast; 1200Z 09 Mar 00 south of Carnarvon

Total Warnings : 36

Remarks:

(1) TC 14P skirted the northern coast of Australia, making landfall four times.

* Name assigned by Brisbane TCWC

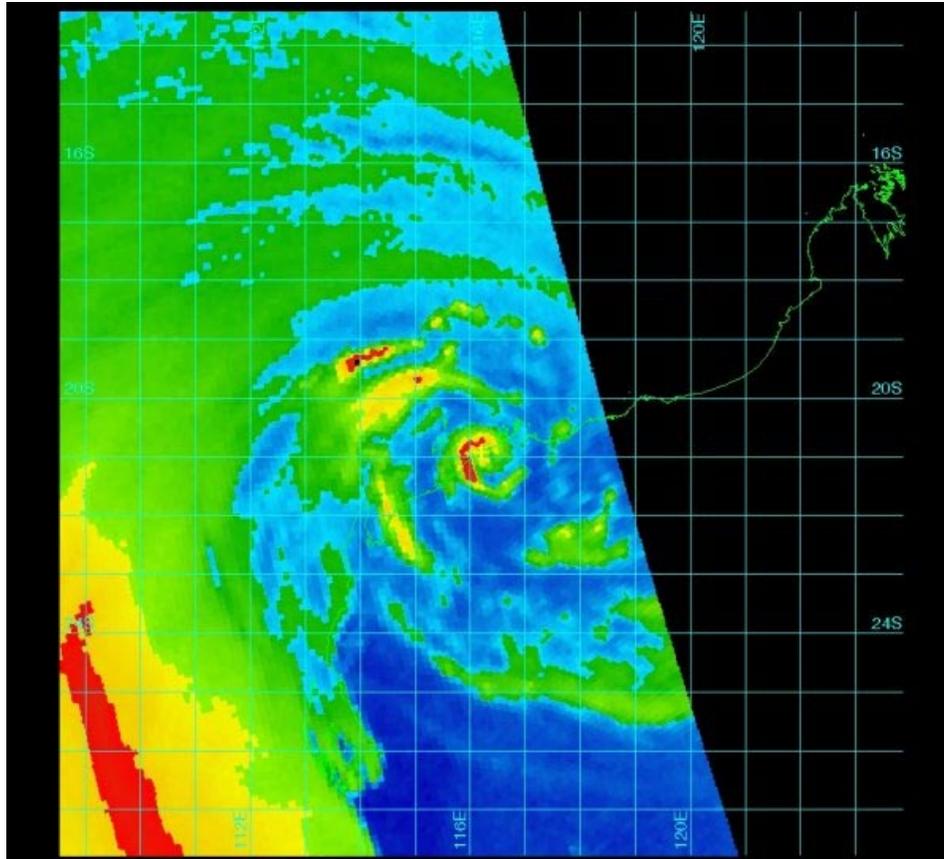


Figure 2-14P-1. 061405Z March 2000 SSMI 85 GHz of TC 14P, as the cyclone made landfall over the Dampier coast of Western Australia with an estimated best track intensity of 65 knots. Note the convective band evident west of the low-level circulation center.

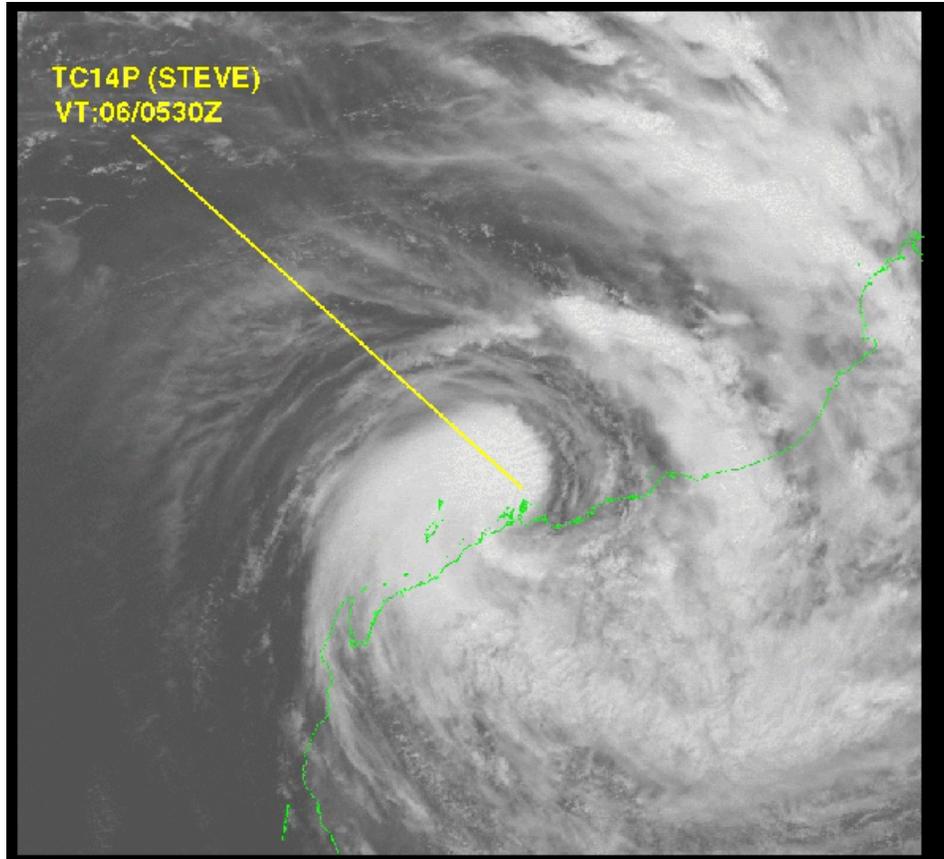
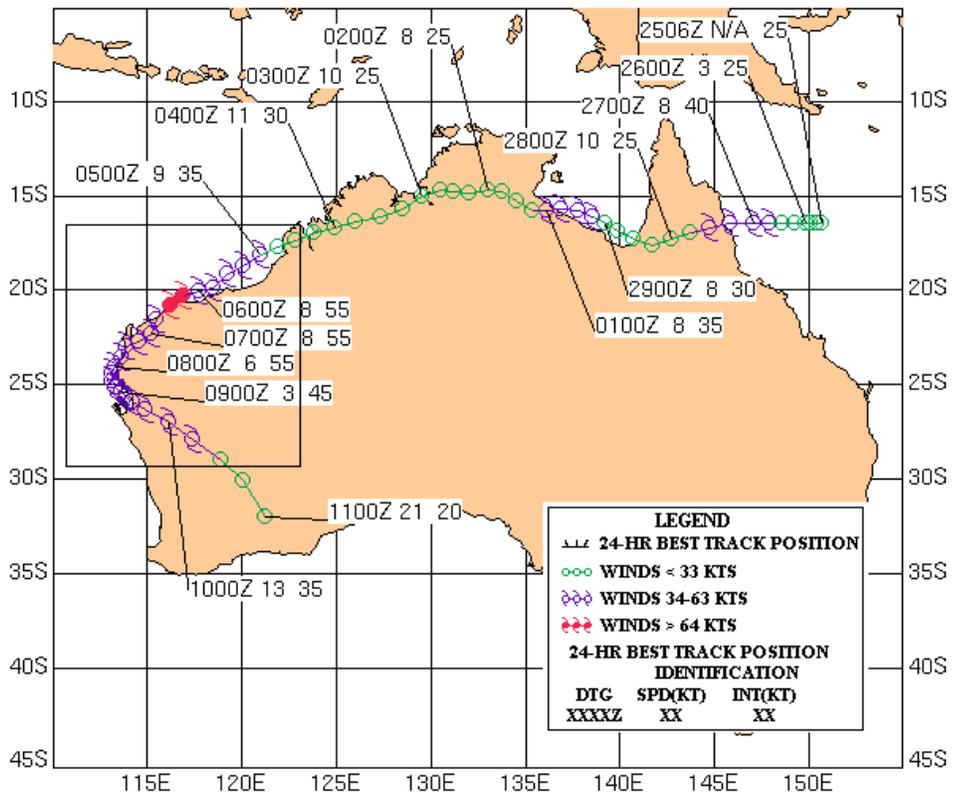
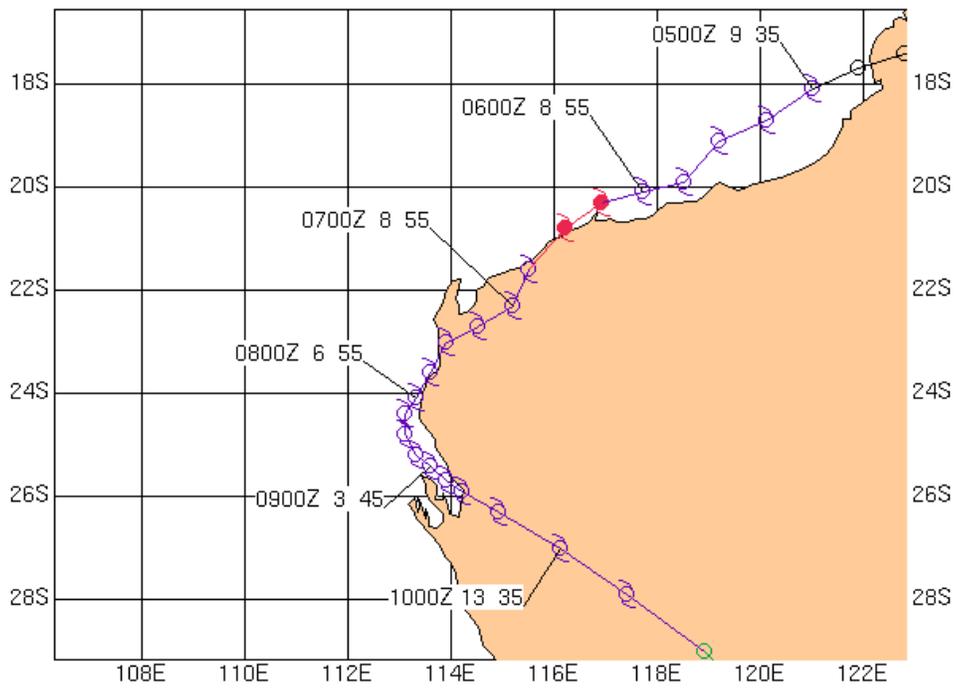


Figure 2-14p-2. A 060530Z March 2000 visible satellite image of TC 14P, when the cyclone was located just over the Dampier coast of Western Australia, with estimated winds of 65 knots.

**TROPICAL CYCLONE 14P (STEVE)
26 FEBRUARY - 10 MARCH 2000**



See below to view inset detail



Tropical Cyclone (TC) 15S (Gloria*)

First Poor : None

First Fair : 0000Z 27 Feb 00

First TCFA : 0930Z 27 Feb 00

First Warning : 1200Z 28 Feb 00

Last Warning : 0600Z 05 Mar 00

Max Intensity : 50 kts, Gusts to 65 kts

Landfall : 1800Z 01 Mar 00 over northern Madagascar

Total Warnings : 20

Remarks : None

* Name assigned by RSMC La Reunion

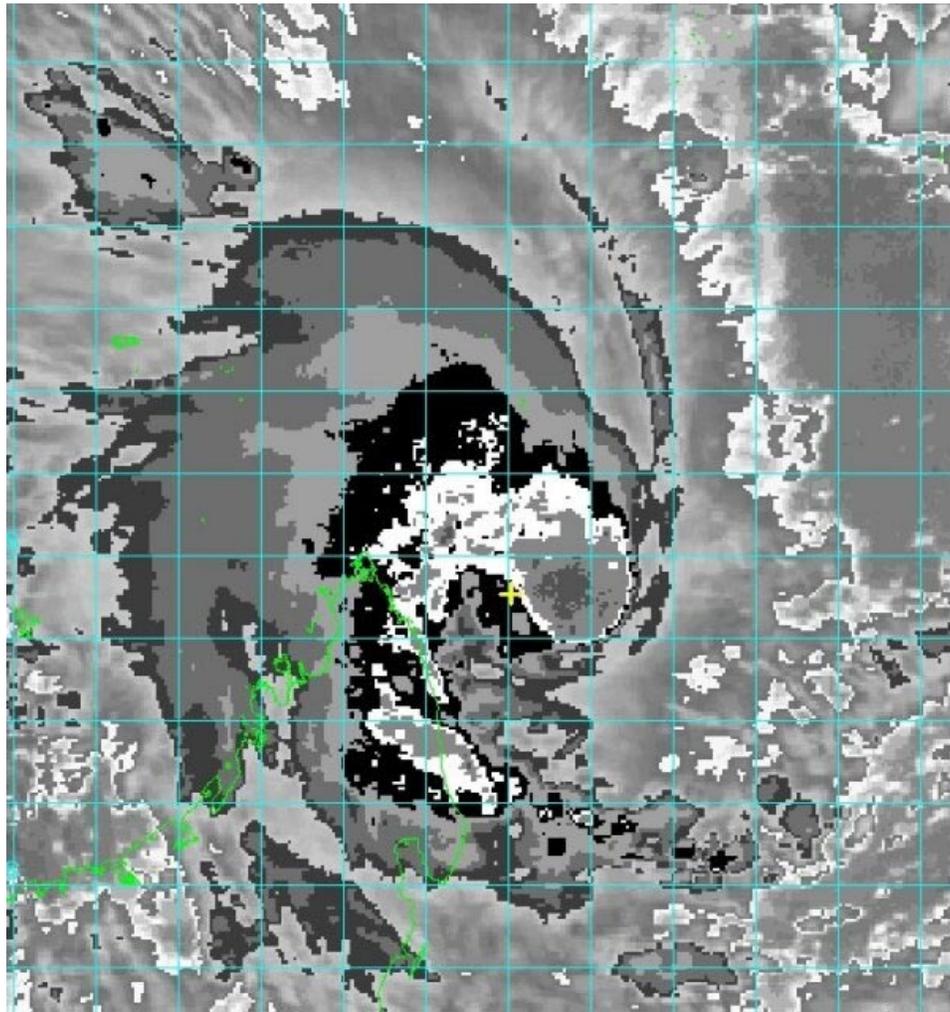
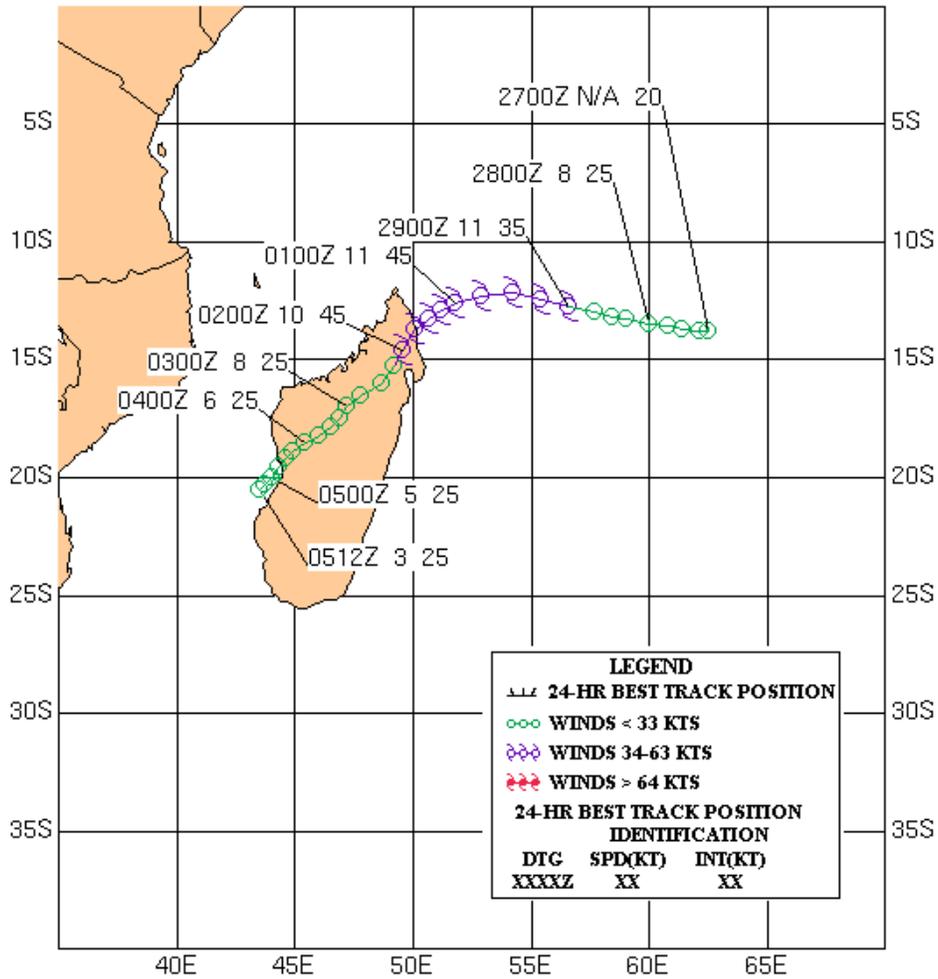


Figure 2-15S-1. 010230Z March 2000 enhanced infrared satellite image of TC 15S, located just northeast of Madagascar with an estimated intensity of 45 knots. Vertical shear is evident, with most convective activity displaced westward from the low-level circulation center.

TROPICAL CYCLONE 15S (GLORIA)
28 FEBRUARY - 05 MARCH 2000



Tropical Cyclone (TC) 16S (Norman*)

First Poor : None

First Fair : None

First TCFA : 1600Z 29 Feb 00

First Warning : 0600Z 01 Mar 00

Last Warning : 1800Z 08 Mar 00

Max Intensity : 120 kts, Gusts to 145 kts

Landfall : None

Total Warnings : 16

Remarks : None

* Name assigned by Perth TCWC

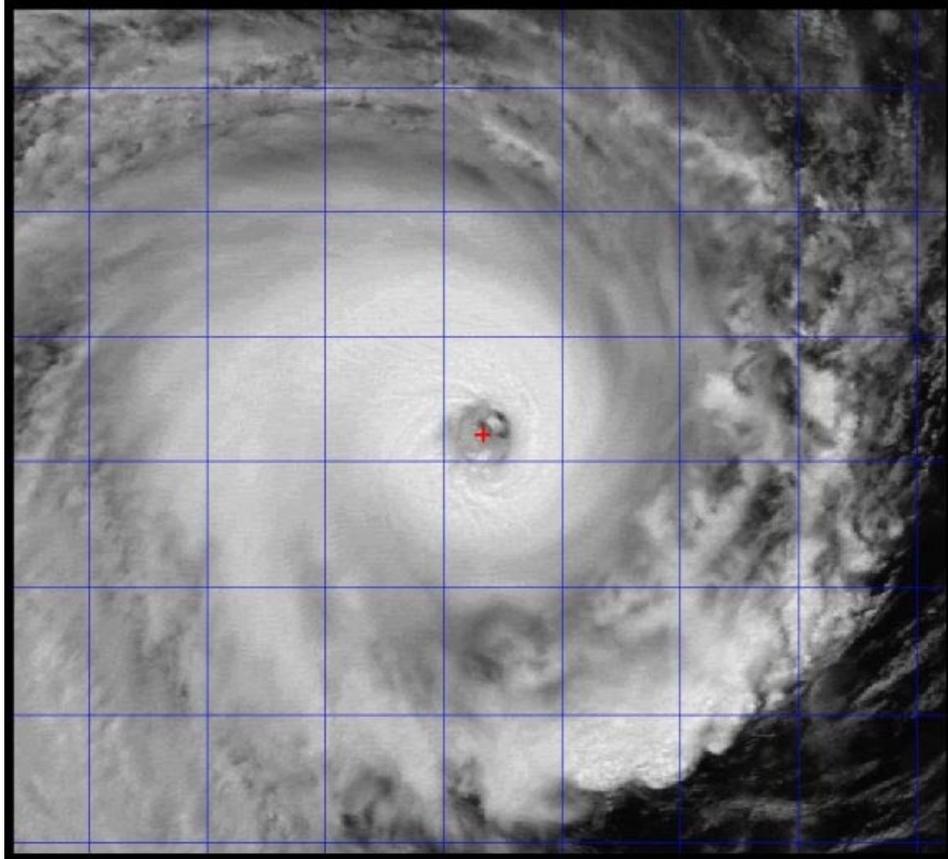
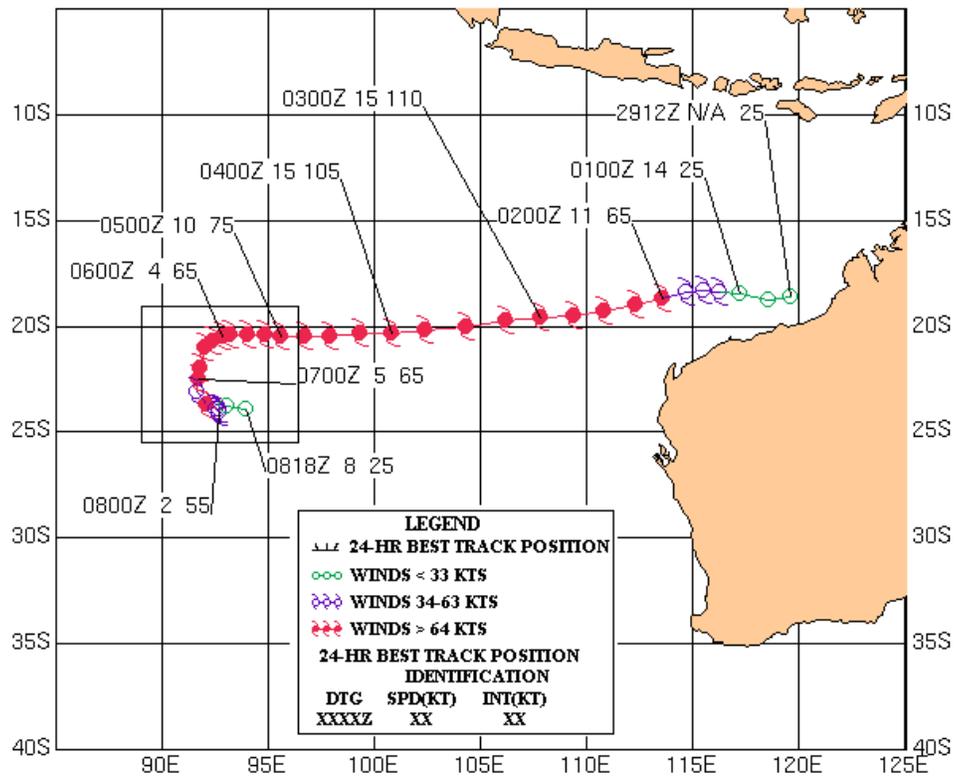
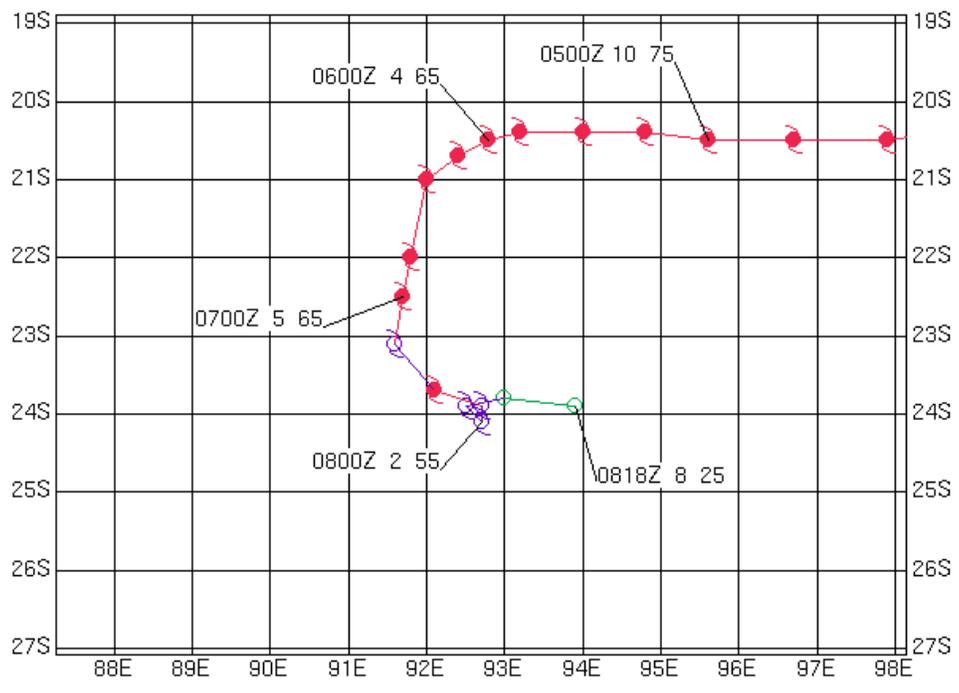


Figure 2-16S-1. 030530Z March 2000 visible satellite image of TC 16S, located about 500 nm west-northwest of Learmonth, Australia. At this time, the cyclone has a well-defined eye and estimated intensity of 120 knots.

TROPICAL CYCLONE 16S (NORMAN)
01 - 08 MARCH 2000



See below to view inset detail



Tropical Cyclone (TC) 17S

First Poor : None

First Fair : 1800Z 28 Feb 00

First TCFA : 1300Z 29 Feb 00

First Warning : 1200Z 01 Mar 00

Last Warning : 0000Z 05 Mar 00

Max Intensity : 35 kts, Gusts to 45 kts

Landfall : None

Total Warnings : 8

Remarks : None

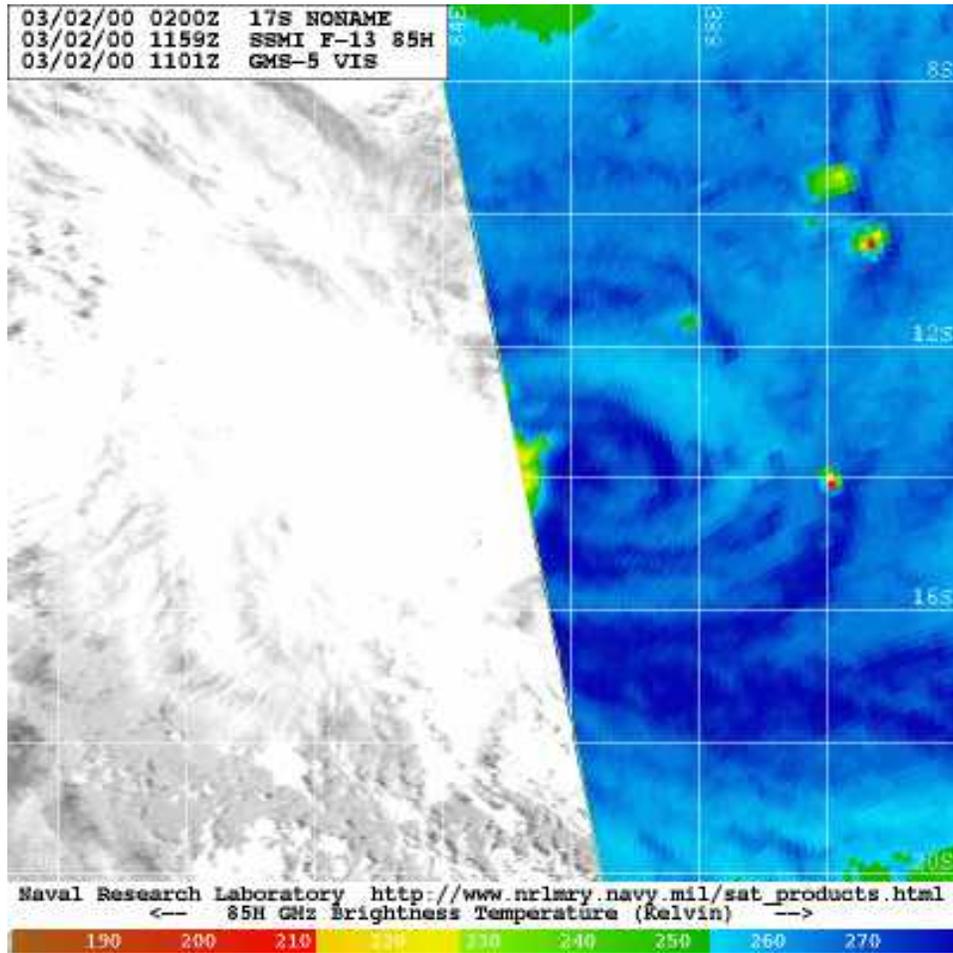
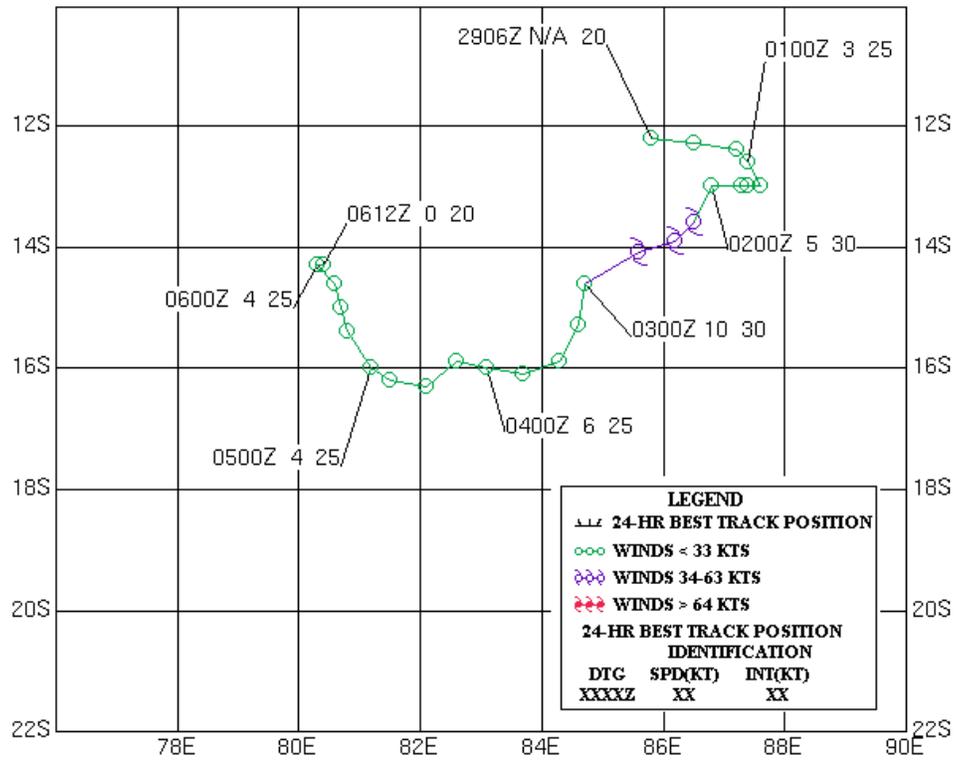


Figure 2-17S-1. 021159Z March 2000 SSMI 85 GHz image of TC 17S, located east-southeast of Diego Garcia and west of Cocos Island. At this time, the low-level circulation center is fully exposed east of the deep convection (seen in the overlaid visible image), indicative of strong vertical shear.

TROPICAL CYCLONE 17S
01 - 05 MARCH 2000



Tropical Cyclone (TC) 18P (Leo*)

First Poor : No Advisory east of 180 degrees

First Fair : No Advisory east of 180 degrees

First TCFA : 2130Z 04 Mar 00

First Warning : 1200Z 05 Mar 00

Last Warning : 0600Z 08 Mar 00

Max Intensity : 55 kts, Gusts to 70 kts

Landfall : None

Total Warnings : 5

Remarks : None

* Name assigned by RSMC Nadi

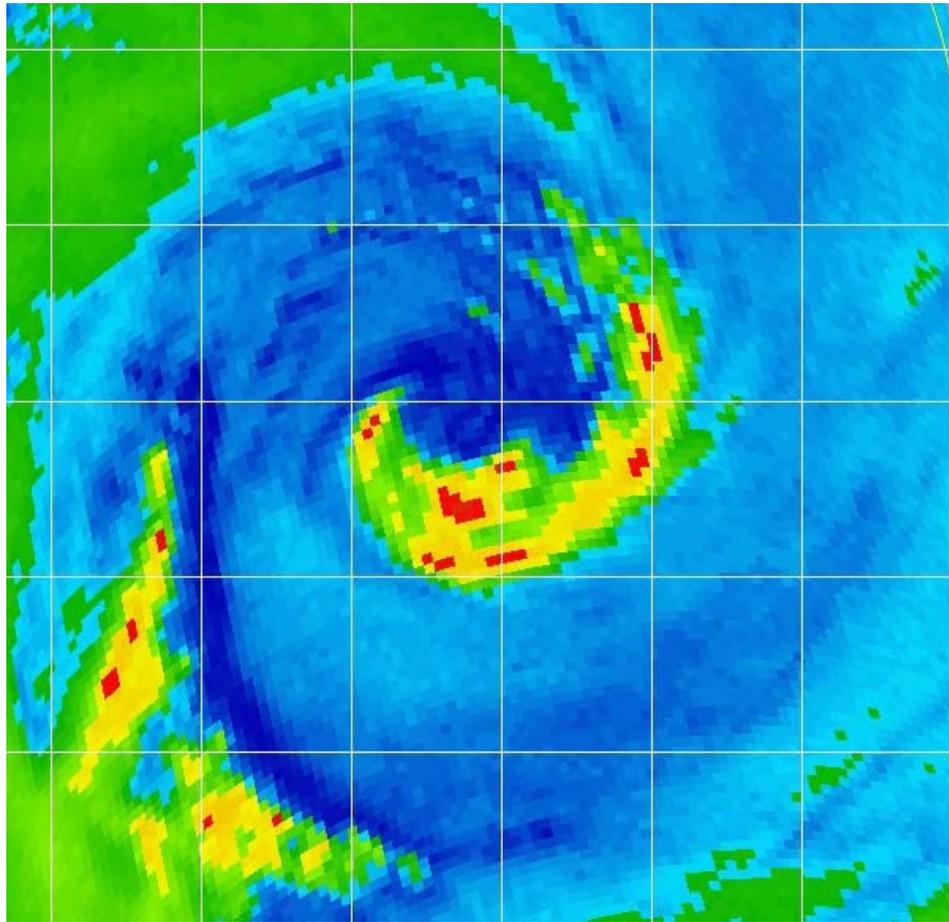
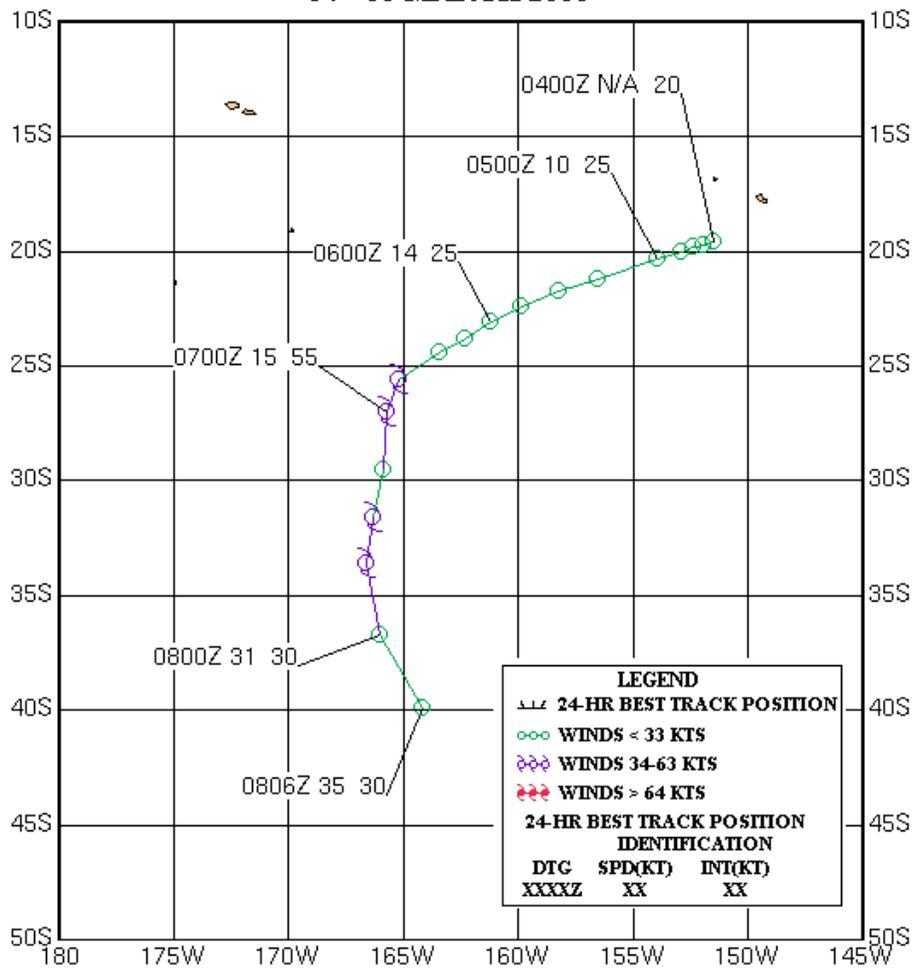


Figure 2-18P-1. 070843Z March 2000 85 GHz SSMI image of TC 18P, located in the South Pacific Ocean east of the Kermadec Islands. At this time, the cyclone is near peak intensity, with deep convection on the southern side of the low-level circulation center.

TROPICAL CYCLONE 18P (LEO)
04 - 08 MARCH 2000



Tropical Cyclone (TC) 19P (Mona*)

First Poor : No Advisory east of 180 degrees

First Fair : No Advisory east of 180 degrees

First TCFA : 2351Z 07 Mar 00

First Warning : 0000Z 08 Mar 00

Last Warning : 0600Z 11 Mar 00

Max Intensity : 80 kts, Gusts to 100 kts

Landfall : None

Total Warnings : 8

Remarks : None

* Name assigned by RSMC Nadi

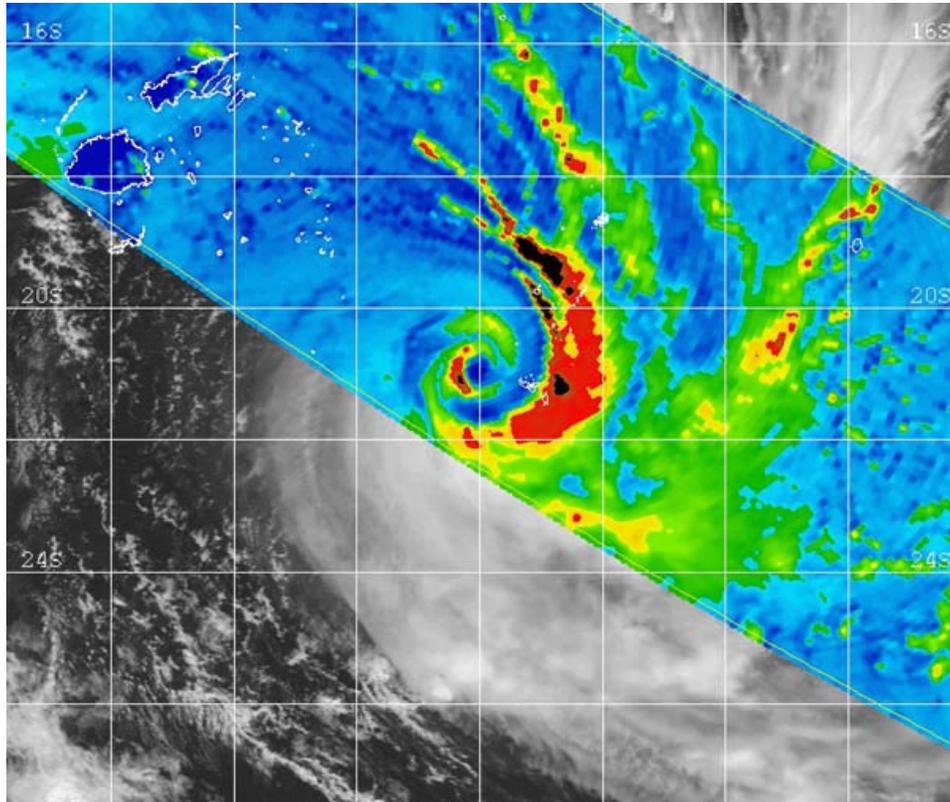


Figure 2-19P-1. 090053Z March 2000 TRMM 85GHz image of TC 19P, located just west of Tonga, with the eyewall open to the east and a large rainband located about 60 nm east of the circulation center.

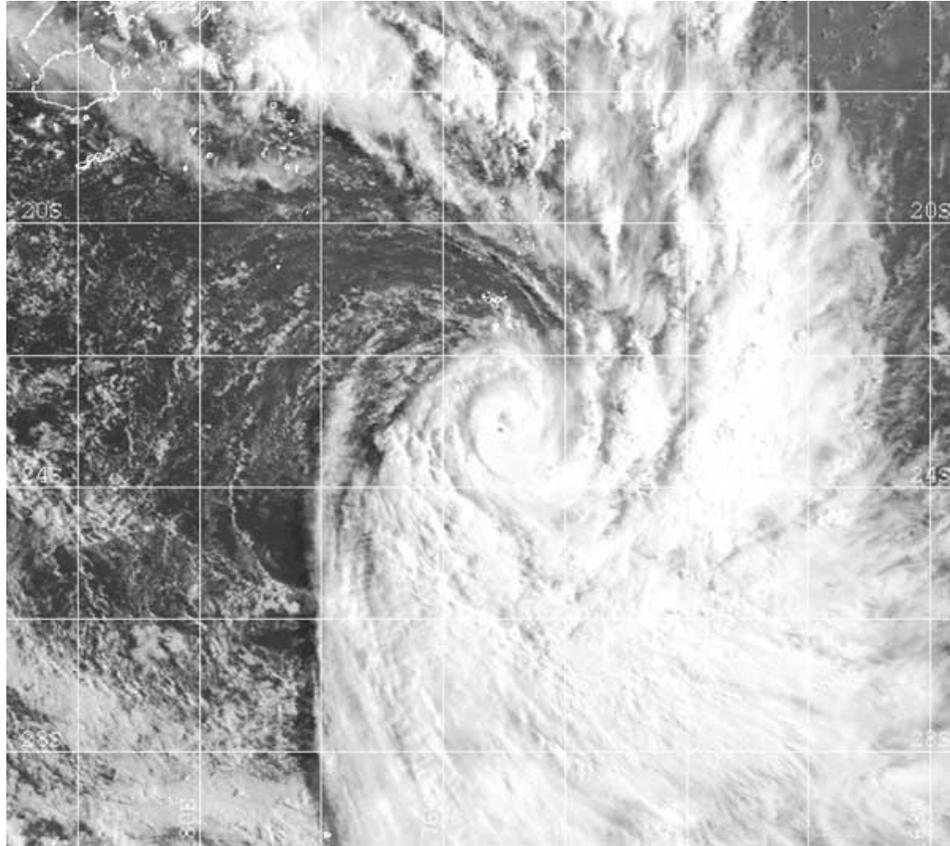
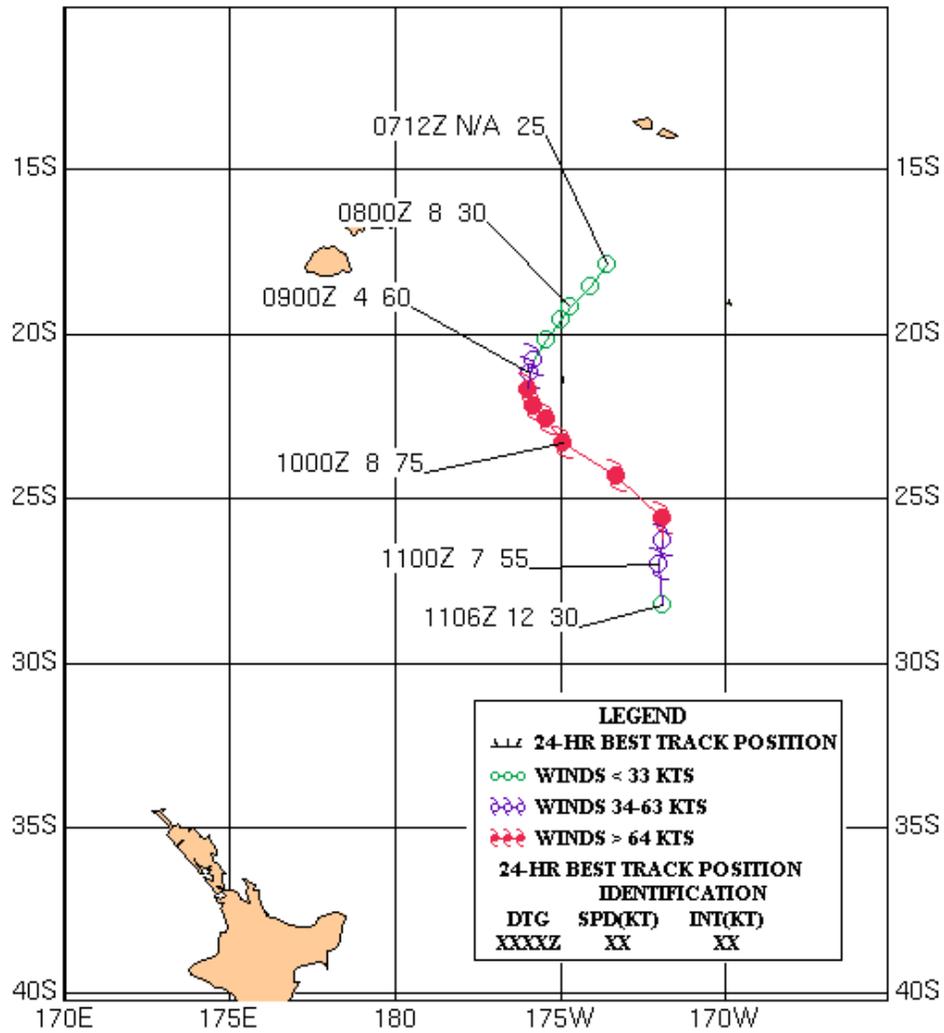


Figure 2-19P-2. 091931Z March 2000 visible image of TC 19P near peak intensity, located about 120 nm south of Tonga, with indication of westerly to northwesterly vertical shear.

TROPICAL CYCLONE 19P (MONA)
07 - 11 MARCH 2000



Tropical Cyclone (TC) 20S (Olga*)

First Poor : 0200Z 14 Mar 00

First Fair : 0100Z 15 Mar 00

First TCFA : 0830Z 15 Mar 00

First Warning : 1200Z 15 Mar 00

Last Warning : 0000Z 19 Mar 00

Max Intensity : 50 kts, Gusts to 65 kts

Landfall : None

Total Warnings : 8

Remarks : None

* Name assigned by Perth TCWC

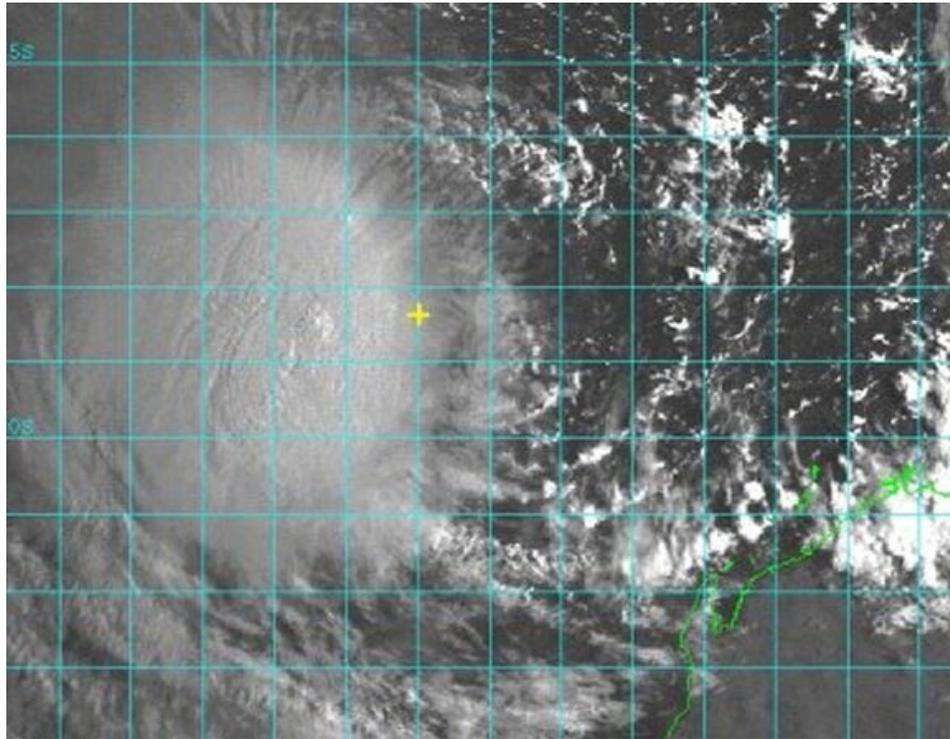
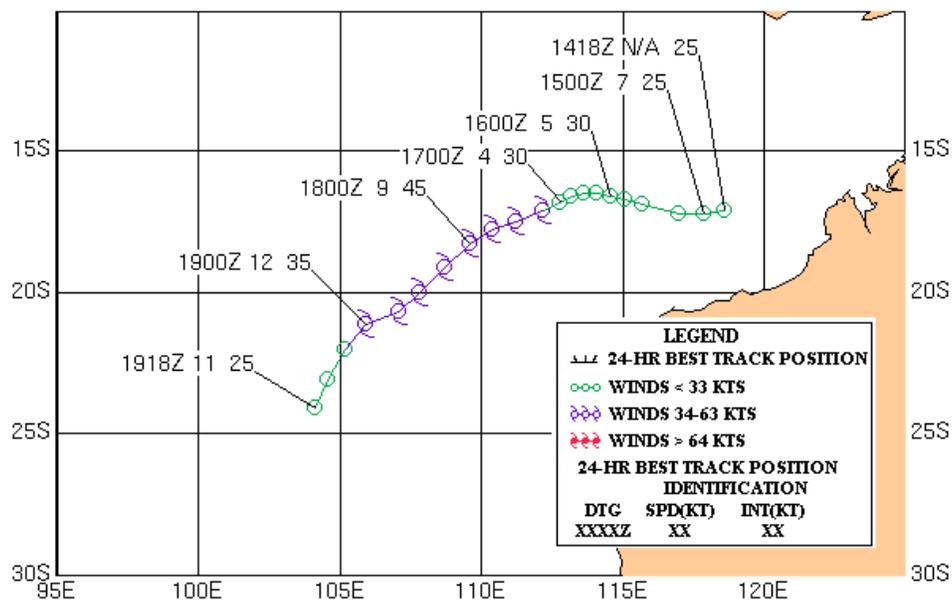


Figure 2-20S-1. 172330Z March 2000 visible satellite image of TC 20S, with a partially exposed low-level circulation center, when the cyclone had an estimated intensity of 45 knots.

TROPICAL CYCLONE 20S (OLGA)
15 - 19 MARCH 2000



Tropical Cyclone (TC) 21S (Hudah*)

First Poor : 1800Z 22 Mar 00

First Fair : 0300Z 23 Mar 00

First TCFA : 0030Z 24 Mar 00

First Warning : 1200Z 24 Mar 00

Last Warning : 0600Z 09 Apr 00

Max Intensity : 125 kts, Gusts to 150 kts

Landfall : 1730Z 02 Apr 00 over Madagascar; 0600Z 08 Apr 00 over Mozambique

Total Warnings : 40

Remarks:

- (1) TC 21S had sustained winds of 120 kts when the cyclone made landfall over Madagascar.
- (2) Officials at the Madagascar National Relief Committee reported 27 fatalities, 100,000 homeless, and nearly every building in the northeastern city of Antalaha destroyed.
- (3) TC 21S made landfall in Mozambique with sustained winds from 80 and 90 kts.

* Name assigned by RSMC La Reunion

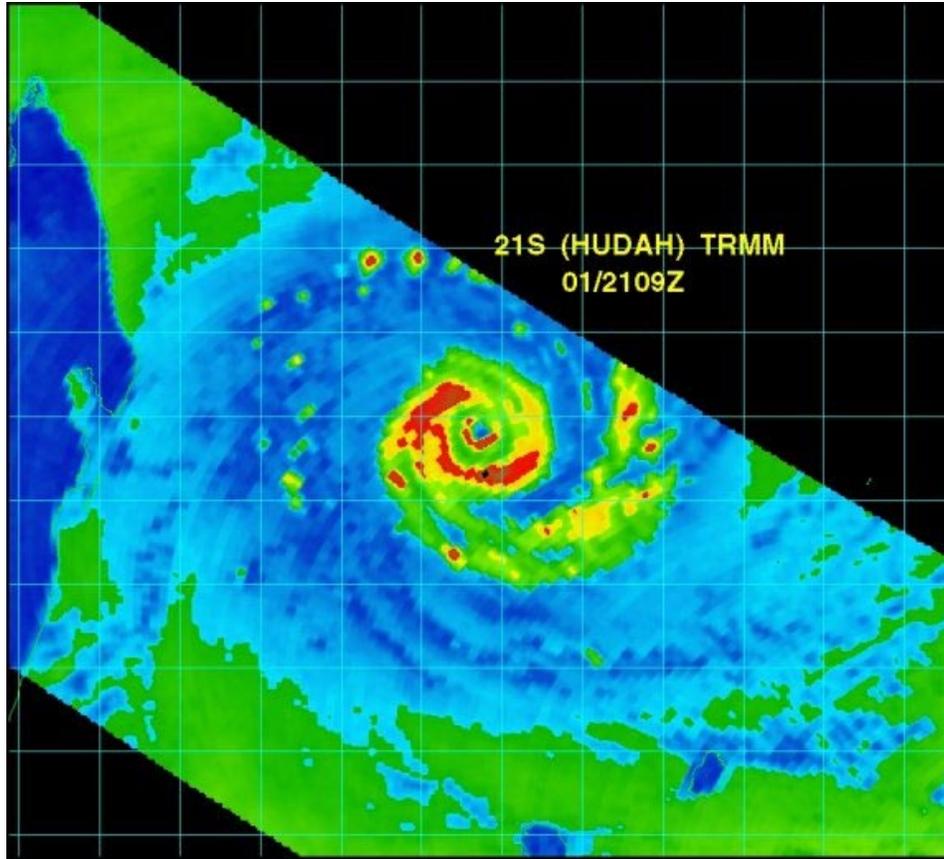
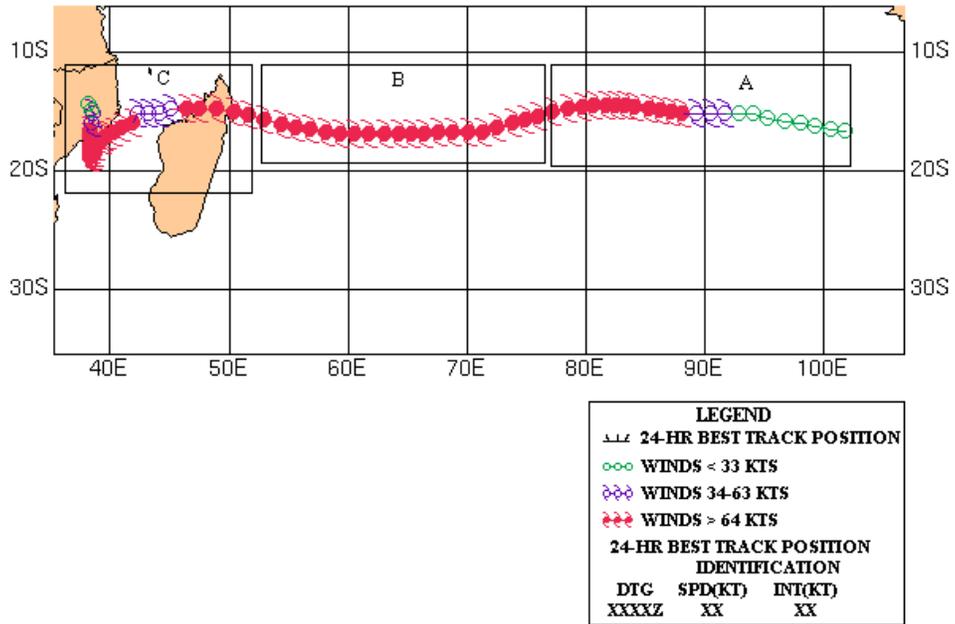
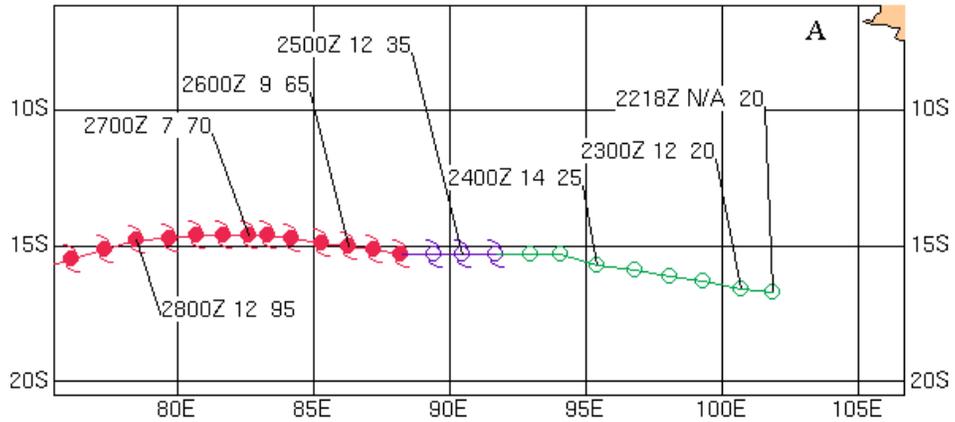


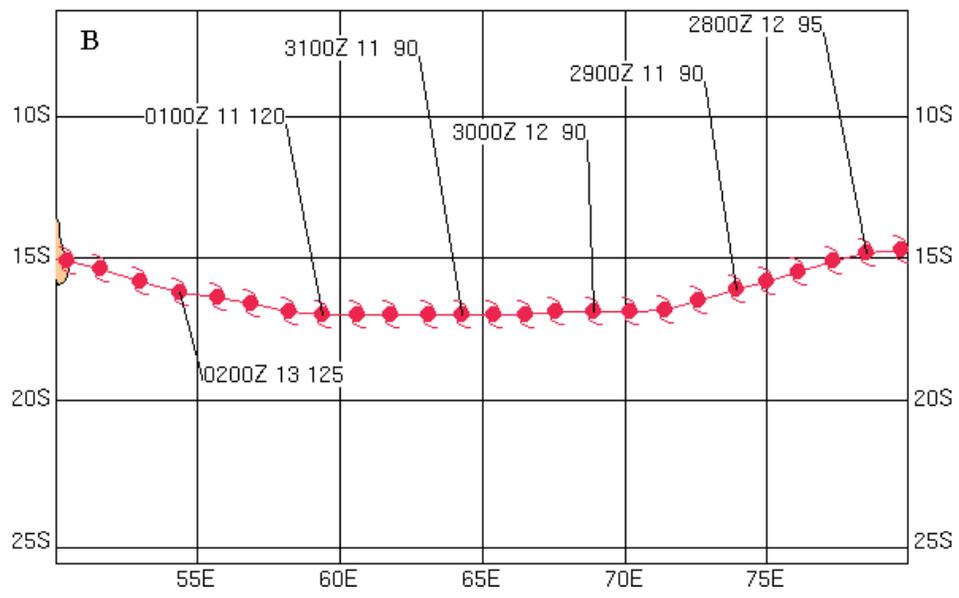
Figure 2-21S-1. 012109Z April TRMM 85 GHz image of TC 21S, when the cyclone was approximately 250 nm east of Madagascar, with estimated best track winds of 125 kts and a 20 nm eye within concentric eyewalls.

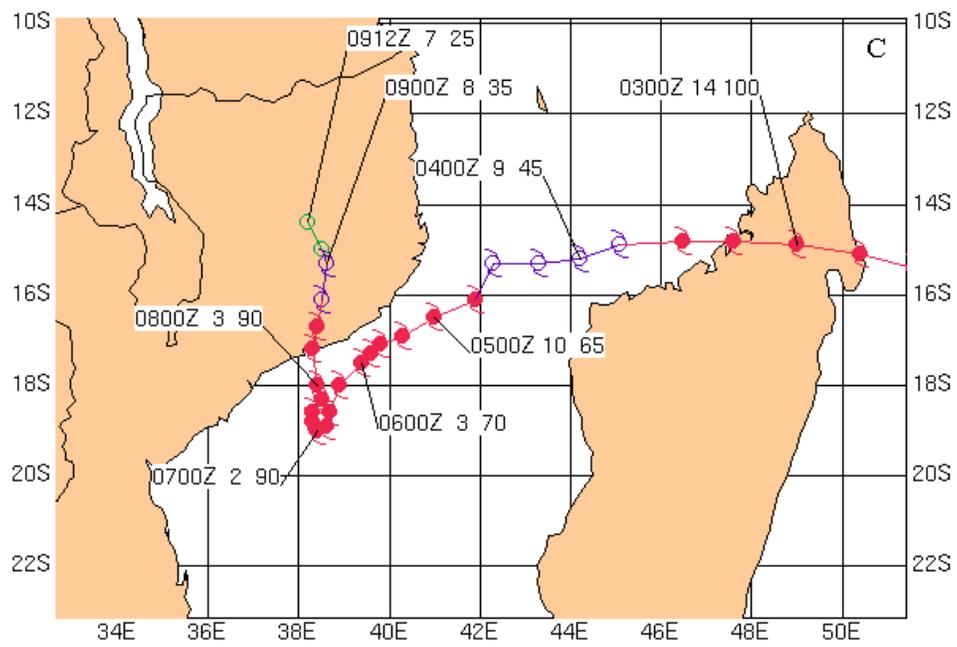
TROPICAL CYCLONE 21S (HUDAH)
24 MARCH - 09 APRIL 2000



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







Tropical Cyclone (TC) 22P (Tessi*)

First Poor : None

First Fair : 0600Z 31 Mar 00

First TCFA : 1500Z 31 Mar 00

First Warning : 0000Z 01 Apr 00

Last Warning : 0000Z 03 Apr 00

Max Intensity : 50 kts, Gusts to 65 kts

Landfall : 1900Z 03 Apr 00 near Lucinda, Australia

Total Warnings : 5

Remarks : None

* Name assigned by Brisbane TCWC

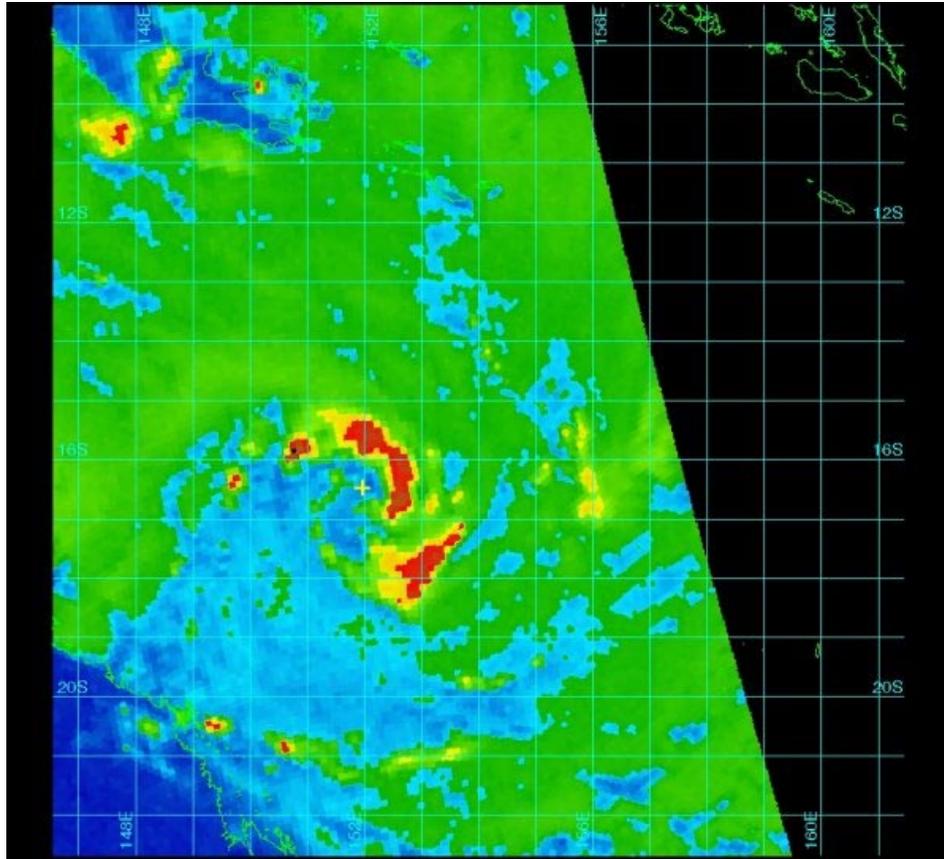


Figure 2-22P-1. 011126Z April 2000 SSMI 85 GHz of TC 22P, located east of Cape York Peninsula, Australia, with an estimated intensity of 40 knots. At this time, convective bands are confined to the northern and eastern portions of the system.

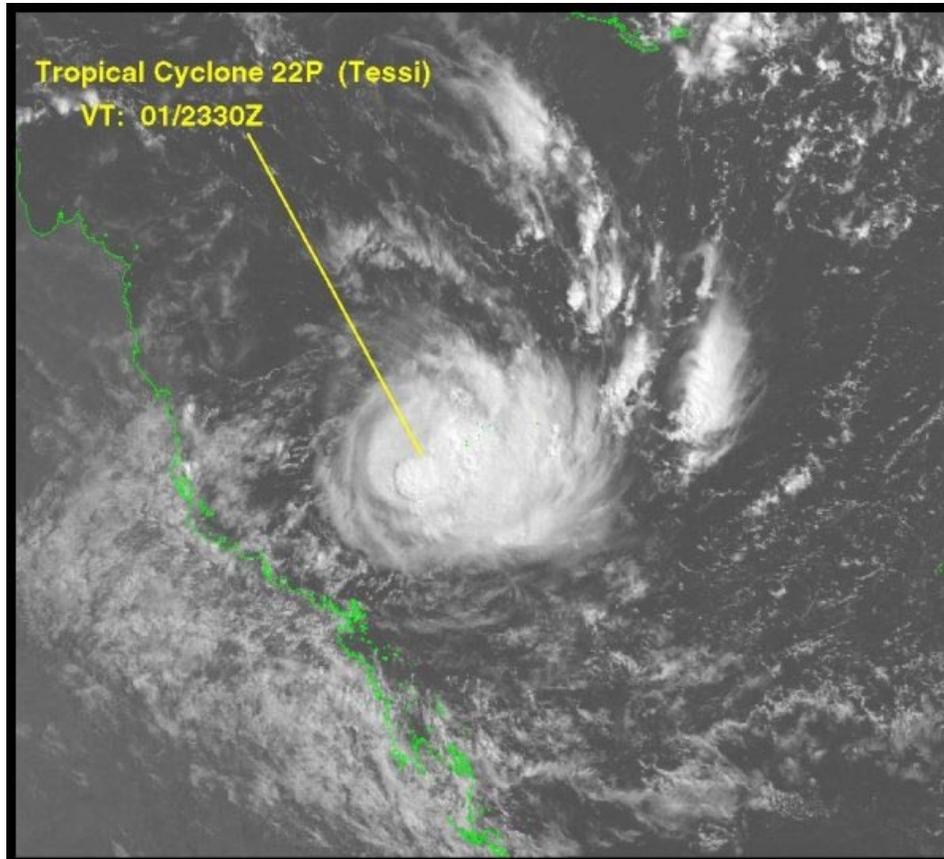
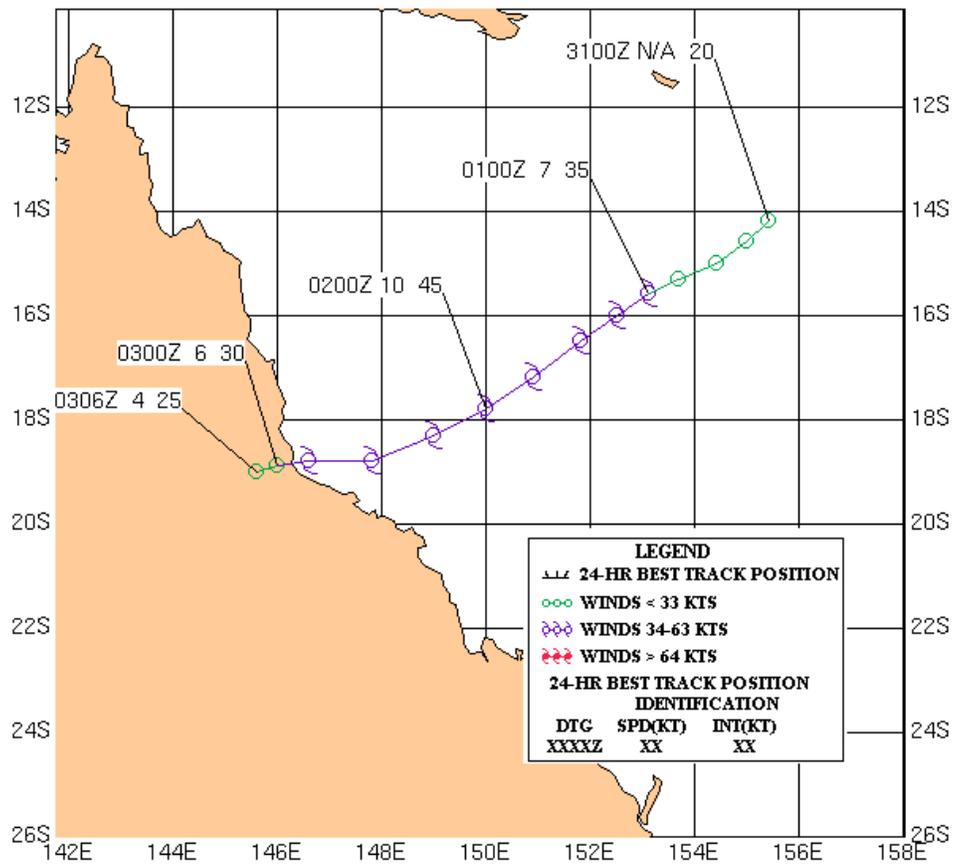


Figure 2-22P-2. A 012330Z April 2000 visible satellite image of TC 22P. Estimated intensity at this time is 45 knots.

TROPICAL CYCLONE 22P (TESSI)
01 - 03 APRIL 2000



Tropical Cyclone (TC) 23P (Vaughan*)

First Poor : None

First Fair : 1830Z 02 Apr 00

First TCFA : 1930Z 02 Apr 00

First Warning : 0000Z 03 Apr 00

Last Warning : 0000Z 07 Apr 00

Max Intensity : 50 kts, Gusts to 65 kts

Landfall : 1800Z 06 Apr 00 near Cairns, Australia

Total Warnings : 9

Remarks : None

* Name assigned by Brisbane TCWC

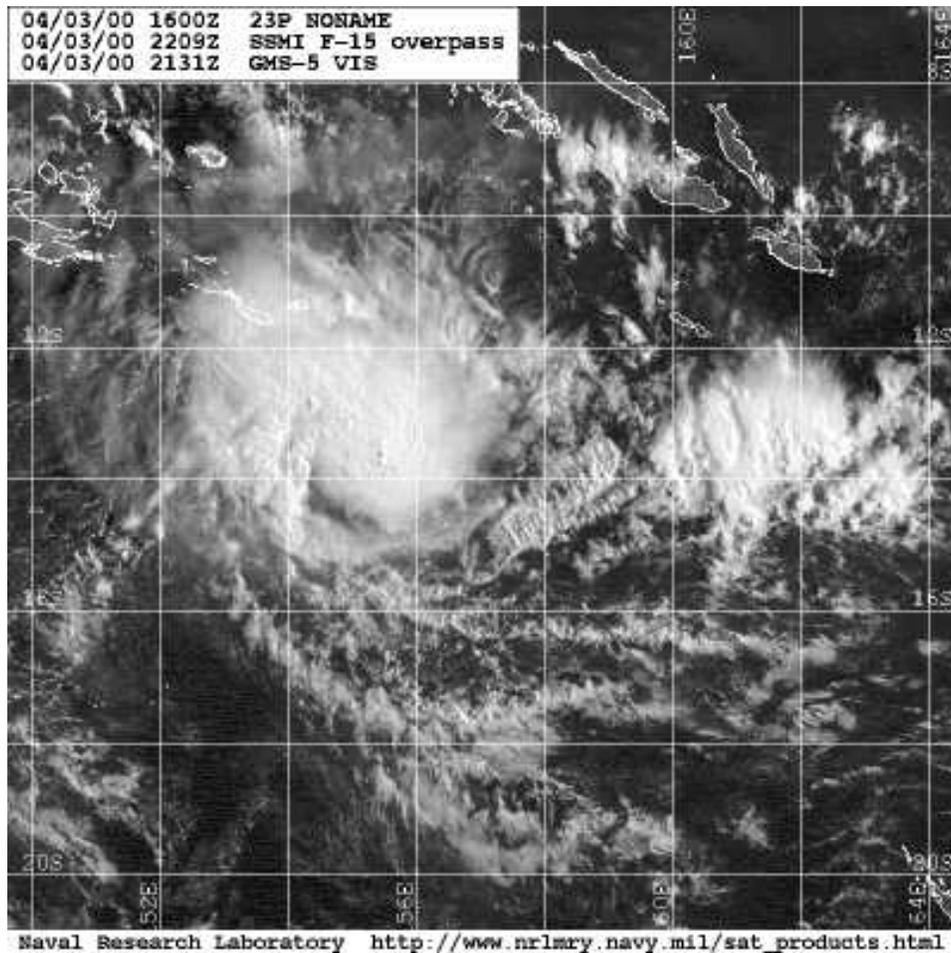
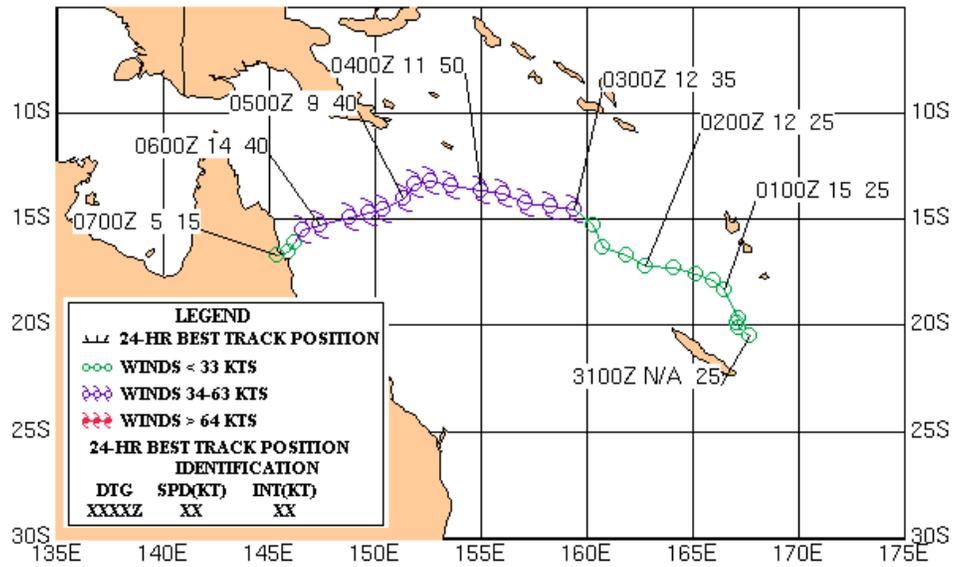


Figure 2-23P-1. 032215Z May 2000 GMS-5 visible image of TC 23P, located in the northern Coral Sea just before peak intensity.

TROPICAL CYCLONE 23P (VAUGHAN)
03 - 07 APRIL 2000



Tropical Cyclone (TC) 24S (Paul*)

First Poor : 1800Z 10 Apr 00

First Fair : 0300Z 12 Apr 00

First TCFA : 1730Z 12 Apr 00

First Warning : 0000Z 13 Apr 00

Last Warning : 1200Z 21 Apr 00

Max Intensity : 130 kts, Gusts to 160 kts

Landfall : None

Total Warnings : 18

Remarks : None

* Name assigned by Perth TCWC

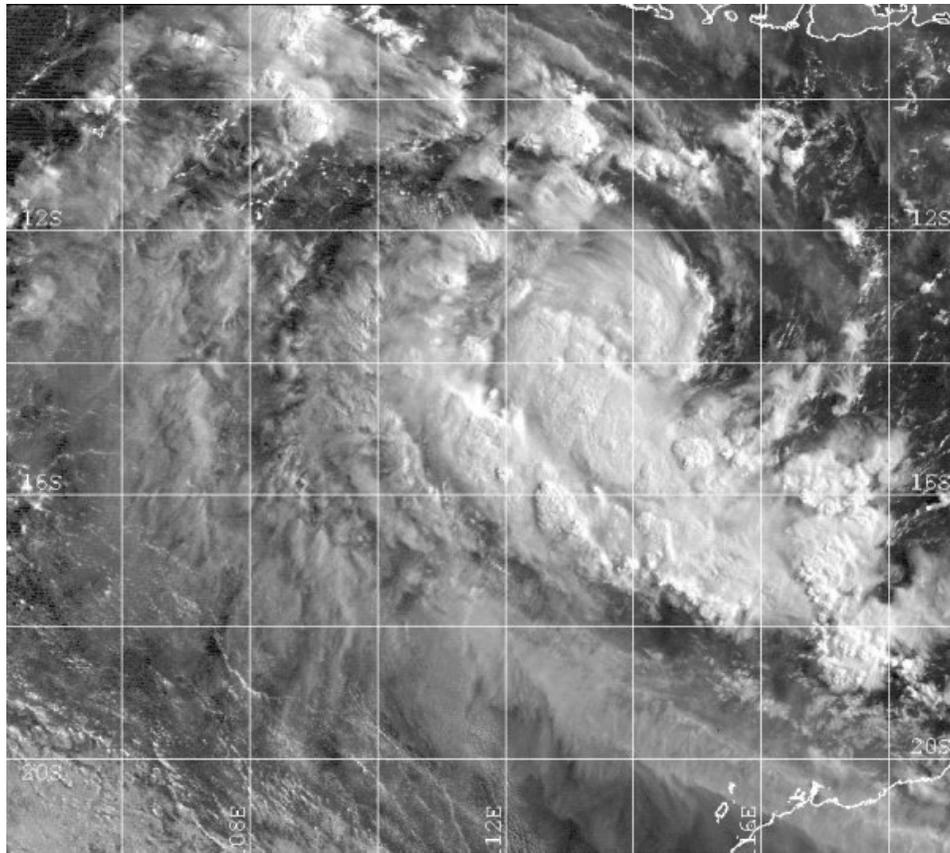


Figure 2-24S-1. 130029Z April 2000 visible image of TC 24S, located about 360 nm from the northwest coast of Australia, with a large area of convection near the low-level circulation center.

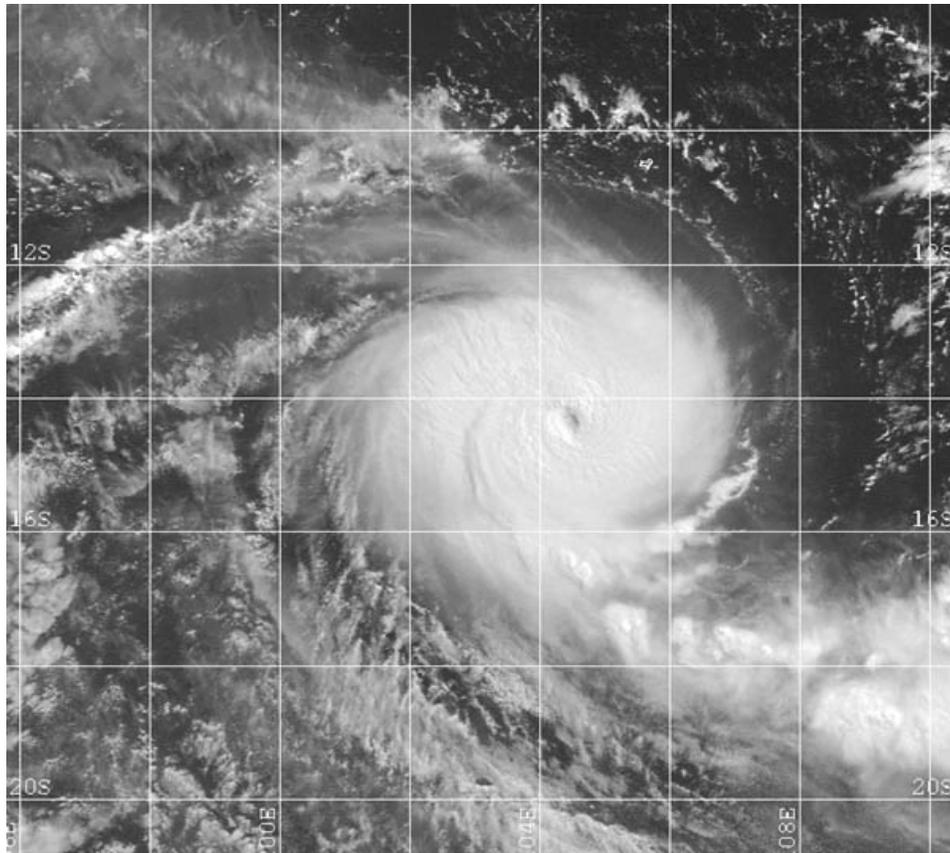


Figure 2-24S-2. 150131Z April 2000 visible image of TC 24S, located approximately 500 nm south of Sumatra near peak intensity. A well developed eye, with a central dense overcast, is evident.

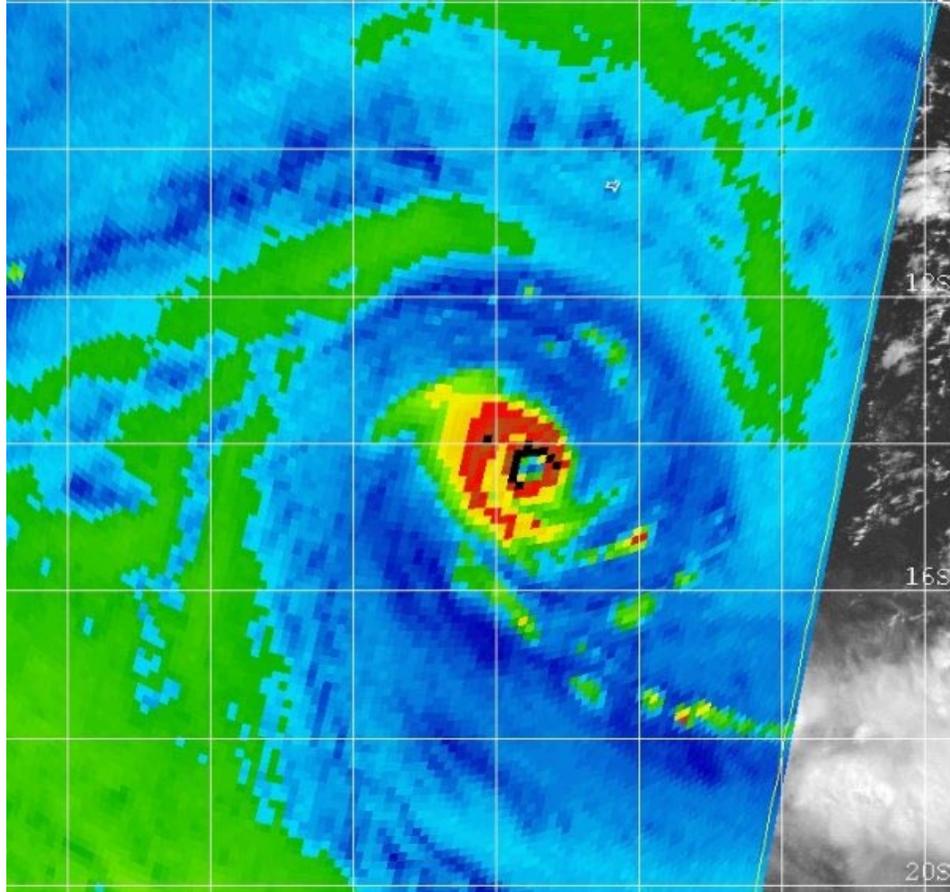


Figure 2-24s-3. 150021Z April 2000 SSMI 85 GHz image of TC 24S, with a well defined eye and a developed rainband west of the circulation center.

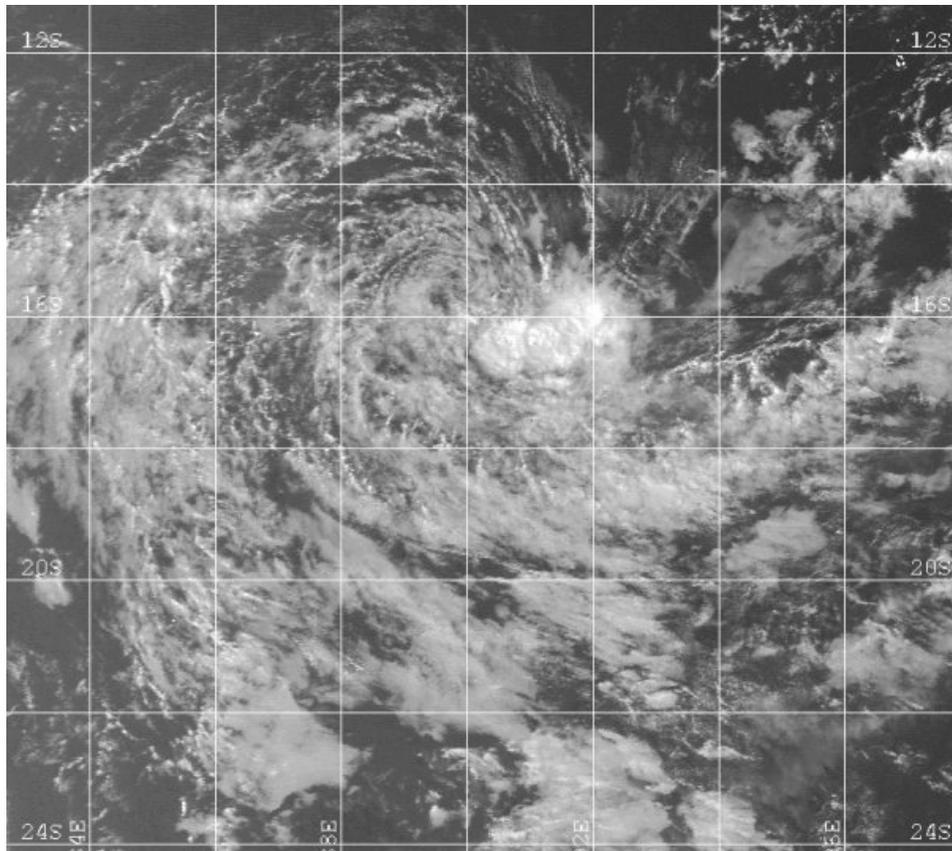
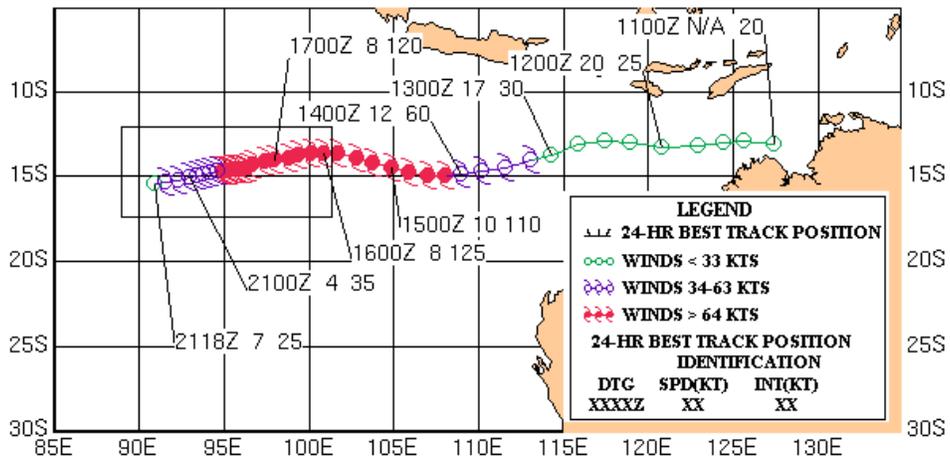
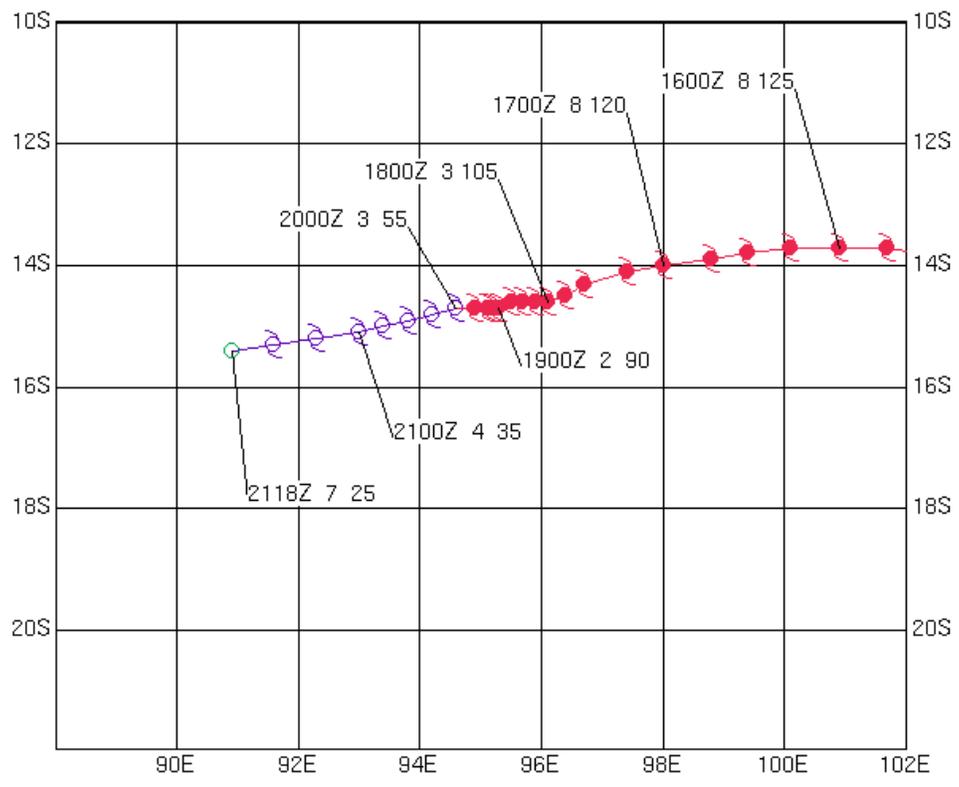


Figure 2-24S-4. 220148Z April 2000 visible image of TC 24S, with a completely exposed low-level circulation center and deep convection about 60 nm to the southeast.

TROPICAL CYCLONE 24S (PAUL)
13 - 21 APRIL 2000



See below to view inset detail



Tropical Cyclone (TC) 25P (Neil*)

First Poor : 0600Z 14 Apr 00

First Fair : 1930Z 14 Apr 00

First TCFA : 0730Z 15 Apr 00

First Warning : 1200Z 15 Apr 00

Last Warning : 0000Z 17 Apr 00

Max Intensity : 40 kts, Gusts to 50 kts

Landfall : None

Total Warnings : 7

Remarks : None

* Name assigned by RSMC Nadi

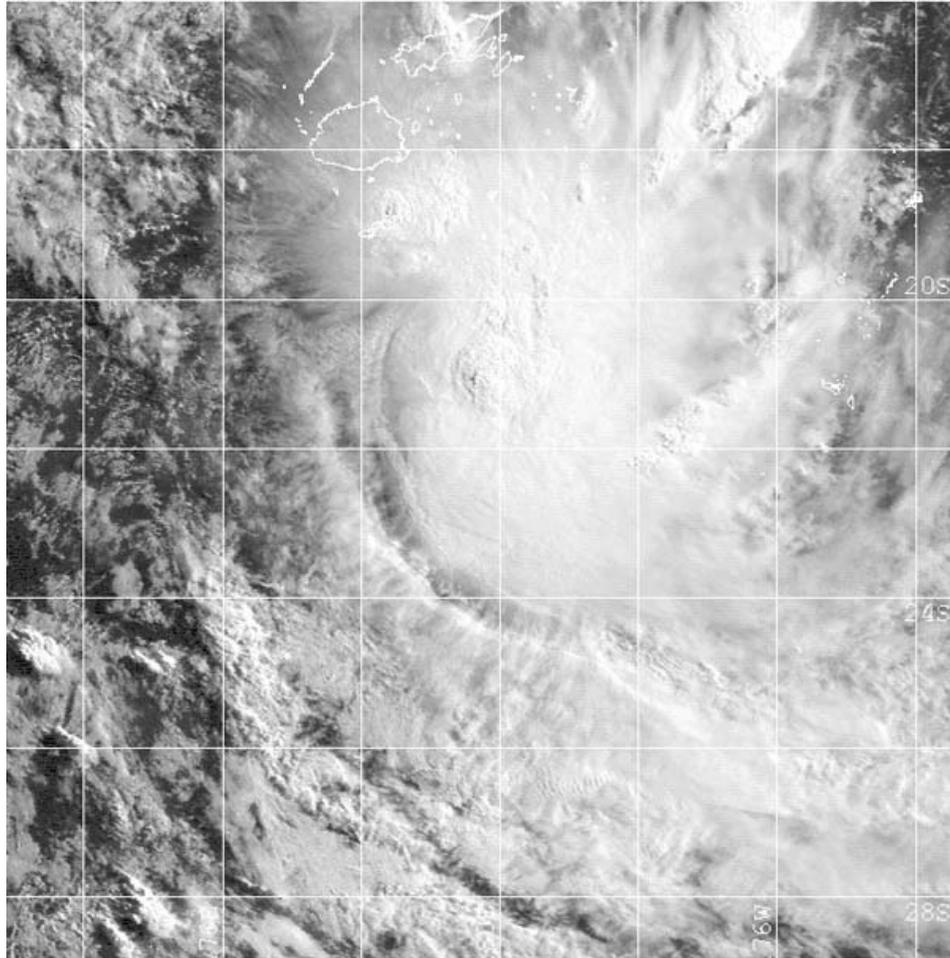
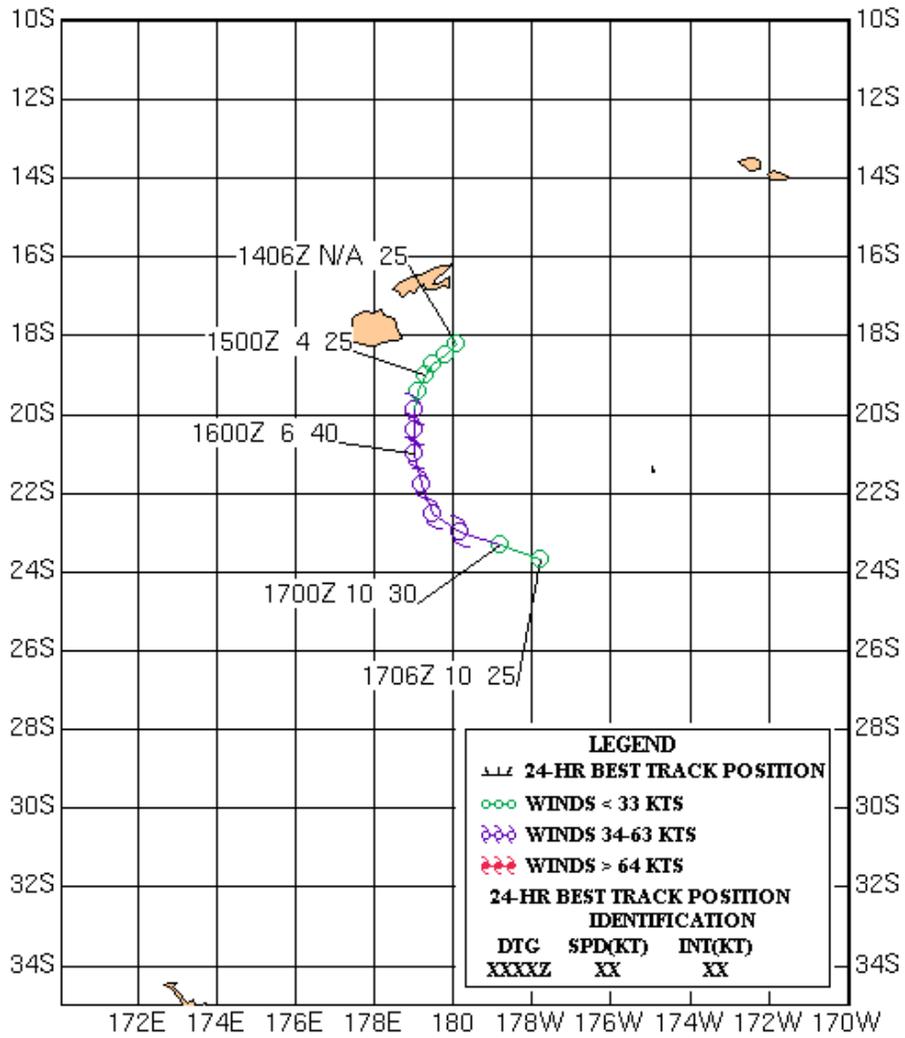


Figure 2-25P-1. 151931Z April 2000 visible satellite image of TC 25P, located about 120 nm south-southeast of Fiji with extensive deep convection around the circulation center.

TROPICAL CYCLONE 25P (NEIL)
15 - 17 APRIL 2000



Tropical Cyclone (TC) 26S (Innocente*)

First Poor : 1800Z 08 Apr 00

First Fair : 0800Z 13 Apr 00

First TCFA : 1000Z 15 Apr 00

First Warning : 1800Z 15 Apr 00

Last Warning : 0600Z 19 Apr 00

Max Intensity : 45 kts, Gusts to 55 kts

Landfall : None

Total Warnings : 8

Remarks : None

* Name assigned by RSMC La Reunion

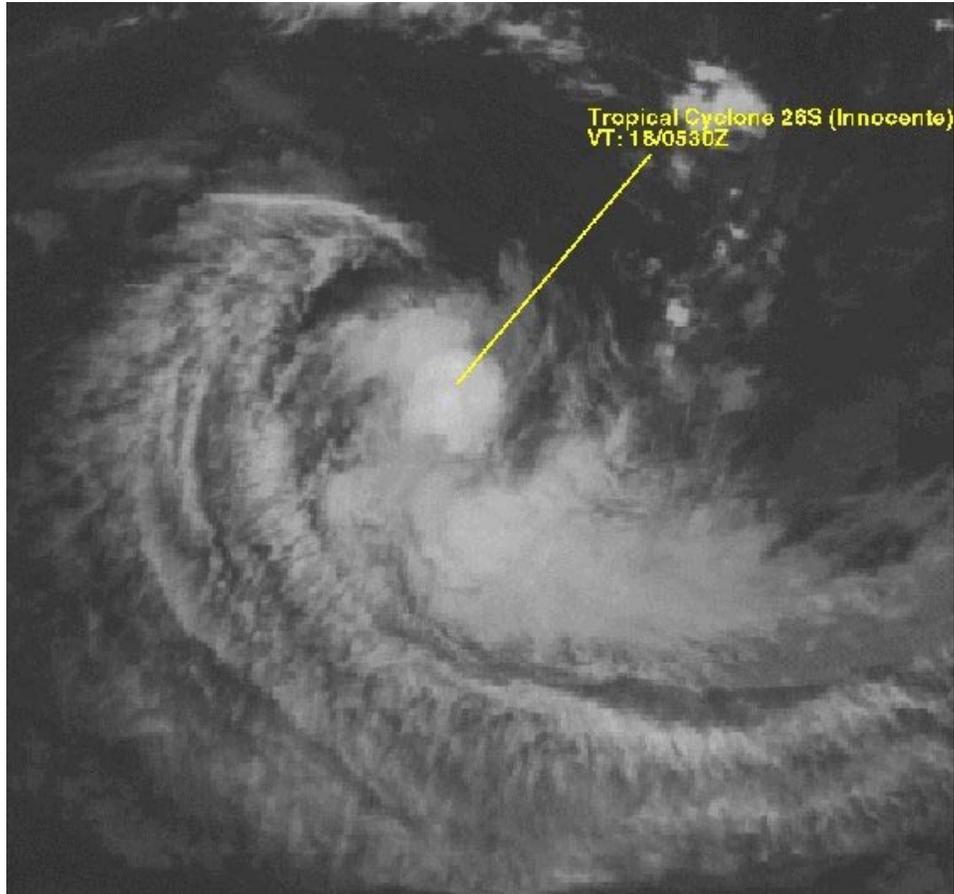
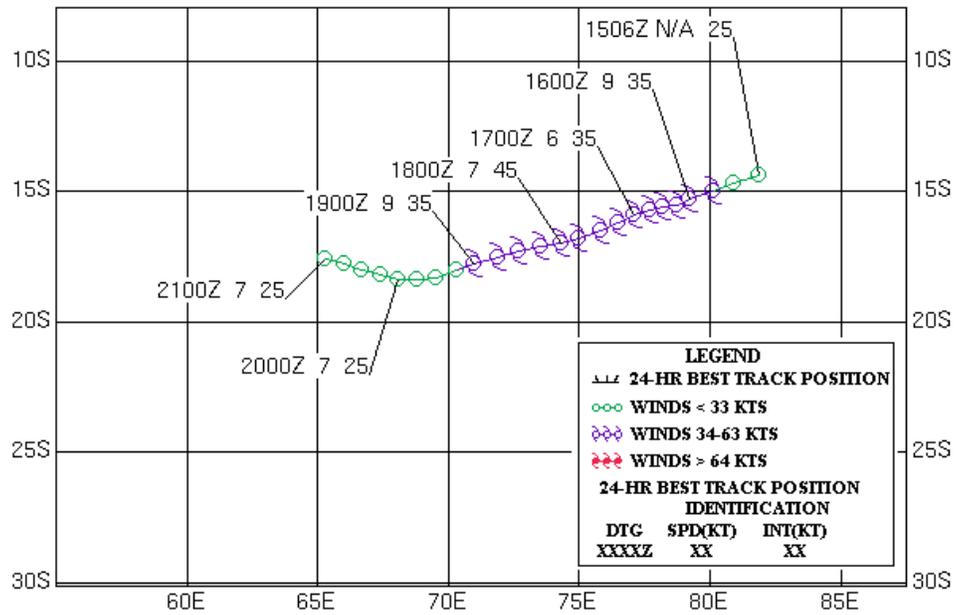


Figure 2-26S-1. 180530Z April 2000 infrared satellite image of TC 26S, located south of Diego Garcia with an estimated intensity of 45 knots. At this time, there is a central dense overcast with northeasterly vertical shear evident.

TROPICAL CYCLONE 26S (INNOCENTE)
15 - 19 APRIL 2000



Tropical Cyclone (TC) 27S (Rosita*)

First Poor : 1800Z 15 Apr 00

First Fair : 2200Z 15 Apr 00

First TCFA : 0030Z 17 Apr 00

First Warning : 0600Z 17 Apr 00

Last Warning : 0600Z 20 Apr 00

Max Intensity : 125 kts, Gusts to 150 kts

Landfall : 1600Z 19 Apr 00 south of Broome, Australia

Total Warnings : 7

Remarks : None

* Name assigned by Perth TCWC

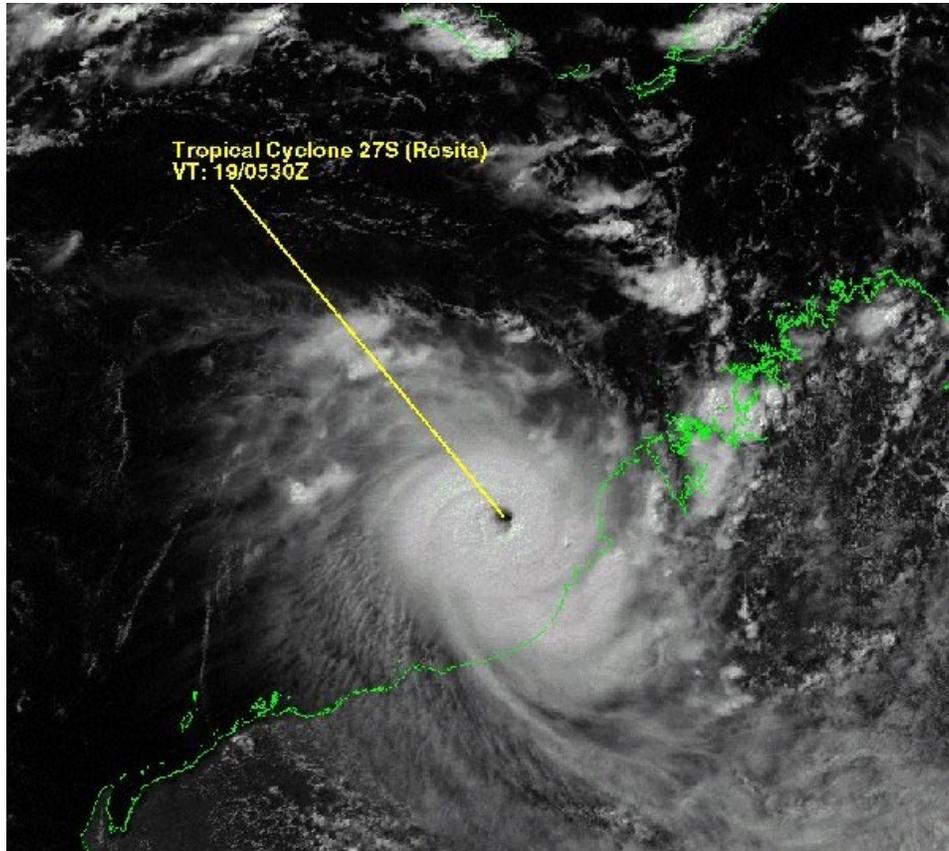


Figure 2-27S-1. 190530Z April 2000 visible satellite image of TC 27S, located west of the Kimberly region of Western Australia with an estimated intensity of 90 knots and a 14 nm diameter eye.

TROPICAL CYCLONE 27S (ROSITA)
17 - 20 APRIL 2000

