FIRE II Cirrus
Mission Summary

Date: November 23, 1991
Julian Day: 327
Experiment Day: 11

Summary | Active Sensors | Passive Sensors | Sonde and Sfcmet

Mission Scientist: None
Deputy Mission Scientist: None

Mission Objective:

No operations

Mission Description:

No operations

Weather Synopsis:

Saturday morning's weather was winter-like with brisk northwest winds, clear skies, and temperatures in the upper 20's. During the course of the day, temperatures warmed only slightly to the 30's and winds continued to blow strong from the northwest. The mid-day hours saw some stratocumulus from the northwest, but by late afternoon skies were mostly sunny again.

Synoptic Situation:

The long-wave pattern that has prevailed over the US for the last week continued with amplification. The trough over the central US dug further to the south aided by a major winter storm gaining strength over the Great Lakes. In addition, the persistent high over the east coast and the Pacific ridge both strengthened to keep the pattern in a status-quo. The jet maximum on Saturday morning extended from the base of the trough in Oklahoma northeast to the Great Lakes. The subtropical jet was still absent from the western half of the US, as clouds flowing in the jet crossed over the Gulf of Mexico and up the East Coast. To the west, skies were clear except in the northwest where the next short wave was moving onshore.

Aircraft	Depart	Land	Notes
All Aircraft			No flights

Satellite	Hub Overpass Time	Zenith Angle	Azimuth Angle	RAOB
NOAA-11	20:05:42	56.27	68.13	yes
	10:10:35	33.87	287.84	yes
NOAA-12	14:24:23	3.58	280.94	yes
	01:44:12	24.78	258.45	yes

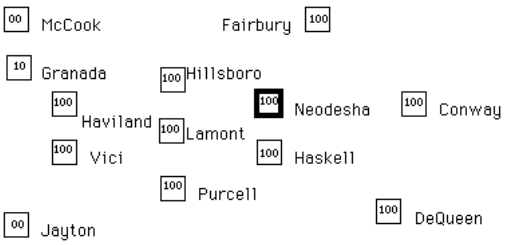
Rawinsonde Operations:

- Inner NWS stations (Type A): Routine @ 12 and 00 UTC
- Outer NWS stations (Type B): Routine @ 12 and 00 UTC
- Hub CLASS station: Satellite overpasses @ 14, 20, 01, AND 10 UTC
- Remote CLASS stations: No launches
- Hub GSFC/WFF station: Launches @ 18, 20, 00, 02, 03, 05, and 07 UTC
- CSU Parsons station: No launches

FIRE Profiler Status:

- CSU 405 MHz @ Parsons: Continuous operation
- PSU 50 MHz @ Coffeyville: Continuous operation (problems with high winds)
- NOAA 405 MHz @ Coffeyville: Not operational

NWS Wind Profiler Status



SPECTRE Operations:

A really excellent clear cold nighttime case. Also, good afternoon observations under scattered clouds.

Highlights of FIRE Operations:

- A great SPECTRE night - really excellent clear cold conditions

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Instrument Logs

Active Sensors

Active Sensor	UTC Hour																								Notes
	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	
Utah Lidar H																									NO OBSERVATIONS
LaRC Laser Ceilometer H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Wisc HSR Lidar H																									NO OBSERVATIONS
Wisc Vol Image Lidar																									NO OBSERVATIONS
GSFC RAMAN Lidar H													X	X	X	X	X	X	X	X	X	X	X		
NOAA CO2 Lidar H				X	X																				STRATOSPHERIC AEROSOLS ONLY
NOAA Radar H																									NO OBSERVATIONS
PSU Radar H									X	X	X	X	X	X											
PSU Laser Ceilometer H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PSU 50 MHZ Wind Prof H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NOISE PROBLEMS DUE TO DRY AIR
PSU/NOAA 50 MHz RASS H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NOISE PROBLEMS DUE TO HIGH WINDS
NOAA 405 MHz RASS H																									NOT OPERATIONAL
LaRC Lidar P																									NO OBSERVATIONS
CSU Wind Prof/RASS P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NO RASS
CSU Laser Ceilometer P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

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Passive Sensors

Passive Sensor	UTC Hour																								Notes
	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	
NOAA μ-wave RadiometerH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
NOAA Sun Photometer H				X	X																				
NOAA H20 Photometer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
NOAA IR Flux Radiom. H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
NOAA Dobson Ozone H						X																			
NOAA Surface Ozone H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
NOAA Trace Gas H				C	F						C	F													
PSU μ-wave Radiometer H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	SOME NOISE PROBLEMS
PSU Sun Photometer H																									NO OBSERVATIONS
PSU Solar Flux Radiom. H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PSU IR Flux Radiometers H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
PSU Sky Video H									X	X	X	X	X	X											
Utah IR-Window Radiom. H																									NO OBSERVATIONS
Utah Sky Video H																									NO OBSERVATIONS
LaRC Video H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
AFGL Sky Imager H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Ames Radiometer H																									NO OBSERVATIONS
Denver Solar Radiom. H						X	X																		
Denver IR-Spectrometers H						X	X																		
GSFC IR-Spectrometer H									X	X															
Wisc. IR-Spectrometer H					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MRI Sun Photometer H			X	X	X	X	X	X	X	X															
MRI IR Radiometer H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MRI Spectro-Radiom. H																									NO OBSERVATIONS
MRI Solar Flux Radiom. H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
GSFC Sun Photometer H																									NO OBSERVATIONS
CSU Sun Photometer P																									NO OBSERVATIONS
CSU IR-Window Radiom. P						X	X	X	X																
CSU Solar Flux Radiom. P	X	X	X	X	X	X	X	X	X	X	X	X													
CSU IR Flux Radiometers P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CSU IR-Spectrometer P						X	X	X	X																
CSU Sky Video P					X	X	X	X	X																

Ames Spectroradiometer H																								NO OBSERVATIONS
Ames 10 μm narrow fov H																								NO OBSERVATIONS

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Sonde and Surface Meterology

Sonde + Sfc Met Sensor	UTC Hour																							Notes
	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	
NOAA Ozone Sonde H										X															
WFF Sonde H							X		X				X		X	X		X		X					
NCAR Cloud Ice Sonde H																									NO LAUNCHES
NCAR/CLASS Sonde H			X						X					X									X	X	(12 UTC FOR NEXT DAY LAUNCHED AN HOUR EARLY)
NCAR PAMS H					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	WET BULB FROZEN UNTIL 18 UTC
NCAR/CLASS (remote)																									NO LAUNCHES
NCAR PAMS (remote)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	WET BULB FROZEN IN AM, EXCEPT MUSKOGEE
CSU Sonde P																									NO LAUNCHES
CSU Sfc Meteor. P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Type A NWS Sondes	X												X												
Type B NWS Sondes	X												X												
PSU Sfc Meteor H	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	