

E.2 Lead Project Scientist

E.2.1 Preflight

- RR 1. Participate in general mission briefing.
- RR 2. Determine specific mission and flight requirements for assigned aircraft.
- RR 3. Determine from field program director whether aircraft has operational fix responsibility and discuss with AOC flight director/meteorologist unless briefed otherwise by field program director.
- RR 4. Contact HRD members of crew to:
 - a. Assure availability for mission.
 - b. Review filed program safety checklist
 - c. Arrange ground transportation schedule when deployed.
 - d. Determine equipment status.
- RR 5. Meet with AOC flight director and navigator at least 3 hours before take-off for initial briefing.
- RR 5. Meet with AOC flight crew at least 2 hours before take-off for crew briefing. Provide copies of flight requirements and provide a formal briefing for the flight director, navigator, and pilots.
- RR 6. Report status of aircraft, systems, necessary on-board supplies and crews to appropriate HRD operations center (MGOC in Miami).
- _____ 7. *Before take-off*, brief the on-board GPS dropsonde operator on times and positions of drop times.
- _____ 8. Perform a radio check with headsets. Make sure everyone's headsets is work properly.
- RR 9. Collect "mess" fee (\$2.00) from all on-board HRD flight crew members *no food onboard*

E.2.2 In-Flight

- _____ 1. Confirm from AOC flight director that satellite data link is operative (information).
- _____ 2. Confirm camera mode of operation.
- _____ 3. Confirm data recording rate.
- _____ 4. Complete Form E-2.
- _____ 5. Check in with the flight director to make sure the mission is going as planned (i.e. turns are made when they are supposed to be made).

E.2.3 Post flight

- _____ 1. Debrief scientific crew.
- _____ 2. Report landing time, aircraft, crew, and mission status along with supplies (tapes, etc.) remaining aboard the aircraft to MGOC.
- _____ 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 AOC flight director.]**
- _____ 4. Obtain a copy of the 10-s flight listing from the AOC flight director. Turn in with completed forms.
- _____ 5. Determine next mission status, if any, and brief crews as necessary.
- _____ 6. Notify MGOC as to where you can be contacted and arrange for any further coordination required.
- _____ 7. Prepare written mission summary using form E-2 p.3 (due to Field Program Director 1 week after the flight).

Lead Project Scientist Check List

Date 8/21/03 Aircraft 43 Flight ID 0308217

A. — Participants:

CLUST Test Flight 2

HRD		AOC	
Function	Participant	Function	Participant
Lead Project Scientist	<u>Rogers</u>	Flight Director	<u>Barry Damiano</u>
Cloud Physics	<u>none</u>	Pilots	
Radar	<u>Uthorn</u>	Navigator	
Workstation	<u>none</u>	Systems Engineer	
Photographer/Observer	<u>none</u>	Data Technician	
Dropwindsonde	<u>M. Black</u>	Electronics Technician	
AXBT/AXCP/Guest	<u>Uthorn</u>	Other	

Take-Off: 170249 Location: MacDill Landing: 2232 Location: _____

Number of Eye Penetrations: _____

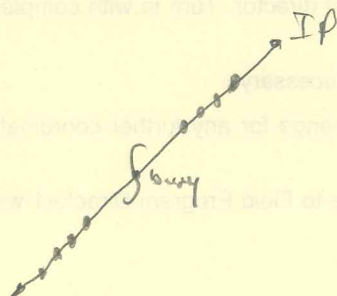
B. — Past and Forecast Storm Locations:

none, buoy 93003

Date/Time	Latitude	Longitude	MSLP	Maximum Wind

C. — Mission Briefing:

Repeat of test mission on 08/19. Buoy is center point, 12-sonde penetration at 2500 ft. (43 drops 4 per leg, 42 drops 8/leg). Heading is 225 for these. Finding rainbow, using this to perform short along/across stepped descents. Altitudes 2500, 1200, 900, 600, 400, 200. As along



wind patterns too, but this time varying angle on each descent (turn of 95° instead of 180°). Continue/finish BAT Calibration maneuvers at 3K ft (Pitch, Accel. local maneuvers)

D. — Equipment Status (Up ↑, Down ↓, Not Available —, Not Used O)

Equipment	Pre-Flight	In-Flight	Post-Flight	# of DATs or Expendables
Aircraft	✓			
Radar/LF	✓ start 1709			
Radar/TA (Doppler)	✓			
Cloud Physics	—			
Data System	✓			
GPS sondes	✓			
AXBT/AXCP	✓			
Workstation	not working			
Videography	✓			

REMARKS:

Lead Project Scientist Event Log

Date 8/21/03 Flight 030821 I LPS Rogers

Time	Event	Position	Comments
174000	do second pitch maneuver		
1745	move SW thru cloud toward IP		
174705	begin speed maneuvers - to 170 then 260		hit cloud so redo
174931	2 nd speed man.		
175323	proceed to IP		
175340	turn to 190		
175610	descend to 2500'		
175711	turn to 180		
1804	Circling to coordinate w/42 before IP		
1809	convective cell near IP		7-10 kts 160-180°
1810	Orbit to wait for 42		
1813	lined up part IP ~ 38		miles NE of buoy
181503	AXBT Sonde 30 miles out		AXBT
181533	Sim Sonde		
181605	Sim Sonde		
181633	Sim Sonde		
181703	Sim Sonde		
1817	AXBT		
1823	at Buoy - start circling		
1833	outbound to SW from Buoy		
1836	42 just above, behind and left		
183803	AXBT / 6		
183833	Reg 1 Sonde		
183903	Sim Sonde		
183933	Sim Sonde		
184013	AXBT Sim Sonde - 25 miles from Buoy		
1845	Turn to IP		NE of Buoy For start stop

Lead Project Scientist Event Log

Date 8/21/03 Flight 08 LPS

Time	Event	Position	Comments
192144	Turn to begin 600' Right		
192910	IP for 600' Run	WD, 170-90-	3-7 kt
1930	Too close to convection		
193410	20 miles SE of IP		
193940	Turn (right) to reverse track		
194405	Reverse (downwind leg) to IP		
194914	Left turn to crosswind 210°	Trk	
195030	Crosswind leg to SW		
195551	- Radar Frozen		
200120	Right turn, descend to 400'	SE	
200300	400' upwind leg		
2005	Radar UP		
200729	Left turn, to track 330°		
200920	400' Run Upwind/Downwind		
201456	Left turn to 220° crosswind		
201555	400' crosswind leg		
202123	Left turn crosswind #2		
202759	End of Leg - descend to 300', then turn		
202827	Left turn to 120°	200' leg	
203100	200' upwind leg		
203625	Left turn to 330°	upwind leg	Ascend to 300'
203920	200' downwind leg		
204435	Left turn for 1st crosswind	200' leg	
204620	200' 1st crosswind - Trk 220°		
205134	Left Turn to 30° crosswind #2		
205325	200' crosswind #2		
205900	End 200' run, climb to 1200'		

Lead Project Scientist Event Log

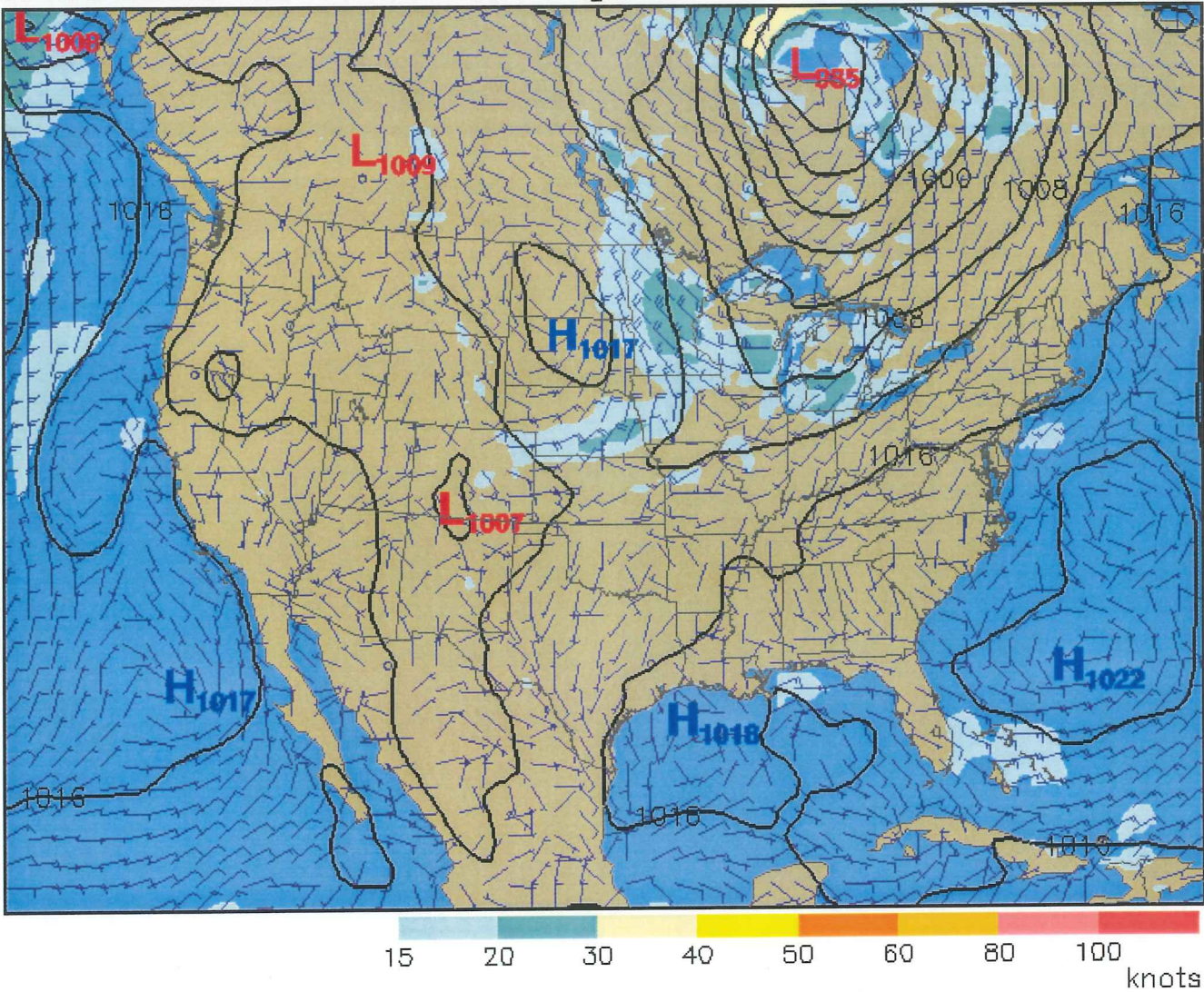
Date 8/26/03 Flight 030821E LPS

[illegible]

Wind Speed (knots) / MSLP (mb)

03 Hour forecast valid 1800 UTC Thu 21 Aug 2003

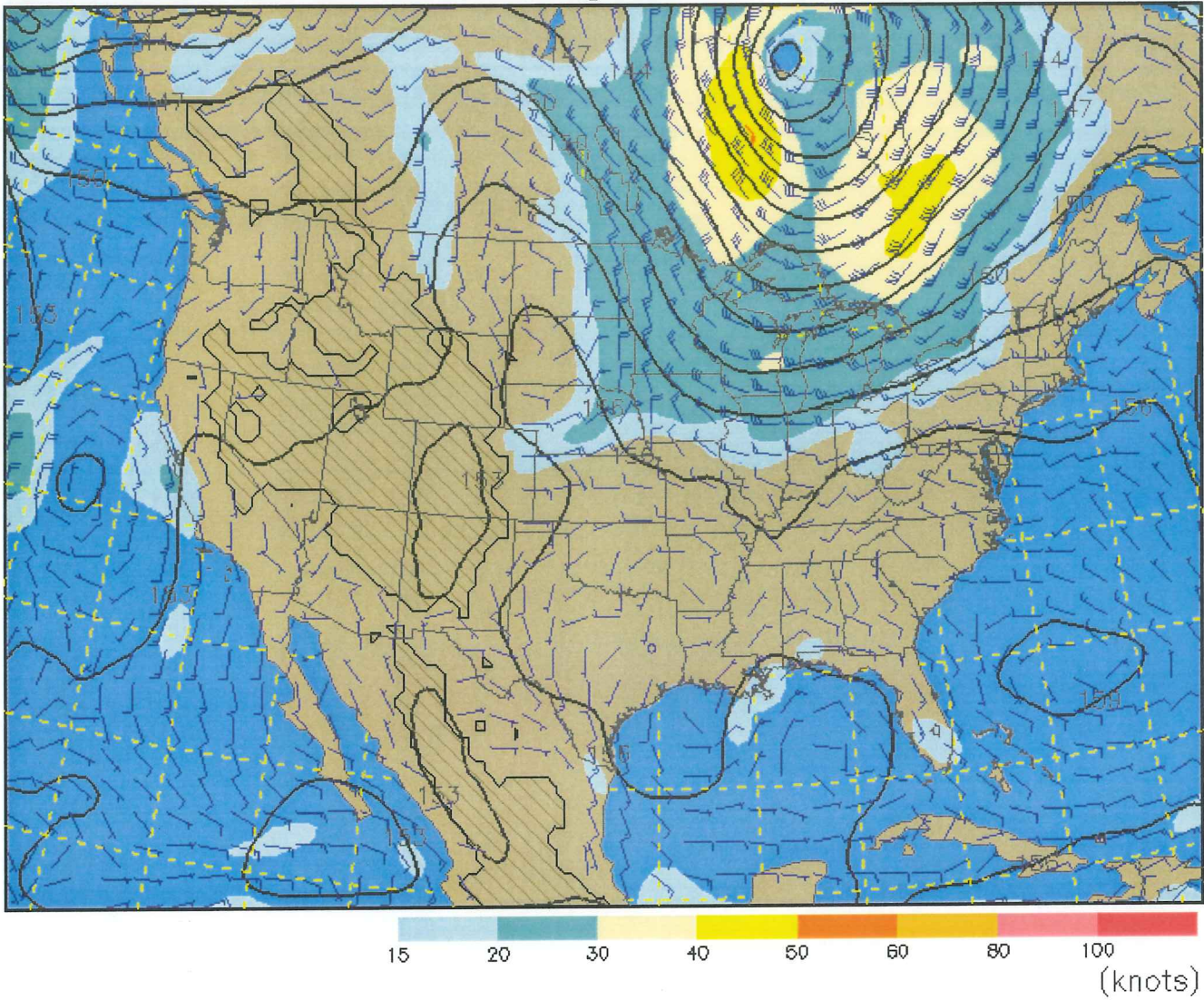
RUC (15z 21 Aug)



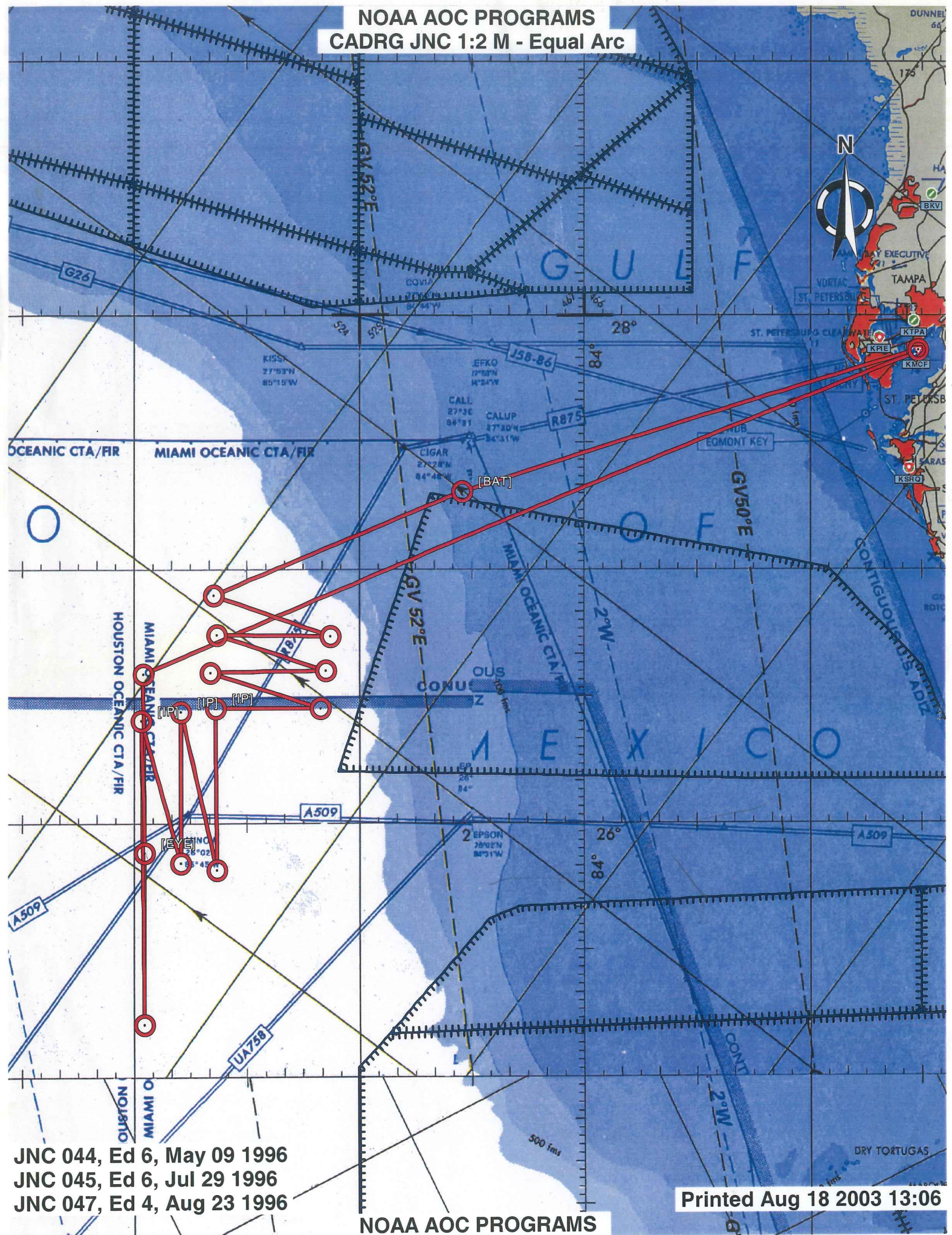
850 mb Heights (dm) / Isotachs (knots)

03 hour forecast valid 1800 UTC Thu 21 Aug 2003

RUC (15z 21 Aug)



NOAA AOC PROGRAMS
CADRG JNC 1:2 M - Equal Arc



JNC 044, Ed 6, May 09 1996
JNC 045, Ed 6, Jul 29 1996
JNC 047, Ed 4, Aug 23 1996

Printed Aug 18 2003 13:06



**Global Hydrology and Climate
Center
GOES-E CONUS Visible Satellite
Data**

[The great debate over global warming.](#)

[\[N.Amer. visible\]](#) | [\[N.Amer. infrared\]](#) | [\[N.Amer. water vapor\]](#) | [\[global infrared mosaic\]](#) | [\[global water vapor mosaic\]](#)

21 Aug 2003 16:02 UTC [2 km resolution]

Image centered at Latitude= 26.77° N Longitude= 85.23° W (X=273 Y=282)

weather.msfc.nasa.gov

**21 Aug 2003
16:02 UTC**

