

Status and Plans for the HRD 2001 Joint USWRP-CAMEX-4 Hurricane Field Program Data Archive



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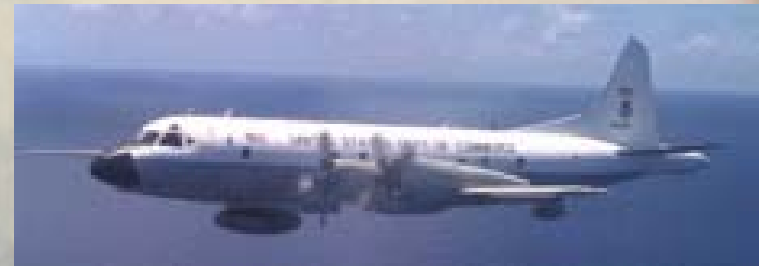
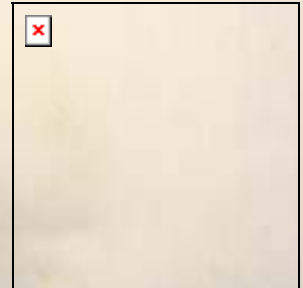


Table B1. NOAA/AOC WP-3D (N42HF, N43HF) instrumentation

	N42HF	N43HF
ENVIRONMENTAL		
air temperature (static)	Rosemount	Rosemount
static and dynamic pressure	Rosemount	Rosemount
dew point temperature	General Eastern	General Eastern
horizontal wind (computed)	INTELIAD (computed), GPS	INTELIAD (computed), GPS
vertical wind (computed)	High-resolution angle of attack probe	High-resolution angle of attack probe
total air temperature	last-response total temperature	last-response total temperature
CO ₂ air temperature	AOC modified FMI-9	AOC modified FMI-9
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CLOUD PHYSICS		
Hydrometeor size spectrum	NASA high volume particle spectrometer (HVPS)	FYS Knollenberg 2-D micro probe
Cloud liquid water	Johnson-Walmsley probe	Johnson-Walmsley probe
total liquid water	FYS King probe	
Cloud Condensation Nuclei	TSI CCN counter	
electric field (E)		
RADAR		
radar reflectivity		
radar reflectivity		
MISCELLANEOUS		
Cloud structure		
vertical atmospheric		
Oceanic temperature		
salinity profile		
surface water level		
Ozone concentration		
Delta transmission	W. Chiriac's Vertical Air (ASDL) ²	W. Chiriac's Vertical Air (ASDL) ²
Surface winds	IMMISA Mini-M	IMMISA Mini-M
surface wind speed & direction	Chaff sondes	Chaff sondes
surface wave spectra & direction	KUCO-SOA ³ SHM ⁴	SHM ³
		SHM ⁴

NOAA WP-3D Instrument Listing

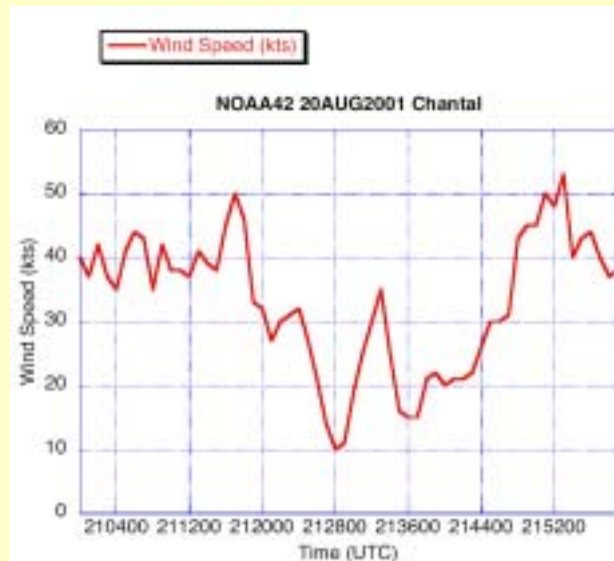
- Hurricane Field Program Plan available online in PDF format:
- <http://www.aoml.noaa.gov/hrd/HFP2001/index.html>



¹ The data were collected during the 2001 hurricane season.
² The data were collected during the 2001 hurricane season.
³ The data were collected during the 2001 hurricane season.
⁴ The data were collected during the 2001 hurricane season.

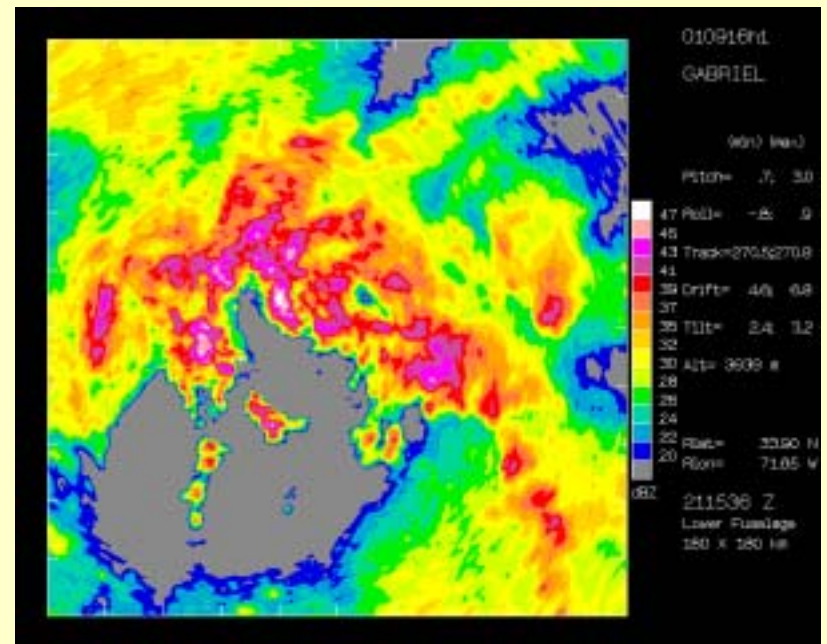
Fight-level Wind, Thermodynamic, and aircraft positional data

- On AOC DAT “standard” tapes: copies by request
- Software and code to read data available online
- 1-minute resolution, transmitted data online
- 1-sec conventional kinematic, thermodynamic, and aircraft position: ASCII files available by request
- http://www.aoml.noaa.gov/hrd/data_sub/data_format.html



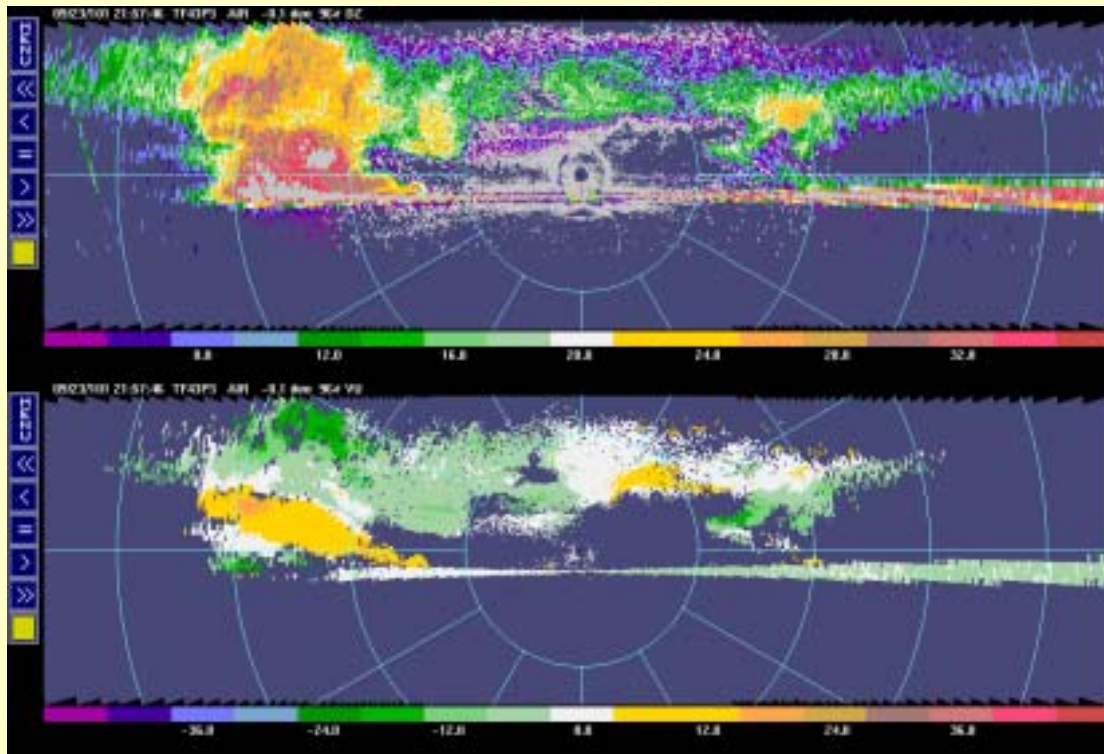
Lower-Fuselage C-band (PPI) reflectivity data

- HRD format DAT tapes: copies available by request
- Sample images available online
- http://www.aoml.noaa.gov/hrd/data_sub/hurr.html
- NCAR SOLO software to read and display data available online for UNIX workstations
- http://www.atd.ucar.edu/rdp/solo/solo_home.html



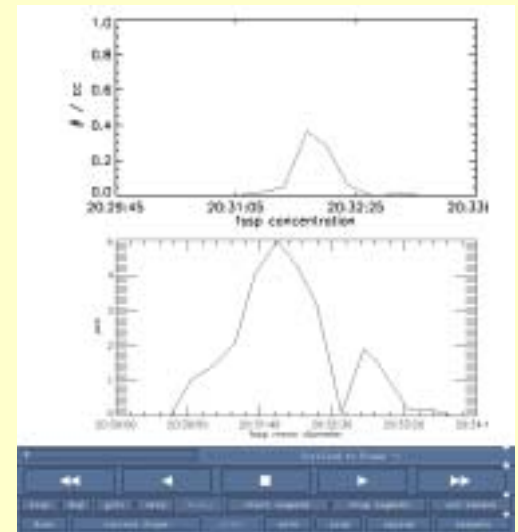
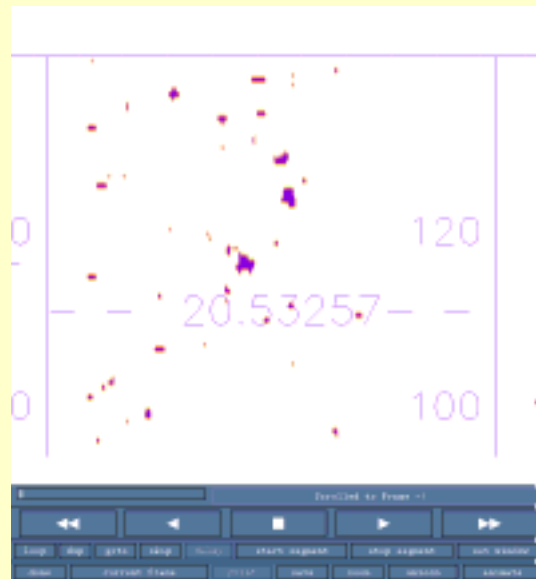
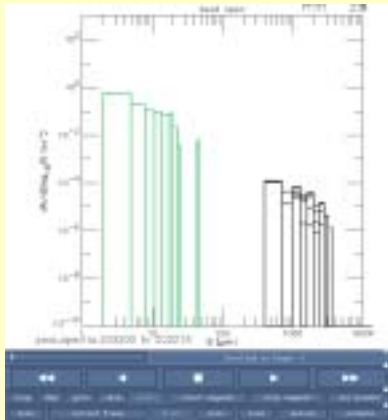
Tail Doppler X-band (RHI) reflectivity, Doppler velocity, and spectral-width data

- HRD format DAT tapes: copies available by request
- A few sample images available online
- http://www.aoml.noaa.gov/hrd/data_sub/hurr.html
- NCAR SOLO software to read and display data available online for UNIX workstations
- http://www.atd.ucar.edu/rdp/solo/solo_home.html



NOAA WP-3D Cloud Physics Data:

- Acceptable quality for most of KAMP flights and some of the tropical cyclone flights
- Primarily HPVS (some PMS) data
- NCAR Metafile format
- Available via FTP by request from Bob Black:
- Robert.A.Black@noaa.gov



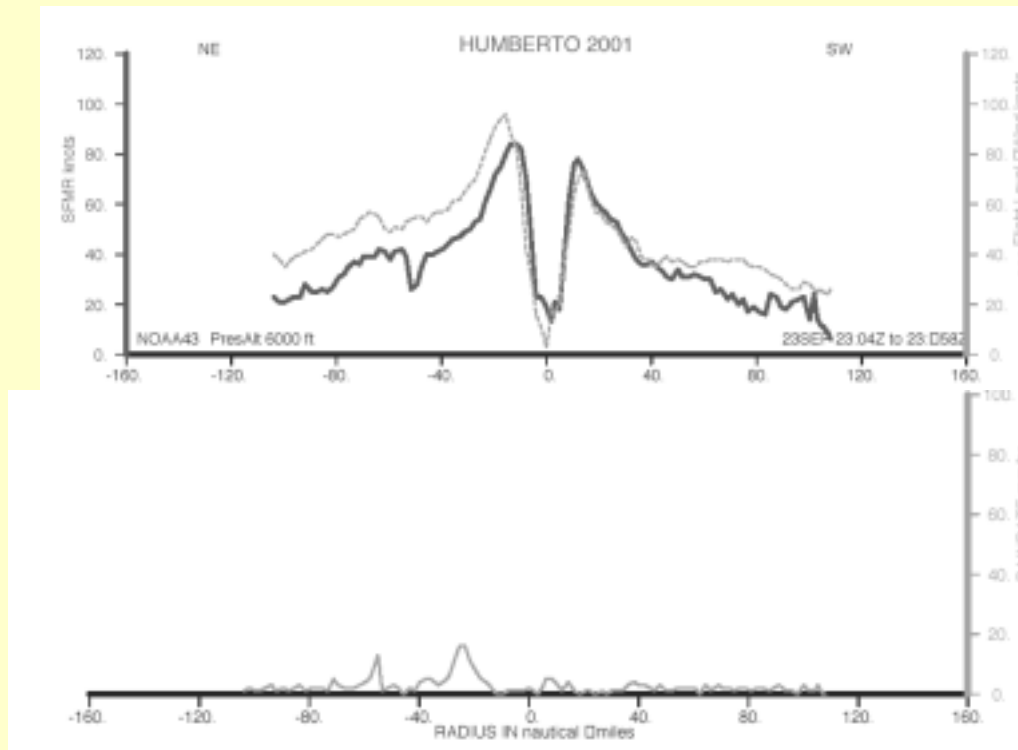
Airborne Expendable Bathythermograph (AXBT) SST and upper ocean temperature profiles

- Data currently being quality-controlled: available within a few months via FTP access by request
- Real-time SST information in GPS sonde comments in Tempdrop messages (online)



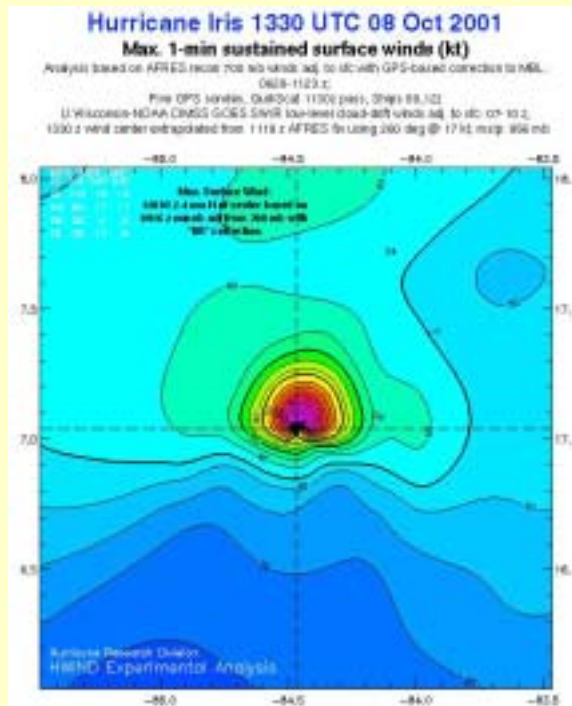
Stepped Frequency Microwave Radiometer (SFMR)

- Surface Wind Speeds and Rain Rates
- Currently being quality controlled
- Will be available via FTP access by request
- Contact: Eric.Uhlhorn@noaa.gov

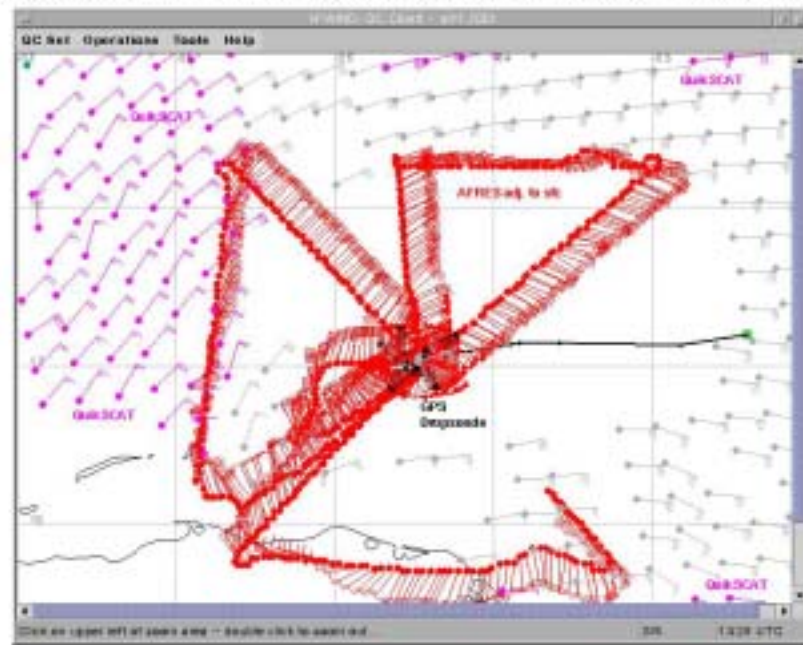


HRD Surface Wind (H*WIND) analyses

- Graphical analyses (windbarbs, streamlines, and isotachs) available online
- Gridded analyses available online:
- http://www.aoml.noaa.gov/hrd/data_sub/wind.html

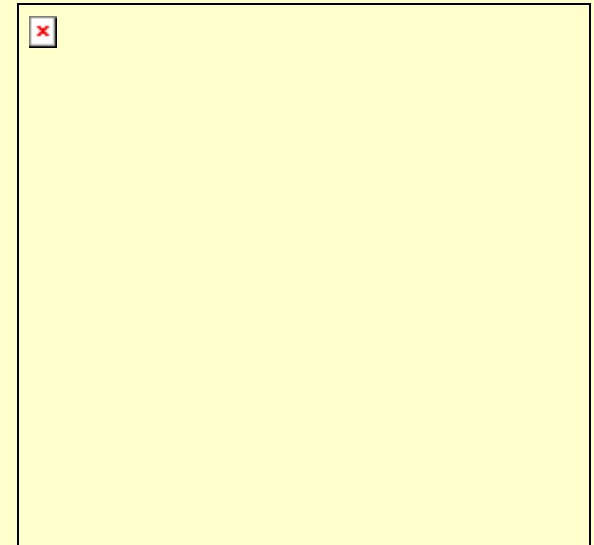
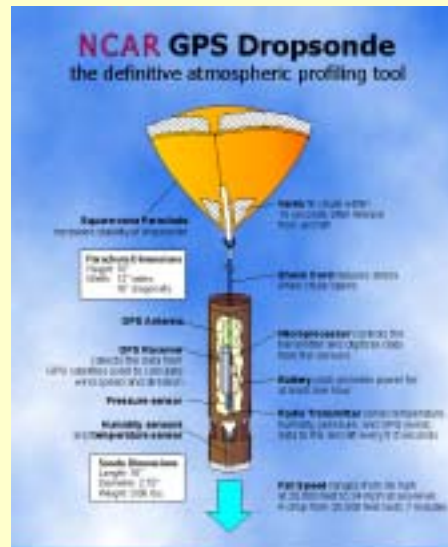


Data Coverage for H*WIND Analysis 1330 UTC Hurricane Iris Oct. 8, 2001



GPS Dropsonde data:NOAA WP3D and G-IV

- Real-time, HRD-processed WMO tempdrop and ASCII files available online
- PDF Synoptic maps at select levels online
- http://www.aoml.noaa.gov/hrd/Storm_pages/humberto2001/sonde.html
- FTP access to raw, 2 Hz data available by request
- NCAR (ATD) ASPEN software: quality-control and display capability for Windows-based PCs available from:
- <http://www.atd.ucar.edu/rtf/facilities/software/aspen/aspen.html>



Special Requests

- HRD can provide contact information for:
- KU/C-band scatterometer (CSCAT) wind data (UMASS)
- Limited air chemistry data (Jim Hudson)
- Scanning Radar Altimeter (Ed Walsh)

- Copies of S-VHS aircraft video (4 cameras: down, left, right, and nose) available
- Select digital photography available

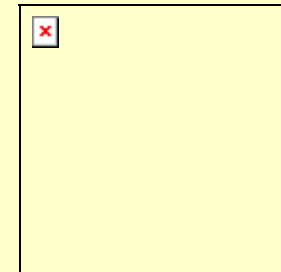


Collaborations welcomed and encouraged!

- **Analyzed data sets can be made available:**
- **Three-dimensional Doppler wind fields**
- **Quality-controlled vertical-incidence winds and reflectivity**
- **High-quality GPS dropsonde data and analyses**
- **Quantitative flight-level, radar, and cloud microphysics analyses**

Email Contacts for HRD Data:

- Radar (reflectivity and Doppler):
 - Frank.Marks@noaa.gov
 - John.Gamache@noaa.gov
 - Peter.Dodge@noaa.gov
- In-situ flight level Met. And Nav. Variables:
 - Neal.M.Dorst@noaa.gov
- GPS Dropsonde data
 - Michael.Black@noaa.gov
 - Steve.Feuer@noaa.gov
- Cloud Physics:
 - Robert.A.Black@noaa.gov
- AXBT and SFMR:
 - Eric.Uhlhorn@noaa.gov
- Surface (H*WIND) analyses:
 - Mark.Powell@noaa.gov





We accomplished a lot in 2001

And have much work to do

**Now, let's analyze, publish, and apply the research
before our next joint venture in 2004!**

