

A. TYPHOON TILDA (14-23 APRIL 1959)

Surface map analyses on 12 April 1959 showed a possible closed cyclonic circulation on the Intertropical Convergence Zone south of Truk. Subsequent analyses showed the center moving slowly westward, while surface reports indicated intensification. The 54th Weather Reconnaissance Squadron was requested to investigate the suspect area. A fix made at 140123Z confirmed the existence of surface winds of tropical storm intensity and positioned Tropical Storm TILDA at 5.5N-148.2E.

Tropical Storm TILDA moved northwestward at 7.5 knots to a position near 7.5N - 146.6E where her speed decreased to 3 knots. At the same time the winds increased to typhoon intensity, having been observed by reconnaissance aircraft to be 80 knots in the northeast quadrant. Twelve hours later Typhoon TILDA resumed a northwesterly movement, with two minor oscillations, at an approximate speed of 7 knots. At 190000Z she began a northerly curvature moving at a speed of 9 knots. At 201200Z, near a point 18.7N - 137.5E, TILDA became quasi-stationary for approximately 30 hours. At the same time intensity decreased, and she was downgraded to a tropical storm in the 121800Z warning. During this 30 hour period the typhoon was fixed 6 times by reconnaissance aircraft with all fixes falling inside a circle 30 miles in diameter. A weak col area aloft apparently provided no push or steering and TILDA drifted aimlessly, unable to cross the ridge-line to the north. Weak troughing to the west of TILDA became evident after 220000Z and the rapidly weakening tropical storm moved northward picking up speed as she moved into the westerlies north of 20 degrees.

TILDA rapidly became extra-tropical and a final warning was issued at 230000Z, with the last position 130 miles southwest of Iwo Jima.

Typhoon TILDA reached her greatest intensity 400 miles west of Guam with maximum surface winds of 130 knots. She followed seasonal climatology quite well with the exception of the quasi-stationary period. Thirty-seven warnings were issued covering a period of 10 days.

Typhoon TILDA spent her fury over the open ocean and no damage was recorded.

RECONNAISSANCE AIRCRAFT FIXES - TYPHOON TILDA

FIX NO.	TIME	LAT.	LONG.	*UNIT METHOD & ACCY	MIN SLP MBS	MAX SFC WND	MIN 700MB HGT	MAX FLT LVL WND	700MB TEMP (°C)	700MB DEWPT (°C)	EYE CHARACTERISTICS
1	140123Z	05.5N	148.2E	54-P-10	--	40	10050	38	--	--	
2	140732Z	06.3N	147.8E	54-P-10	--	60	9970	40	12	09	CIRC DIA 30 MI
3	142030Z	07.3N	146.6E	54-P-5	990	45	9920	55	10	07	ELLIP MAJ AXIS 10 MI
4	150200Z	07.4N	146.6E	54-P-7	--	50	9880	48	14	10	ELLIP MAJ AXIS 20 MI
5	150700Z	07.6N	146.6E	54-P-3	987	75	9800	60	14	09	CIRC DIA 30 MI
6	151400Z	08.4N	145.8E	54-R-10	--	--	--	50	--	--	ELLIP 30X25 MI
39 7	152030Z	08.8N	145.7E	54-P-5	--	75	9380	70	--	--	ELLIP 35X20 MI
8	160200Z	09.5N	145.2E	54-P-5	--	80	9110	50	19	--	CIRC DIA 20 MI
9	160640Z	09.7N	144.4E	VW-R--	--	--	--	--	--	--	
10	160800Z	09.8N	144.4E	54-P-5	--	100	8850	--	19	11	CIRC DIA 20 MI
11	161100Z	09.9N	143.9E	54-R--	--	--	--	--	--	--	
12	161400Z	09.9N	143.5E	54-P-10	--	--	--	70	--	--	CIRC DIA 20 MI
13	162030Z	10.3N	142.8E	54-P-5	--	--	8470	120	14	13	CIRC DIA 17 MI
14	170200Z	10.5N	142.3E	54-P-10	--	150	8360	135	16	14	CIRC DIA 20 MI
15	170800Z	10.7N	141.9E	54-P-5	--	120	8220	120	15	14	ELLIP 13X15 MI
16	171500Z	11.6N	141.1E	54-R-15	--	--	--	--	--	--	
17	172030Z	12.1N	140.5E	54-P-3	--	--	8080	130	17	12	CIRC DIA 10 MI
18	180100Z	12.2N	139.7E	54-P-3	--	150	8080	110	17	11	CIRC DIA 15 MI
19	180800Z	12.6N	139.0E	54-P-5	--	100	8190	110	16	16	CIRC DIA 10 MI
20	181400Z	12.8N	138.1E	54-T-15	--	--	--	--	--	--	
21	182030Z	13.5N	137.7E	54-P-1	--	--	8310	--	15	15	CIRC DIA 20 MI

RECONNAISSANCE AIRCRAFT FIXES - TYPHOON TILDA (CONT'D)

FIX NO.	TIME	LAT.	LONG.	*UNIT METHOD & ACCY	MIN SLP MBS	MAX SFC WND	MIN 700MB HGT	MAX FLT LVL WND	700MB TEMP (°C)	700MB DEWPT (°C)	EYE CHARACTERISTICS
22	190143Z	13.8N	137.7E	54-P-5	--	160	8220	110	19	13	CIRC DIA 20 MI
23	190425Z	14.2N	137.2E	VW-R-10	--	--	--	--	--	--	-----
24	190800Z	14.7N	137.1E	54-P-5	--	175	8080	125	19	15	CIRC DIA 20 MI
25	191400Z	15.8N	136.8E	54-R-20	--	--	--	--	--	--	-----
26	192030Z	16.5N	136.6E	54-P-5	--	125	8510	--	21	21	CIRC DIA 35 MI
27	201400Z	18.8N	137.5E	54-R-10	--	--	--	--	--	--	-----
28	202030Z	18.6N	137.0E	54-P-5	964	--	9290	70	21	15	CIRC DIA 30 MI
29	210329Z	18.7N	137.5E	56-P-10	987	80	9750	60	18	12	CLDS IN EYE
30	210800Z	18.6N	137.6E	54-P-5	985	70	9750	--	15	10	HORSESHOE SHAPE
31	211400Z	19.0N	137.4E	54-P-10	--	--	--	--	--	--	-----
32	212155Z	18.7N	137.1E	54-P-15	992	45	--	47	23	23	CIRC DIA 30 MI
33	220208Z	19.7N	136.9E	54-P-10	993	--	10080	40	--	--	CIRC DIA 30 MI
34	220520Z	20.5N	137.0E	54-P-10	996	70	10070	50	--	--	CIRC DIA 30 MI
35	222220Z	24.1N	139.2E	54-P-5	999	40	10080	40	--	--	EYE DIFFUSE

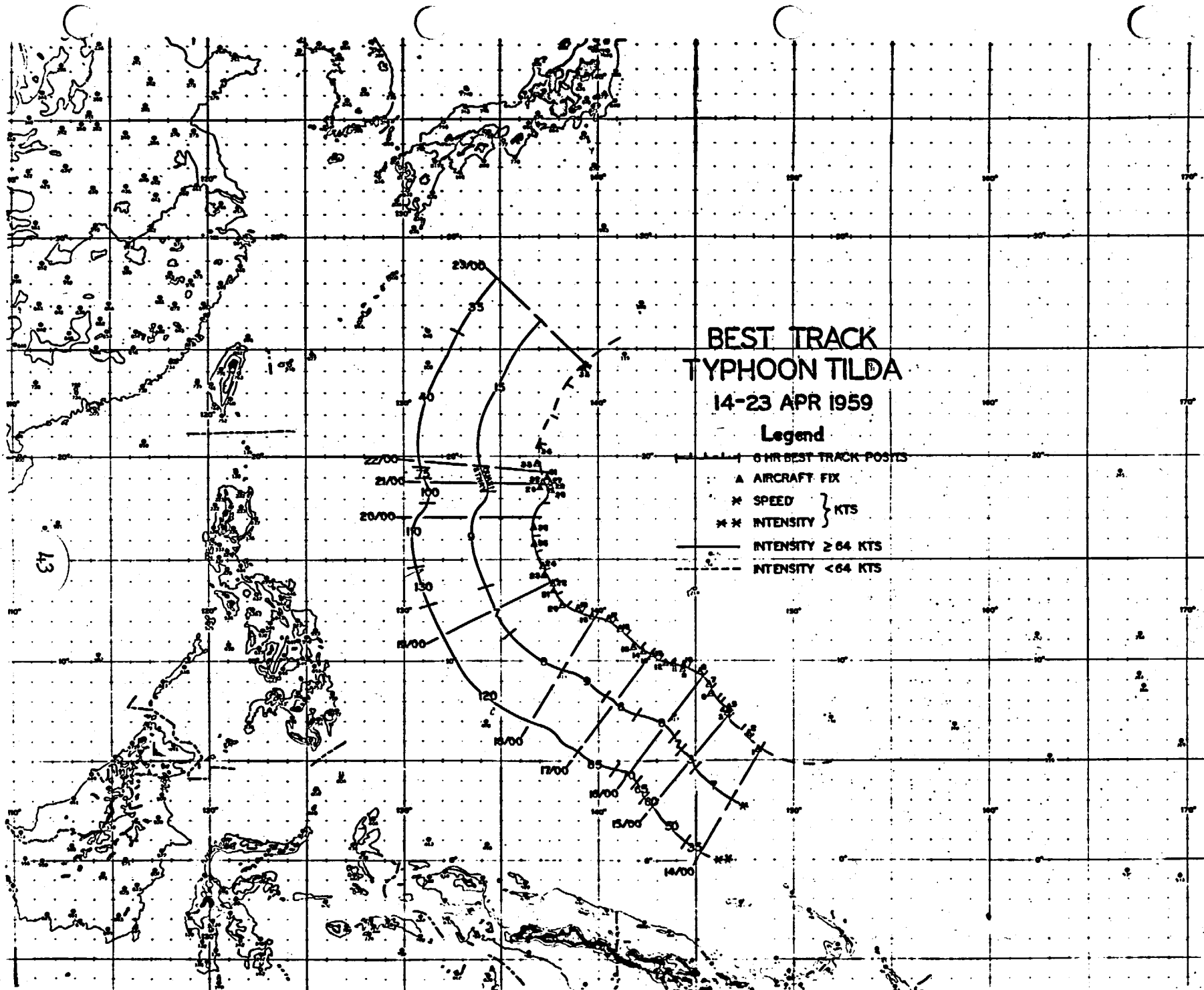
40

TYPHOON TILDA 14 APRIL - 23 APRIL 1959
POSITION AND FORECAST VERIFICATION DATA

DTG	STORM POSITION		12 HR ERROR		24 HR ERROR	
	LAT.	LONG.	DEG.	DISTANCE	DEG.	DISTANCE
140000Z	05.6N	148.3E	-	-	-	-
140600Z	06.1N	147.8E	-	-	-	-
141200Z	06.5N	147.3E	-	-	-	-
141800Z	07.1N	146.7E	325	- 17	-	-
150000Z	07.3N	146.6E	310	- 52	-	-
150600Z	07.6N	146.6E	300	- 62	305	- 95
151200Z	08.1N	146.1E	180	- 17	300	- 110
151800Z	08.6N	145.8E	320	- 81	292	- 86
160000Z	09.3N	145.3E	280	- 26	168	- 58
160600Z	09.7N	144.6E	118	- 30	140	- 130
161200Z	09.9N	143.8E	042	- 50	006	- 45
161800Z	10.0N	143.2E	016	- 55	070	- 68
170000Z	10.3N	142.6E	256	- 36	030	- 90
170600Z	10.6N	142.1E	270	- 25	010	- 105
171200Z	11.3N	141.4E	225	- 37	230	- 100
171800Z	11.9N	140.7E	180	- 43	220	- 66
180000Z	12.2N	139.8E	360	- 06	208	- 65
180600Z	12.4N	139.1E	019	- 42	162	- 55
181200Z	12.8N	138.4E	358	- 30	332	- 31
181800Z	13.3N	137.9E	360	- 06	350	- 65
190000Z	13.9N	137.5E	250	- 23	320	- 42
190600Z	14.5N	137.2E	246	- 30	270	- 30
191200Z	15.3N	136.8E	162	- 38	254	- 60
191800Z	16.2N	136.6E	213	- 25	240	- 60
200000Z	17.1N	136.7E	266	- 20	192	- 85
200600Z	17.8N	137.1E	281	- 35	248	- 80
201200Z	18.6N	137.4E	278	- 37	270	- 28
201800Z	18.7N	137.3E	360	- 58	285	- 25
210000Z	18.7N	137.3E	033	- 97	014	- 110
210600Z	18.7N	137.3E	022	- 60	010	- 155
211200Z	18.7N	137.3E	028	- 85	040	- 212
211800Z	18.7N	137.3E	035	- 30	042	- 175

TYPHOON TILDA 14 APRIL - 23 APRIL 1959
 POSITION AND FORECAST VERIFICATION DATA (CONT'D)

DTG	STORM POSITION		12 HR ERROR		24 HR ERROR	
	LAT.	LONG.	DEG.	DISTANCE	DEG.	DISTANCE
220000Z	19.3N	137.1E	045	- 24	033	- 175
220600Z	20.7N	137.0E	172	- 130	295	- 45
221200Z	22.0N	137.6E	205	- 100	180	- 83
221800Z	23.3N	138.3E	248	- 50	188	- 275
230000Z	24.3N	139.3E	270	- 36	040	- 218
AVERAGE 12 HOUR FORECAST ERROR			43.9 NM			
AVERAGE 24 HOUR FORECAST ERROR			94.6 NM			



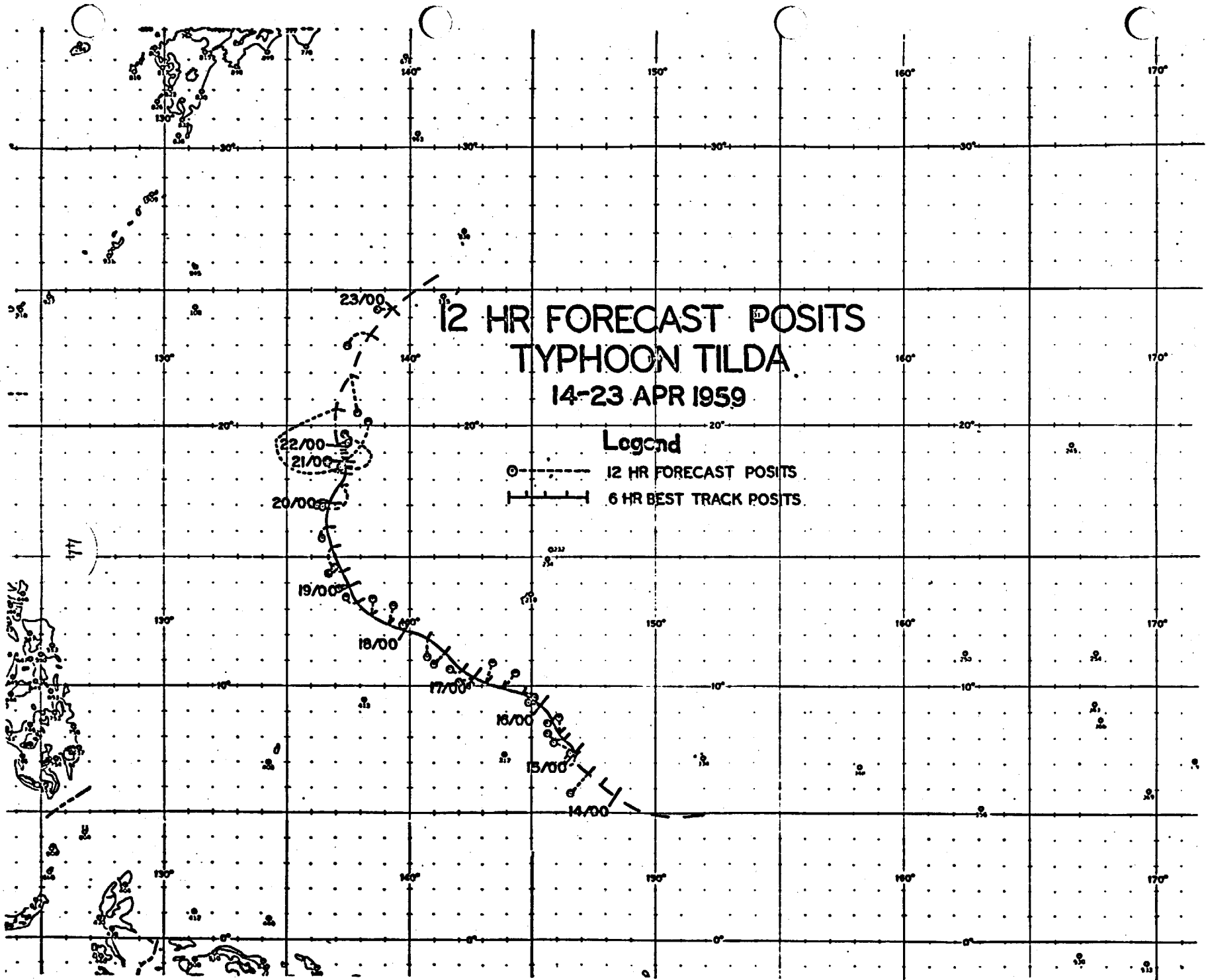
BEST TRACK TYPHOON TILDA

14-23 APR 1959

Legend

- 6 HR BEST TRACK POSITS
- ▲ AIRCRAFT FIX
- * SPEED } KTS
- ** INTENSITY } KTS
- INTENSITY ≥ 64 KTS
- - - INTENSITY < 64 KTS

43



12 HR FORECAST POSITS TYPHOON TILDA 14-23 APR 1959

Legend

- 12 HR FORECAST POSITS
- 6 HR BEST TRACK POSITS

23/00
22/00
21/00
20/00
19/00
18/00
17/00
16/00
15/00
14/00

177

