

781005N3

Operational Checklists

19781005N3-LPS

FORM J-1

On-board Lead Project Scientific Checklist

DATE Oct. 5, 1978AIRCRAFT NASA 990FLT 781005N3Day 278

A. Participants

SM HA 17B HROSA NASA flt. NO

Function	Participant	Function	Participant
Lead Proj. Sci.	<u>B. Lewis</u>	Gust Probe	<u>N/A</u>
Cloud Physics	<u>C. True</u>	Omega Sonde	<u>N/A</u>
AXBT	<u>N/A</u>	Sys Eng	<u>M. Sims</u>
Hot Film	<u>N/A</u>	Photo Data Tech	<u>Dino (NASA)</u>
Radar	<u>N/A</u>	El Tech	
Flt DIR/MET	<u>Peterson</u>	Other	<u>Wilheight</u>

Time Off 225225Z Location Miramar Naval Air Station - San Diego Calif. Time On 0440 Location Miramar Calif.

B. Past and Forecast Storm Position - Observed Positions

Date	Time	Lat	Lon	MSLP	Date	Time	Lat	Lon	MSLP
<u>Oct 5/78</u>	<u>18Z</u>	<u>20.8</u>	<u>110.5W</u>	<u>65KT</u>	<u>10/06</u>	<u>0054</u>	<u>21°11"</u>	<u>110°27"</u>	
<u>10/6</u>	<u>06Z</u>	<u>21.3</u>	<u>110.9W</u>	<u>60KT</u>	<u>10/06</u>	<u>0141</u>	<u>21°12"</u>	<u>110°25"</u>	
<u>10/6</u>	<u>18Z</u>	<u>21.9</u>	<u>110.9W</u>	<u>45KT</u>					

Handwritten notes: S. F. feat. Tropical M. 10/6 + Miramar center #13. Band on DOD Fair 165kt Satellite.

C. Mission Briefing

Pattern: NHEML brogied Stan Ferry Page 82 Butterfly.
 60 mile legs 3 wings. Storm has slowed forward motion to 3 kt to 330 deg. Upper level cloud moving NE away from low level circulation. Storm expected to weaken.
 Rosa downgraded from Hurricane to TS. at 052100Z.

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D. Equipment Status

<u>Equipment</u>	<u>Pre Flt</u>	<u>In Flt</u>	<u>Post Flt</u>	<u>Reports Collected</u>
Aircraft	✓			
Radar	✓	on at 2303Z ③		
Cloud Physics	*	1-D probe still out		
Data Sys	✓	②③		
Omega Sondes	✓			
AXBT	N/A	N/A		
Gust Probe	N/A	N/A		
Hot Film	N/A	N/A		
Photography	✓**	OK ③		

Requested data logging

for J-F to microfilm and

REMARKS

* 1-D probe has failed on trip from Aimee to Micromer. Could not get it to work which is frustrating.

** New camera is NASA's, not NOAA. NOAA camera is at manufacturer being repaired.

② 2300Z having to reboot data computer.

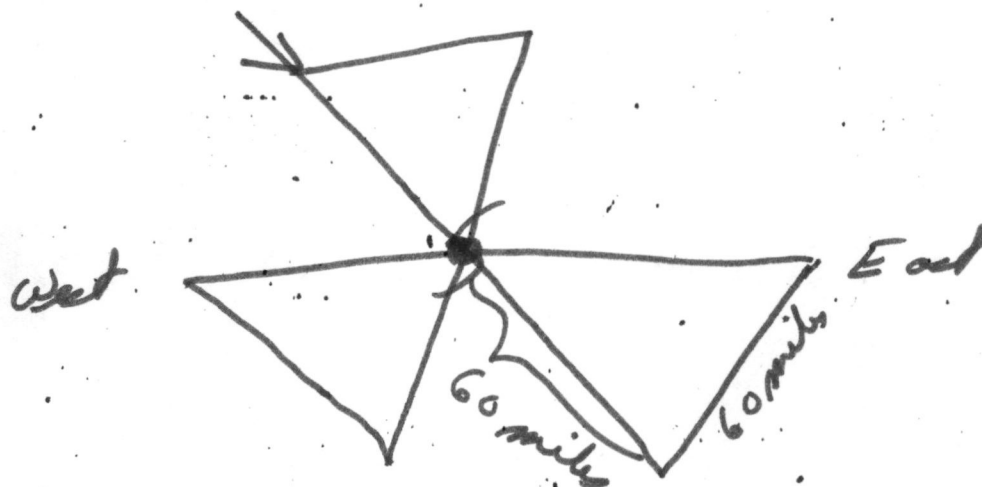
③ Camera clicking out and to way 4 scans at 2303Z will change on approach storm.

④ DPF off axis since T.O. (2335Z)

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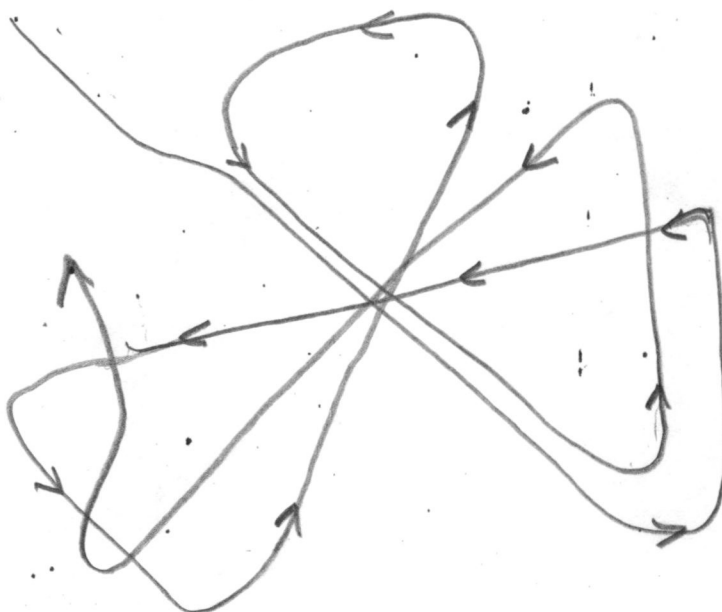
E. Proposed Flight Patterns

North



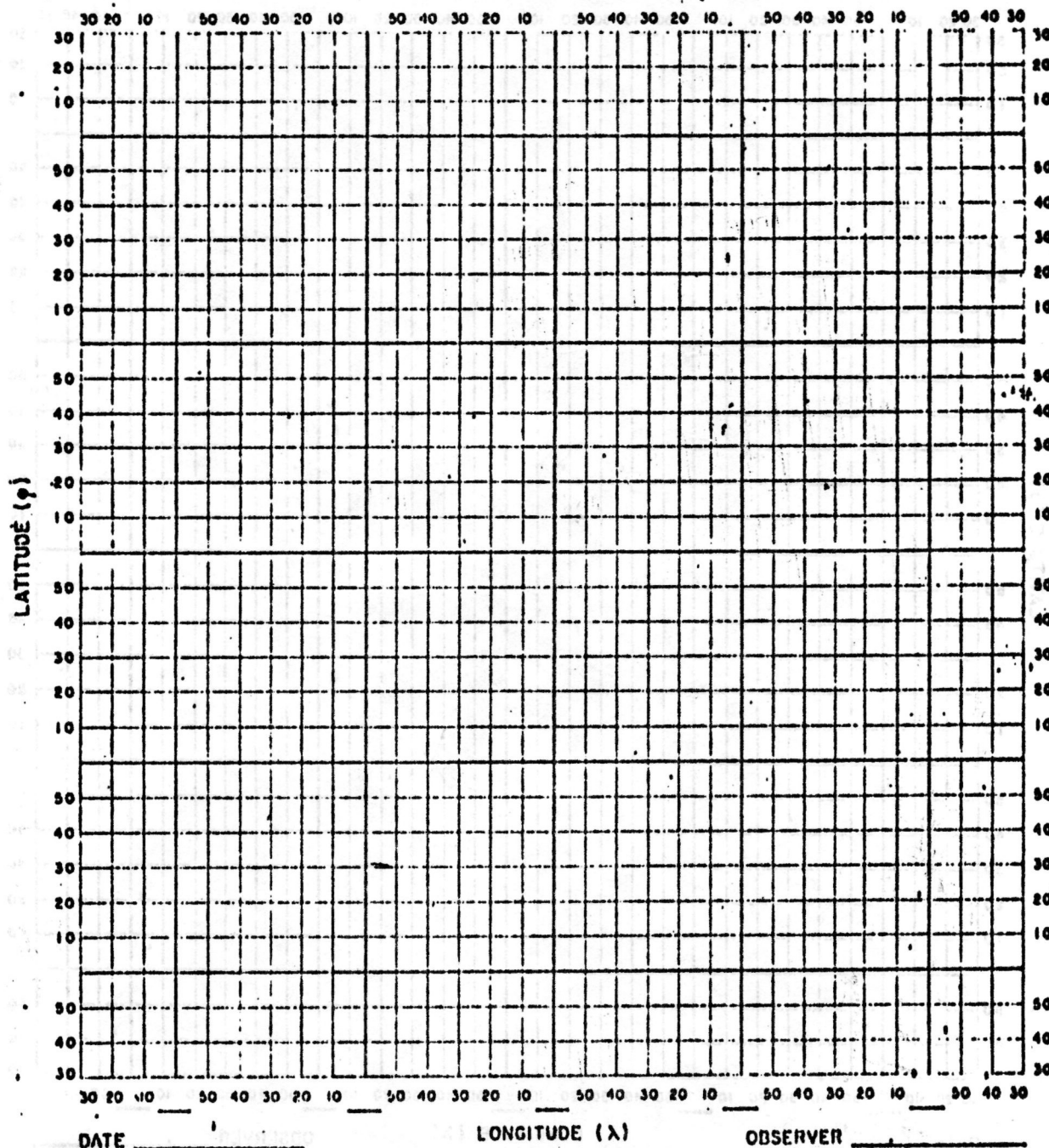
South

F. Actual Flight Patterns



HURRICANE RECCO PLOTTING CHART

TRUE AT 25° LATITUDE, IN DEGREES AND MINUTES OF ϕ AND λ



NOTE: LABEL FULL DEGREES ACCORDING TO LOCATION OF FLIGHT AREA

0141

21-12 ✓

110-25 ✓

040 (2) 6 KNOTS

0235 GMT ROSA
Transmitter
to S.F. Cal.
Reader.

ZCZC WBC991
WHXX1 KMIA 041200

THIS IS A PRIORITY MESSAGE...RUSH...
TO MIC WSFO SAN FRANCISCO CALIF.

H ROSA H ROSA
DATE 1200Z 4 OCT 1978.

..INITIAL...			...12 HRS...			...24 HRS...		
10/ 4/78/12Z			10/ 5/78/00Z			10/ 5/78/12Z		
	LAT	LON		LAT	LON		LAT	LON
EPHC77	18.3N	108.6W		18.9N	109.7W		19.6N	110.1W
EPANLG	18.3N	108.6W		19.0N	110.1W		19.7N	111.5W
EPCLPR	18.3N	108.6W		18.9N	110.0W		19.5N	110.7W

...36 HRS...			...48 HRS...			...72 HRS...		
10/ 6/78/00Z			10/ 6/78/12Z			10/ 7/78/12Z		
	LAT	LON		LAT	LON		LAT	LON
EPHC77	20.3N	110.7W		21.0N	111.0W		21.9N	112.7W
EPANLG	20.3N	112.9W		20.9N	114.2W		22.0N	115.9W
EPCLPR	20.2N	111.7W		20.7N	112.3W		21.5N	114.7W

12HR OLD PSN 17.8N 107.7W 24HR OLD PSN 16.7N 105.3W
CMPTD MTN VECTORS—0012 300/05 R15..1224 296/13 R52
DIFF 0012-1224 113/08 R91..CNFDNC FCTR 2..WND 090KT

50 PERCENT PROBABILITY ELLIPSE DATA

.....EPHC77.....				EPANLG.....			
HR	MAJOR	MINOR	TILT	HR	MAJOR	MINOR	TILT
	AXIS	AXIS	ANGLE		AXIS	AXIS	ANGLE
12	-99.9	-99.9	-99.9	12	99.9	99.9	99.9
24	-99.9	-99.9	-99.9	24	1.6	1.2	-31.5
36	-99.9	-99.9	-99.9	36	99.9	99.9	99.9
48	-99.9	-99.9	-99.9	48	3.8	2.4	-25.1
72	-99.9	-99.9	-99.9	72	5.8	3.5	-28.9

NOTES.....AXES DIMENSIONS ARE GIVEN IN DEGS OF LATD
TILT ANGLE GIVES ROTATION OF MAJOR AXIS FROM EAST.
...END...H ROSA

21 HR VALID 061500Z DISSIPATED.

WHPN22 KSFO 052100 COR
HURRICANE ROSA DOWNGRADED TO TROPICAL MILITARY/MARINE ADVISORY
NUMBER 13.
NATIONAL WEATHER SERVICE SAN FRANCISCO CALIF
2100Z OCTOBER 05 1978

STORM CENTER LOCATED NEAR 20.8N 110.5W AT 051800Z.
POSITION FAIR BASED ON DOD/NOAA RECONNAISSANCE TIME OF FIX 1615Z
AND SATELLITE IMAGE.
PRESENT MOVEMENT NORTHWEST OR 330 DEGREES AT 3 KT.
MAX SUSTAINED WINDS 60 KT WITH GUSTS TO 65 KT.
RAD OF 50 KT WINDS 30 NM.
RAD OF 34 KT WINDS 60 NM.
REPEAT CENTER LOCATED 20.8N 110.5W AT 051800Z.

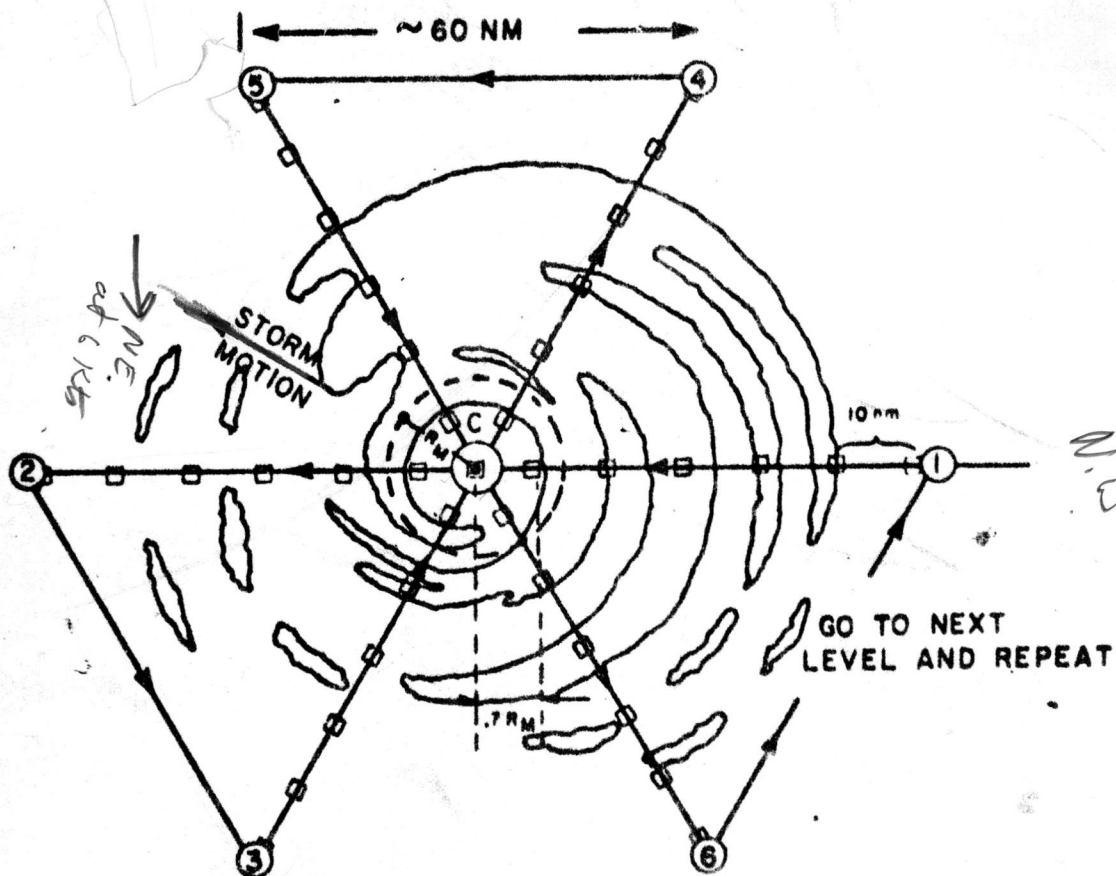
FORECAST VALID 060600Z. 21.3N 110.9W.
MAX SUSTAINED WINDS 50 KT WITH GUSTS TO 60 KT.
FORECAST VALID 061800Z. 21.9N 110.9W.
MAX SUSTAINED WINDS 40 KT WITH GUSTS TO 45 KT.

MUCH OF THE CONVECTION ASSOCIATED WITH ROSA IS BEGINNING TO MOVE
NORTHEASTWARD. THIS IS EXPECTED TO PRODUCE RAPID WEAKENING OF THE
STORM. THE LOW LEVEL CIRCULATION HAS SLOWED CONSIDERABLY DURING
THE LAST 15 HOURS.

NEXT ADVISORY 060300Z.

NNNN

SINGLE-AIRCRAFT, MULTI-LEVEL MONITORING MISSION



FLIGHT SEQUENCE: 1-C-2-3-C-4-5-C-6-1

TOTAL FLIGHT TIME: 2 HR. PER LEVEL

REPEAT AT 1500, 10,000 and 20,000 FT.

□ AXBT LOCATIONS

Figure F.6. Single aircraft mission.

AIRCRAFT TYPE <i>CV 990</i>	RADIO CALL <i>NASH 712</i>	DATE <i>10/5/78</i>	FROM <i>NKX</i>	TO <i>NKX</i>	PLANNED T.O. <i>2230 Z</i>	ACTUAL T.O.	PILOT <i>Stannett</i>	COPILOT <i>Martin</i>
T.O. GROSS WT.	FUEL LBS	MISSION FUEL	RESERVE FUEL		RUNWAY TEMP.	PRESS. ALT	NAVIGATOR <i>Moore</i>	ENGINEER <i>STAHK</i>

FLIGHT PLAN

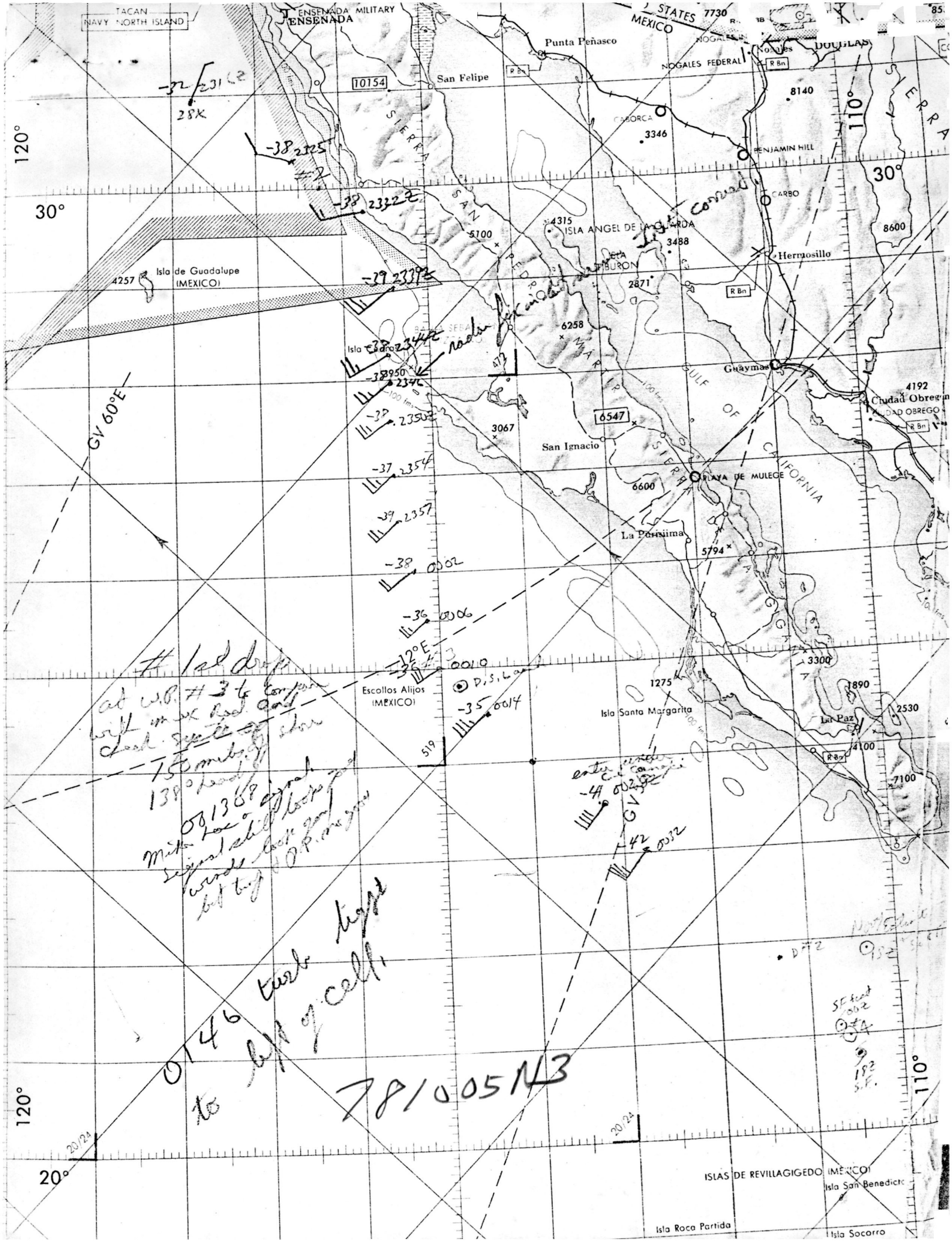
FLIGHT LOG AND PLANNING CHART

FLIGHT LOG

[illegible]

$$\begin{array}{r} 26 \\ 52 \\ \hline 78 \end{array}$$

2318



TACAN
NAVY NORTH ISLAND

ENSENADA MILITARY
ENSENADA

STATES 7730
MEXICO

NOGALES FEDERAL

DOUGLAS

Punta Peñasco

San Felipe

10154

8140

30°

4257 Isla de Guadalupe
(MEXICO)

-39 23372

-38 23442

-38 23462

-37 23502

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-36 23592

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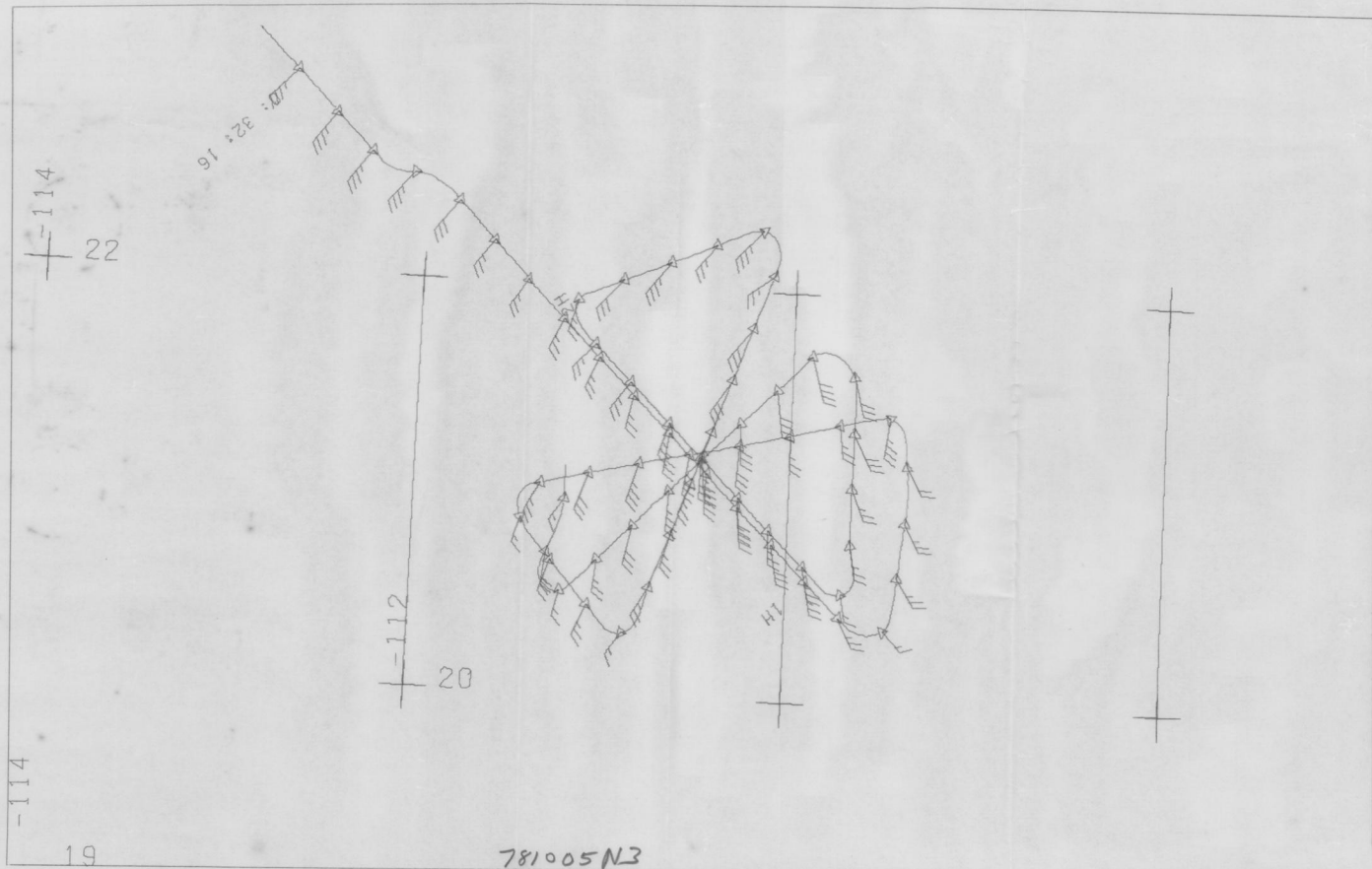
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FLIGHT #17 SMHP '78
OVERLAY FOR JNC 46

HURR ROSA -- MIRAMAR
ROTATED BY . 0:30: 0 TO 48: 0: 0 UT. SCALE=1:2.0E+06 TIME TICS EVERY 2.00 MINUTES