IOP-22 Summary of Operations
26 February 2010, 1200 UTC – 27 February 2010 0000 UTC

Authors: Rauber

1. Summary of storm evolution

The IOP-22 storm was associated with a rapidly moving wave that moved southeastward over the western plains and out into the Gulf of Mexico. The storm developed over southwestern Texas and moved across Texas and into Louisiana. The precipitation echoes were generally weak on the 88D during the sampling although interesting structure was observed on the WCR.

2. Locations of instrumentation platforms

MIPS Location: not used
MAX Location: not used
MISS Location: not used
UM Location: not used
RF-15 Flight operations: 1400 UTC to 2219 UTC 26 Feb 10
Figure 1: Evolution of the IOP-22 storm at the surface, 500 mb, and radar echoes from 1200 UTC 26 Feb 10 through 0000 UTC 27 Feb 10.
3. Precipitation over research area

Fig. 2: 24 Hour precipitation ending at 1200 UTC 2/26/10 and 1200 UTC 2/27/10 over the United States
Fig. 3: 24 Hour precipitation ending at 1200 UTC 2/26/10 and 1200 UTC 2/27/10 over Oklahoma and Texas.
4. Flight Summary

The C-130 flew the weak wraparound region of a cyclone moving out of Texas. The flight consisted of passes at various elevations, generally high because of the warm temperatures. The research time was short because of the ferry time to get down to the storm.

C-130 Flight RF-13 Flight track

Figure 4: Flight track (top) and radar images during the period of the C-130 flight from 1435 UTC 26 Feb 10 through 1907 UTC 26 Feb 10.
Figure 5: Flight track (top) and radar images during the period of the C-130 flight from 1946 UTC 26 Feb 10 through 2219 UTC 26 Feb 10.

1433 UTC to 1507 UTC
1507 UTC to 1524 UTC

Fig. 6: Wyoming Cloud Radar Quicklook of radar reflectivity between 1433 UTC 26 Feb 10 and 1524 UTC 26 Feb 10.
Fig. 7: Wyoming Cloud Radar Quicklook of radar reflectivity between 1523 UTC 26 Feb 10 and 1824 UTC 26 Feb 10.
Fig. 8: Wyoming Cloud Radar Quicklook of radar reflectivity between 1824 UTC 26 Feb 10 and 2047 UTC 26 Feb 10
Fig. 9: Wyoming Cloud Radar Quicklook of radar reflectivity between 2045 UTC 26 Feb 10 and 2155 UTC 26 Feb 10.