

19900930T 11-LPS

9-30-90

E.2 Lead Project Scientist (On-Board)

E.2.1 Preflight

- ☒ 1. Participate in general mission briefing.
- ☒ 2. Determine specific mission and flight requirements for assigned aircraft.
- ☐ 3. Determine from CARCAH or field program director whether aircraft has operational fix responsibility and discuss with OAO flight director/meteorologist and CARCAH unless briefed otherwise by field program director.
- ☐ 4. Contact HRD members of crew to:
 - a. Assure availability for mission.
 - b. Arrange ground transportation schedule when deployed.
 - c. Determine equipment status.
- ☒ 5. Meet with OAO flight crew at least 90 minutes before takeoff, provide copies of flight requirements and provide a formal briefing for the flight director, navigator, and pilots.
- ☐ 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami or FGOC at remote recovery location).

E.2.2 In-Flight

- ☐ 1. Confirm from OAO flight director/meteorologist that satellite data link is operative (information).
- ☐ 2. Confirm camera mode of operation.
- ☐ 3. Confirm data recording rate.
- ☐ 4. Complete Form E-2.

E.2.3 Postflight

- ☐ 1. Debrief scientific crew.
- ☐ 2. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to the appropriate HRD operations center (MGOC or FGOC).
- ☐ 3. Gather completed forms for mission and turn in at the appropriate operations center. [Note: all data removed from the aircraft by HRD personnel should be cleared with the OAO flight director.]
- ☐ 4. Obtain a copy of the 10-s flight listing from the OAO flight director. Turn in with completed forms.
- ☐ 5. Determine next mission status, if any, and brief crews as necessary.
- ☐ 6. Notify the appropriate operations center (FGOC or MGOC) as to where you can be contacted and arrange for any further coordination required.

On-Board Lead Project Scientist Check List

Date 9-30-90 900930I Aircraft N43RF Flight ID 900930I

A. Participants

HRD		OAO	
Function	Participant	Function	Participant
Lead Proj. Sci.	<u>M. POWELL</u>	Flight Director	<u>B. Damiano</u>
Cloud Physics		Pilots	<u>McKimm / Phillipsbourne</u>
Radar	<u>F MARKS</u>	Navigator	<u>S. Nakatani</u>
Doppler		Sys. Engr.	<u>Nelson Fleury</u>
Photographer		Data Tech.	<u>Carlos</u>
Omegasonde	<u>R. Burpee, L. Shade</u>	El. Tech.	<u>Terry Lynch</u>
AXB T/AXCP		Other	

Take-Off	Location	Landing	Location
<u>160540</u>	<u>25°48.1' 80°15.6'</u>	<u>012600</u>	<u>25°30.6' 80°16.4'</u>

B. Past and Forecast Storm Locations

Date/Time	Latitude	Longitude	MSLP	Max. Wind

C. Mission Briefing

Repeat of cloud cluster pattern from 9-29. Will attempt Cuba overflight + cuban airspace
WORK AREAS FAR AS 21-21.5°N. If request not honored will work below 20N.

9-30-90

Form E-2
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D. Equipment Status

<u>Equipment</u>	<u>Pre-Flight</u>	<u>In-Flight</u>	<u>Post-Flight</u>
Aircraft	<u>✓</u>	<u>✓</u>	<u> </u>
Radar	<u>✓</u>	<u>✓</u>	<u> </u>
Cloud physics	<u>✓</u>	<u> </u>	<u> </u>
Data system	<u>✓</u>	<u>✓</u>	<u> </u>
Omegasondes	<u>✓</u>	<u>✓</u>	<u> </u>
AXBT/AXCP	<u> </u>	<u> </u>	<u> </u>
Doppler	<u>✓</u>	<u>✓</u>	<u> </u>
Photography	<u>✓</u>	<u>✓</u>	<u> </u>

REMARKS:

Reminders

1. TO Sounding
2. Key West WSP, SST for SFMR calibration
3. ASDL reported
4. PGB HF Radio sat. update

Takeoff 160540

Cuban overflight + ADIZ NEA permission refused will fly 24N to 86 W and South
As we did yesterday

1631 Pilots will call Key West for WSP, SST to calibrate SFMR

WD 070 WS 4kts SST=29.4C

1640 T. Lynch has calibrated SFMR for above values

1739 Received permission to work in Cuban air space, must honor territorial limit 12 NM

1746 Turning to E track

174925 FRAMBI looking over Cuba left front cirrus (thick) Anvil

1801 Approaching SW-NE band Lvl 2 1802 in cloud

1803 230 kt winds SFMR 6 1805 SFMR 11.5 m/s

1807 235 kt winds SFMR ~10 m/s

1818 thru narrow band

1849 on S hdp leg seems to be dirty haze later ~12 kft.

1851 conv. cell to RT. with DD rain falling out + spreading at sfc $\theta_c = 331.6$

1918 ODW Drop on W leg

1959 Turn to W hdp. (for 45 NM)

2002 $\theta_c \sim 340$ 2003 in strat rain E in extension of N end of N-S band

2005 in cloud TD too high

2008 in clear but rain from Anvil

2009 Turn to S along outer side of band

2018 In ~~thick~~ Anvil rain

2053 turn to W hdp. to active band

2054 ODW Drop

2056 white caps on sfc. SFMR = 4.7 m/s

2103 FRAMBI 4, 5 left front of band

2103 Turn to N in strat rain E side of band

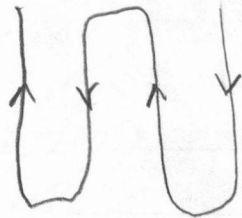
2108 TD & T

900930I

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E. I. Proposed Flight Pattern (sketch or designate by number)

Series of Racetracks @ 14,000'



As close to Cuban Coast as
Possible N. side

S side as far S as 17°N

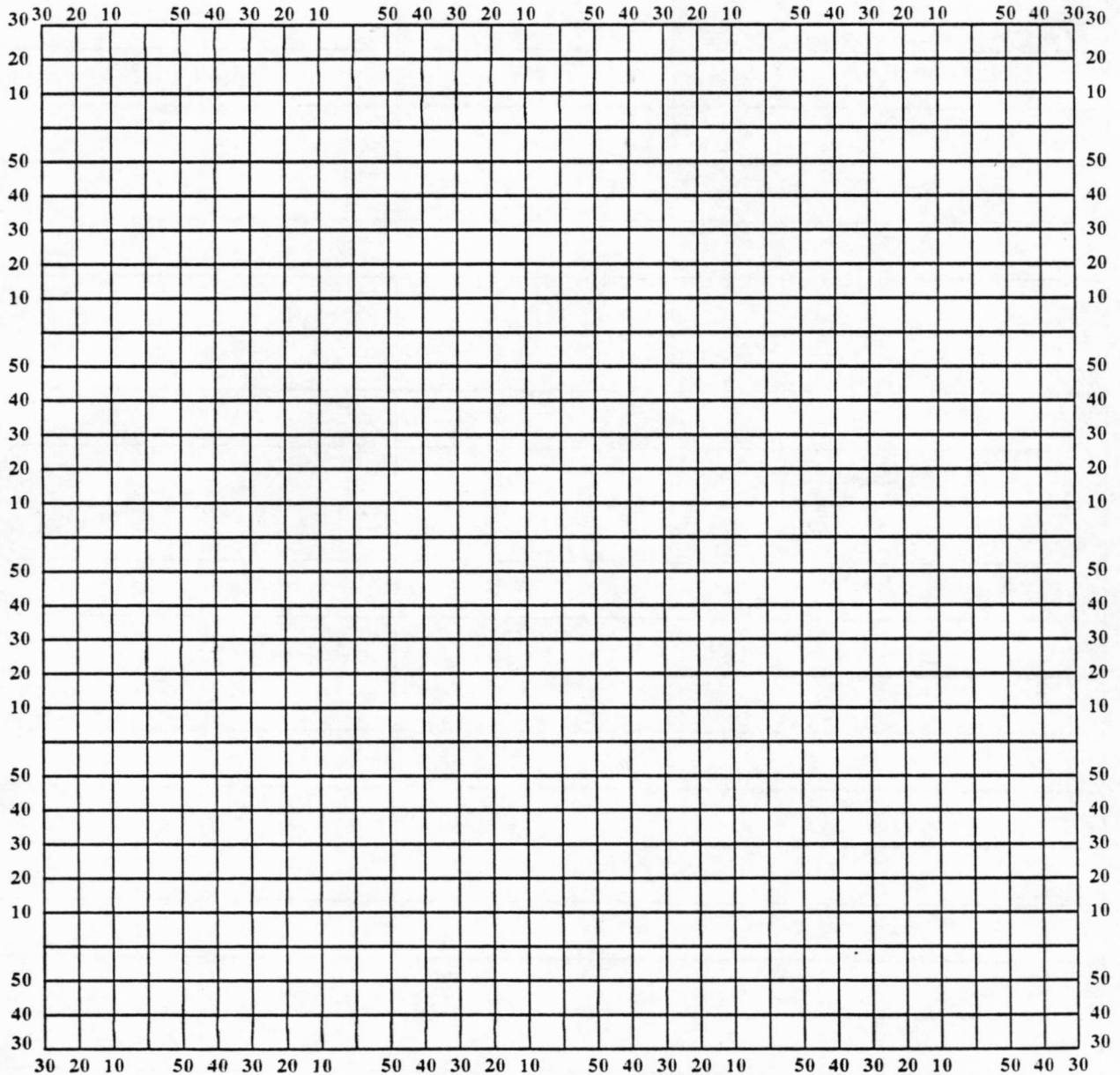
E. II. Actual Flight Pattern

Received permission to get to ~15nm from Cuban coast
Actual pattern attached

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes of ϕ and λ .

Date _____ Longitude _____ Observer _____



Note: Label full degrees according to location of flight area.

Lead Project Scientist Event Log

Date 9-30-90 Flight 900930I LPS M. Powell

[illegible]

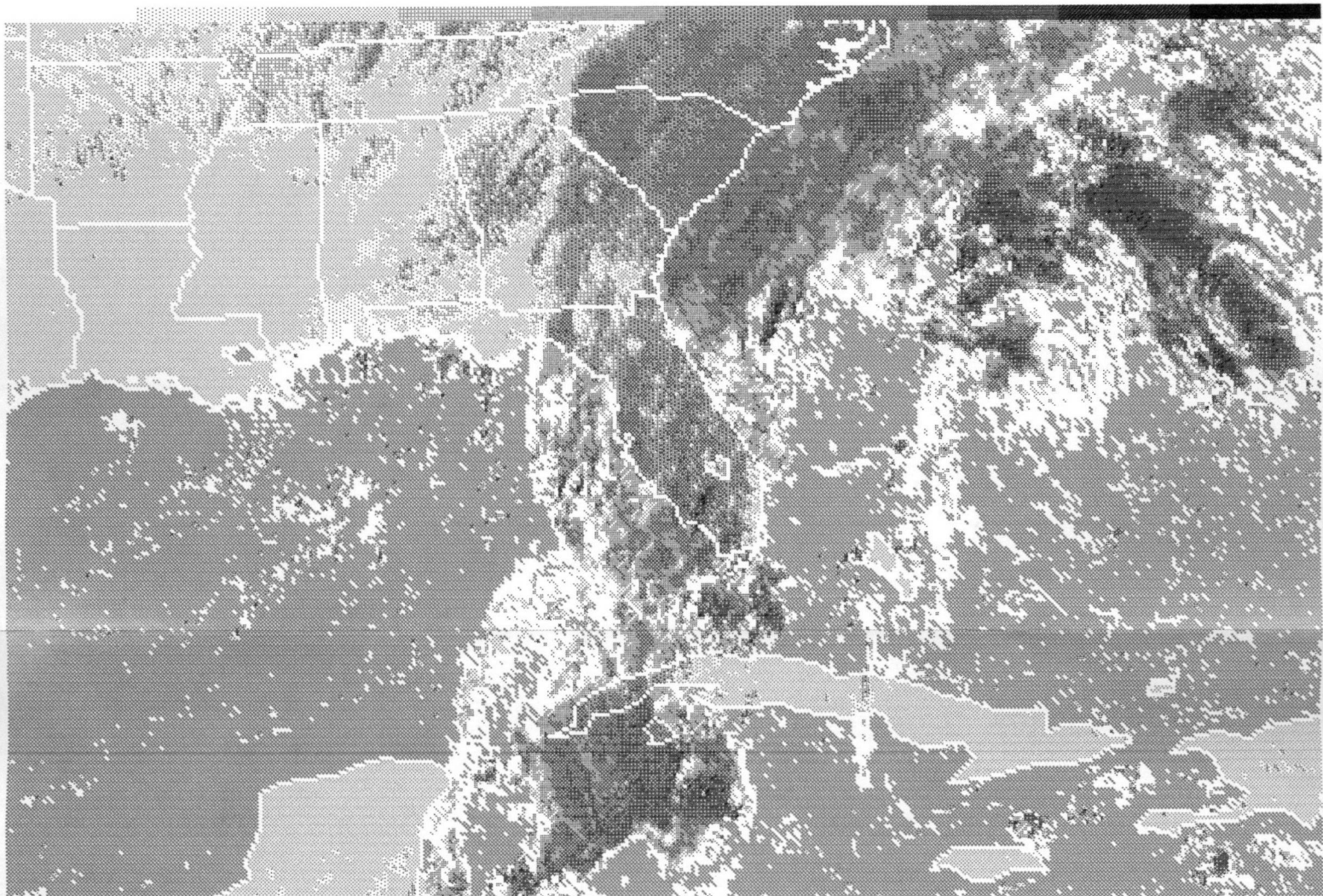
+upair 78073

UPPER AIR DATA FOR: 78073 FOR 12Z, 30-SEP-90

*** NO DATA FOR THIS STATION ***

+
SUPSAT image printed by "WX-View" from Robertson Software.
EYW 13:00(13)GMT 30-SEP-90 SUPERVISB COPYRIGHT WSI CORPORATION
Clouds are shown as ...

07



+upair 78526,78866,78897,78954,78970

UPPER AIR DATA FOR: 78526 FOR 12Z, 30-SEP-90

*** NO DATA FOR THIS STATION ***

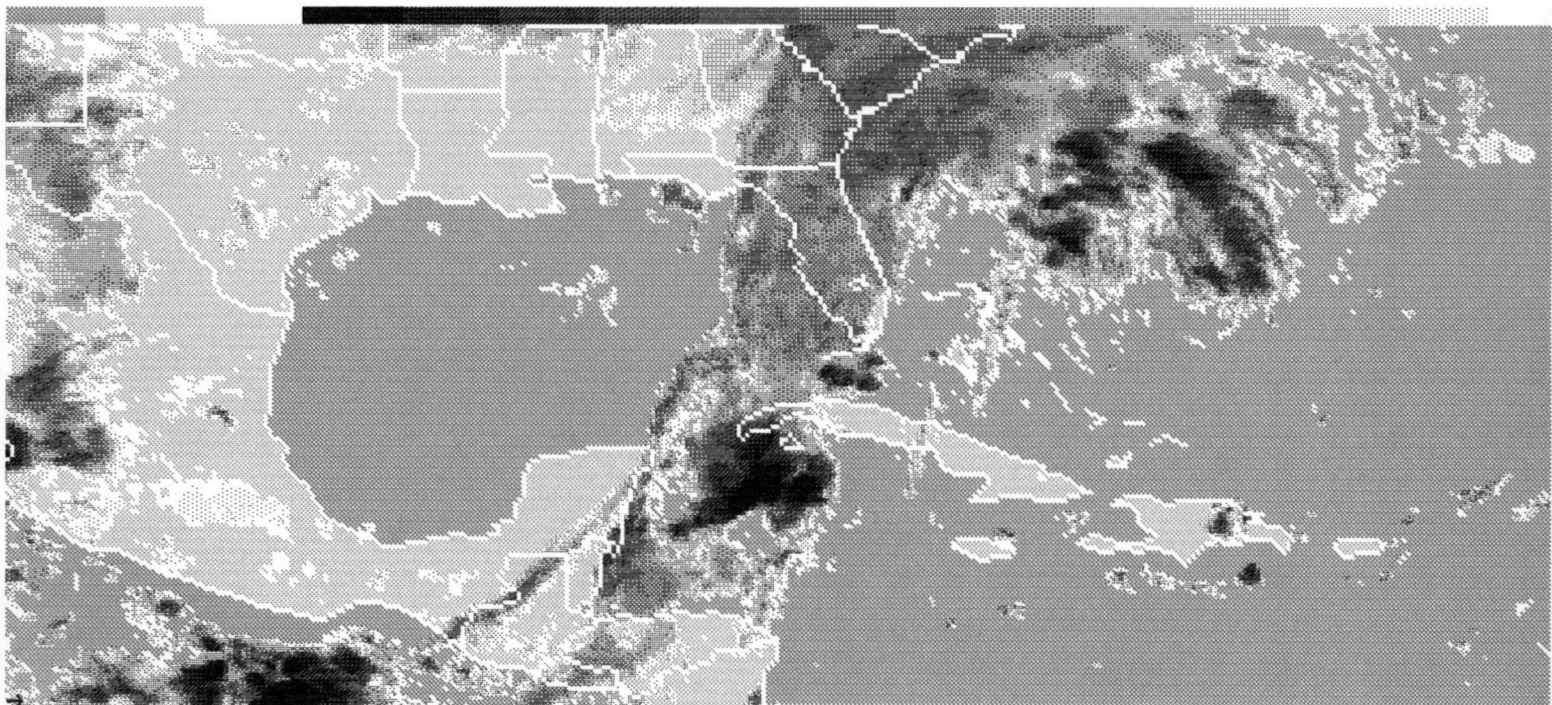
900930I

UPPER AIR DATA FOR: 78866 FOR 12Z, 30-SEP-90

LEVEL (MB)	HEIGHT (FT)	TMP (C)	DPT (C)	DDFFF (KTS)
100				
150				
200				
250				
300				
332		-27.5	-57.5	
352		-24.3	-54.3	
371				

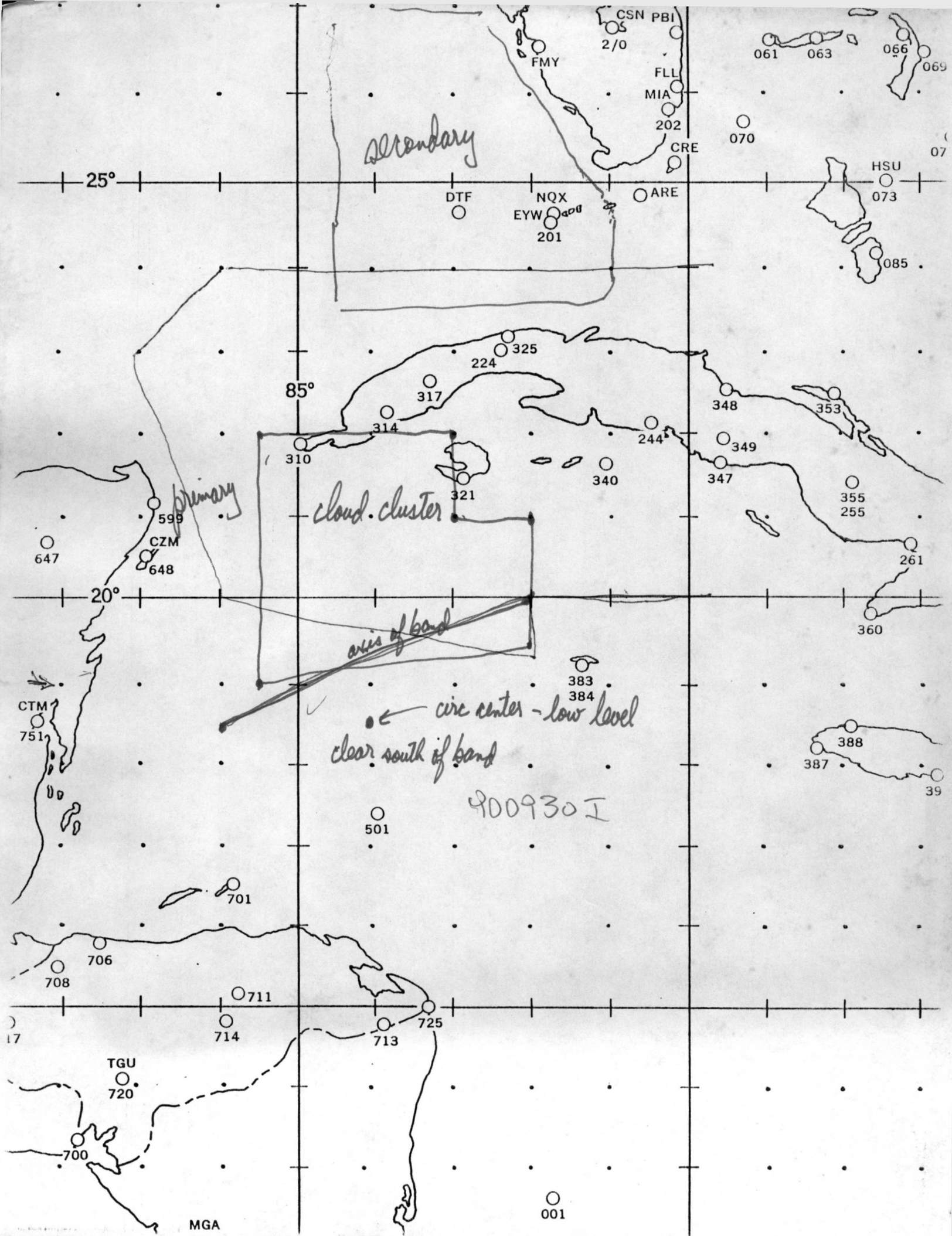
SUPSAT image printed by "WX-View" from Robertson Software.
U515 13:00(13)GMT 30-SEP-90 SUPERHURR COPYRIGHT WSI CORPORATION
Supsat product levels 0 thru 15 are shown as ...

00



.... GRAPHICS image was aborted by caller....

+upair 78583,78584,78590
78584 IS NOT A RECOGNIZED UPPER AIR ID
78590 IS NOT A RECOGNIZED UPPER AIR ID



secondary

primary

cloud cluster

axis of band

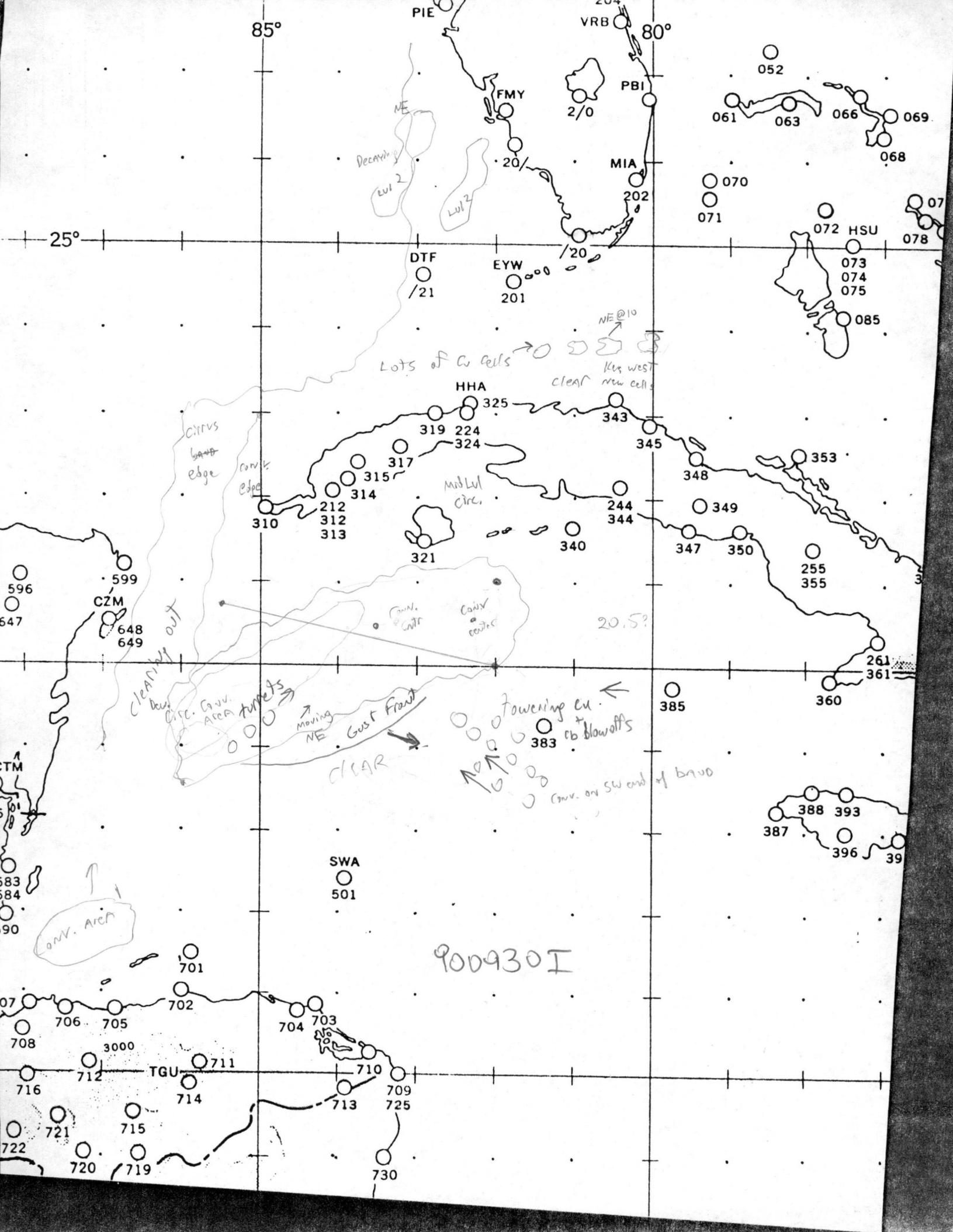
circ center - low level
clear south of band

900930 I

MGA

001

[illegible]



Hasselblad Camera Log

Date 30 SEPT 1990

FIRST 2 1/250
OTHERS 1/125

Film type/ASA 35 mm KODACHROME Camera shutter speed 200 OTHER _____

[illegible]

Hasselblad Camera Log

Flight_____

Date _____

Storm_____

Film type/ASA_____

Camera shutter speed _____

[illegible]

Lead Project Scientist Event Log

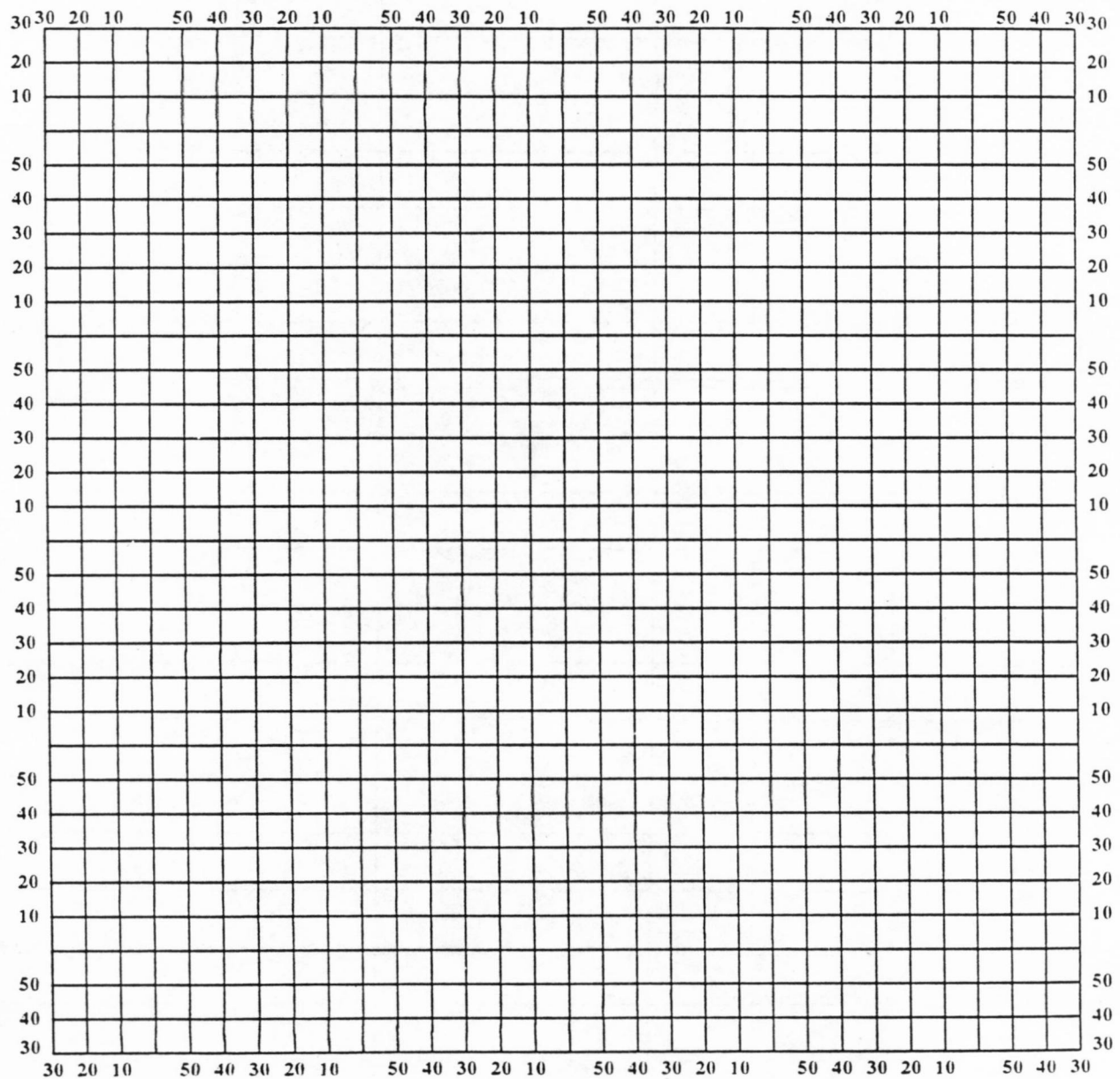
Date _____ Flight _____ LPS _____

[illegible]

Hurricane Recco Plotting Chart

True at 25° Latitude, in Degrees and Minutes of ϕ and λ .

Date _____ Longitude _____ Observer _____



Note: Label full degrees according to location of flight area.

UPPER AIR DATA FOR: 78583 FOR 12Z, 30-SEP-90

*** NO DATA FOR THIS STATION ***

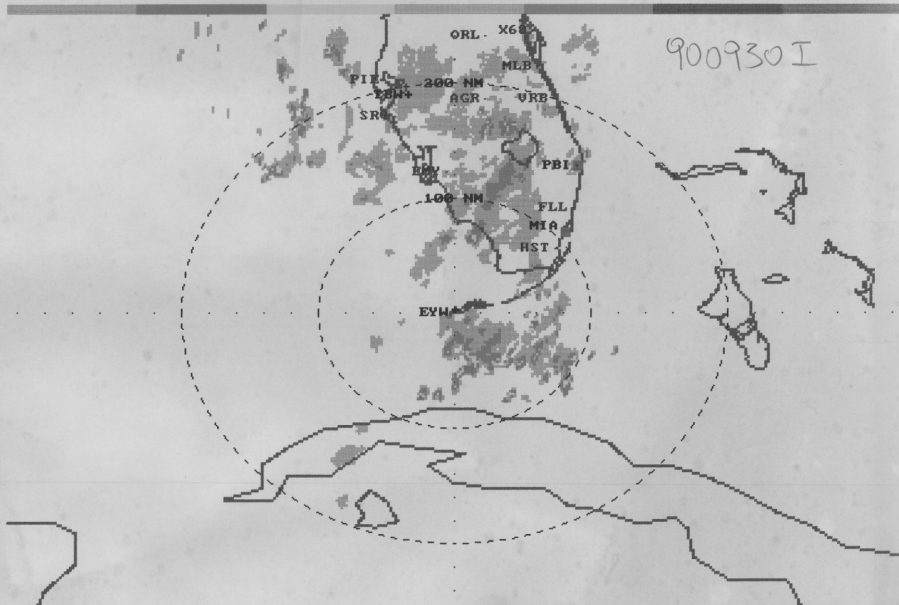
NOWRAD image printed by "WX-View" from Robertson Software.

EYW 13:45(13)GMT 30-SEP-90 NOWRAD

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250150

The following 7 shades represent Radar levels (1 - 6) and sites not reported.



+radar eyw

SDXX1 KEYW 301338

RADAR SUMMARY

NATIONAL WEATHER SERVICE KEY WEST FL

930 AM EDT SUN SEP 30 1990

LARGE AREAS OF RAIN...RAIN SHOWERS AND THUNDERSTORMS CONTINUED OVER MUCH OF THE FLORIDA STRAITS.

THE STRONGEST THUNDERSTORMS WERE OCCURRING FROM 35 MILES SOUTH OF KEY WEST TO THE CAY SAL BANK.

OTHER LARGE AREAS OF RAIN AND THUNDERSTORMS CONTINUED NEAR THE MIDDLE AND UPPER KEYS AND EXTENDED NORTH TO COVER MUCH OF FLORIDA BAY...THE MAINLAND WEST OF A LAKE OKECHOBEE ... HOMESTEAD LINE AND THE COASTAL WATERS OF SOUTHWEST FLORIDA.

THE STRONGEST THUNDERSTORMS IN THIS AREA WERE ALONG THE KEYS FROM NEAR MARATHON TO CRAIG KEY AND 20 MILES SOUTH OF EVERGLADES CITY.

ELSEWHERE...PATCHES OF RAIN AND RAIN SHOWERS WERE SCATTERED FROM AROUND DRY TORTUGAS AND THE MARQUESAS KEYS TO THE WATERS OFF

PORT MYERS BEACH. MOVEMENT WAS NORTH AT 15 MILES AN HOUR.