TYPHOON KATHY - 120600Z to 251200Z AUGUST

I. DATA

A. Statistics

1. Calendar days of tropical warning - 13½
2. Calendar days of typhoon intensity - 10
3. Total distance traveled during tropical warning period - 3114 mi

B. Characteristics as a typhoon

1. Minimum observed SLP - 945mb, 202225Z
2. Minimum observed 700mb height - 2670m, 180400Z
3. Maximum surface wind - 115 kts
4. Max radius of surface circulation - 850 mi

II. DEVELOPMENT

A. Initial impetus - Superposition of Polar Trough with easterly wave and subsequent fracture

B. Initial surface vortex

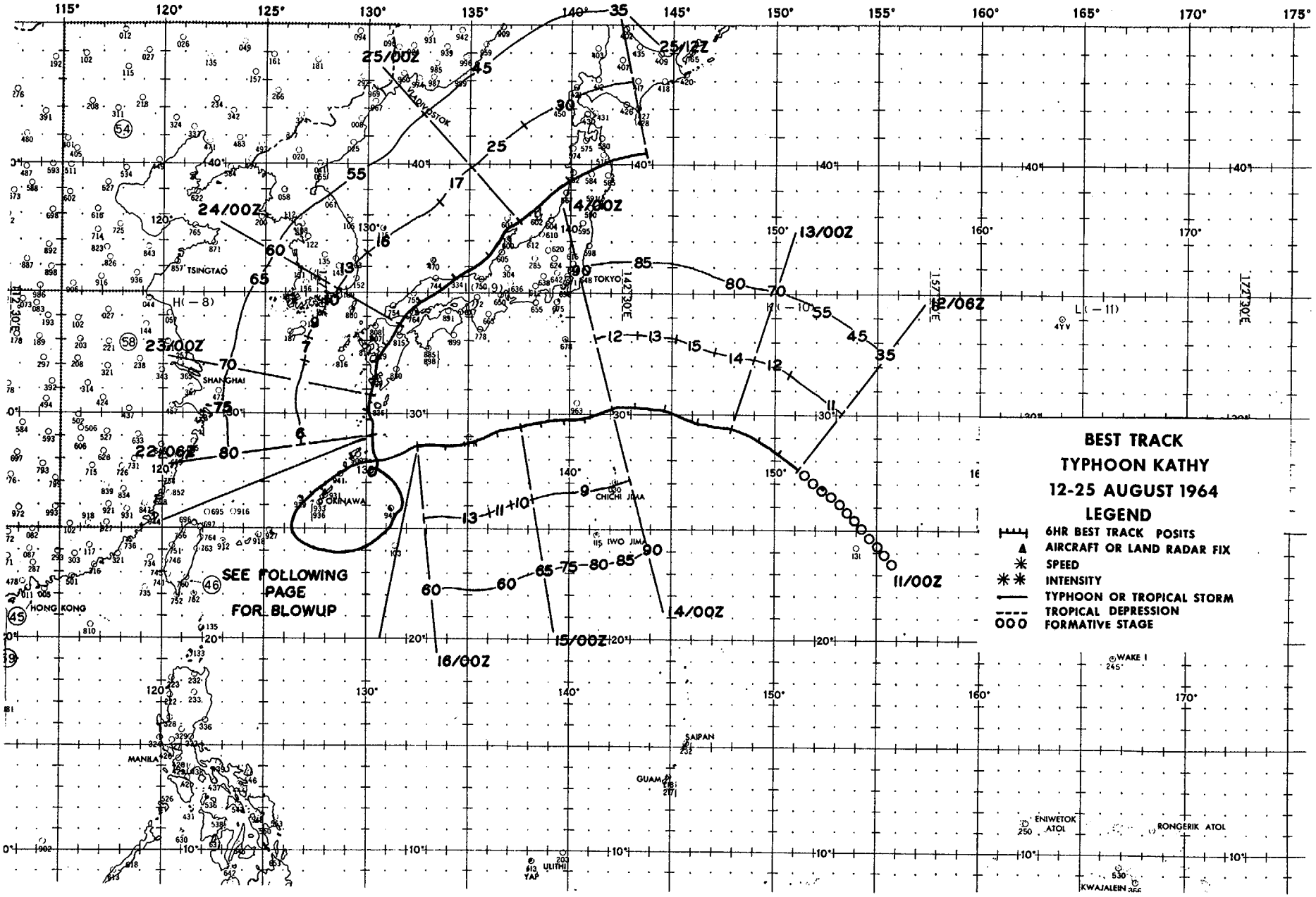
1. Embedded vortex at 110000Z
2. Surface pressure less than 1010mb

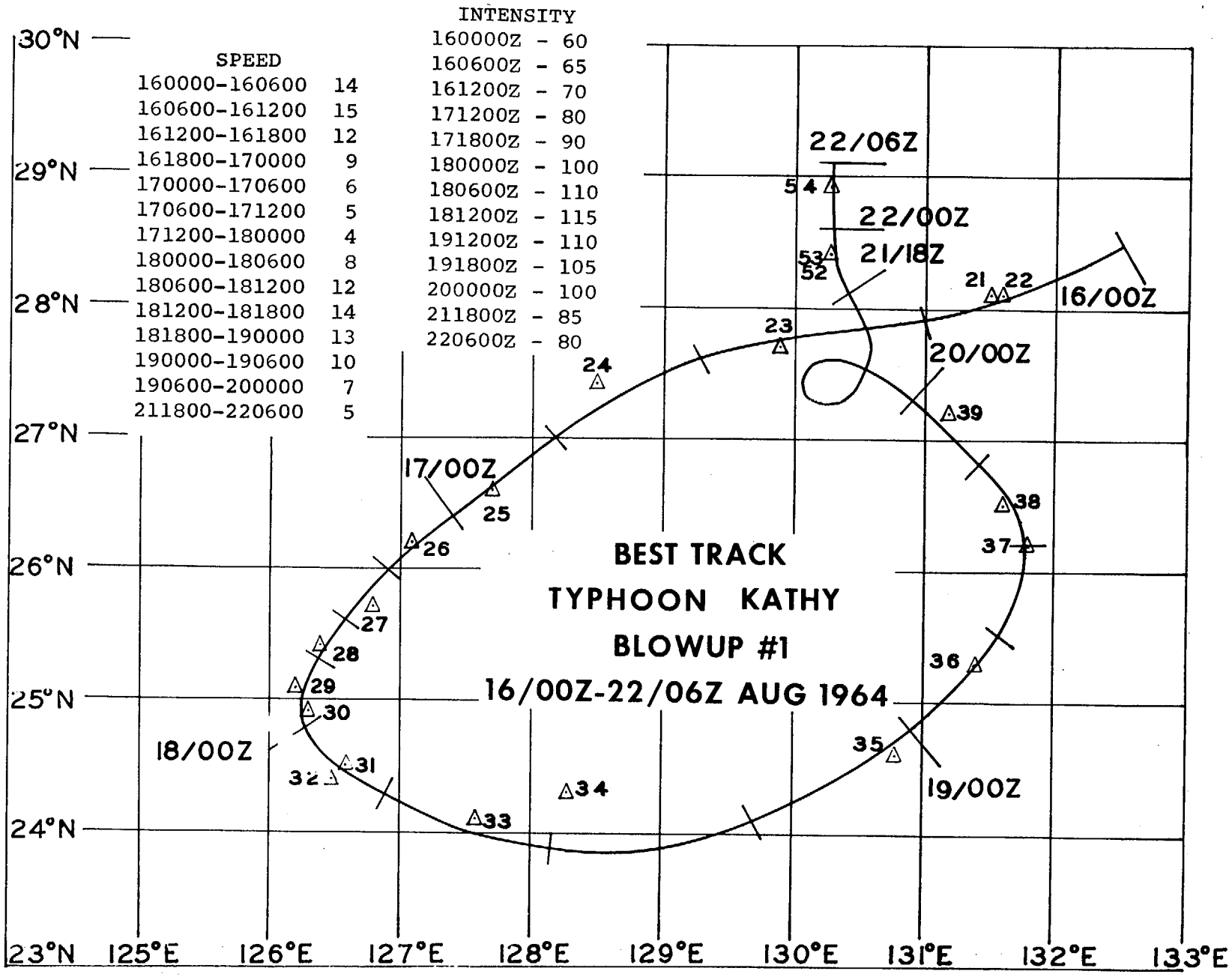
C. 200mb flow above surface vortex

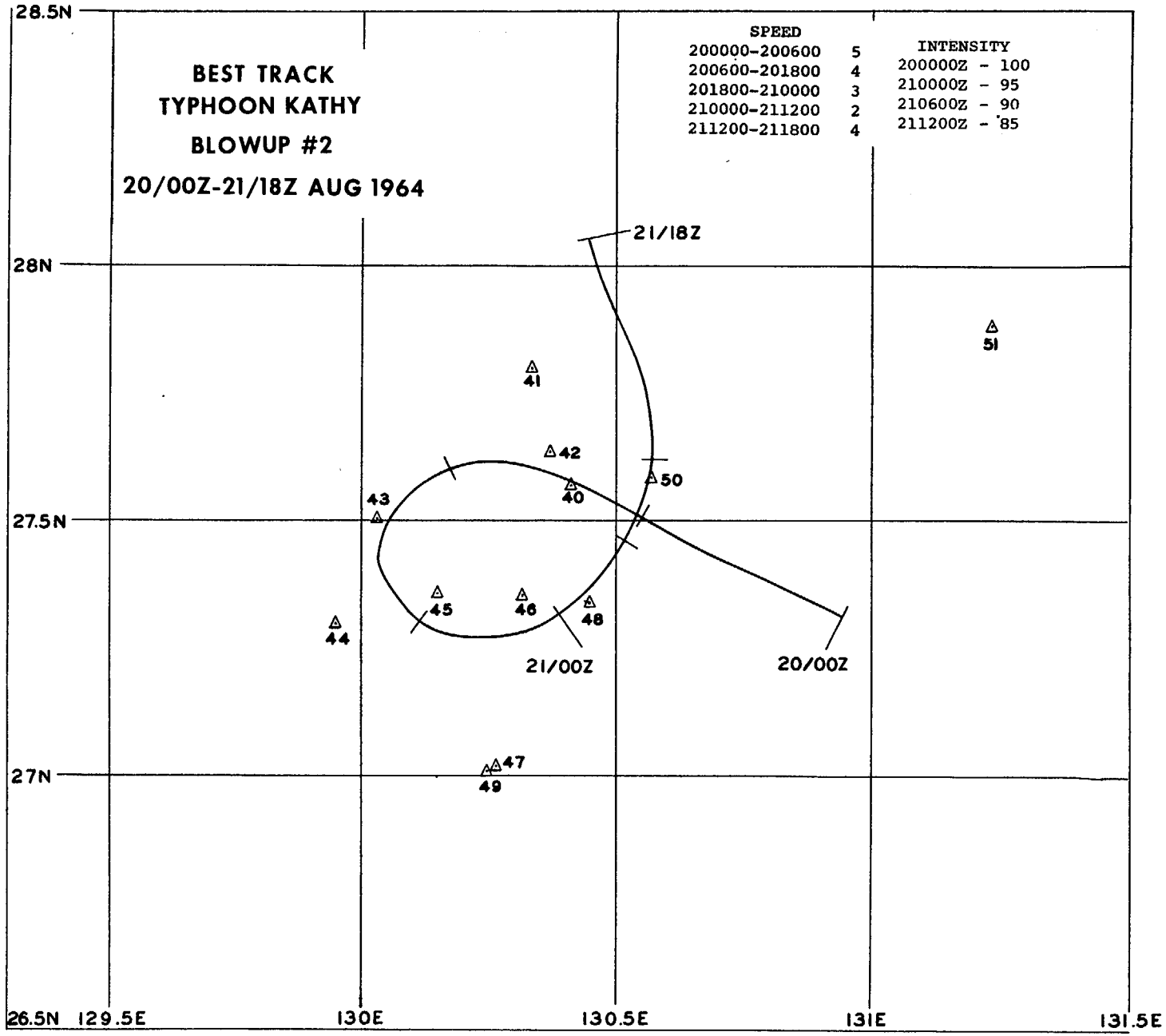
1. Initial - East section of Polar Trough
2. Upon reaching typhoon intensity - SE quadrant of anticyclone

III. FINAL DISPOSITION

A. Extratropical


BEST TRACK
TYPHOON KATHY
12-25 AUGUST 1964
LEGEND
6HR BEST TRACK POSITS
AIRCRAFT OR LAND RADAR FIX
SPEED
INTENSITY
TYPHOON OR TROPICAL STORM
TROPICAL DEPRESSION
FORMATIVE STAGE
SEE FOLLOWING PAGE FOR BLOWUP
25/00Z
25/12Z
24/00Z
23/00Z
22/06Z
14/00Z
13/00Z
12/06Z
11/00Z
16/00Z
15/00Z
14/00Z
VLADIVOSTOK
TSINGTAO
SHANGHAI
TOKYO
OKINAWA
CHICHI JIMA
IWO JIMA
HONG KONG
MANILA
SAIPAN
GUAM
YAP
ULITHI
ENIWETOK ATOL
RONGERIK ATOL
KWAJALEIN
WAKE I
142°30'E
157°30'E
172°30'E


SPEED
160000-160600 14
160600-161200 15
161200-161800 12
161800-170000 9
170000-170600 6
170600-171200 5
171200-180000 4
180000-180600 8
180600-181200 12
181200-181800 14
181800-190000 13
190000-190600 10
190600-200000 7
211800-220600 5
INTENSITY
160000Z - 60
160600Z - 65
161200Z - 70
171200Z - 80
171800Z - 90
180000Z - 100
180600Z - 110
181200Z - 115
191200Z - 110
191800Z - 105
200000Z - 100
211800Z - 85
220600Z - 80
BEST TRACK
TYPHOON KATHY
BLOWUP #1
16/00Z-22/06Z AUG 1964
22/06Z
22/00Z
21/18Z
16/00Z
20/00Z
19/00Z
18/00Z
17/00Z
30°N
29°N
28°N
27°N
26°N
25°N
24°N
23°N
125°E
126°E
127°E
128°E
129°E
130°E
131°E
132°E
133°E


BEST TRACK
TYPHOON KATHY
BLOWUP #2
20/00Z-21/18Z AUG 1964
SPEED
200000-200600 5
200600-201800 4
201800-210000 3
210000-211200 2
211200-211800 4
INTENSITY
200000Z - 100
210000Z - 95
210600Z - 90
211200Z - 85
21/18Z
21/00Z
20/00Z
40
41
42
43
44
45
46
47
48
49
50
51
28.5N
28N
27.5N
27N
26.5N
129.5E
130E
130.5E
131E
131.5E

EYE FIXES TYPHOON KATHY

FIX NO.	TIME	POSIT	UNIT-METHOD-ACCY	FLT LVL	FLT LVL WND	OBS SFC WND	OBS MIN SLP	MIN 700MB HGT	FLT LVL TT/TD	REMARKS
1	121600Z	28.5N 149.5E	MATS ACFT 20959	---	--	--	---	---	--/--	
2	122200Z	29.1N 148.4E	56-P-2	700mb	65	75	981	2923	12/12	CIRC 25 MI DIA WALL CLDS 5 MI THICK
3	130400Z	29.2N 146.8E	56-P-7	700mb	65	110	975	2877	15/13	CIRC 9 MI DIA WALL CLDS 4 MI THICK OPEN N
4	130400Z	29.5N 146.9E	54-R-5	30000ft	--	60	---	---	--/--	
5	130930Z	30.1N 146.1E	VW1-R-5	1500ft	--	--	---	---	--/--	OVAL 12 MI E/W 10 MI N/S WALL CLD THICKNESS 10 MI S 13 MI W 6 MI N 9 MI E
6	131500Z	30.2N 143.9E	VW1-R-5	8000ft	--	--	---	---	--/--	CIRC 12 MI DIA
7	132200Z	30.2N 142.1E	54-R-3	30000ft	--	50	---	---	--/--	CIRC 7 MI DIA CLDS
8	132225Z	30.2N 141.9E	56-P-12	700mb	60	140	977	2917	16/14	CIRC 55 MI DIA CLSD WALL CLDS 7 MI THICK
9	140347Z	30.0N 141.1E	56-P-2	700mb	60	110	977	2935	18/13	CIRC 45 MI DIA OPEN NE WALL CLD 10 MI THICK
10	140400Z	29.9N 141.1E	54-R-5	30000ft	20	80	---	---	--/--	CIRC 15 MI DIA OPEN N AND W QUADS
11	141000Z	29.8N 139.9E	VW1-P-2	700mb	--	80	982	2980	19/--	CIRC 15 MI DIA OPEN NW
12	141345Z	29.6N 139.7E	VW1-R-15	10000ft	--	--	---	---	--/--	EYE DIFFUSED OPEN ALL QUADS XCP SE

FIX NO.	TIME	POSIT	UNIT-METHOD-ACCY	FLT LVL	FLT LVL WND	OBS SFC WND	OBS MIN SLP	MIN 700MB HGT	FLT LVL TT/TD	REMARKS
13	142200Z	29.5N 138.0E	54-R-5	30000ft	--	70	---	---	--/--	OVAL 20 MI WIDE 25 MI LONG WALL CLD NE QUAD ONLY
14	142200Z	29.5N 137.8E	56-P-2	700mb	45	55	989	2999	20/--	CIRC 40 MI DIA OPEN N SEMI
15	150335Z	29.3N 137.1E	54-V-5	30000ft	--	60	---	---	--/--	CIRC 50 MI DIA OPEN N SEMI MAX TOPS 17000FT
16	150400Z	29.2N 136.7E	56-P-2	688mb	50	55	---	3005	19/--	ELLIP E-W OPEN W THRU ENE
17	151000Z	29.0N 135.8E	VW1-P-5	425ft	--	60	987	---	29/--	ILL DEFINED NO WALL CLDS
18	151530Z	28.6N 134.5E	VW1-P-5	6000ft	--	--	---	---	--/--	ILL DEFINED CLDS FORMING SE SEMI
19	152200Z	28.9N 133.0E	56-P-3	700mb	45	55	989	3027	17/13	OVAL 10 MI N/S 20 MI E/W WALL CLD S QUAD ONLY
20	152230Z	28.4N 132.8E	54-V-15	29000ft	--	70	---	---	--/--	CIRC 35 MI DIA ILL DEFINED
21	160400Z	28.1N 131.5E	56-P-3	683mb	44	80	989	3015	17/9	NO EYE MULTIPLE 700MB CLSD CIRCULATIONS
22	160419Z	28.1N 131.6E	54-R-10	30000ft	--	70	---	---	--/--	CIRC 15 MI DIA
23	161000Z	27.7N 129.9E	VW1-P-2	1000ft	--	80	985	---	24/15	OVAL 10 MI DIA
24	161530Z	27.4N 128.5E	VW1-R-15	10000ft	--	--	---	---	--/--	WALL CLD N QUAD ONLY
25	162200Z	26.6N 127.7E	56-P-2	700mb	42	45	974	2899	16/13	ELLIP 30 MI N/S 20 MI E/W NO DEFINITE WALL CLDS OPEN E-SE
26	170346Z	26.2N 127.1E	56-P-2	700mb	50	70	975	2887	15/14	CIRC 4 MI DIA WALL CLD ALL QUADS WEAK SE AND N

FIX NO.	TIME	POSIT	UNIT-METHOD-ACCY	FLT LVL	FLT LVL WND	OBS SFC WND	OBS MIN SLP	MIN 700MB HGT	FLT LVL TT/TD	REMARKS
27	171040Z	25.7N 126.8E	VW1-R-3	10000ft	--	--	---	---	--/--	CIRC 16 MI DIA CLSD WALL CLDS 7 MI THICK
28	171530Z	25.4N 126.4E	VW1-R-2	10000ft	--	--	---	---	--/--	CIRC 11 MI DIA OPEN E SEMI
29	172144Z	25.1N 126.2E	54-R-5	31000ft	--	--	---	---	--/--	OVAL 30 MI SW/NE 20 MI SE/NW OPEN NE AND SW
30	172200Z	24.9N 126.3E	56-P-2	700mb	90	100	954	2707	19/17	CIRC 16 MI DIA OPEN NW WALL CLDS 5 MI THICK
31	180323Z	24.5N 126.6E	54-R-10	30000ft	--	60	---	---	--/--	CIRC 20 MI CLSD
32	180400Z	24.4N 126.5E	56-P-2	700mb	80	130	948	2670	17/14	CIRC 6 MI DIA OPEN N
33	180950Z	24.1N 127.6E	VW1-R-5	1500ft	--	--	---	---	--/--	CIRC 8 MI DIA OPEN W SEMI WALL CLD 4 MI THICK MAX TOPS 60000FT
34	181500Z	24.3N 128.3E	VW1-R-5	1500ft	--	--	---	---	--/--	ELLIP 10 MI N/S 16 MI E/W WALL CLD 5 MI THICK MAX TOPS 50000FT
35	182255Z	24.6N 130.8E	56-P-4	698mb	59	130	957	2795	20/12	CIRC 35 MI DIA OPEN N
36	190400Z	25.3N 131.4E	56-P-1	707mb	60	130	---	2781	22/13	ELLIP 30 MI WNW/ESE 25 MI NNE/SSW WEAK WALL CLDS ALL QUADS
37	190957Z	26.2N 131.8E	VW1-R-15	1500ft	--	--	---	---	--/--	CIRC 5 MI DIA
38	191531Z	26.5N 131.6E	VW1-R-10	3645ft	--	--	---	---	--/--	CIRC 8 MI DIA
39	192200Z	27.2N 131.2E	56-P-2	700mb	70	90	955	2707	18/18	CIRC 35 MI DIA CLSD XCP BROKEN NW WALL CLD 8 TO 10 MI THICK

FIX NO.	TIME	POSIT	UNIT-METHOD -ACCY	FLT LVL	FLT LVL WND	OBS SFC WND	OBS MIN SLP	MIN 700MB HGT	FLT LVL TT/TD	REMARKS
40	200330Z	27.6N 130.4E	56-P-3	700mb	70	100	952	2682	17/17	CIRC 20 MI DIA
41	200930Z	27.8N 130.3E	LND RDR	---	--	--	---	---	--/--	
42	200940Z	27.6N 130.4E	VW1-R-5	4000ft	--	--	---	---	--/--	CIRC 16 MI DIA WALL CLD 8 MI THICK
43	201400Z	27.5N 130.0E	LND RDR	---	--	--	---	---	--/--	
44	201530Z	27.3N 130.0E	VW1-R-5	500ft	--	--	---	---	--/--	CIRC 16 MI DIA OPEN E WALL CLD 16 MI THICK
45	201600Z	27.4N 130.2E	LND RDR	---	--	--	---	---	--/--	
46	202225Z	27.4N 130.3E	56-P-2	700mb	65	85	945	2740	17/13	CIRC 12 MI DIA OPEN TO E AND SE WALL CLD 5 MI THICK
47	202200Z	27.0N 130.3E	54-R-2	30000ft	--	--	---	---	--/--	CIRC 10 MI DIA
48	210345Z	27.3N 130.5E	56-P-2	708mb	58	70	---	2822	18/13	CIRC 35 MI DIA OPEN E THRU N
49	210400Z	27.0N 130.3E	54-R-10	30000ft	--	25	---	---	--/--	CIRC 14 MI DIA OPEN E WALL CLD 8 MI THICK
50	211015Z	27.6N 130.6E	VW1-P-5	1500ft	--	70	964	---	24/20	ILL DEFINED OPEN NE
51	211540Z	27.9N 131.2E	VW1-R-1	9000ft	--	--	---	---	--/--	CIRC 24 MI DIA OPEN E WALL CLD 10 MI THICK
52	212200Z	28.4N 130.3E	56-P-2	689mb	50	55	966	2783	18/18	CIRC 20 MI DIA
53	212228Z	28.4N 130.3E	54-R-0	30000ft	--	--	---	---	--/--	CIRC 10 MI DIA
54	220405Z	28.9N 130.3E	56-P-2	700mb	55	65	974	2847	16/16	CIRC 55 MI DIA OPEN S
55	220955Z	29.5N 130.3E	VW1-P-1	1300ft	--	65	967	---	23/22	CIRC 10 MI DIA OPEN E TOPS 35000FT

FIX NO.	TIME	POSIT	UNIT-METHOD -ACCY	FLT LVL	FLT LVL WND	OBS SFC WND	OBS MIN SLP	MIN 700MB HGT	FLT LVL TT/TD	REMARKS
56	221530Z	30.0N 130.1E	VW1-R-1	4800ft	--	--	---	---	--/--	CIRC 15 MI DIA OPEN E TOPS 35000FT
57	222200Z	30.4N 130.0E	54-R-10	30000ft	--	--	---	---	--/--	CIRC 50 MI DIA
58	222218Z	30.6N 130.1E	56-P-1	500mb	60	65	971	2857	3/-1	700MB TEMP 15 CIRC 60 MI DIA
59	230320Z	31.1N 130.3E	54-R-5	30000ft	--	--	---	---	--/--	
60	230330Z	31.1N 130.4E	56-P-1	672mb	65	70	964	2798	16/14	CIRC 40 MI DIA
61	231000Z	31.8N 130.2E	VW1-R-1	8000ft	--	--	---	---	--/--	CIRC 12 MI DIA
62	231530Z	32.5N 130.8E	VW1-R-5	8000ft	--	--	---	---	--/--	CIRC 13 MI DIA WALL CLDS 6 MI THICK
63	232200Z	33.3N 131.4E	56-P-1	500mb	30	--	---	---	2/2	NO EYE
64	240315Z	34.0N 132.0E	56-P-1	500mb	65	60	---	---	2/2	NO EYE
65	241100Z	35.0N 134.1E	LND RDR	---	--	--	---	---	--/--	
66	241300Z	36.3N 135.0E	LND RDR	---	--	--	---	---	--/--	
67	250109Z	37.9N 137.9E	56-P-1	499mb	--	60	982	---	-2/-4	CIRC 10 MI DIA ILL DEFINED
68	250353Z	38.8N 138.5E	56-P-1	500mb	50	65	---	---	-3/-5	CIRC 10 MI DIA ILL DEFINED
69	250305Z	39.0N 140.0E	TIROS	---	--	--	---	---	--/--	ILL DEFINED

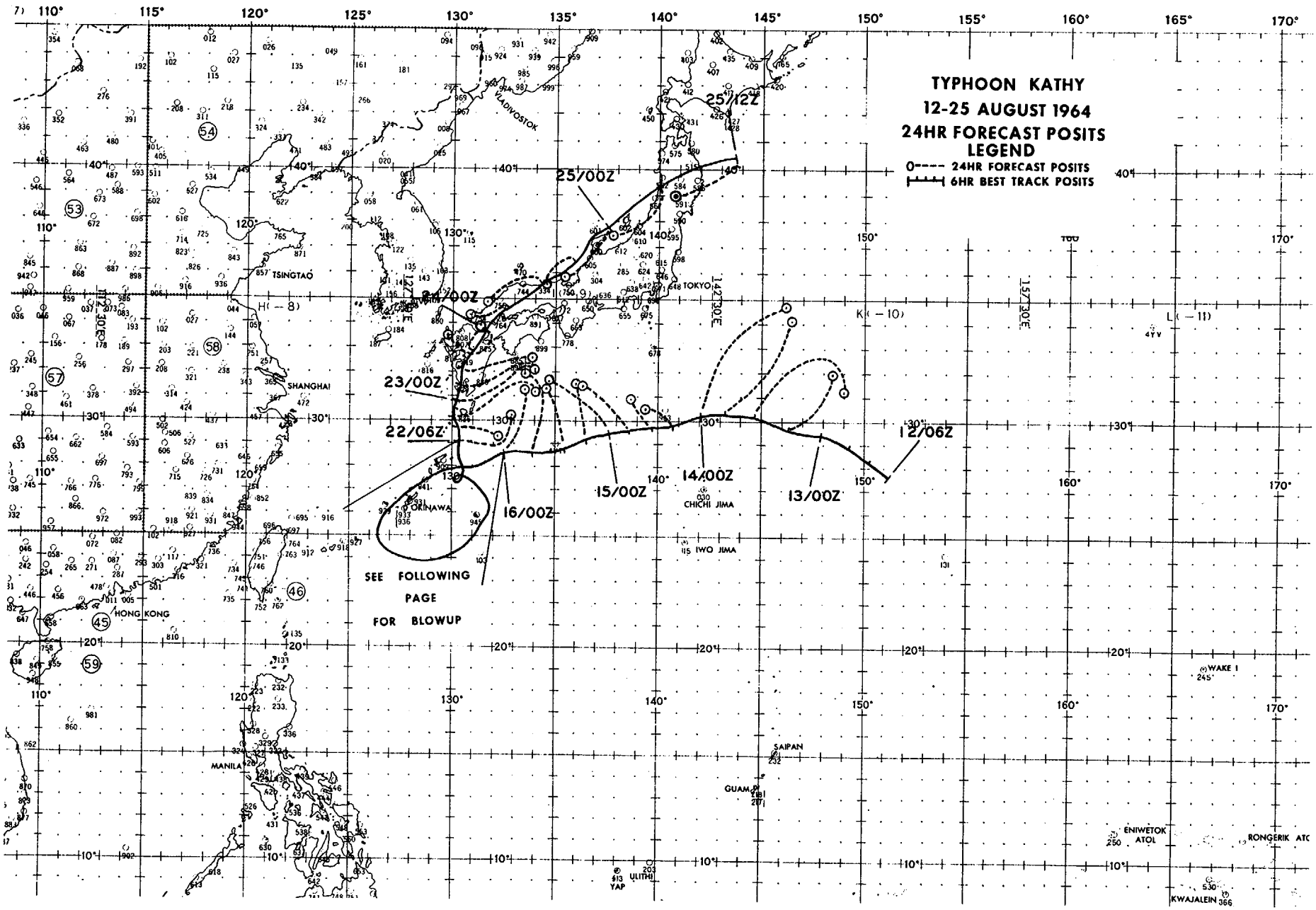
TYPHOON KATHY 12 AUG-25 AUG 1964
POSITION AND FORECAST VERIFICATION DATA

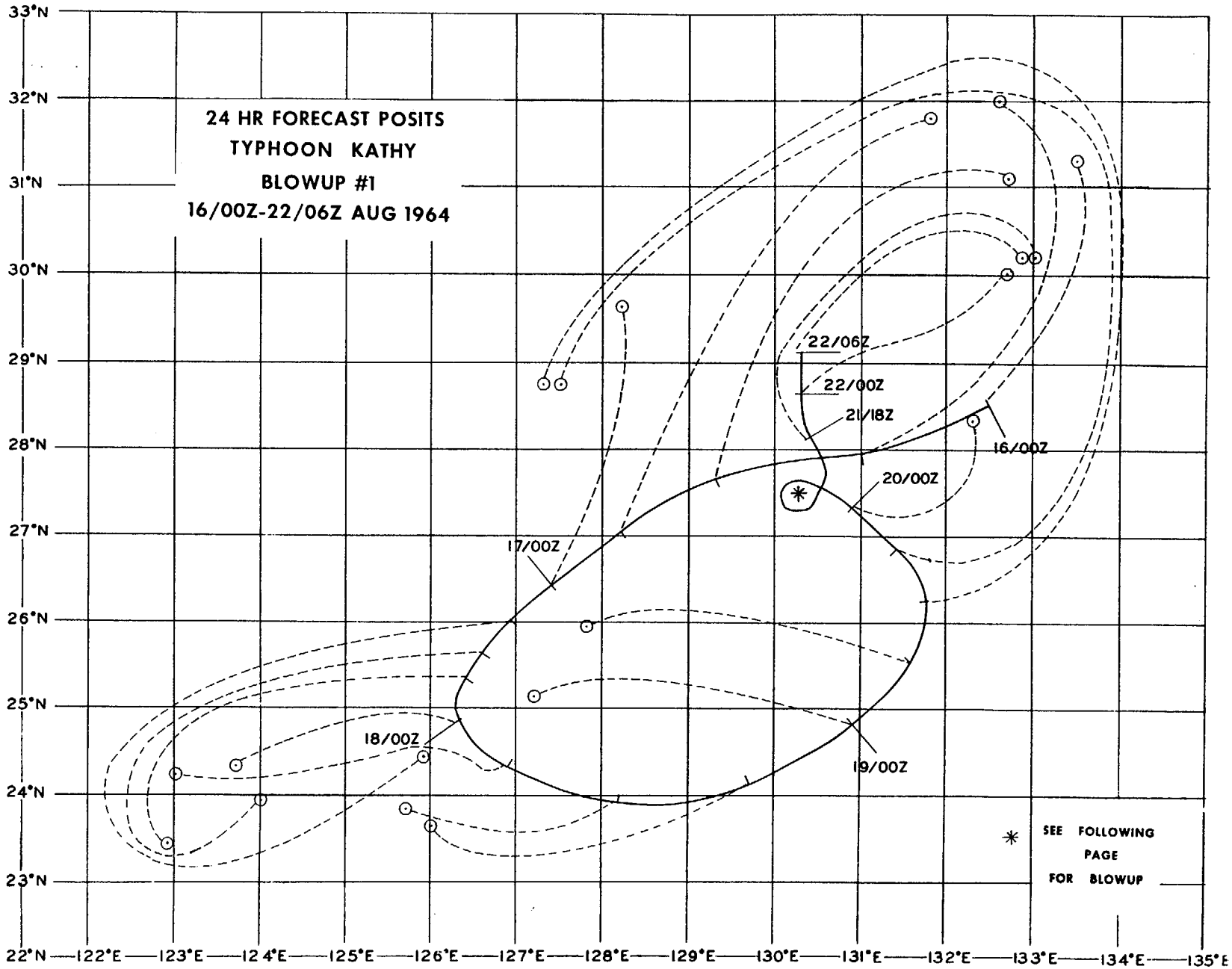
DTG	STORM POSITION LAT.	LONG.	24 HOUR ERROR DEG. DISTANCE	48 HOUR ERROR DEG. DISTANCE
120600Z	27.4N	151.2E	------	------
121200Z	28.1N	150.2E	------	------
121800Z	28.7N	149.2E	------	------
130000Z	29.3N	147.9E	------	------
130600Z	29.5N	146.3E	036-180	------
131200Z	30.1N	144.7E	074-227	------
131800Z	30.2N	143.2E	036-284	------
140000Z	30.2N	142.1E	038-354	------
140600Z	29.8N	140.7E	296-77	038-480
141200Z	29.7N	139.7E	327-83	042-525
141800Z	29.6N	138.6E	312-160	042-802
150000Z	29.4N	137.6E	311-199	045-930
150600Z	29.2N	136.5E	349-139	323-240
151200Z	28.8N	135.3E	345-148	330-247
151800Z	28.6N	133.9E	354-202	336-322
160000Z	28.5N	132.5E	018-177	340-350
160600Z	27.9N	131.0E	019-256	003-343
161200Z	27.6N	129.3E	040-275	015-474
161800Z	27.0N	128.2E	034-343	021-617
170000Z	26.4N	127.4E	012-193	023-552
170600Z	26.0N	126.9E	210-112	026-730
171200Z	25.6N	126.6E	234-175	027-682
171800Z	25.3N	126.4E	239-217	027-744
180000Z	24.8N	126.3E	257-149	------
180600Z	24.3N	126.9E	267-211	254-345
181200Z	23.9N	128.2E	267-135	261-567
181800Z	24.1N	129.7E	263-208	263-696
190000Z	24.8N	130.9E	276-205	258-627
190600Z	25.5N	131.6E	277-205	263-693
191200Z	26.2N	131.8E	303-278	248-314
191800Z	26.8N	131.4E	298-240	253-276

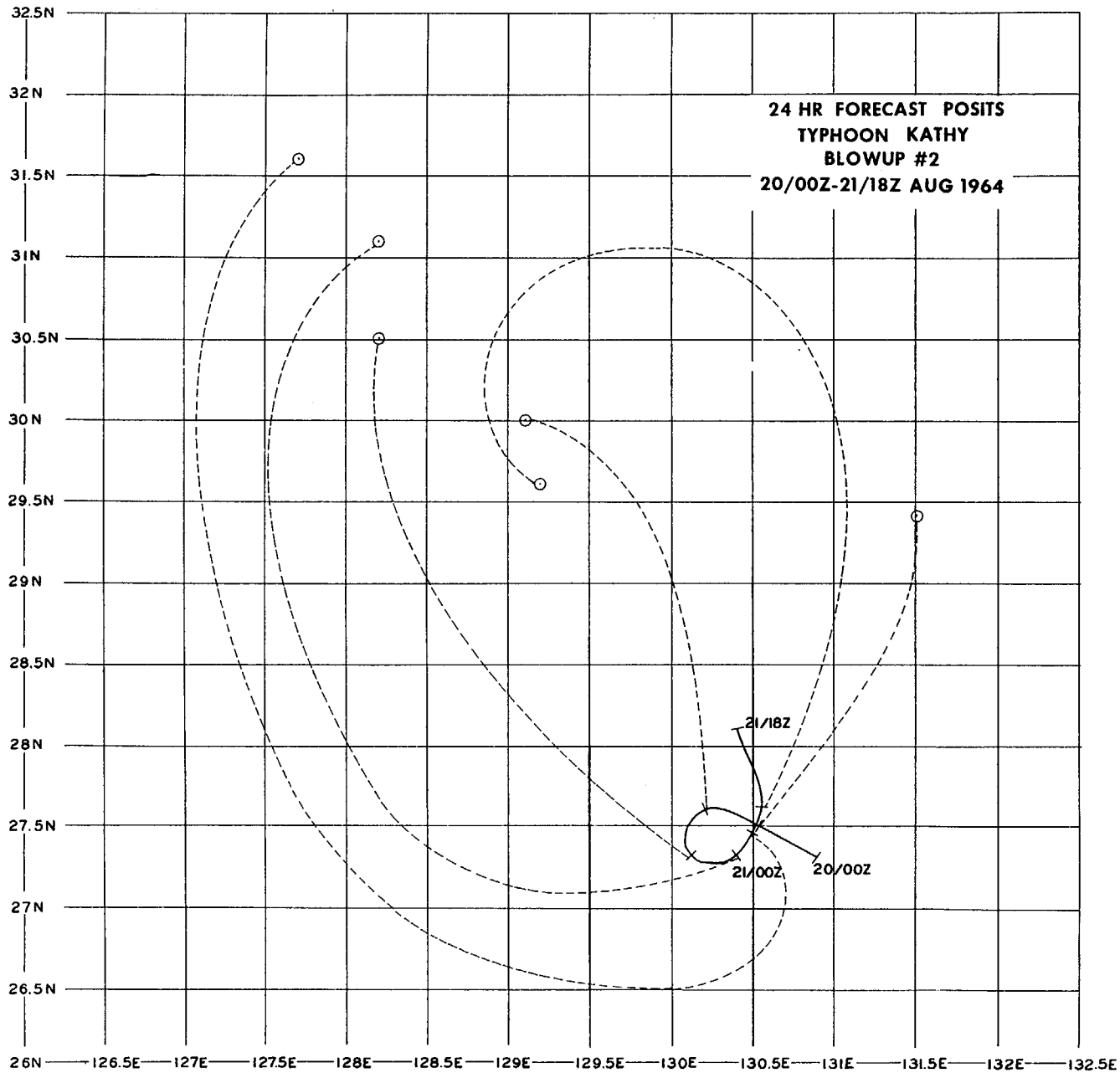
TYPHOON KATHY 12 AUG-25 AUG 1964
POSITION AND FORECAST VERIFICATION DATA (CONT'D)

DTG	STORM POSITION LAT.	LONG.	24 HOUR ERROR DEG. DISTANCE	48 HOUR ERROR DEG. DISTANCE
200000Z	27.3N	130.9E	055-94	297-205
200600Z	27.5N	130.5E	027-126	324-240
201200Z	27.6N	130.2E	340-157	318-384
201800Z	27.3N	130.1E	332-215	321-428
210000Z	27.3N	130.4E	333-257	338-242
210600Z	27.5N	130.5E	329-287	326-292
211200Z	27.6N	130.6E	329-139	314-430
211800Z	28.1N	130.4E	048-182	315-475
220000Z	28.6N	130.3E	056-151	335-467
220600Z	29.1N	130.3E	065-150	318-204
221200Z	29.7N	130.2E	104-106	343-220
221800Z	30.2N	130.0E	074-216	053-440
230000Z	30.8N	130.2E	068-210	055-417
230600Z	31.4N	130.3E	079-193	058-412
231200Z	32.1N	130.4E	081-178	078-267
231800Z	32.8N	131.0E	015-65	063-387
240000Z	33.6N	131.6E	263-90	065-360
240600Z	34.6N	132.7E	262-92	070-292
241200Z	35.5N	134.4E	254-133	087-273
241800Z	36.4N	136.0E	232-90	063-56
250000Z	37.6N	137.6E	223-147	265-200
250600Z	39.3N	140.0E	222-150	238-220
251200Z	40.3N	143.7E	242-148	245-303

AVERAGE 24 HOUR ERROR 180 MI
AVERAGE 48 HOUR ERROR 423 MI


TYPHOON KATHY
12-25 AUGUST 1964
24HR FORECAST POSITS
LEGEND
0---- 24HR FORECAST POSITS
6HR BEST TRACK POSITS
25/12Z
25/00Z
24/00Z
23/00Z
22/06Z
16/00Z
15/00Z
14/00Z
13/00Z
12/06Z
SEE FOLLOWING PAGE FOR BLOWUP
VLADIVOSTOK
TSINGTAO
SHANGHAI
TOKYO
OKINAWA
CHICHI JIMA
IWO JIMA
HONG KONG
MANILA
SAIPAN
GUAM
YAP
ULITHI
ENIWETOK ATOL
KWAJALEIN
WAKE I
H(-8)
K(-10)
L(-11)
142°30'E
157°30'E


24 HR FORECAST POSITS
TYPHOON KATHY
BLOWUP #1
16/00Z-22/06Z AUG 1964
33°N
32°N
31°N
30°N
29°N
28°N
27°N
26°N
25°N
24°N
23°N
22°N
122°E
123°E
124°E
125°E
126°E
127°E
128°E
129°E
130°E
131°E
132°E
133°E
134°E
135°E
22/06Z
22/00Z
21/18Z
16/00Z
20/00Z
17/00Z
18/00Z
19/00Z
SEE FOLLOWING PAGE FOR BLOWUP


24 HR FORECAST POSITS
TYPHOON KATHY
BLOWUP #2
20/00Z-21/18Z AUG 1964
32.5N
32N
31.5N
31N
30.5N
30N
29.5N
29N
28.5N
28N
27.5N
27N
26.5N
26N
126.5E
127E
127.5E
128E
128.5E
129E
129.5E
130E
130.5E
131E
131.5E
132E
132.5E
21/18Z
21/00Z
20/00Z