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

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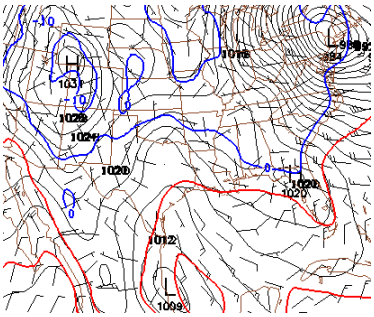
1. Summary of storm evolution

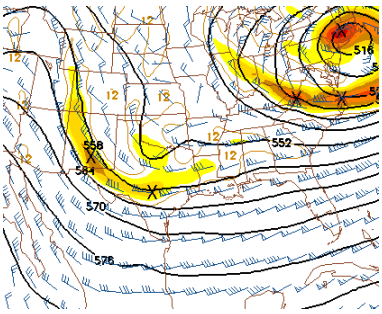
The IOP-22 storm was associated with a rapidly moving wave that moved southeastward over the western plains and out into the Gulf of Mexico. The storm developed over southwestern Texas and moved across Texas and into Louisiana. The precipitation echoes were generally weak on the 88D during the sampling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

2. Locations of instrumentation platforms

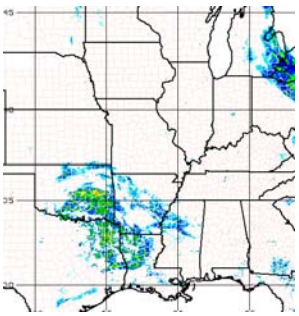
MIPS Location: not used
MAX Location: not used
MISS Location: not used
UM Location: not used
RF-15 Flight operations: 1400 UTC to 2219 UTC 26 Feb 10



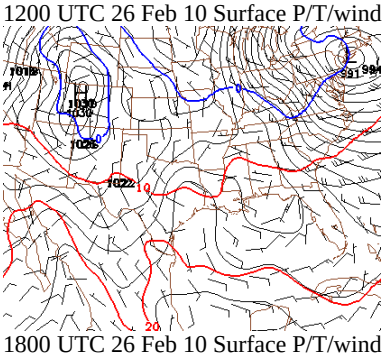
1200 UTC 26 Feb 10 Surface P/T/wind



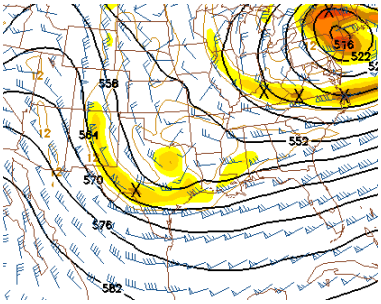
1200 UTC 26 Feb 10 500 mb Ht/Vort/Wind



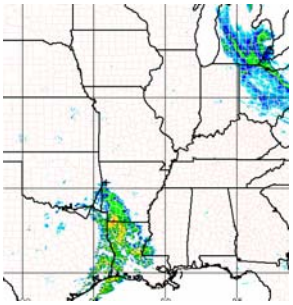
1206 UTC 26 Feb 10 radar



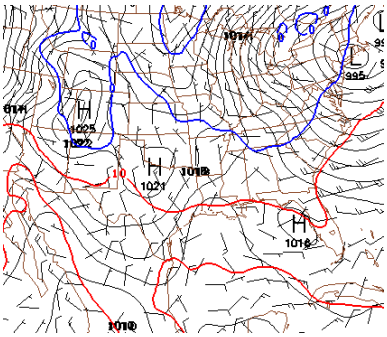
1800 UTC 26 Feb 10 Surface P/T/wind



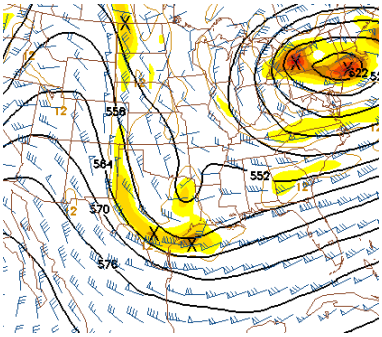
1800 UTC 26 Feb 10 500 mb Ht/Vort/Wind



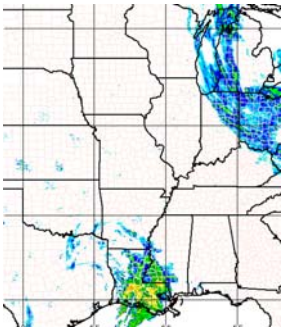
1806 UTC 26 Feb 10 radar



0000 UTC 27 Feb 10 Surface P/T/wind



0000 UTC 27 Feb 10 500 mb Ht/Vort/Wind



0000 UTC 27 Feb 10 radar

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

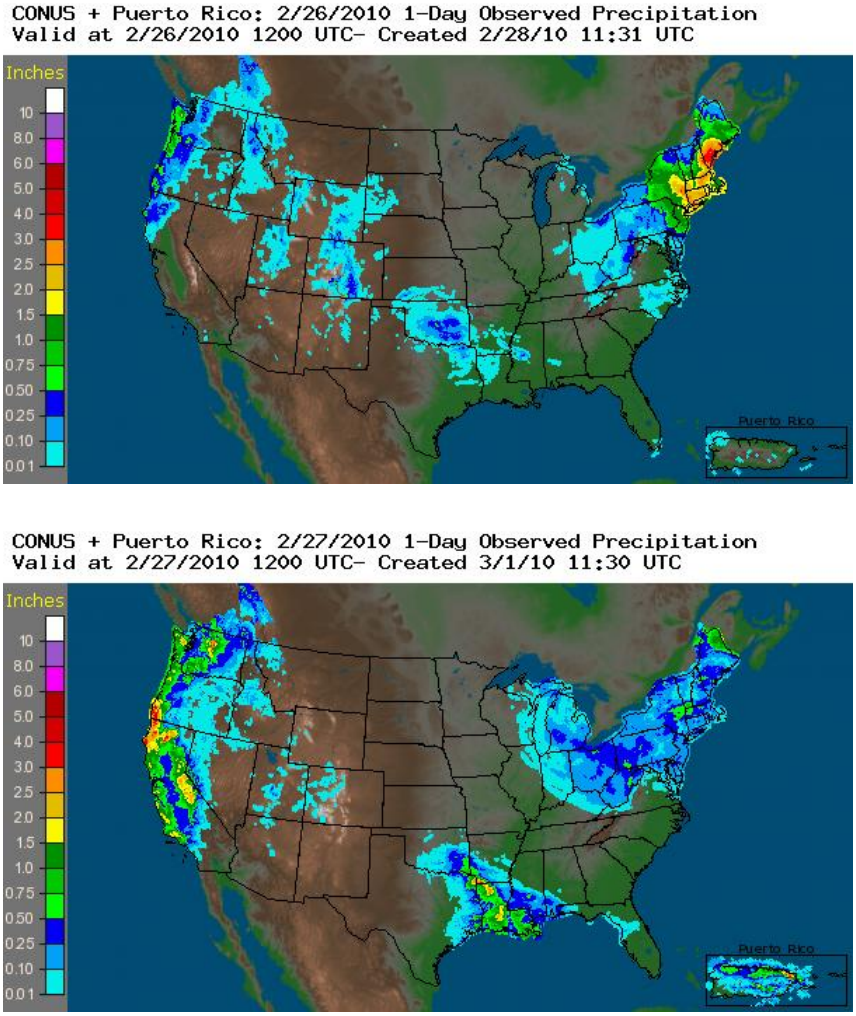


Fig. 2: 24 Hour precipitation ending at 1200 UTC 2/26/10 and 1200 UTC 2/27/10 over the United States

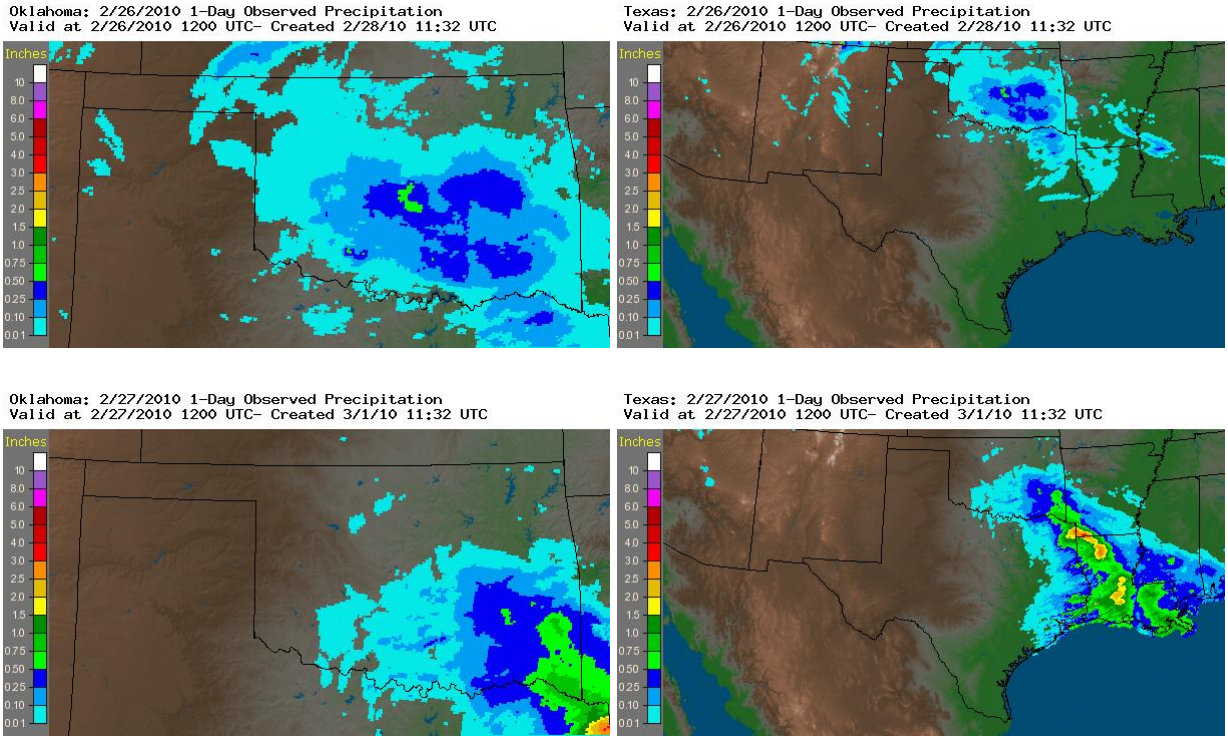


Fig. 3: 24 Hour precipitation ending at 1200 UTC 2/26/10 and 1200 UTC 2/27/10 over Oklahoma and Texas.

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

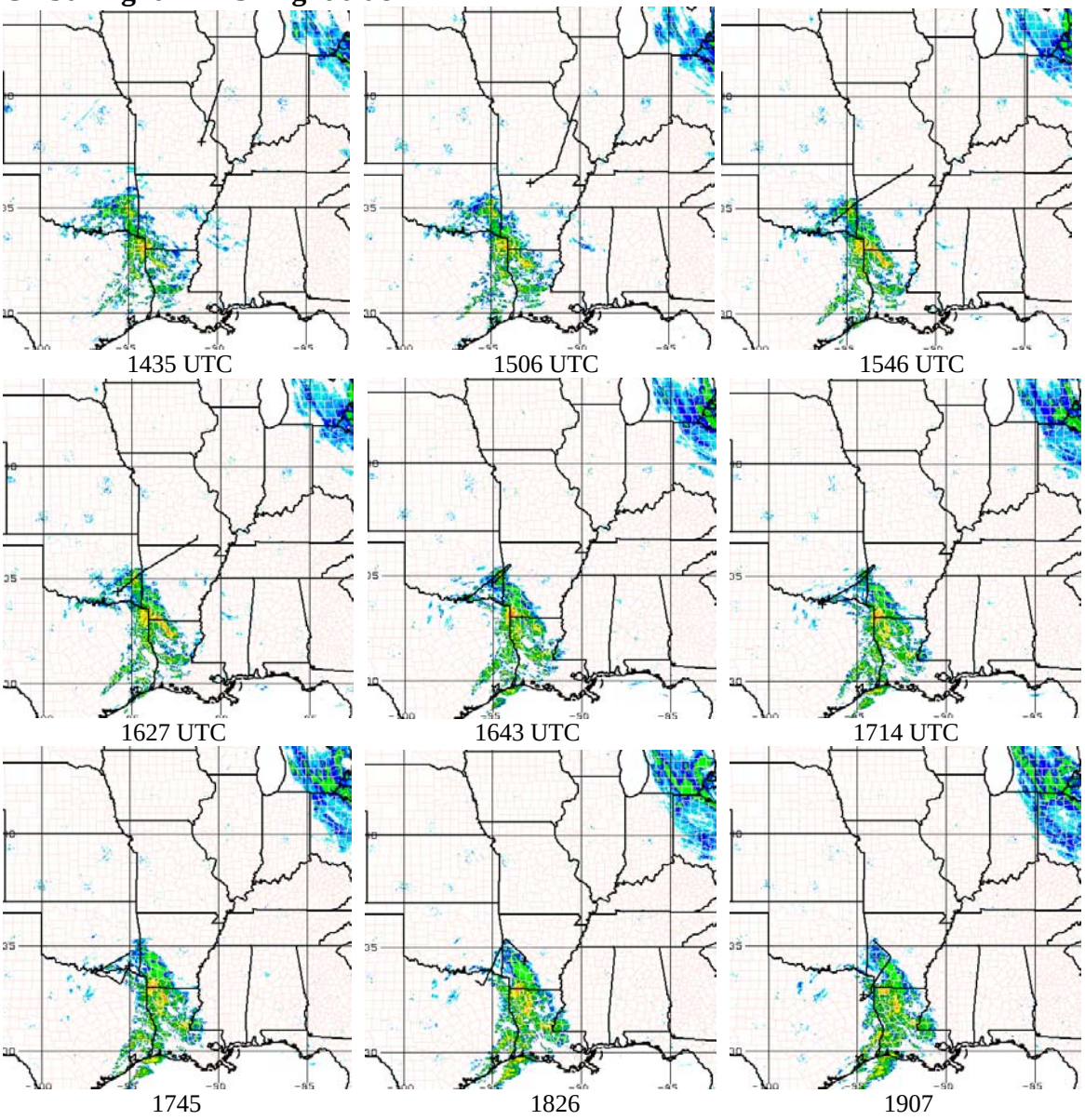


Figure 4: Flight track (top) and radar images during the period of the C-130 flight from 1435 UTC 26 Feb 10 through 1907 UTC 26 Feb 10.

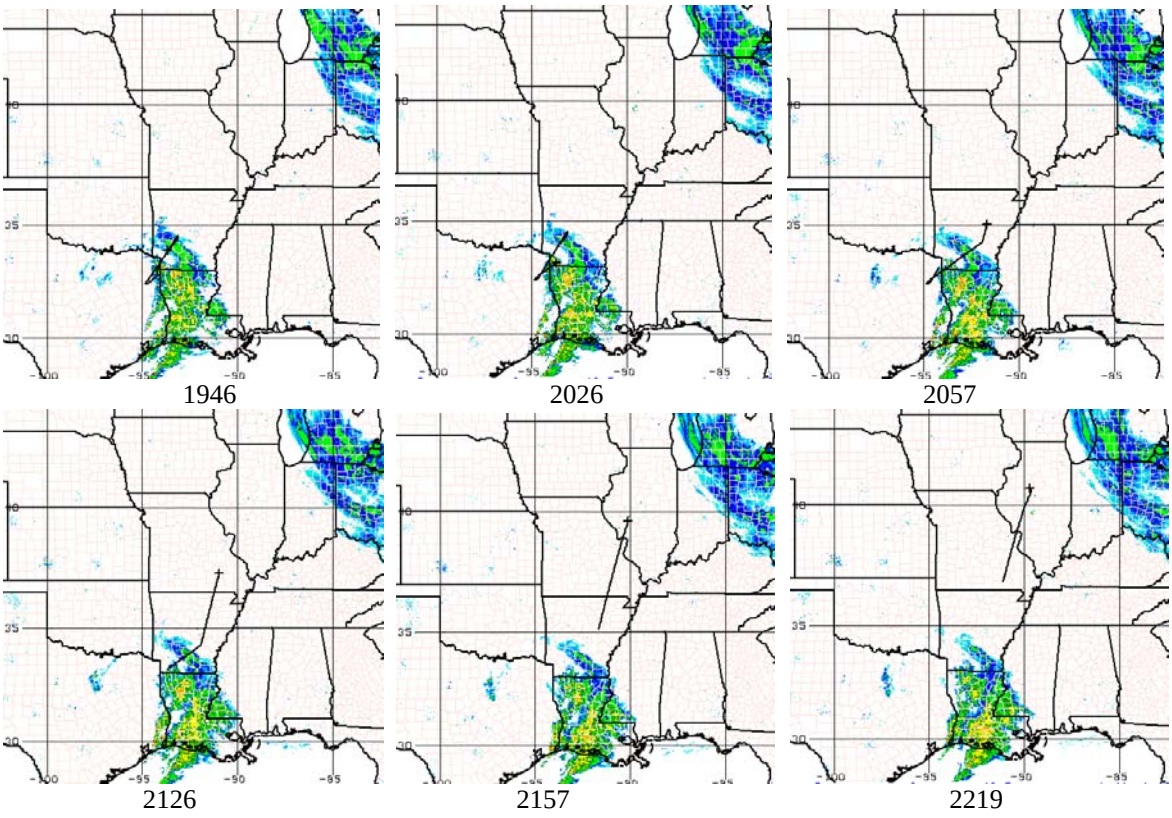
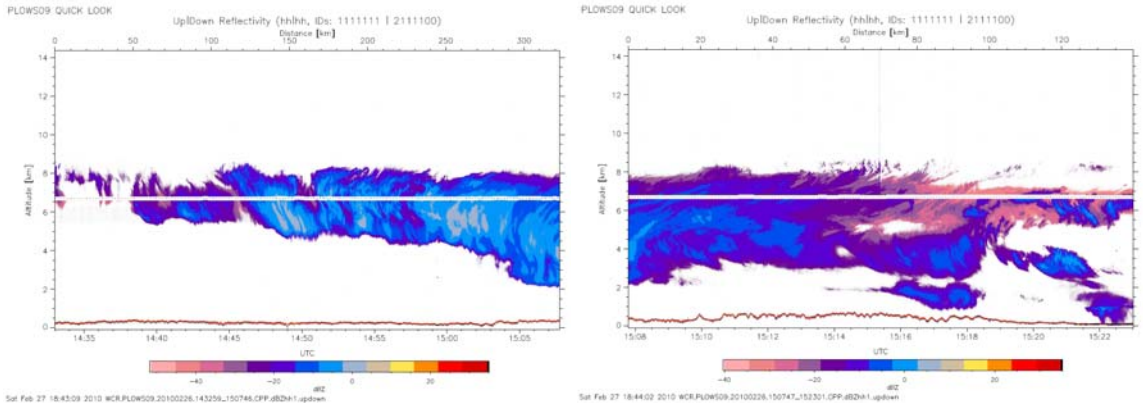
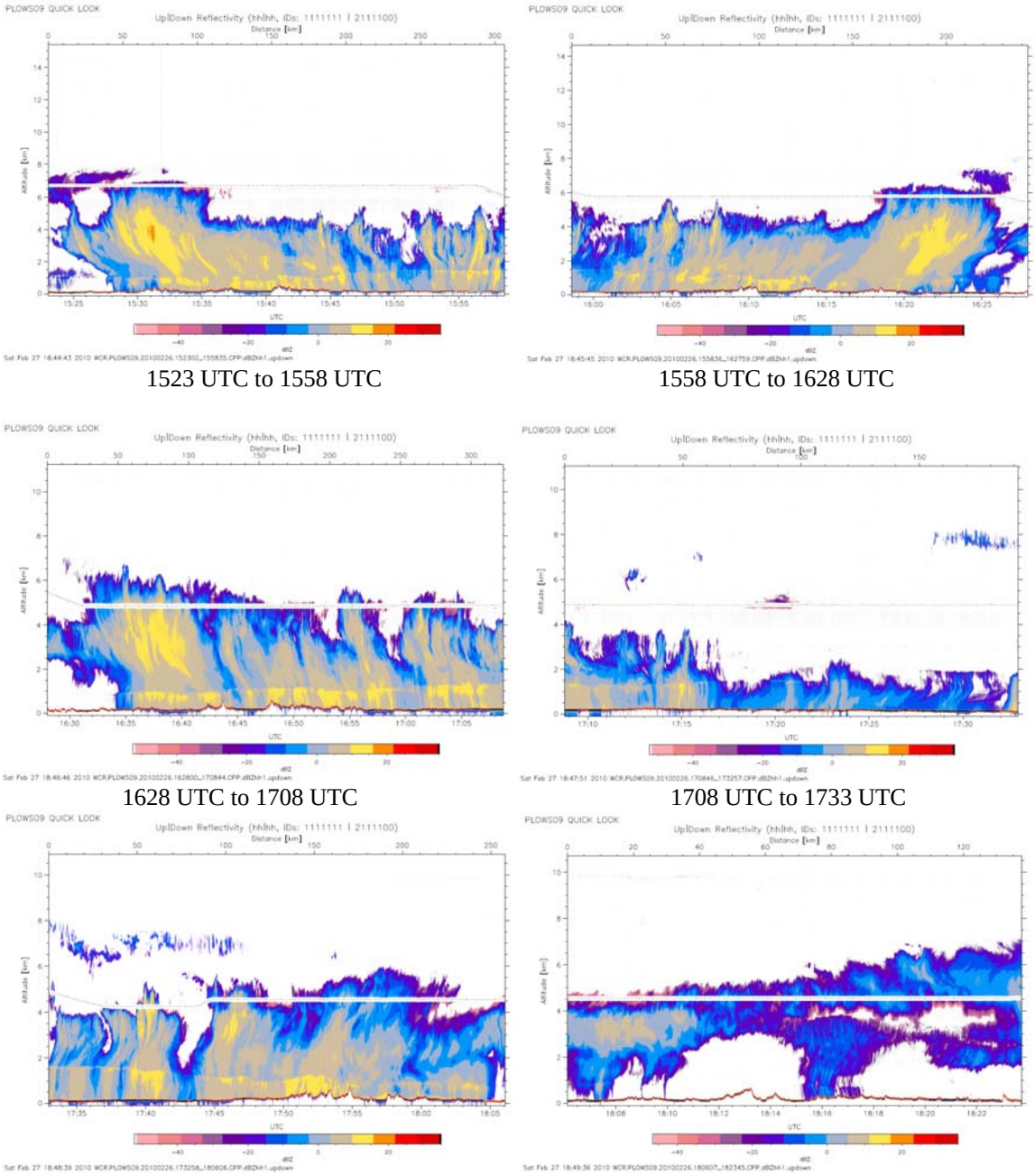


Figure 5: Flight track (top) and radar images during the period of the C-130 flight from 1946 UTC 26 Feb 10 through 2219 UTC 26 Feb 10.



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.



1523 UTC to 1558 UTC

1558 UTC to 1628 UTC

1628 UTC to 1708 UTC

1708 UTC to 1733 UTC

1734 UTC to 1805 UTC

1805 UTC to 1824 UTC

Fig. 7: Wyoming Cloud Radar Quicklook of radar reflectivity between 1523 UTC 26 Feb 10 and 1824 UTC 26 Feb 10.

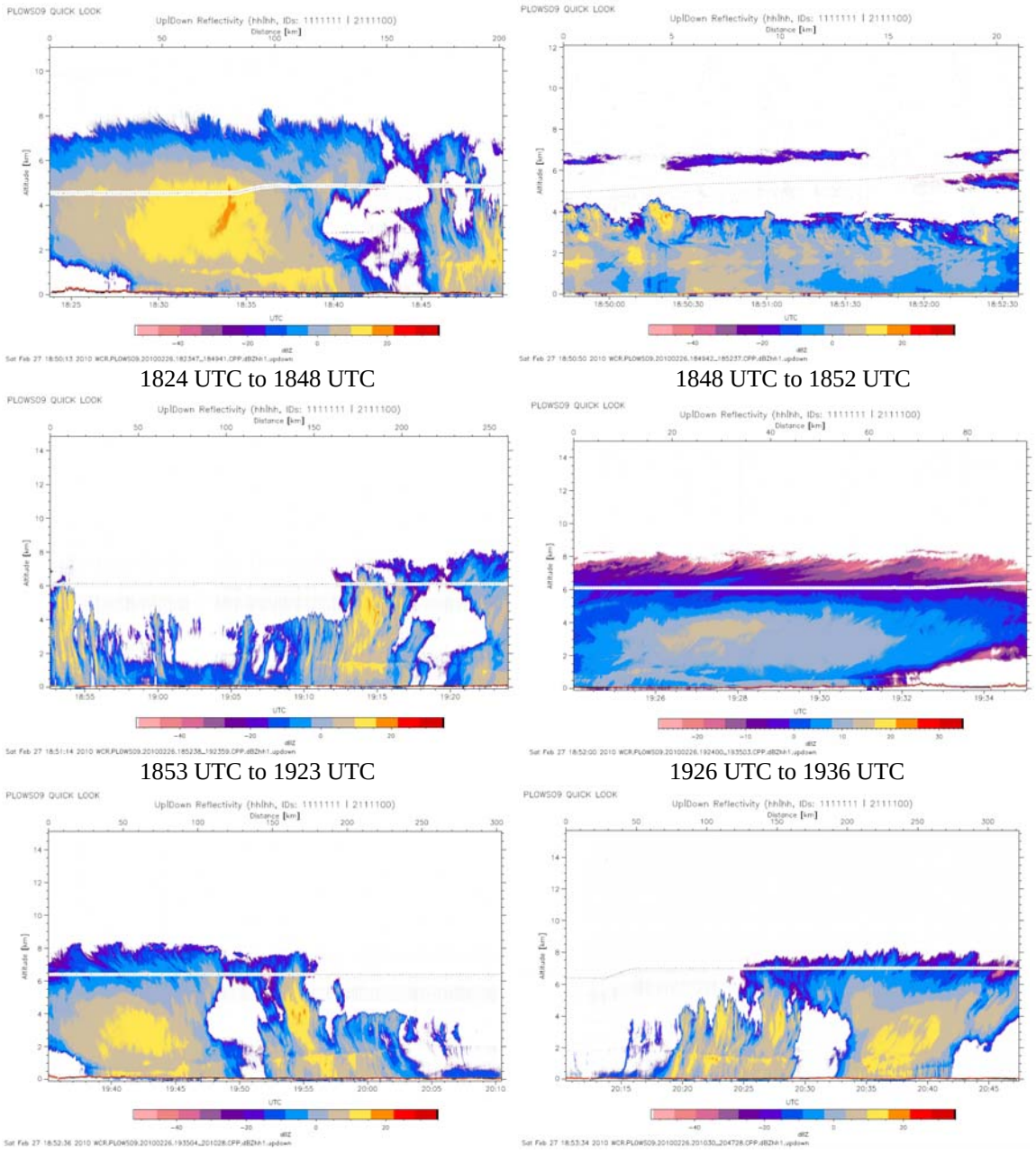
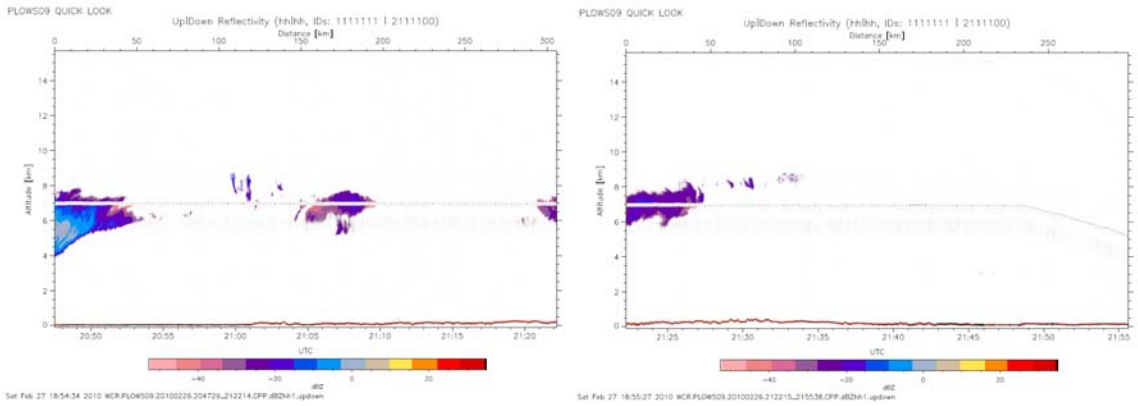


Fig. 8: Wyoming Cloud Radar Quicklook of radar reflectivity between 1824 UTC 26 Feb 10 and 2047 UTC 26 Feb 10



2045 UTC to 2122 UTC 2122 UTC to 2155 UTC

Fig. 9: Wyoming Cloud Radar Quicklook of radar reflectivity between 2045 UTC 26 Feb 10 and 2155 UTC 26 Feb 10.