

**07/10/02**

**FC:**

Report: Expect isolated convection over the Gulf  
That's where we'll head

Aircraft: P3, Twin Otter

**Log:**

1430: Nice convective line  
1545: Deep convection  
1610: Continue to fly convective line  
Tops ~ 12-13km  
New convection at leading edge  
Slowly working our way toward coast  
Flying just west of western ground site  
Anvil blow-off mostly to NE and not over western ground site  
The line advecting slowly north with us  
1621: Start leg  
1655: 2 legs ~ 15min each  
Descent to 2.9kft to maintain VFR at Ft Myers – can we maintain altitude?  
1711: Looks like the original line is weakening  
New weak convection beginning under anvil  
1730: Nice mammatus overhead  
1838: Work line over peninsula  
Line very difficult to work due to air traffic control and VFR restrictions  
Tops ~ 12km  
1900: Plane has to turn too much to avoid clouds  
1938: Start maneuvers  
1943: Done with skid 1  
2000: Stop maneuvers

**Mission Reports:**

P3: A 6 hour mission was flown in coordination with the Twin Otter to characterize convection over the Gulf. Good data collected during the early part of the mission over the Gulf. An ENE-WSW oriented line of convection slowly propagated north. This line was sampled for three hours at which point it became very diffuse. We then proceeded to sample a line situated between Naples and Miami. This line contained strong convection, but our VFR flight plan restricted us to fly too far from the convection to collect good quality data.

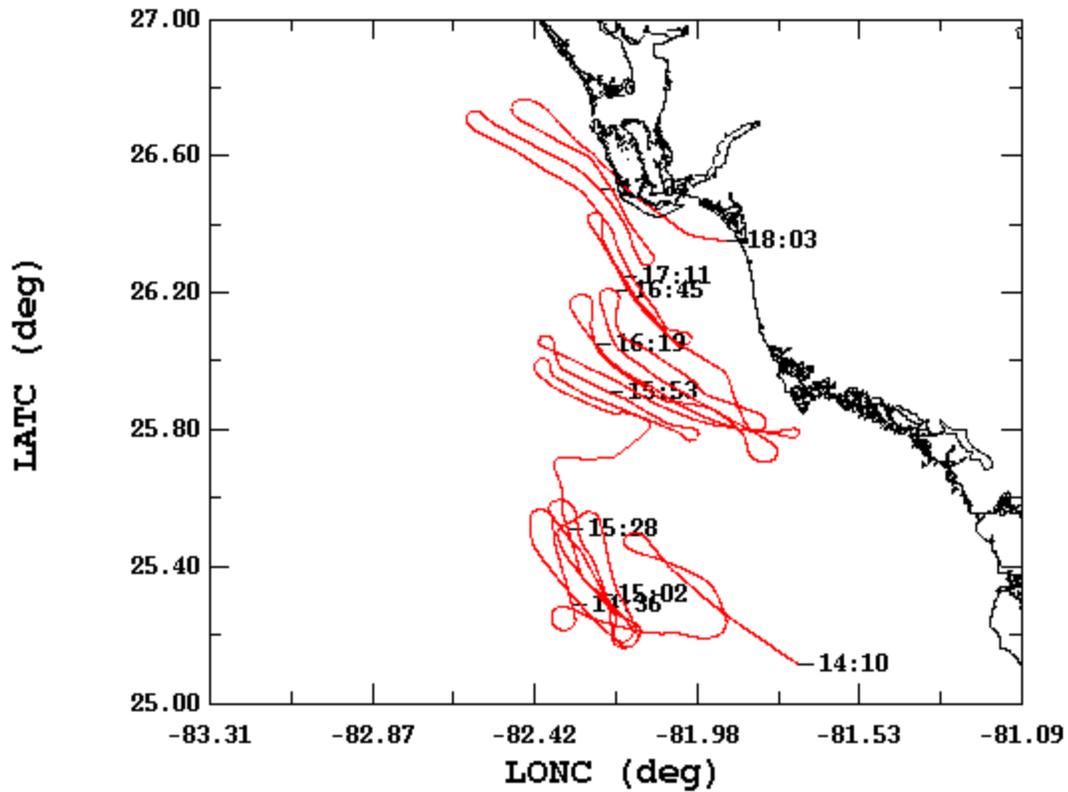
**Flight Path & Focus:** 131829 204900, rf02

Line 1: 141030 180300 over the Gulf along coast, ENE-WSW orientation  
convection-anvil system  
propogated north  
Quality: Good – convection not too strong  
Part 1: 153529 180300  
leg\_1.1.1: 154230 154820 convection, anvil long, no hard core  
leg\_1.1.2: 155000 155720 dissipating  
leg\_1.1.3: 155730 161000 can see core now, anvil almost detached  
leg\_1.1.4: 161030 162150

|                           |  |
|---------------------------|--|
| leg_1.1.5: 162210 163410  |  |
| leg_1.1.6: 163540 164450  |  |
| leg_1.1.7: 164520 165450  | propagate toward NW between 7-8, specs |
| leg_1.1.8: 165550 170720  | maybe mammatus                         |
| leg_1.1.9: 170740 171520  | weak convection under anvil            |
| leg_1.1.10: 171630 172940 | great mammatus @ 1730                  |
| leg_1.1.11: 173031 174130 | mammatus, stuff under anvil            |
| leg_1.1.12: 174200 175050 | thin anvil, stuff under anvil          |
| leg_1.1.13: 175220 180300 | detached anvil, mammatus               |

# CRYSTAL-Face, Flight #rf02

07/10/2002, 14:10:30-18:03:00



|                       | mean   | sigma | min    | max    |
|-----------------------|--------|-------|--------|--------|
| — LATC (deg), 1 s/sec | 25.86  | 0.45  | 25.11  | 26.77  |
| — LONC (deg), 1 s/sec | -82.17 | 0.18  | -82.61 | -81.69 |