

E. TYPHOON OLIVE (231800Z-300000Z JUNE 1960)

A weak circulation that was later to be named OLIVE appeared on 16 June between Woleai Atoll and Yap. It moved slowly W to the vicinity of Yap, then seemed to stagnate in that area from 18 to 21 June; again commencing a slow but steady movement WNW toward Manila, and intensifying enroute. At 231800Z the first warning was issued on T.D. OLIVE with surface winds of 30 kts. OLIVE reached storm intensity by 240000Z and typhoon intensity by 241200Z. Surface winds increased to 125 kts by 250600Z, but the typhoon rapidly weakened at the surface and later at upper levels as it passed inland over the Republic of the Philippines. It passed only 25 mi NE of Manila at 261800Z. Upon return to water surface, it intensified again into a typhoon, only to weaken as it moved inland near Fort Bayard, 228 mi WSW of Hong Kong at 292100Z.

OLIVE developed and intensified in a well developed band of surface easterlies SW of a large Pacific high centered near 32N 168E, which was extensively elongated E-W. This belt of easterlies extended through 30 to 35 degrees of latitude. In relation to the 40,000 ft stream-line chart, OLIVE appeared to have originated beneath the SW end of the mid-Pacific trough, and then to have moved from beneath this trough into an area of divergence. The Clark AB upper winds indicate that OLIVE extended through the 40,000 ft level.

As OLIVE approached the Philippines from the E, a low commenced forming to the leeward side of the Philippines in the South China Sea. This position was near 16N and 114E at 260000Z. This low intensified as OLIVE passed over the Philippines, and by the time that OLIVE was also in the South China Sea (271800Z), surface analysis indicated that the low had an intensity comparable to that of OLIVE. Reconnaissance into this low revealed that it lacked the structure or wind speeds associated with typhoons, and by 280600Z the low existed only as a trough associated with OLIVE.

In view of some of the other tracks of the season, the most unusual feature of OLIVE is its excellent conformity to climatology for storms commencing near Yap and Koror during the month of June. The speeds varied from 8 kts on 26 June to 13 kts on 27 June, and the average direction of movement was 295 degrees. OLIVE traveled 1500 mi from first to last warning at an average speed of 10 kts or 240 mi each day over a period of 6 days and 6 hours.

**BEST TRACK
TYPHOON OLIVE
23-30 JUN 1960**

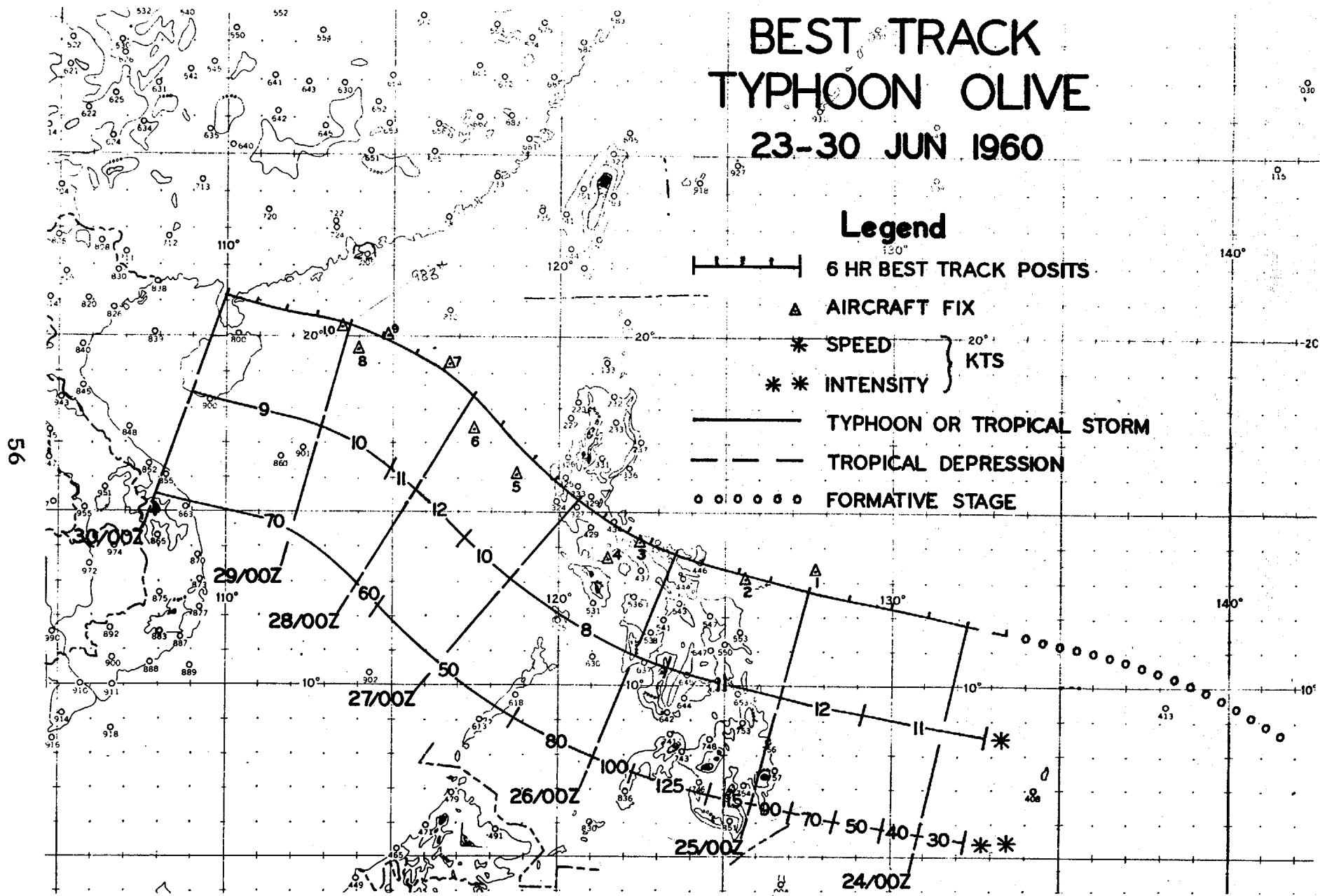
Legend

6 HR BEST TRACK POSITS

AIRCRAFT FIX

* SPEED } 20°
* * INTENSITY } KTS

TYPHOON OR TROPICAL STORM
TROPICAL DEPRESSION
FORMATIVE STAGE



RECONNAISSANCE AIRCRAFT FIXES - TYPHOON OLIVE

FIX NO.	TIME	LAT.	LONG.	UNIT METHOD & ACCY	MIN SLP MBS	MAX SFC WND	MIN 700MB HGT	MAX 700MB WND	700MB TT/Td (°C)	EYE CHARACTERISTICS
1	250015Z	13.3N	127.8E	56-P-10	950	100	8800	110	16/--	DIA 05 MI WALL CLDS ALL QUADS
2	250830Z	13.1N	125.6E	USN-R---	--	--	--	--	--	CIRC DIA 20 MI
3	252338Z	14.2N	122.4E	315-P-18	--	--	--	110	12/--	CIRC DIA 25 MI OPEN SE
4	261057Z	13.7N	121.3E	315-P-20	--	80	--	100	07/--	NO VISIBLE EYE
5	271247Z	16.1N	118.8E	315-P-05	--	30	10090	40	11/--	CIRC DIA 35 MI OPEN NE
6	280000Z	17.3N	117.3E	56-P-05	1000	--	10040	35	09/09	ELLIP 20X12 MI
7	280500Z	19.2N	116.8E	56-P-08	989	60	9840	45	16/12	OPEN N & NE
8	282000Z	19.7N	114.0E	USN-R---	--	--	--	--	--	CIRC DIA 20 MI OPEN E
9	282224Z	20.0N	114.9E	315-P-05	--	75	--	60	--	CIRC DIA 35 MI OPEN W
10	290400Z	20.2N	113.5E	56-P-12	976	50	9640	50	19/14	OPEN N THRU SE

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TYPHOON OLIVE 23-30 JUNE 1960
POSITION AND FORECAST VERIFICATION DATA

DTG	STORM POSITION		24 HR. ERROR	48 HR. ERROR
	LAT.	LONG.	DEG. DISTANCE	DEG. DISTANCE
231800Z	11.5N	133.3E	-----	-----
240000Z	11.8N	132.2E	-----	-----
240600Z	12.0N	131.1E	-----	-----
241200Z	12.3N	130.0E	-----	-----
241800Z	12.5N	128.8E	-----	-----
250000Z	12.7N	127.6E	-----	-----
250600Z	13.0N	126.4E	310-206	-----
251200Z	13.3N	125.3E	062-86	-----
251800Z	13.5N	124.3E	045-108	-----
260000Z	13.7N	123.5E	335-88	-----
260600Z	14.1N	122.8E	260-163	308-258
261200Z	14.4N	122.1E	258-165	032-65
261800Z	14.8N	121.4E	223-75	013-83
270000Z	15.3N	120.7E	248-198	295-179
270600Z	15.8N	119.9E	226-150	242-421
271200Z	16.5N	119.1E	224-203	233-342
271800Z	17.4N	118.2E	142-77	210-285
280000Z	18.3N	117.4E	163-83	236-430
280600Z	19.0N	116.5E	177-88	212-348
281200Z	19.5N	115.6E	208-75	215-403
281800Z	19.9N	114.7E	193-73	158-167
290000Z	20.2N	113.7E	021-108	153-102
290600Z	20.4N	112.7E	013-168	168-58
291200Z	20.7N	111.8E	019-180	194-31
291800Z	20.9N	110.9E	020-138	284-42
300000Z	21.2N	110.0E	049-116	008-275

AVERAGE 24 HOUR ERROR 127 MI
AVERAGE 48 HOUR ERROR 218 MI

24 HR FORECAST POSITS TYPHOON OLIVE

23-30 JUN 1960

Legend

○--- 24 HR FORECAST POSITS

— 6 HR BEST TRACK POSITS

30/00Z

29/00Z

28/00Z

27/00Z

26/00Z

25/00Z

24/00Z