

T-28 Pilot Report

Flight: 572
Date: 08091991
Flight Time: 13:41:30 – 15:54 EDT
Pilot: Dan Custis
Controller: Dennis Musil
Location: Melbourne, FL
Mission: Research flight

Computer Time	Video Time	Comments
13:00		P-3 in area of interest
13:22		P-3 having radar problems; reluctant to do penetrations until radar problems solved; convective cores "hot"
13:41:30		T-28 off; thunder heard over MLB
		S edge of cloud P-3 is working is at 16 nmi on DME. Doing storm penetrations at 22 kft. Can't go higher until some fuel is burned off
		Sailplane is present
		T-28 will penetrate at 16 kft. N312D (NCAR King Air) at 18 kft.
		2UW (Wyoming King Air) in area near cloud base
13:50		Sailplane still heading to VOR 360°/DME 24 nmi; T-28 still climbing; King Airs already there
		Up to Dan to pick penetration headings. Block 15-17 kft; currently east of storm of interest
13:55		FM test
13:58		Sailplane still climbing
		T-28 to do repeated penetrations at his level
		[gap in notes]
14:08		Looks from track like plans have changed
14:09		Will probably hit 2 cells on E-W penetration
14:11:21		In-cloud Pen 1
14:12:00		Out-of-cloud; not same storm other aircraft are working; trying to get in the clear to get a look and then head in that direction
		Head for VOR 003°/DME 24 nmi
		Almost right over VAD; 2UW is there below and N312D above T-28
		Dan sees P-3. Will penetrate on his heading.
14:15:29		In-cloud Pen 2
14:16		In another cell
14:16:32		Out-of-cloud; will stick with this complex; 90/270 reverse course to N
14:20		King Airs break off due to build up of electric field; P-3 and T-28 will stay with this complex
		Sailplane and King Airs head for something in the south Doppler lobe
14:20:45		In-cloud Pen 3
14:22:01		Out-of-cloud; stick with this storm. Target penetrations visually
		P-3 wants to do radials from CP-2 at 13 kft
14:26		T-28 rolled out on 290° hdng ready for next penetration
14:26:46		T-28 in-cloud Pen 4; P-3 in-cloud
		P-3 sees new cell
		500 ft/min up; mod turb; ltng
		P-3 about to hit old cell
14:28:28		T-28 out-of-cloud; will head for VOR 360°/DME 26 nmi and penetrate from there on 150° heading
		P-3 to descend to 13 kft; T-28 will maintain 16 kft

		T-28 passing a cell but not the one of interest; may try to include both cells in next penetration
14:33		Lining up on 300° hdng for next penetration
14:34:08		In-cloud Pen 5; 1 st cell pretty quiet; 2 nd cell more active
		Sailplane still hunting; P-3 cleared to 13 kft and way out to east
		1500 ft/min down in 2 nd cell
		3000 ft/min down
		3500 ft/min up; mod turb
14:36:29		Out-of-cloud; will stick with 2 nd cell on next penetration
14:40		Roll out on hdng 115° for next penetration
14:40:46		In-cloud Pen 6
		1500 ft/min up; mod. rain; ltng
14:41:55		Out-of-cloud; not much activity on that pass; will pick out tower visually for next pass
		P-3 doing penetrations in cloud they were working earlier
14:46:15		In-cloud Pen 7; hdng determined visually
		500 ft/min down
		Turn 10° left
		Will put P-3 into same cell as T-28 on its next penetration
		Mod turb/mod rain
		1000 ft/min up
		1500 ft/min up
14:49:08		Out-of-cloud; try 90/270 reverse course and go back through; high reflectivities below
		P-3 descending to 12 kft; will run out 175° radial from CP-2
		P-3 changes frequency to 128.15 MHz
14:53		Dan can't see well; penetrating visually as best he can
14:54:00		In-cloud Pen 8; mod turb/mod rain
14:55:39		Out-of-cloud; Do 180° turn to left to pick up more active area
14:58		Heads in, but then turns back at ATC request
		Sailplane still on-tow
15:03		T-28 orbiting off to east. ATC won't let him go west. Lots of traffic in area.
15:06		T-28 cleared to go west; hdng 295°
		Very wide cell; Dan needs guidance from ground for penetration heading
		Sticking with hdng 295° for now
15:09:37		In-cloud Pen 9; entering smaller cell ahead of larger one
		Bear 10° right to hdng 305°
15:11:44		Out-of-cloud
15:13		Rolling out on hdng 140°
15:13:22		In-cloud Pen 10; lgt turb/light precip
15:13:49		Breaking out; missed most active part of cell
15:17		Will do one more penetration. Will pick target visually.
15:22:03		In-cloud
15:22:46		Out-of-cloud; heading for intercomparison with sailplane over the shuttle landing strip
15:28:30 – 15:31:52		Intercomparison with sailplane; sailplane trying to stay close to cloud; fields look strong on our telemetry; sailplane will land at SLS and compare to their EFM's
15:33		T-28 orbiting; waiting to link up with P-3
15:35		T-28 and P-3 both near Cape landing strip; T-28 has P-3 in sight

15:39:56-15:47:21		T-28 and P-3 intercomparison near Patrick AFB. Fields not too strong on our telemetry. IAS 170 kts. Hdng 090°; heading out to sea for 10 nmi; then reverse course to west; then T-28 breaks away and returns to MLB
15:54		Land
		Fankhauser says there was one pass with two King Airls, P-3, and T-28 in stack. Corresponds to T-28 1 st pass. Lear was up during later stages of mission, but do not know if it was near the same storm complex as other aircraft.

NOTES

Weather

Normal convective day for Florida!

Maintenance

FSSP not in calibration

Operations

These notes based on notes of Detwiler who was monitoring radio traffic and telemetry in real-time, but was not at ops center.