

07/18/02

FC:

Report: Expect early convection along Keys and lots of convection over the peninsula

Aircraft: P3, Citation

Log:

1513: Take-off
ELDORA problems

1615: ELDORA up
Suggested line between 25 36N 81 09W (A) and 26 02N 80 34W – region of developing convection

1630: Going in on line
Do not see much in terms of strong convection along track mostly decaying convection to the south

1649: Turn inbound on new track
Not much convection visible
Growing storm to north
Moved track to the south

1657: Turn around

1701: Citation in the air as well

1705: Going into next leg
Not much showing still
We cannot get close to convection

1734: Heading – 326°
Past convective cell

1745: Turn around

1753: Under anvil

1754: Convection ~ 15km, reflectivity ~ 45 dBZ

1758: Turn around

1800: Back on track
Convective cell much weaker

1809: Turn

1810: Back on track

1820: Turn around
Convection all dead and only anvil remains

1830: Looked like new convection at the northern point where we turned around
Cells extending from NW to Ft Myers

1859: Fly north Ft Myers and Everglade City
Small cells along coast
Tops ~ 10km, reflectivity ~ 55dBZ

1910: Nice looking storm tops ~ 17km

1914: Line
Several strong cells
Tops ~ 17km

1918: Reflectivity ~ 55dBZ

1923: Turn around

1940: Misscommunication

1948: Coming in from end of anvil to convective core
Very nicely aligned
Very strong core

1955: Turn around
 1957: Back on track
 They break my leg of early
 Nice for analysis from 1948 to 1957
 2016: We are stuck in stratiform clouds
 Behind line about 30km
 2018: Milling around ATC
 2031: Go back to south
 2034: South bound leg
 Too far out from convection - at early stage
 2055: Still too far south
 Getting good look at storm
 Mostly old convection
 2102: Back on return leg
 Coordination with western ground site from 2102 to 2127
 2108: Nice data through core
 2110: Turn around
 2112: Back on track
 2118: Turn around
 2120: Back on east bound leg
 2128: Back on track
 ELDORA sick again

Mission Reports:

Citation: 1. Penetrated convective cell at -21C. Then another more vigorous core at -35C, followed by a sample at the edge of that core. Then sampled another cloud at -35C. 2. Repeatedly sampled a decaying cloud at -35C, -40C, -40C and -40C. Then another cloud at that temperature. 3. Did a spiral down in uniform anvil conditions from FL330 to FL160. 4. Sampled another cell at -35C, -40C and -45C. Then did one more at -40C.

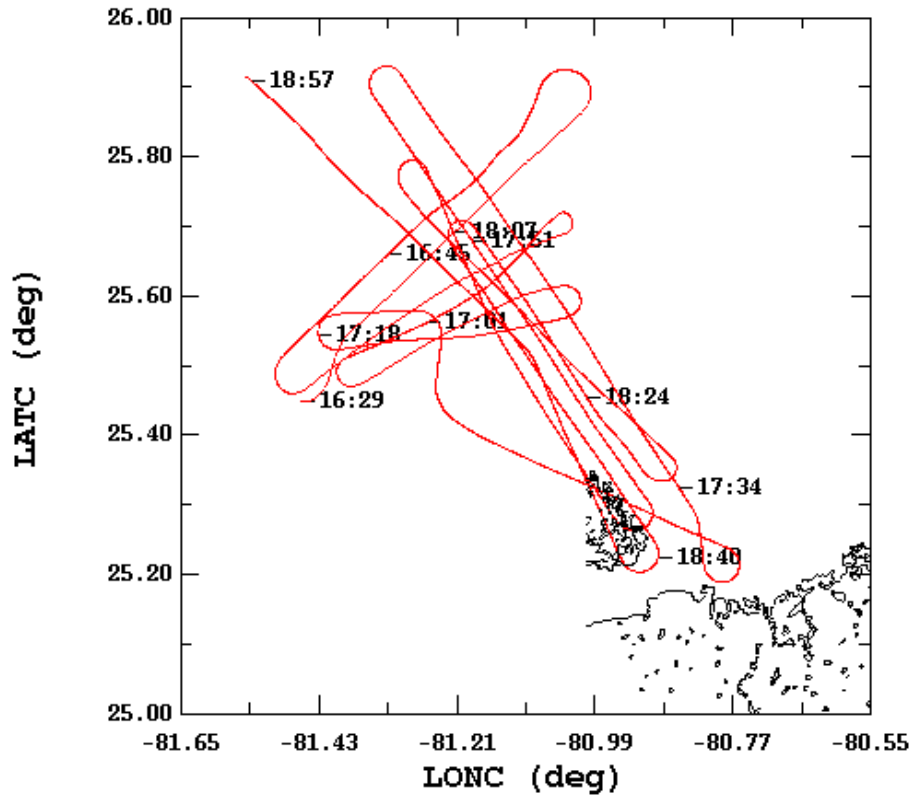
Flight Path & Focus: 144009 221121, rf07

Line 1: 162900 185720 south tip of Florida west coast
 convective-anvil system
 coordination w/Citation
 Quality: Ok – not too much structure
 Part 1: 162900 171820 NE-SW orientation
 convection
 most decaying convection
 leg_1.1.1: 162900 163850 not too much
 leg_1.1.2: 163950 164930
 leg_1.1.3: 165050 165720
 leg_1.1.4: 165750 170420
 leg_1.1.5: 170450 171100 can't get very close to convection
 leg_1.1.6: 171150 171800 still no hard core
 Part 2: 172100 185720 NW-SE orientation
 anvil
 leg_1.2.1: 172340 173130 seeing some anvil
 leg_1.2.2: 173250 174630 under anvil mid leg, long anvil
 leg_1.2.3: 174650 175900 under anvil mid leg, see convection
 leg_1.2.4: 180000 180950 under anvil mid leg
 leg_1.1.5: 181020 182030 under anvil mid leg
 leg_1.1.6: 182120 182950 convection mostly gone, anvil remains

leg_1.1.7: 183040 183950
 leg_1.1.8: 184130 185720 anvil in fragments
 Line 2: 185700 213600 north of Ft Myers Everglade City along west coast
 convection-anvil system
 coordination w/western ground site
 Quality: Good
 Part 1: 185700 193720 NW-SE orientation
 some convection
 leg_2.1.1: 185730 191100
 leg_2.1.2: 191150 192450 getting some convection
 leg_2.1.3: 192520 193400 some convection
 Part 2: 194650 200200 NE-SW orientation
 convection-anvil
 leg_2.2.1: 194620 195610 nice analysis 1&2
 leg_2.2.2: 195630 200200
 Part 3: 200500 204300 NW-SE orientation
 later convection-anvil
 leg_2.3.1: 200530 201720
 leg_2.3.2: 201750 202500 lengthen legs between 2-3, loop btwn 2-3
 leg_2.3.3: 202900 203250 defined anvil
 leg_2.3.4: 203300 204300 anvil detached
 Part 4: 204300 213600 NE-SW orientation
 later convection-anvil
 leg_2.4.1: 204300 205300
 leg_2.4.2: 205440 210300
 leg_2.4.3: 210340 211120 defined core
 leg_2.4.4: 211130 211920 defined core
 leg_2.4.5: 211930 212730 coordinate w/western ground site
 leg_2.4.6: 212740 213600 ELDORA down

CRYSTAL-FACE, Flight #rf07

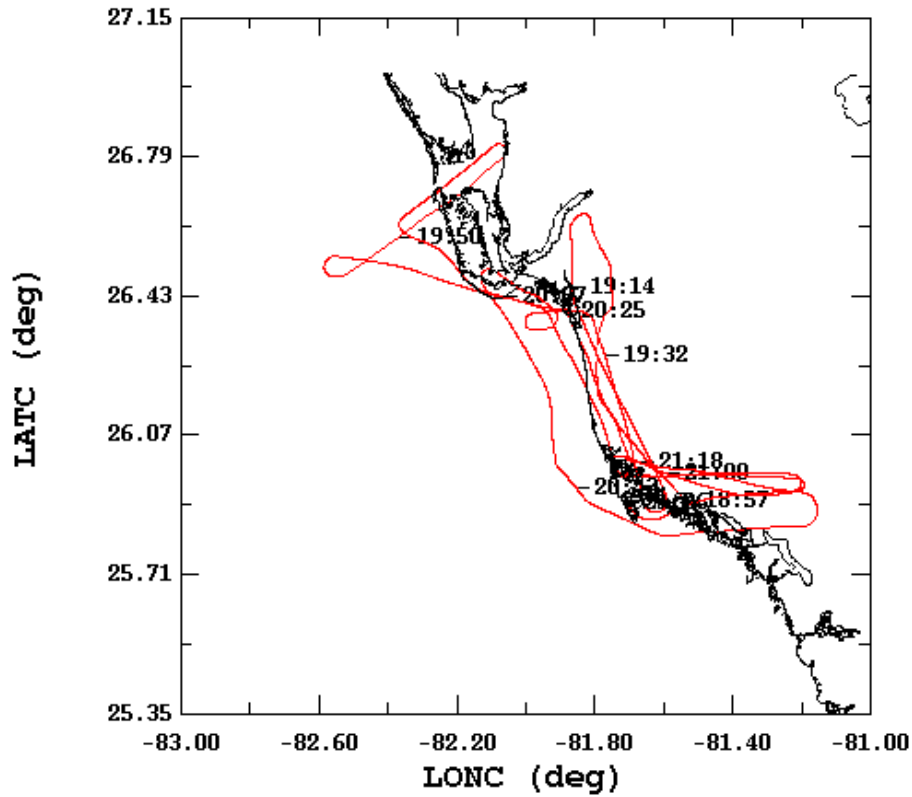
07/18/2002, 16:29:00-18:57:20



	mean	sigma	min	max
— LATC (deg), 1 s/sec	25.56	0.17	25.19	25.93
— LONC (deg), 1 s/sec	-81.14	0.17	-81.55	-80.76

CRYSTAL-FACE, Flight #rf07

07/18/2002, 18:57:00-21:36:00



	mean	sigma	min	max
— LATC (deg), 1 s/sec	26.20	0.27	25.81	26.82
— LONC (deg), 1 s/sec	-81.79	0.32	-82.58	-81.15