

High Altitude MMIC Sounding Radiometer (HAMSR)

TCSP Field Campaign

Flight Data Summary—Science Maps

25 July 2005

I. High Level Summary

Flight over land in Mexico studying thunderstorms in mountain area, and AURA/AQUA over flight. On return, there were large thunderstorms near the airport, and pilot (Dave Wright) reported seeing lightning bolts shooting up vertically above the clouds and dissipating in a “poof” in apparently clear air.

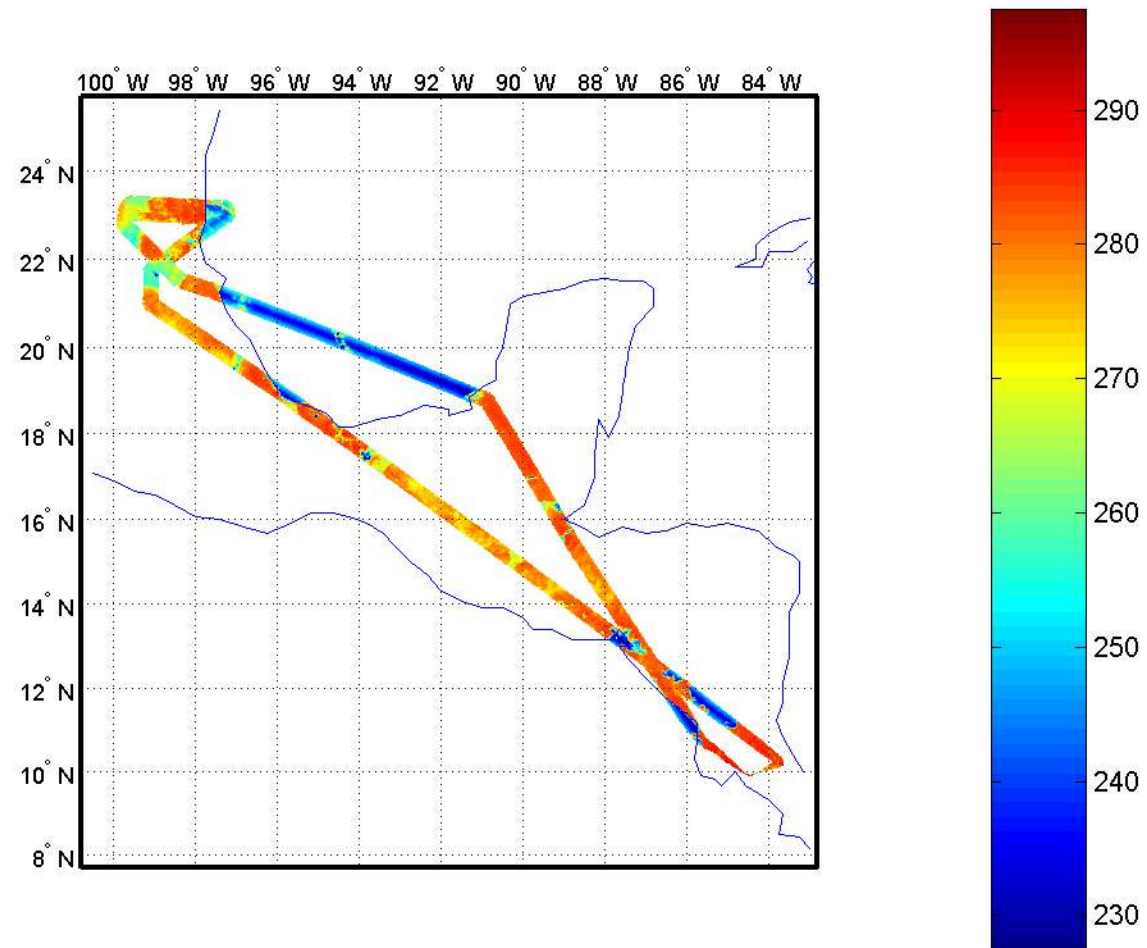
The changes to the “+5V” supply to the CPU that were made prior to this flight to boost the voltage to about 5.03V appear to have remedied the intermittent reboot issue previously noted. No issues were encountered either during pre-flight or in flight.

II. Instrument State and Parameters

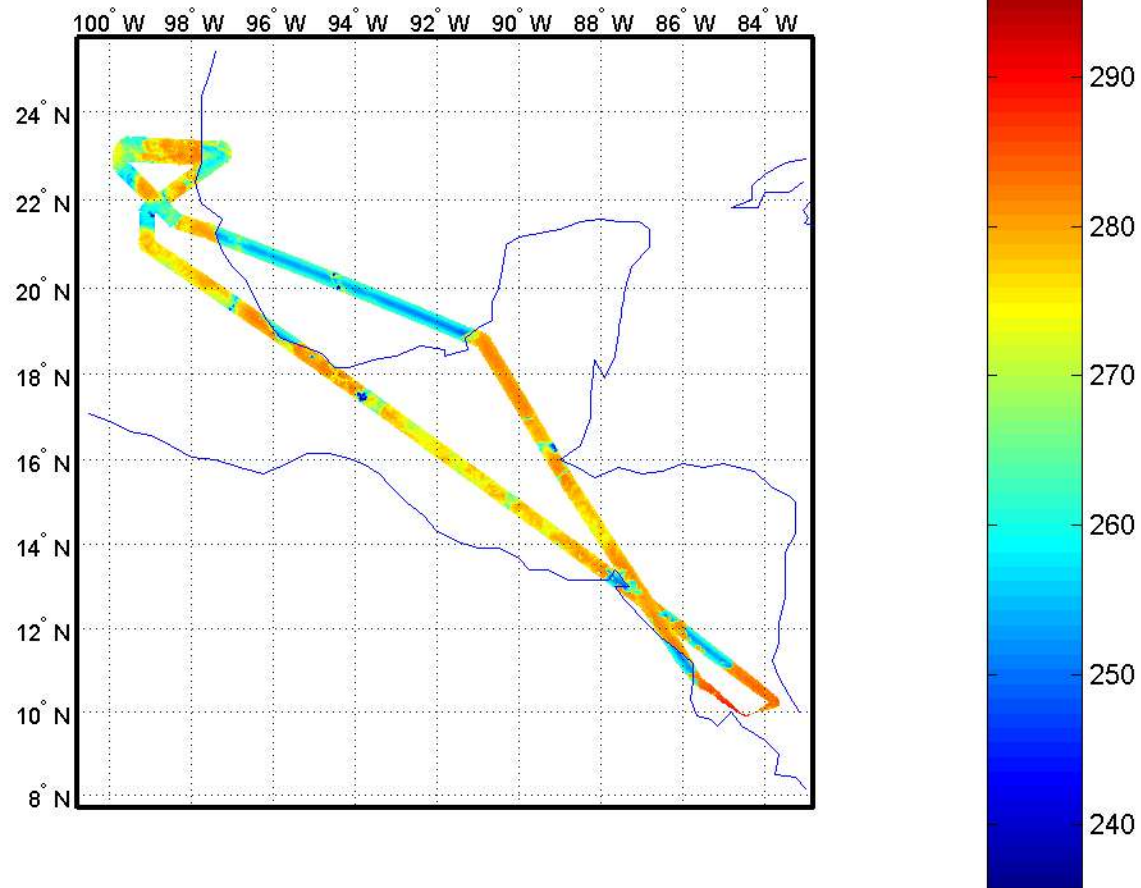
Instrument Power	ON
Fan Power	ON
Pod Heaters	ON
Seal Added Around Pod Window/Radome	NO
LN2 Load Used Pre-Flight	YES
Pre-Flight Data File Name	05072422.242
Flight Data File Name	05072501.525

III-a. Selected Maps

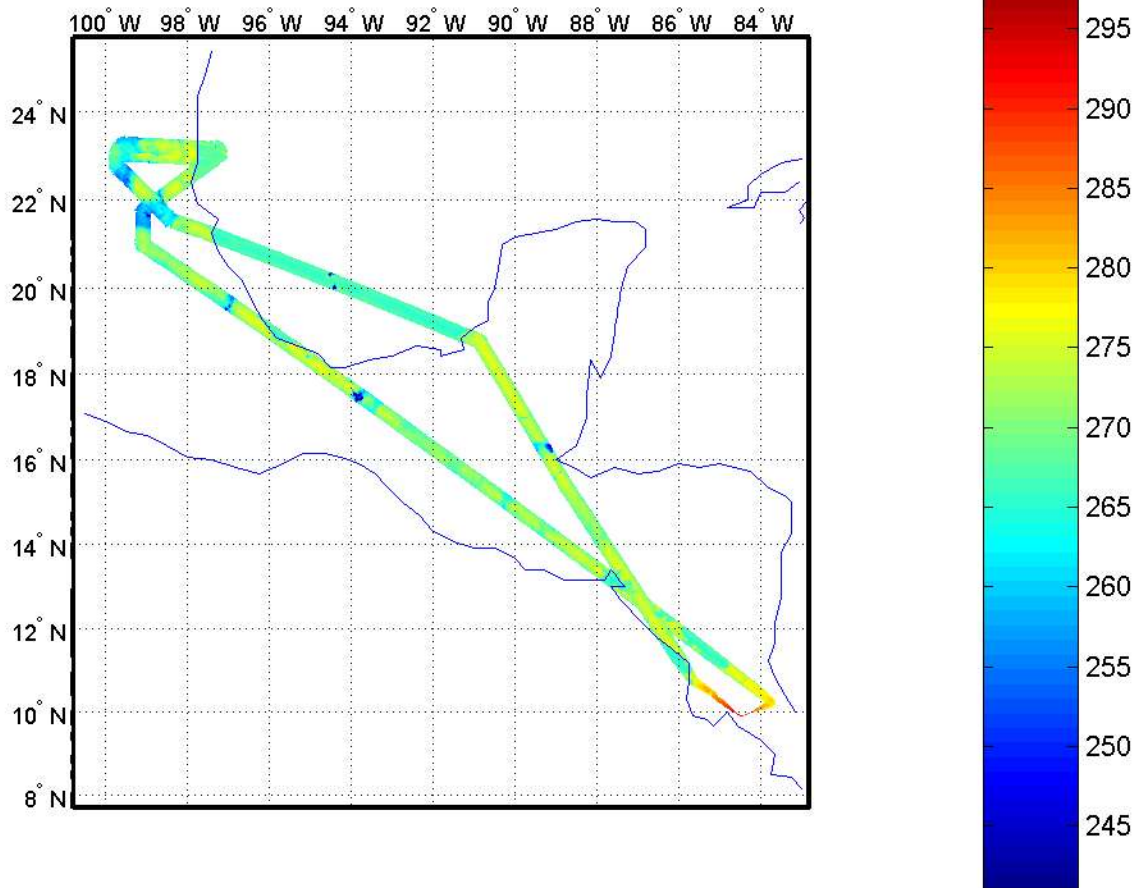
50.3 GHz brightness temperature(surface)
25-Jul-2005 01:53:35 -- 10:09:09



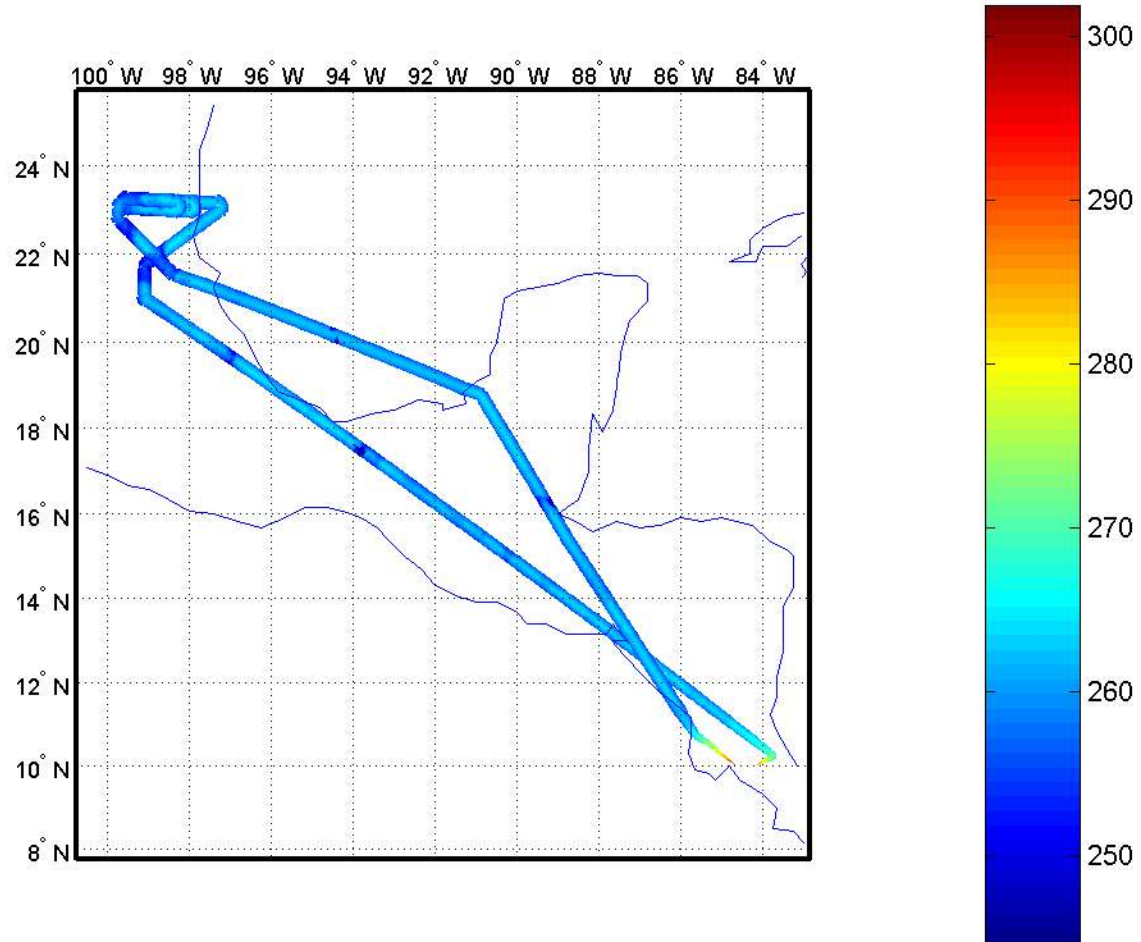
51.76 GHz brightness temperature(surface)
25-Jul-2005 01:53:35 -- 10:09:09



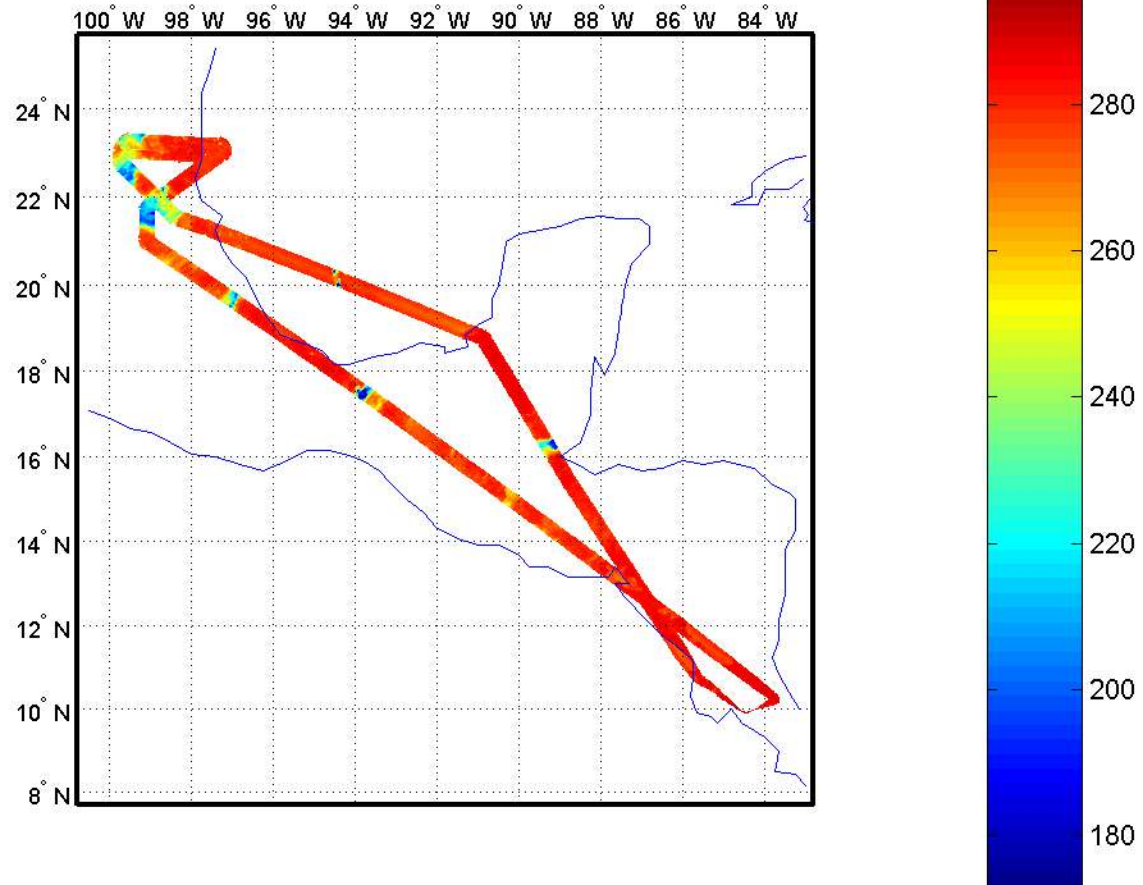
52.8 GHz brightness temperature(1000mB)
25-Jul-2005 01:53:35 -- 10:09:09



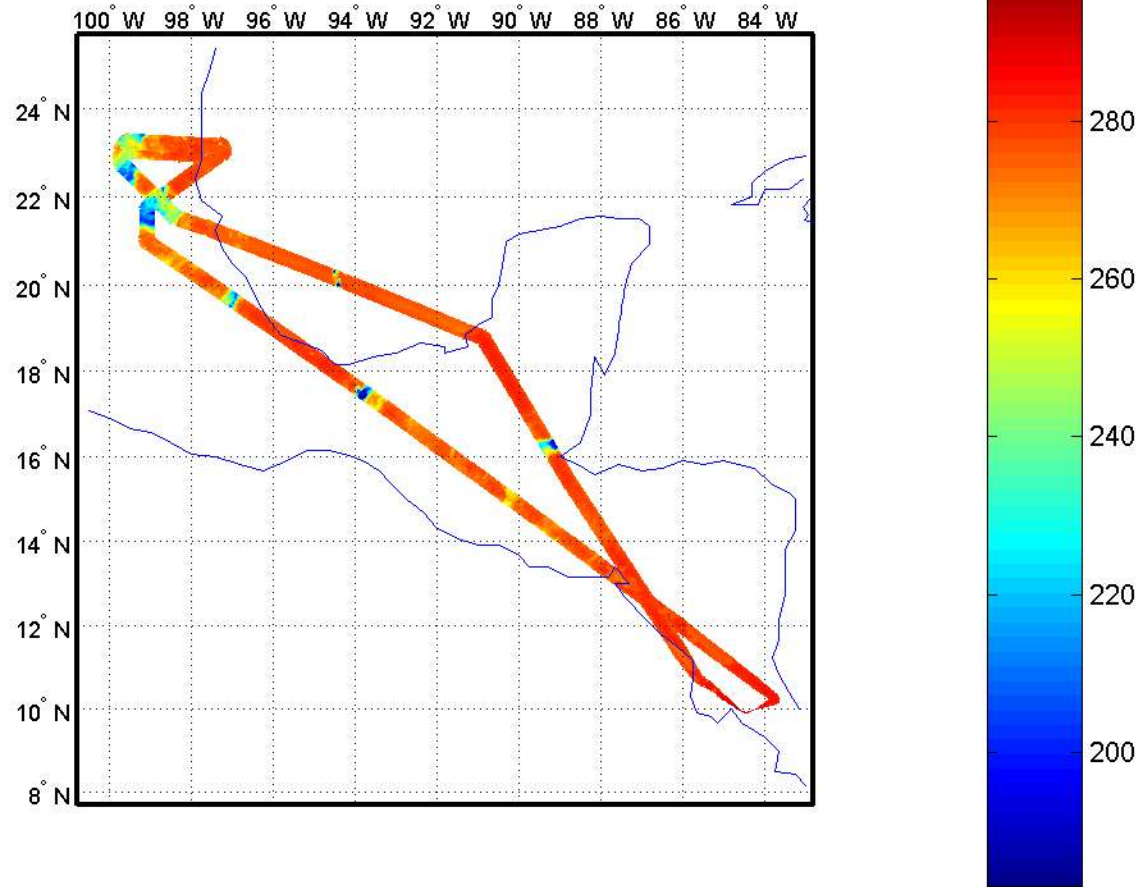
53.596 GHz brightness temperature(750mB)
25-Jul-2005 01:53:35 -- 10:09:09



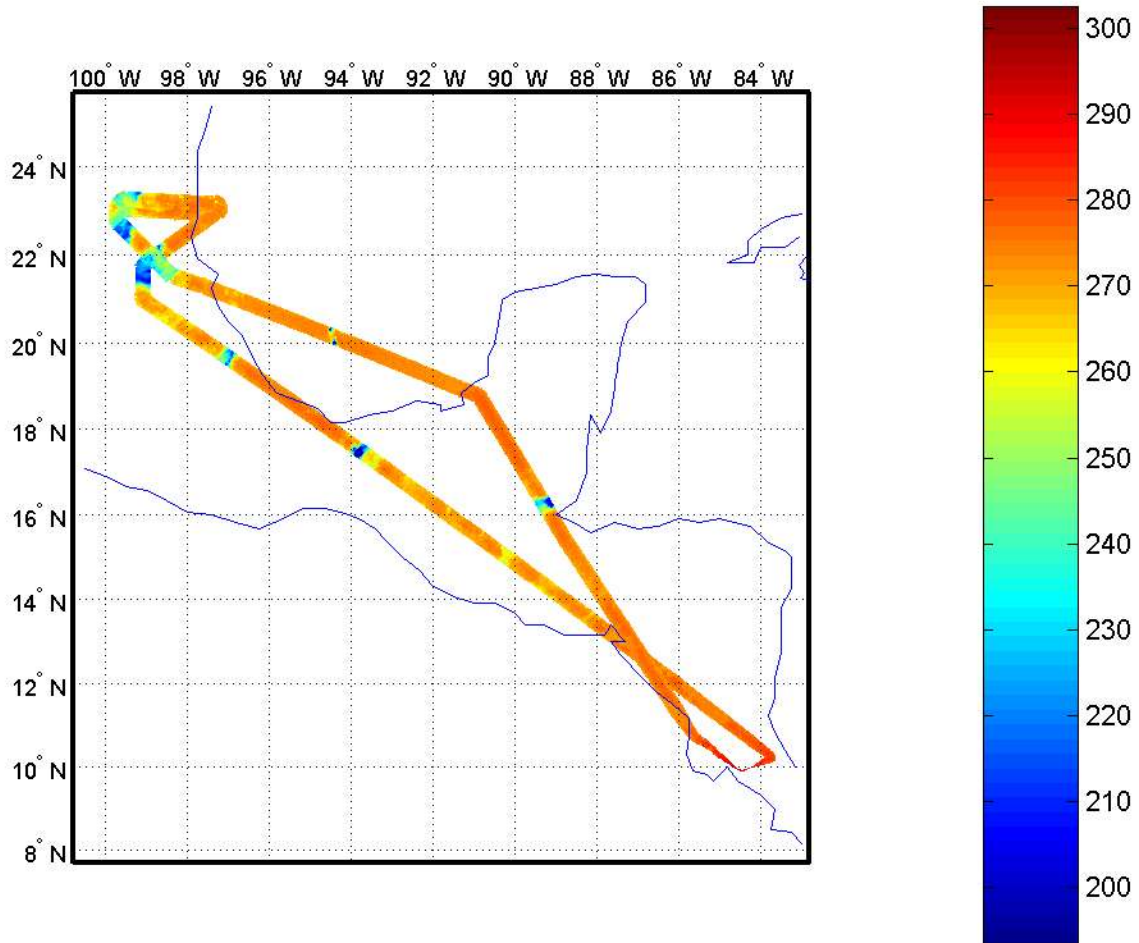
113.25 GHz brightness temperature(surface)
25-Jul-2005 01:53:35 -- 10:09:09



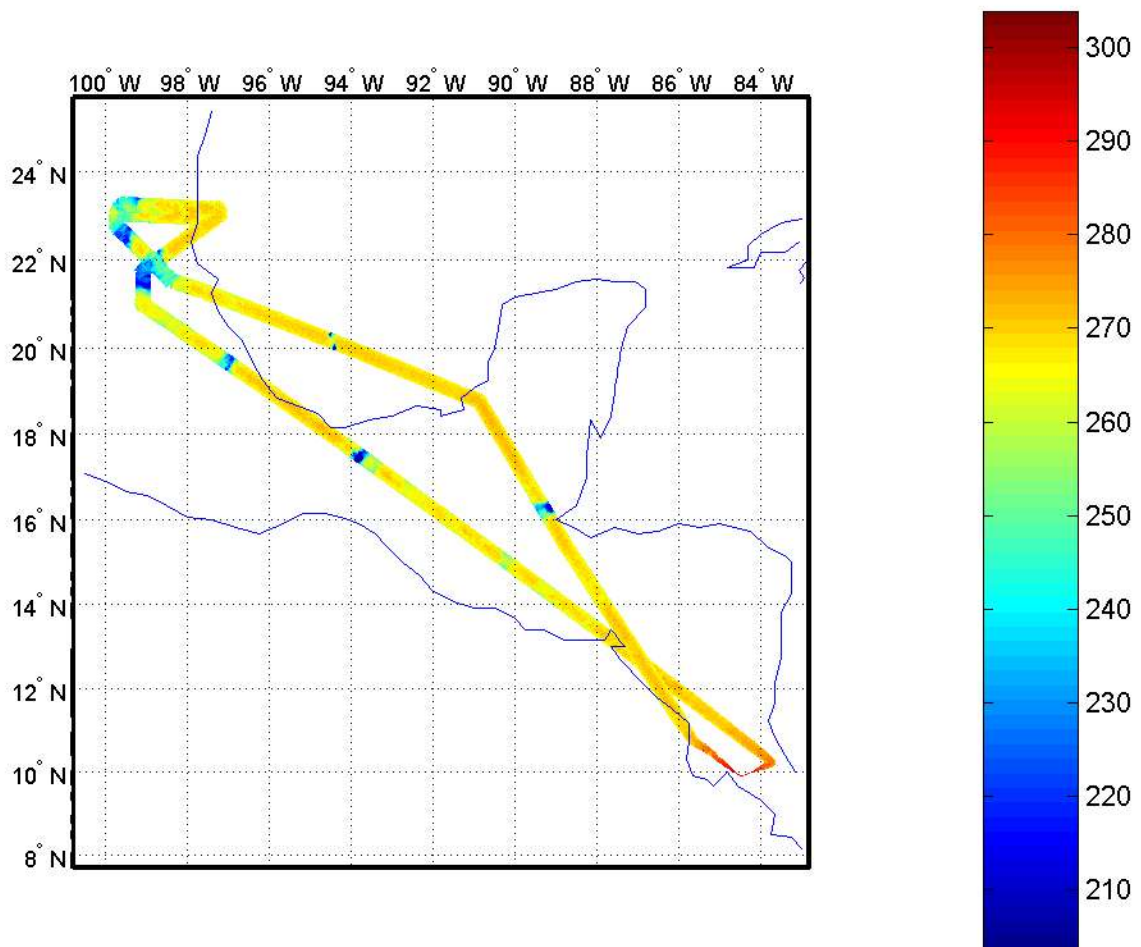
115.25 GHz brightness temperature(surface)
25-Jul-2005 01:53:35 -- 10:09:09



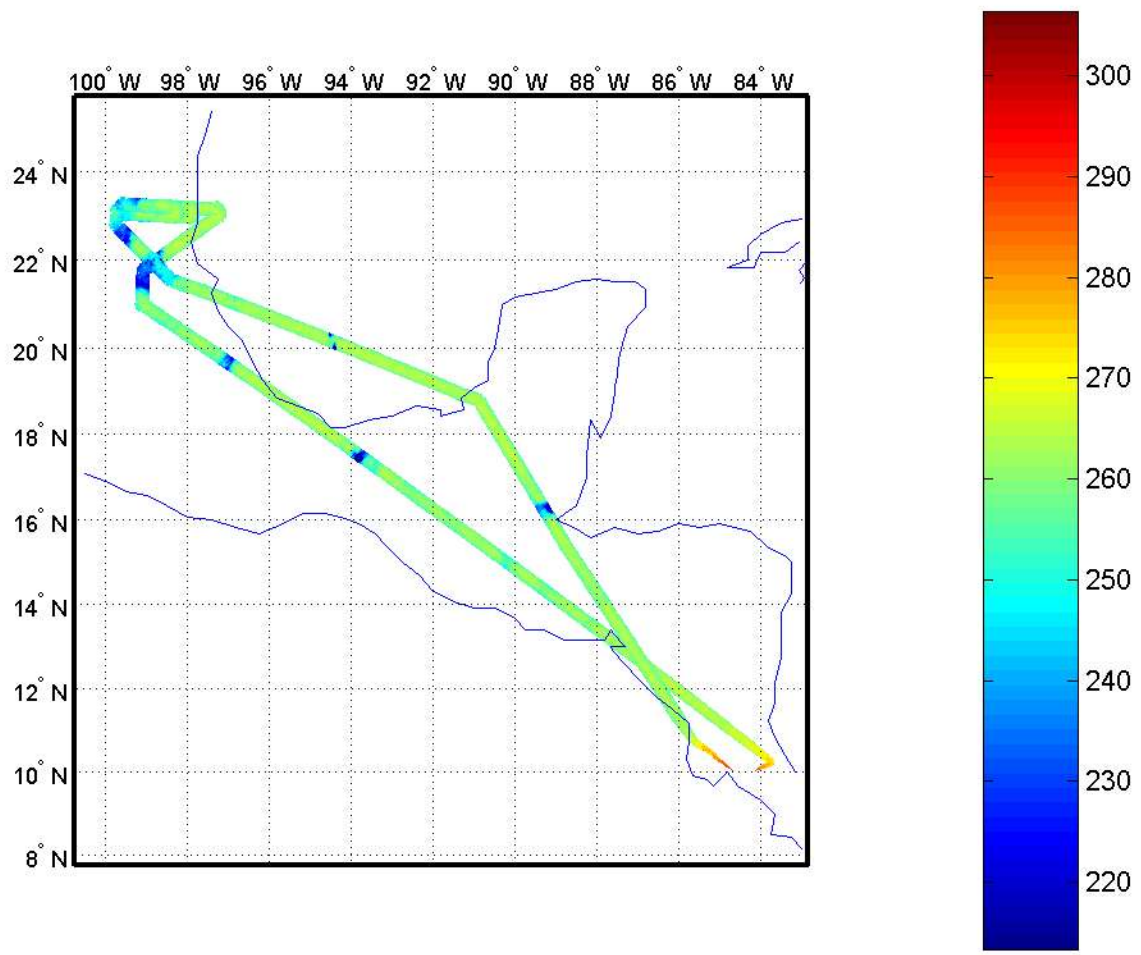
116.2 GHz brightness temperature(surface)
25-Jul-2005 01:53:35 -- 10:09:09



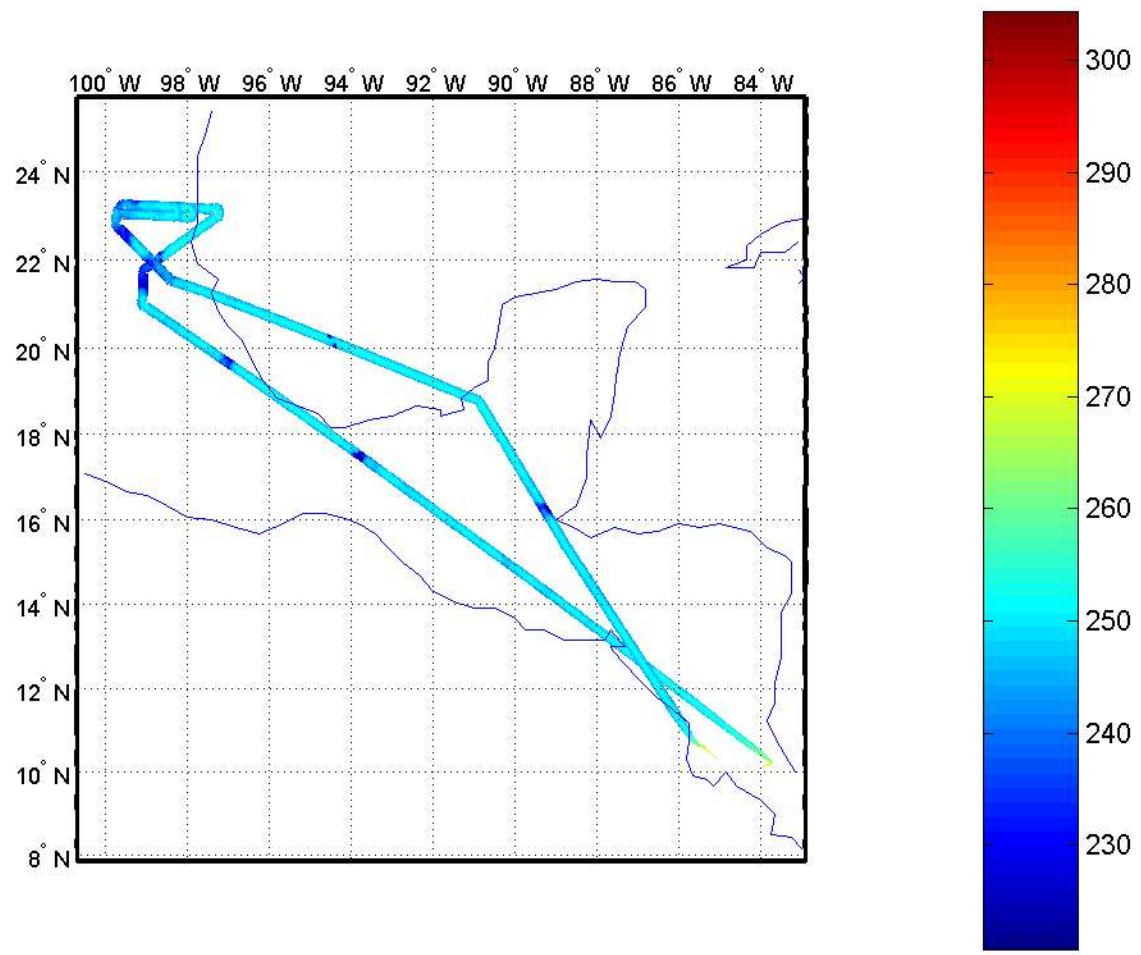
116.7 GHz brightness temperature(1000mB)
25-Jul-2005 01:53:35 -- 10:09:09



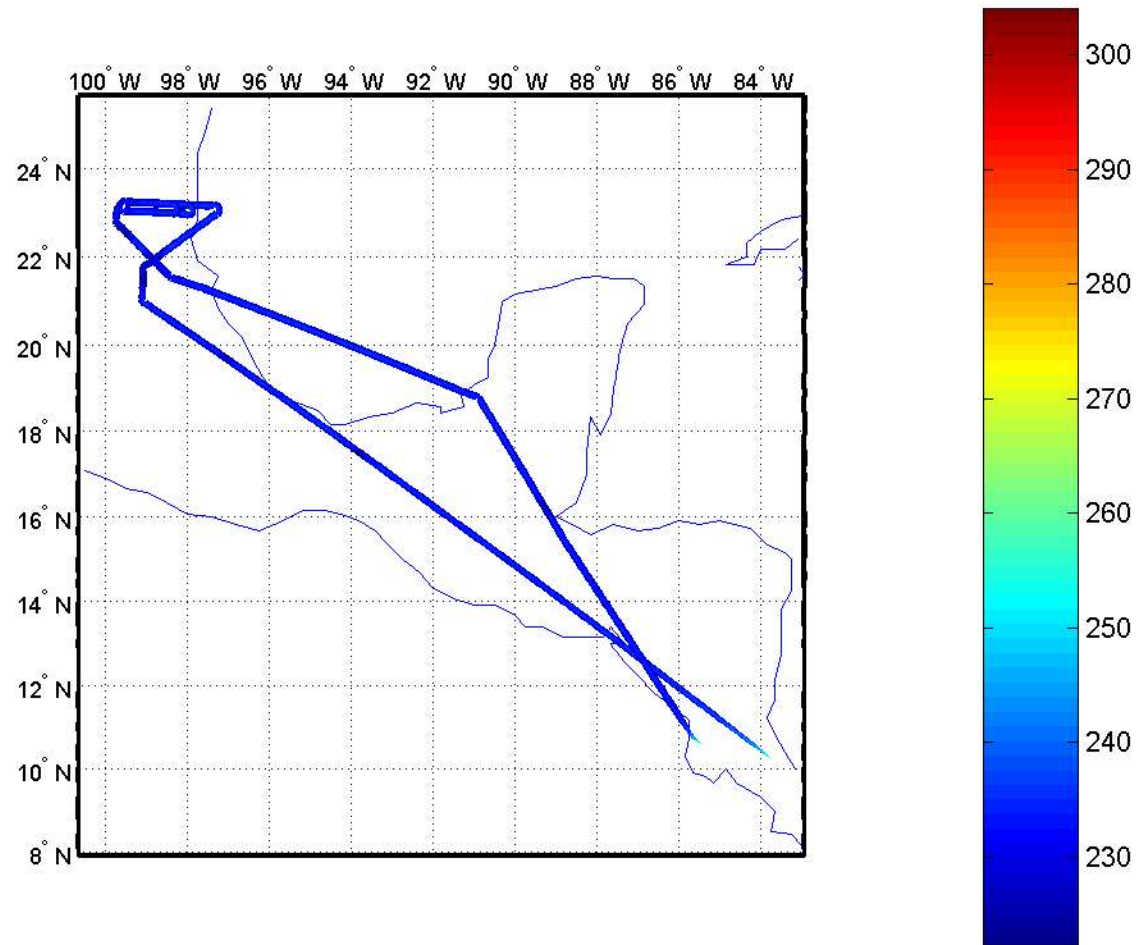
117.15 GHz brightness temperature(750mB)
25-Jul-2005 01:53:35 -- 10:09:09



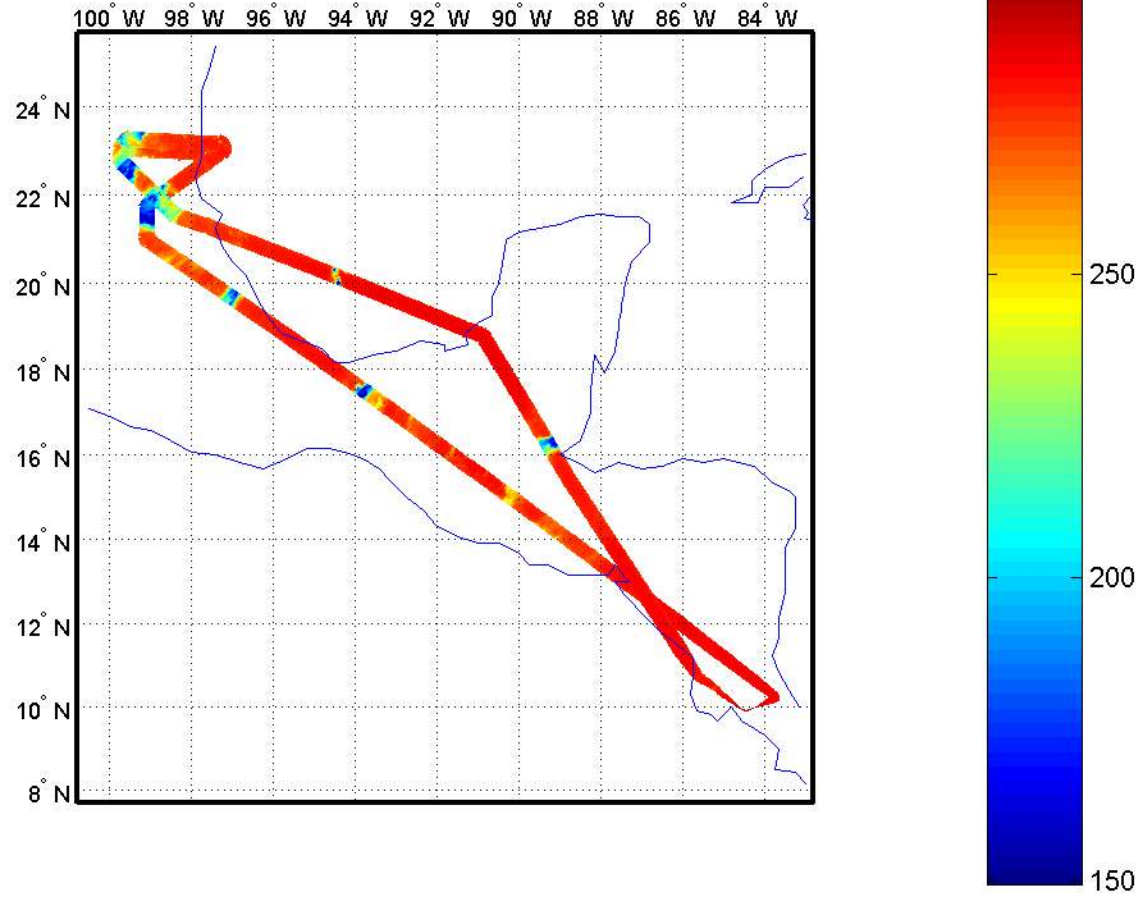
117.55 GHz brightness temperature(400mB)
25-Jul-2005 01:53:35 -- 10:09:09



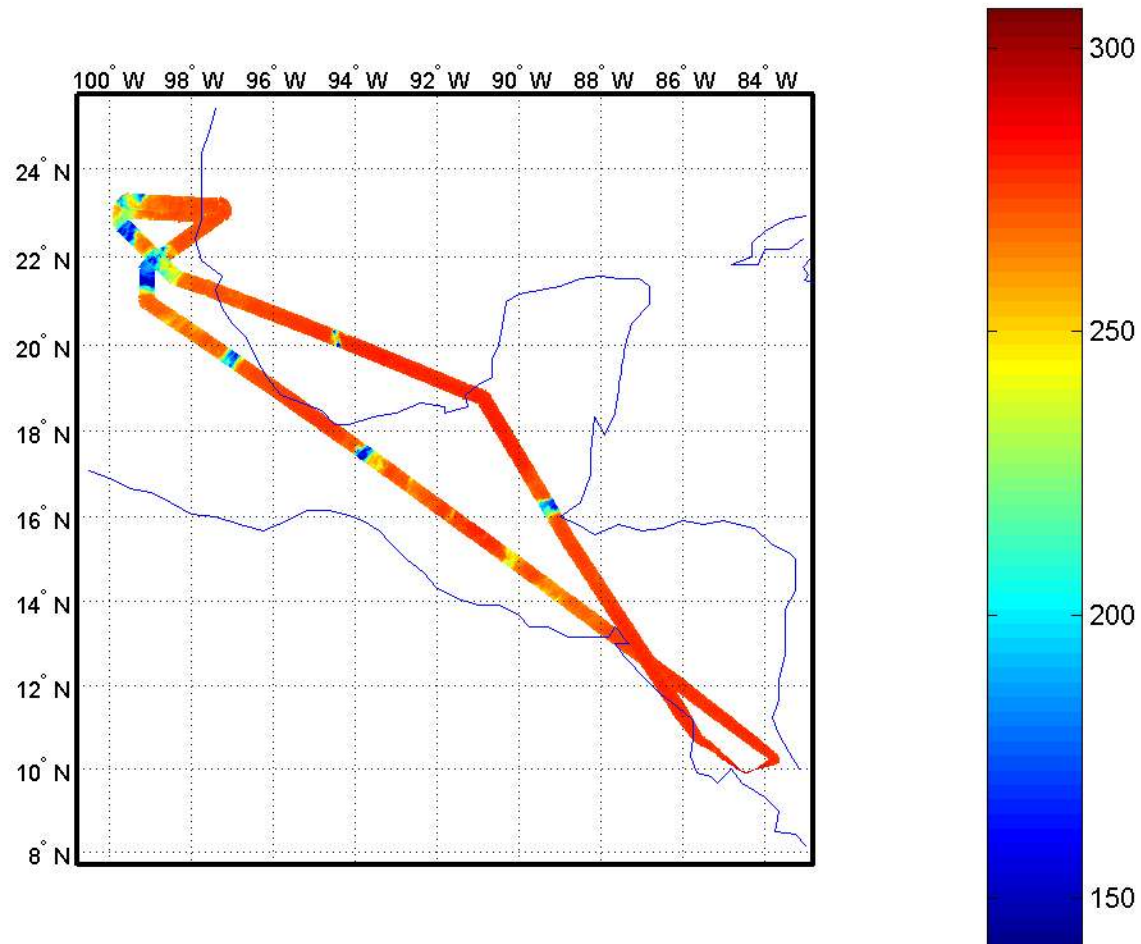
117.95/119.55 GHz brightness temperature(250mB)
25-Jul-2005 01:53:35 -- 10:09:09



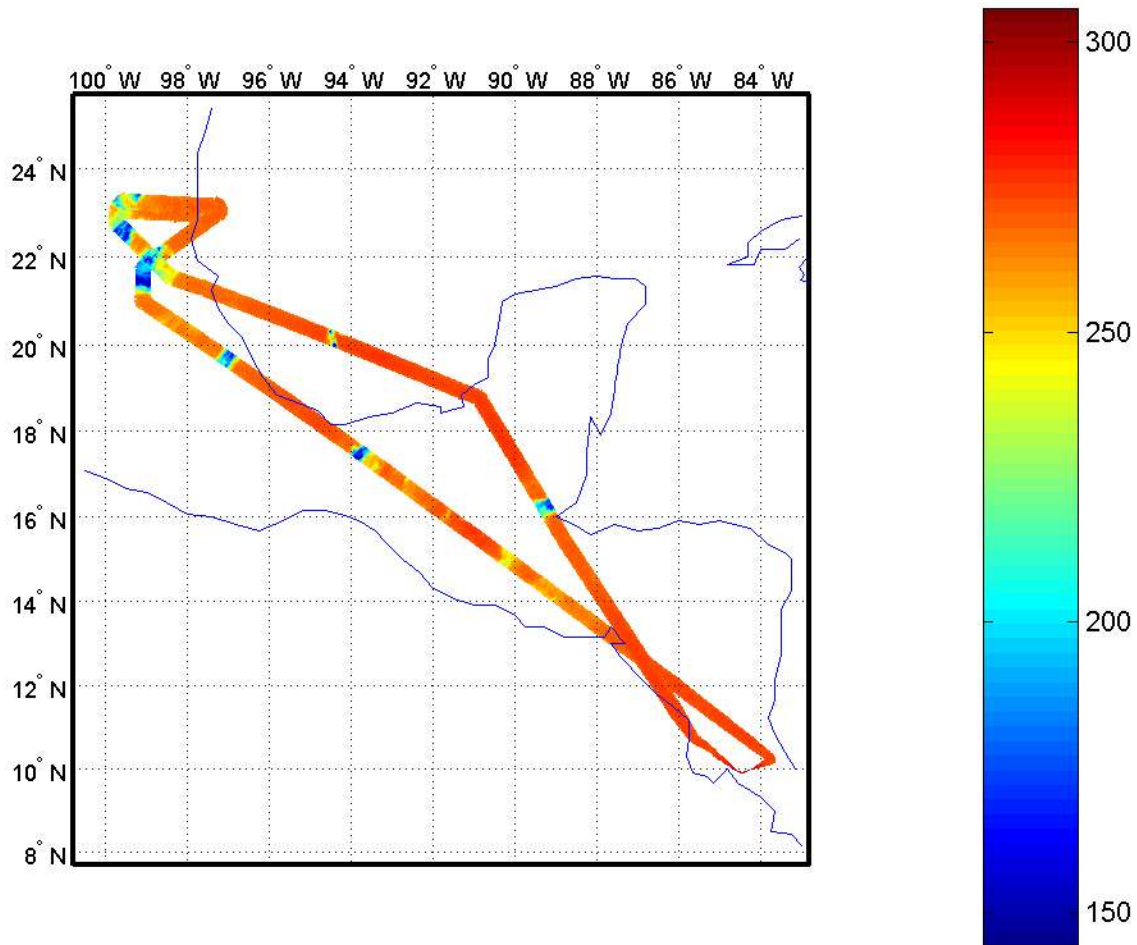
166 GHz brightness temperature
25-Jul-2005 01:53:35 -- 10:09:09



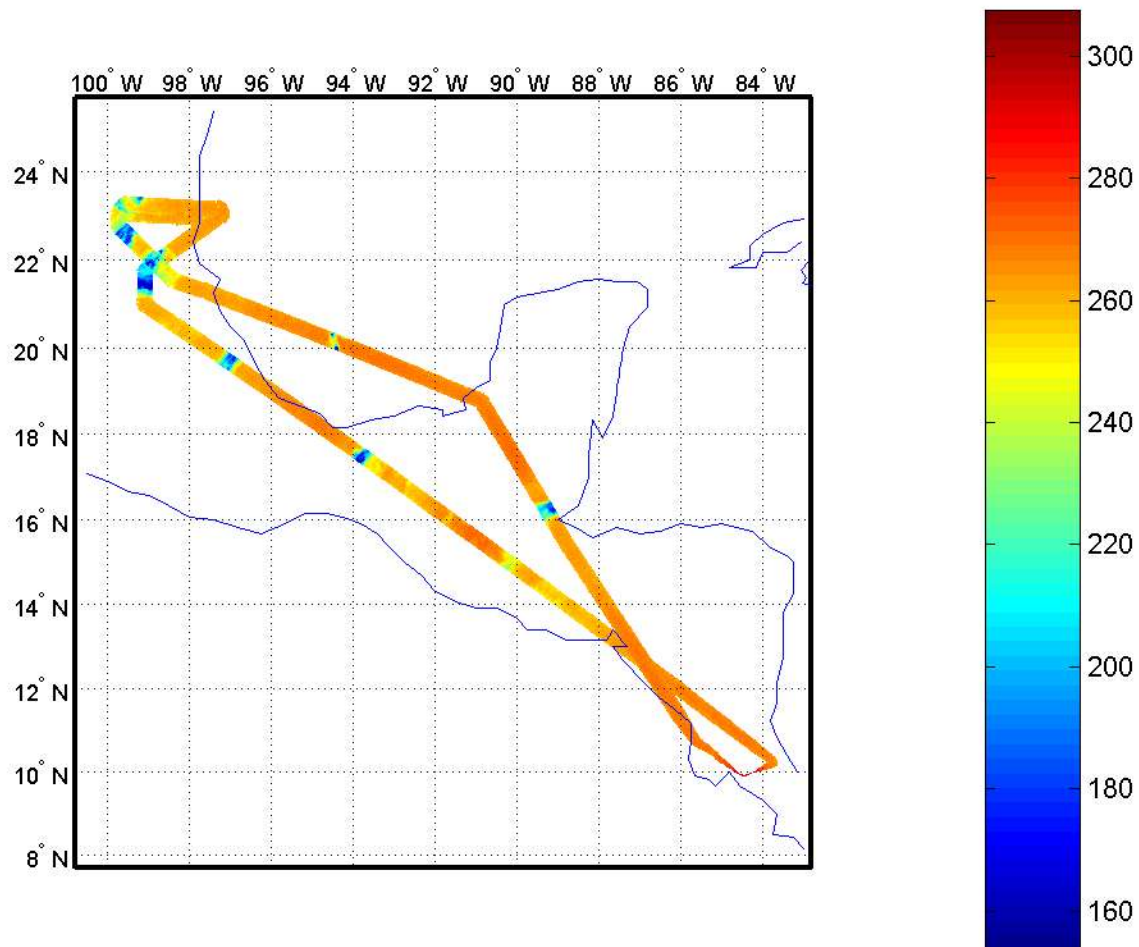
173.31/193.31 GHz brightness temperature
25-Jul-2005 01:53:35 -- 10:09:09



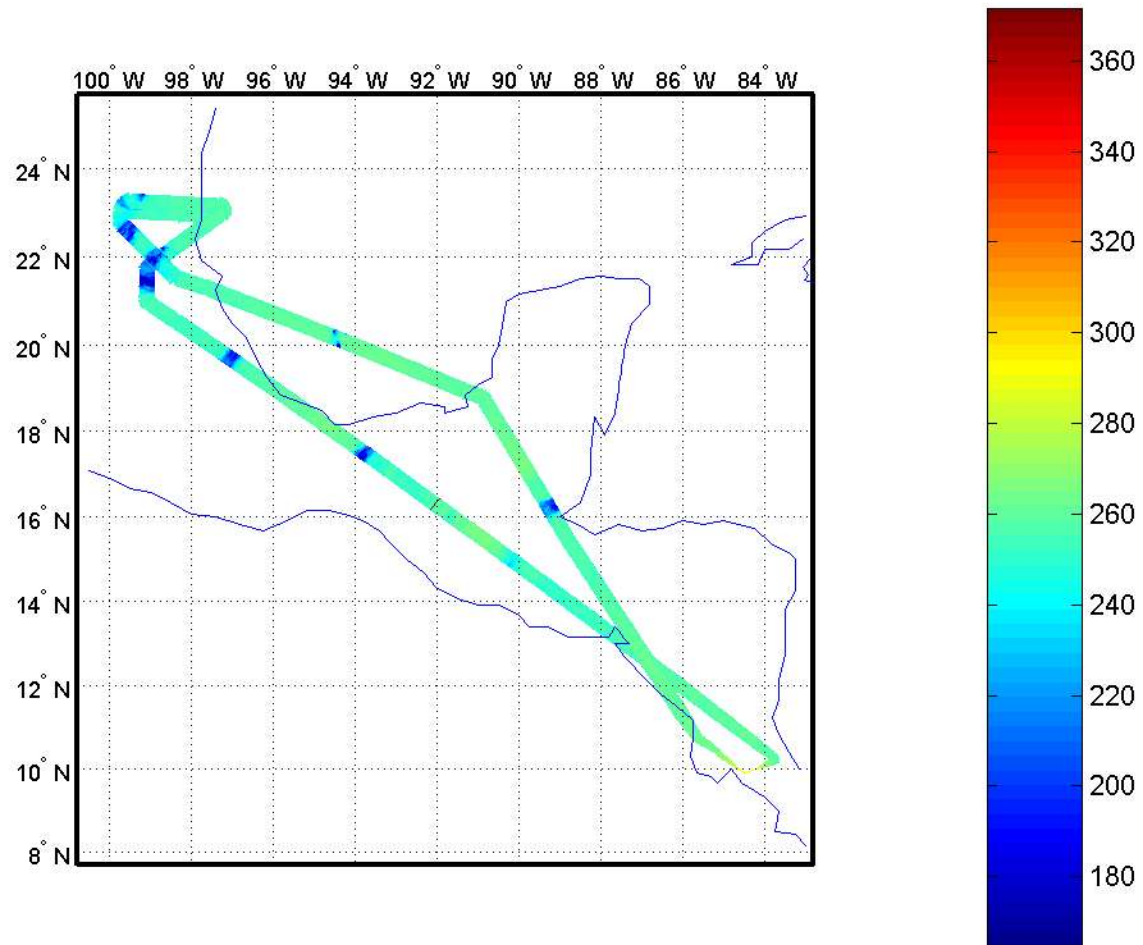
186.31/190.31 GHz brightness temperature
25-Jul-2005 01:53:35 -- 10:09:09



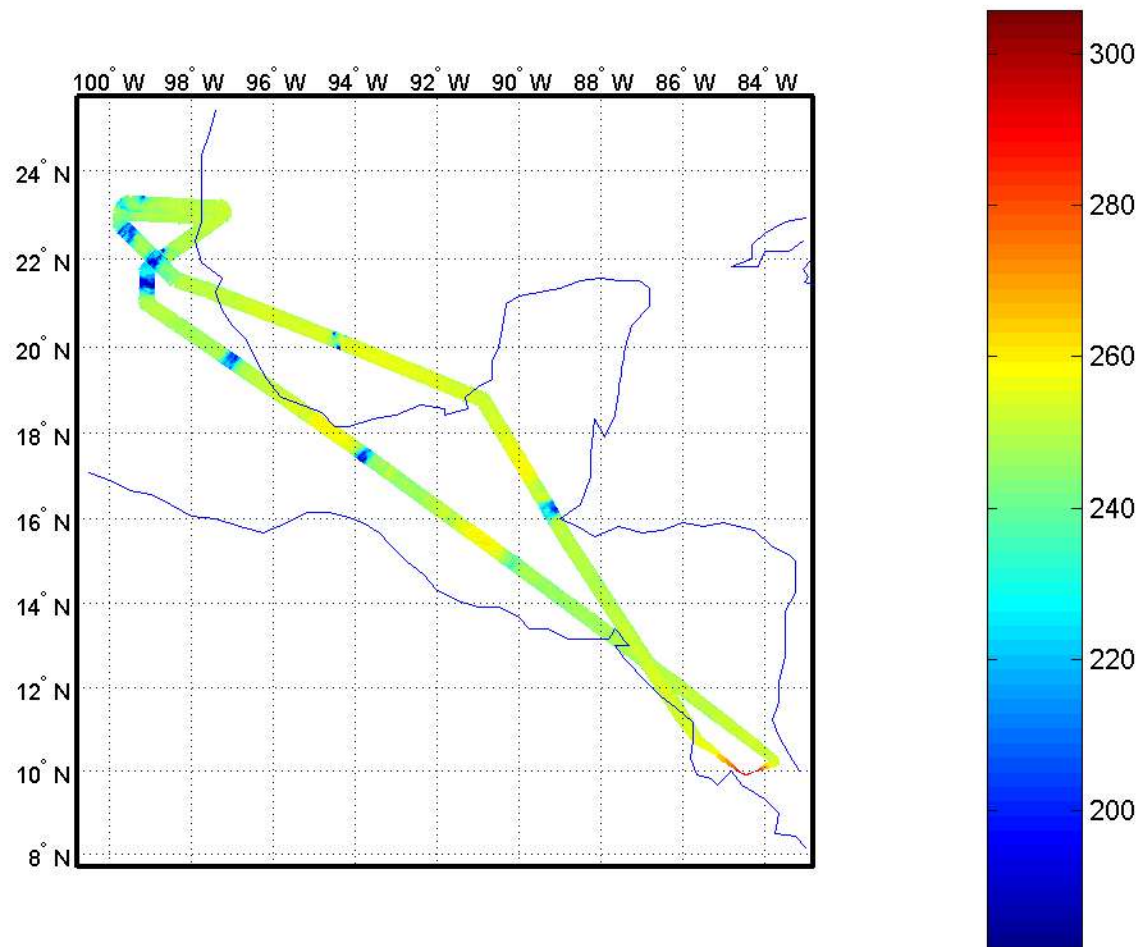
178.81/187.81 GHz brightness temperature
25-Jul-2005 01:53:35 -- 10:09:09



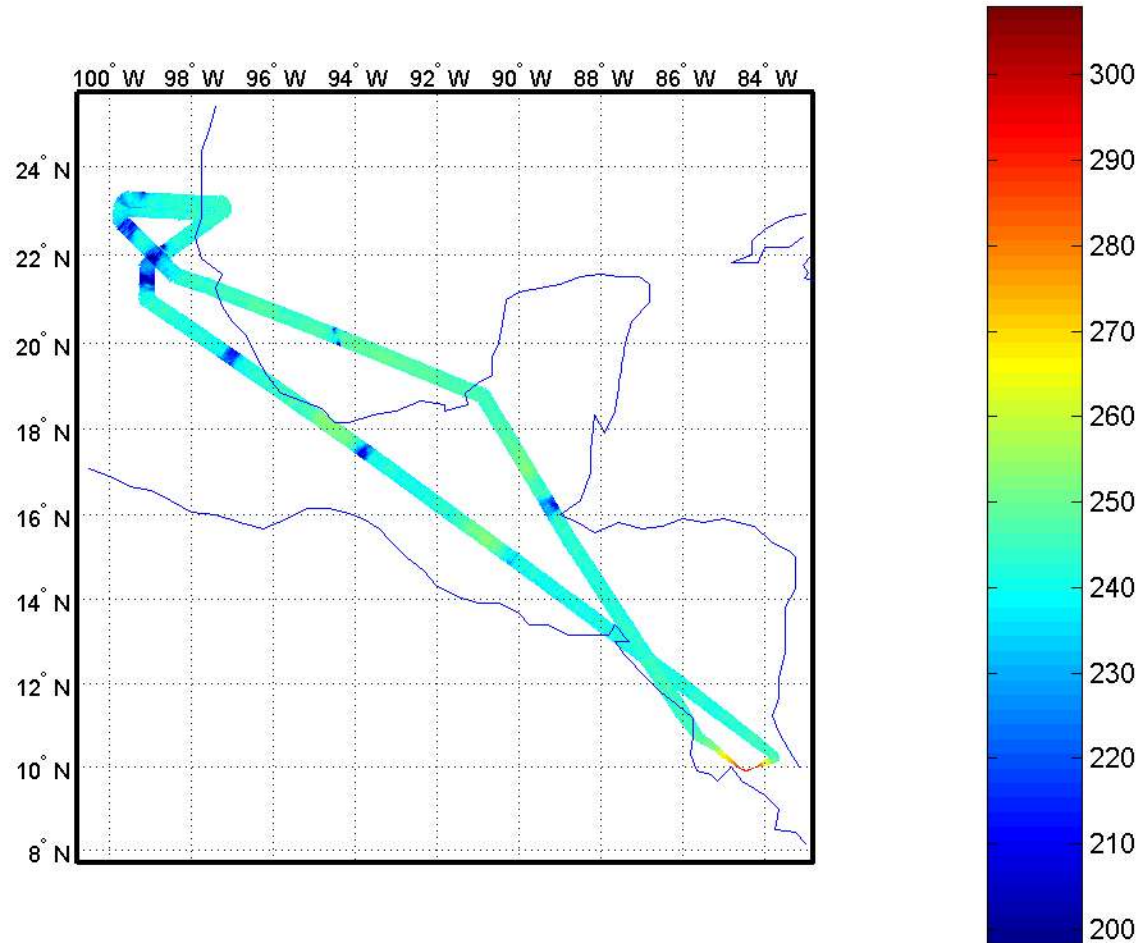
180.31/186.31 GHz brightness temperature
25-Jul-2005 01:53:35 -- 10:09:09



181.51/185.11 GHz brightness temperature
25-Jul-2005 01:53:35 -- 10:09:09

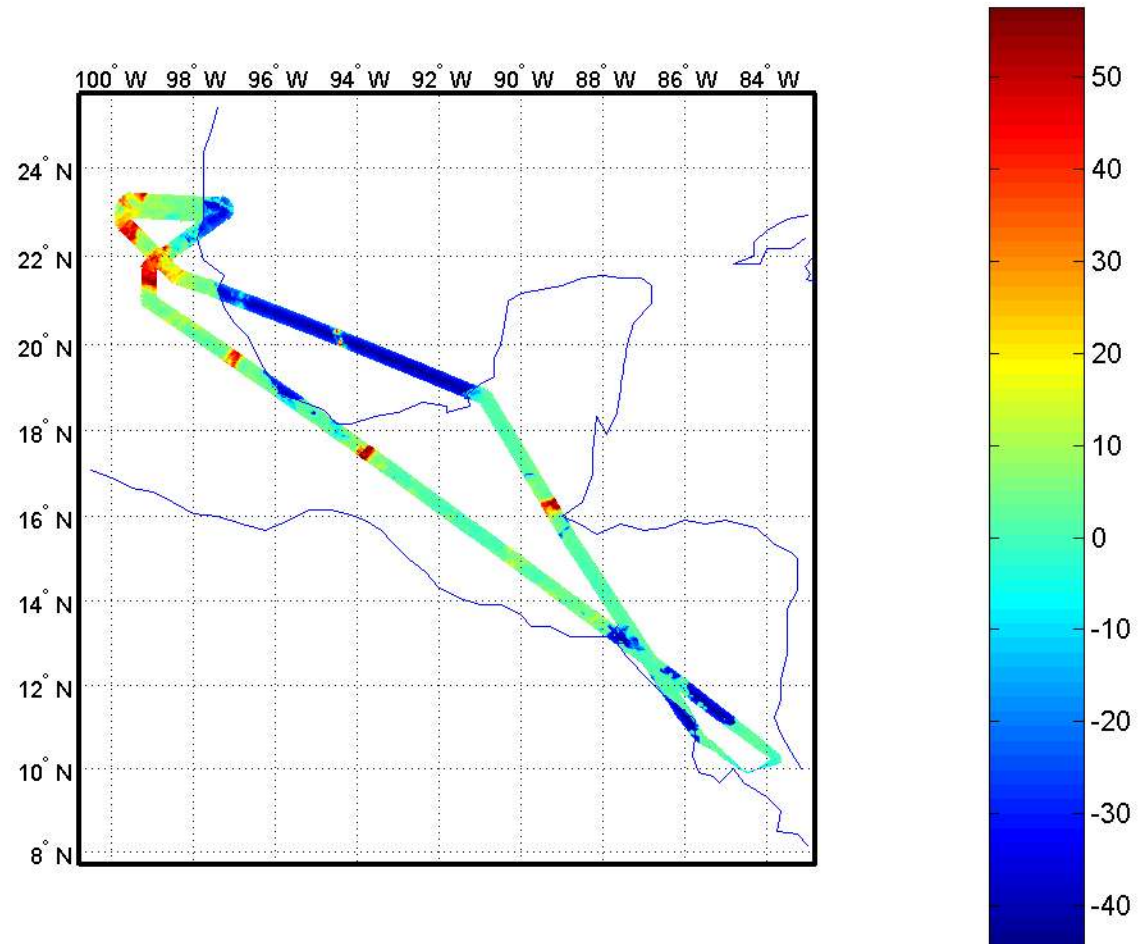


182.31/184.31 GHz brightness temperature
25-Jul-2005 01:53:35 -- 10:09:09

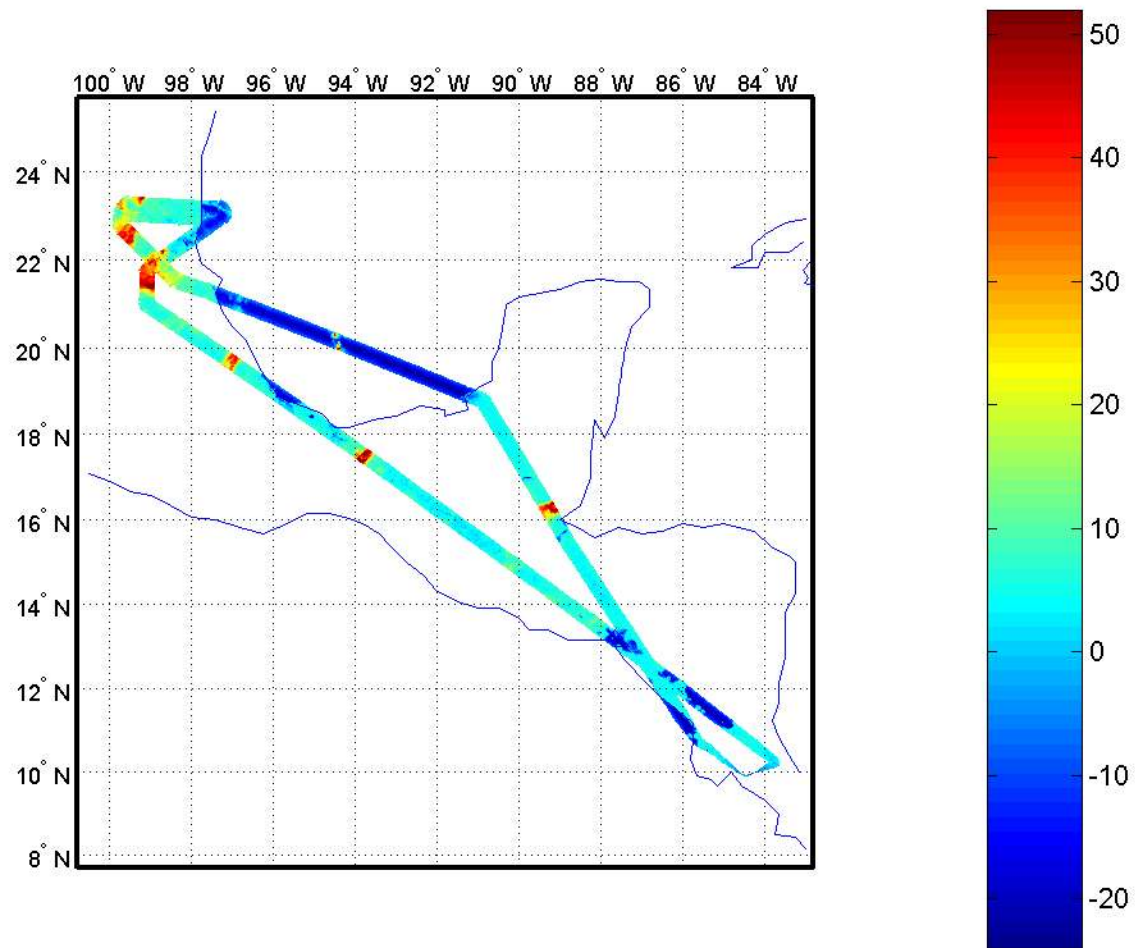


III-b. Selected 55-118 GHz Radiometer Difference Maps

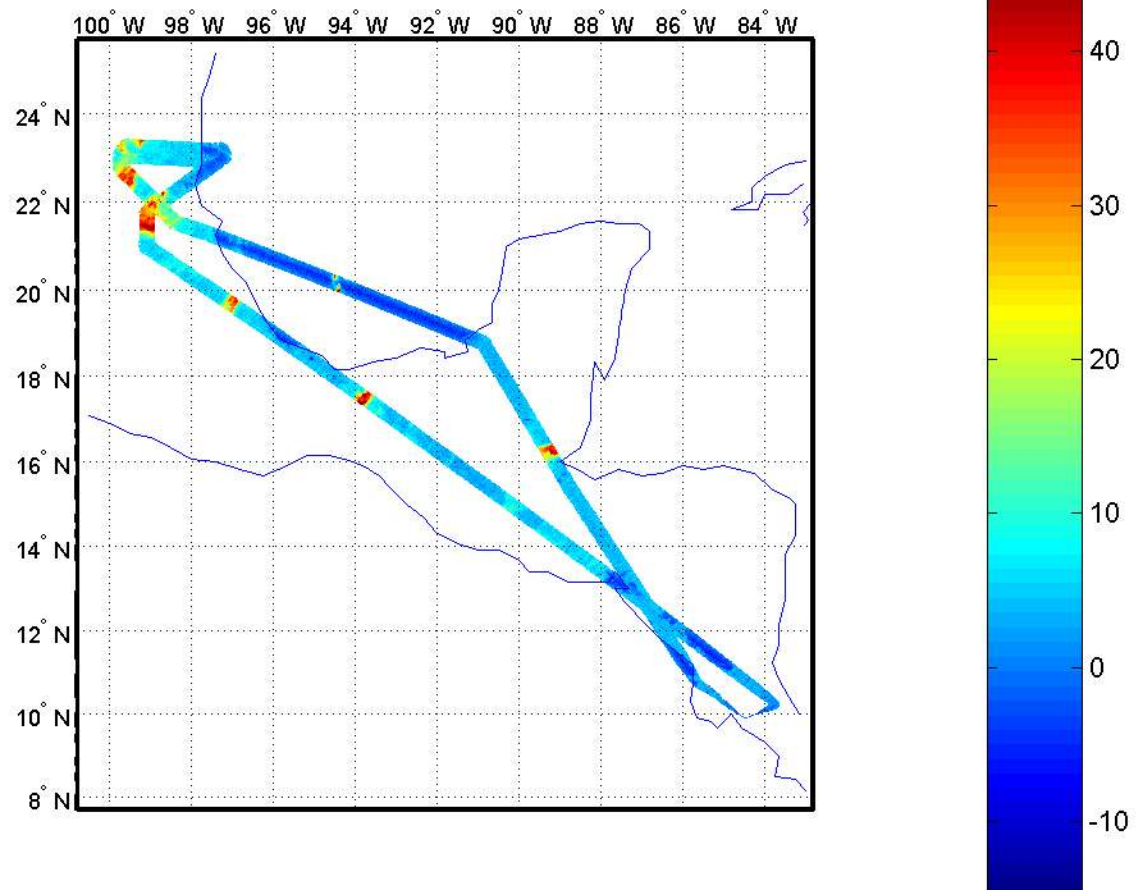
50.3-115.25 GHz brightness temperature difference(surface)
25-Jul-2005 01:53:35 -- 10:09:09



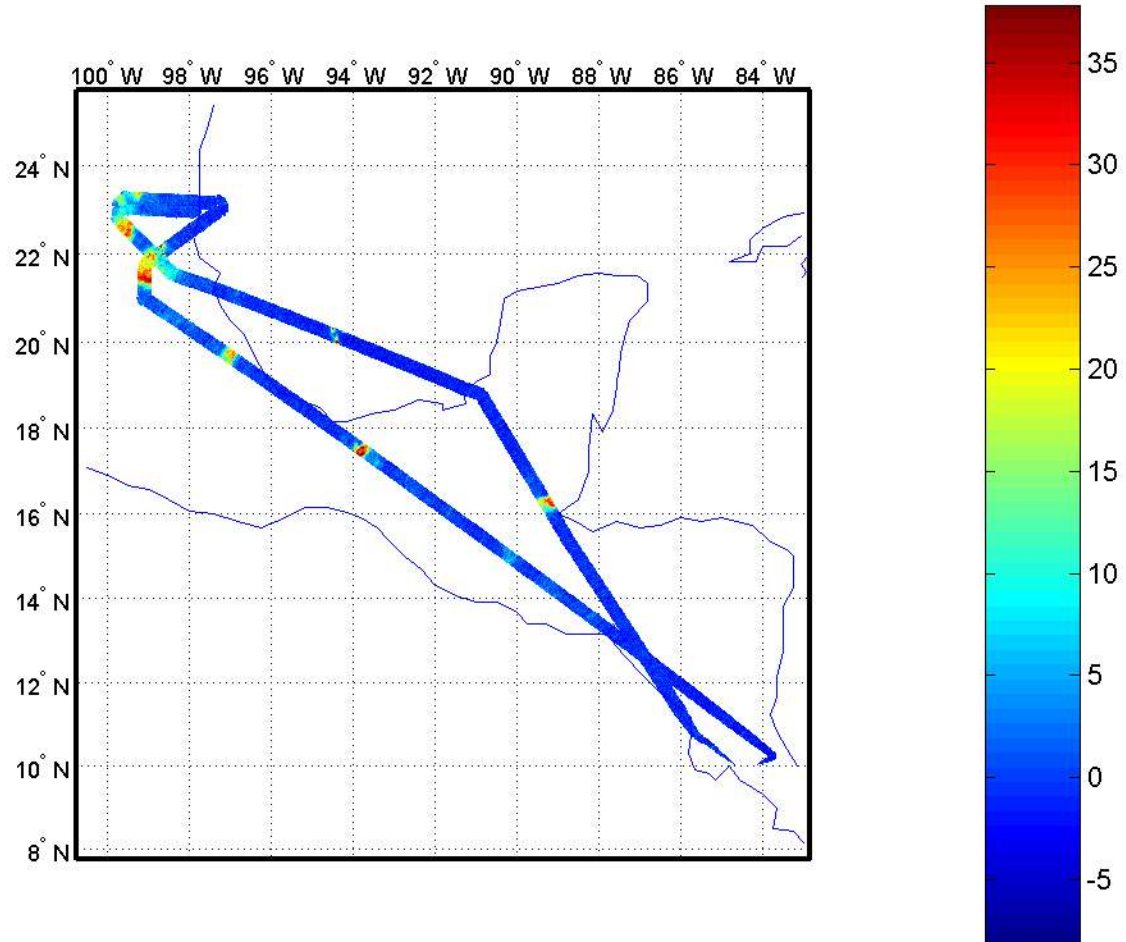
51.76-116.2 GHz brightness temperature difference(surface)
25-Jul-2005 01:53:35 -- 10:09:09



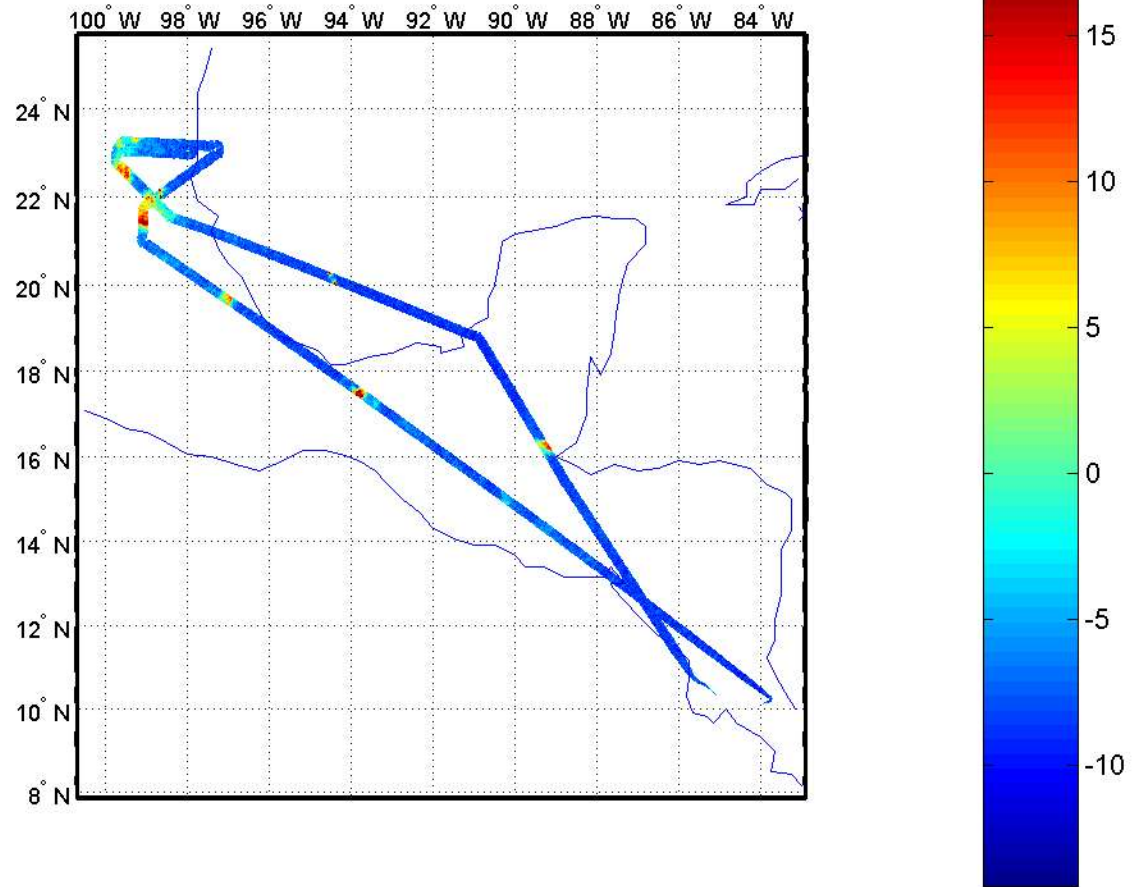
52.8-116.7 GHz brightness temperature difference(1000mB)
25-Jul-2005 01:53:35 -- 10:09:09



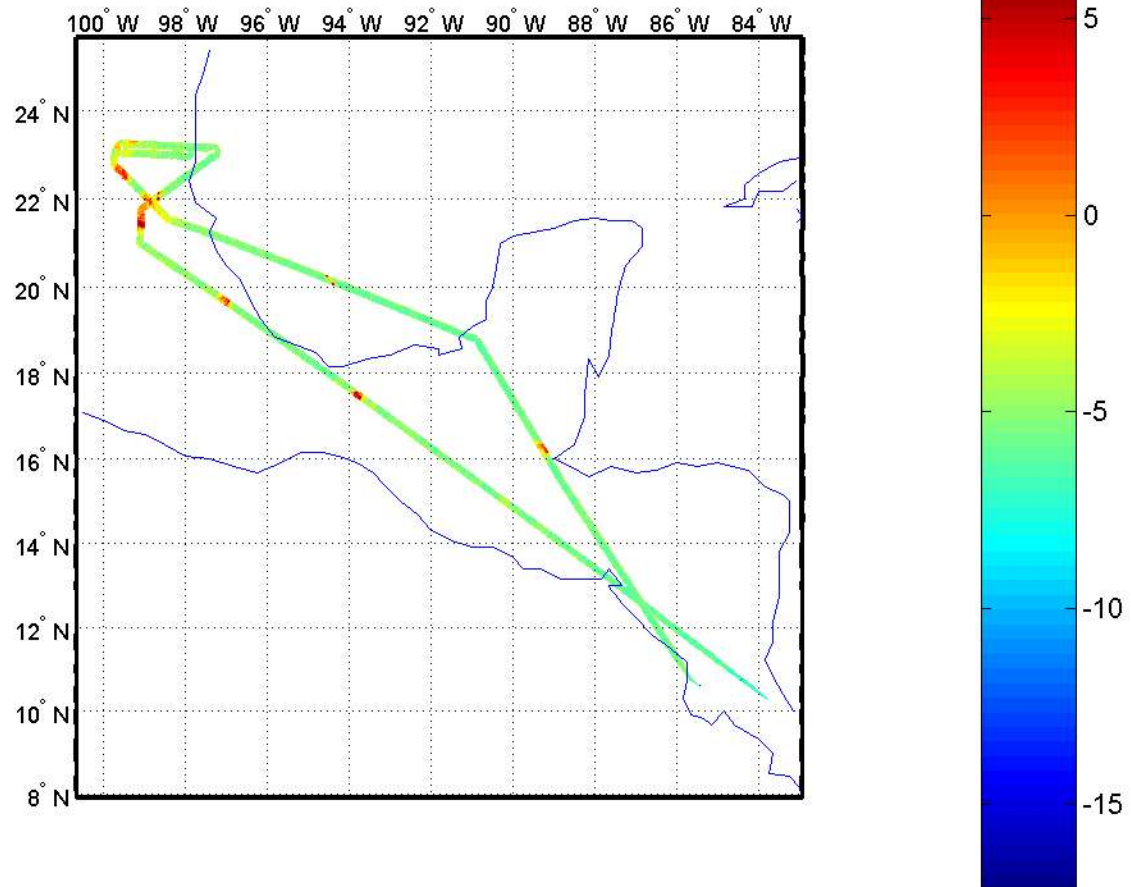
53.596-117.15 GHz brightness temperature difference(750mB)
25-Jul-2005 01:53:35 -- 10:09:09



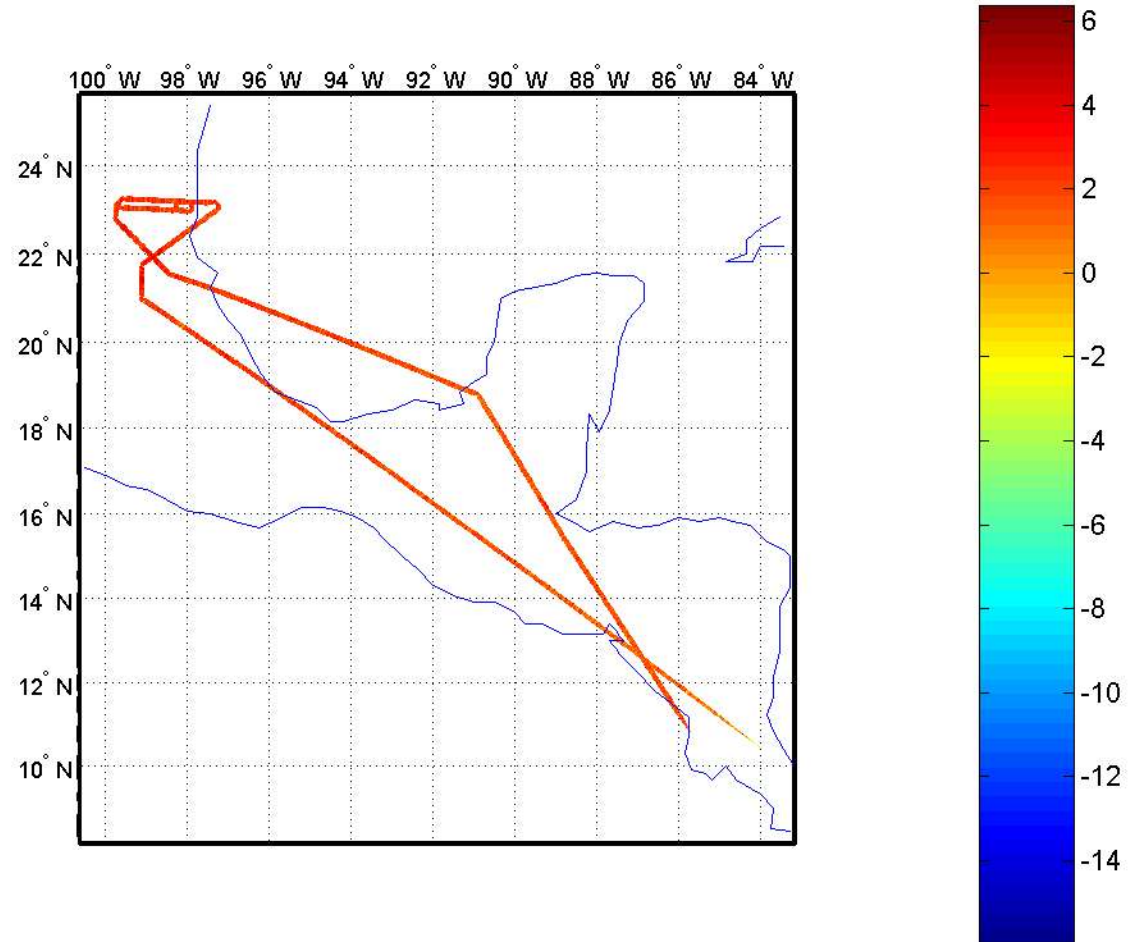
54.4-117.55 GHz brightness temperature difference(400mB)
25-Jul-2005 01:53:35 -- 10:09:09



54.94-117.95/119.55 GHz brightness temperature difference(250mB)
25-Jul-2005 01:53:35 -- 10:09:09



55.5-118.3/119.2 GHz brightness temperature difference(150mB)
25-Jul-2005 01:53:35 -- 10:09:09



56.02/56.67-118.515/118.985 GHz brightness temperature difference(80mB)
25-Jul-2005 01:53:35 -- 10:09:09

