

T-28 Pilot Report

Flight: 564
Date: 072891
Flight Time: 15:35 – 17:40 EDT
Pilot: Dan Custis
Controller: Dennis Musil
Location: Melbourne, FL
Mission: Research flight

Computer Time	Video Time	Comments
		Attempted coordinated flight with NASA ER-2 & T-39
15:35		Take-off
15:50		ER-2 has cell in sight; T-28 still climbing towards 20 kft; Dan complaining about excessive traffic on ground-air frequency 123.3
16:01		T-28 found a small cell; in tops at 20 kft
		T-28 telemetry link to ground is out
16:07		T-28 lined up with T-39 and about to begin a penetration
		Will be penetrating at hdng 190°; Have a visual of the target; Visibility good.
16:09		In-cloud Pen 1
		Very light activity; light icing
16:11		Out-of-cloud
		ER-2 also complaining of interference on 123.3 MHz
		T-28 will do 90/270 turn and re-penetrate same cloud visually
		Hdg 355°
16:16		In-cloud Pen 2; hdng 240°
		Not quite as much icing
16:17		Out-of-cloud
		Stick with this cell – it's the only target we've got
		ER-2 apparently working different storm
16:21:30		Lined up; storm dissipated quite a bit
		In-cloud Pen 3
16:23:20		Out-of-cloud; not much left of cloud; see something at 2 o'clock that is just reaching T-28 altitude; range 5-10 nmi; Dennis OK's
16:27		In-cloud; hdng 335°
		Light turb; little icing or updraft; Dennis says to stick with this one
		ER-2 doing a leg out the 219° radial from CP-2
16:33		Lined up. Storm collapsing a bit
		In-cloud Pen 4
		Out-of-cloud
		Dennis checking on new growth
16:36		Dan sees a tower 1000 ft above him, ~5 nmi ahead. T-39 also lines up on this one.
		Not too much activity; some precip; another storm is doing better right now
16:37:30		In-cloud Pen 5; T-39 above
		500 ft/min up
16:38:45		Out-of-cloud; will stick with this storm
16:42:10		Hdng 335°; storm getting taller; max reflectivity increasing
16:43:55		In-cloud Pen 6

		800 ft/min up
		800 ft/min up
		1200 ft/min up
16:45		Out-of-cloud; doing 90/270° turn to go back through on reverse course; max reflectivity still increasing
16:51		In-cloud Pen 7; same storm
		p-static; 1000 ft/min up; less ice; less activity; Dennis says path was south of heaviest echo
		Out-of-cloud
16:54:06		Rolling out of turn. Storm top still climbing
16:55:25		In-cloud, Pen 8; same storm
16:56:18		Out-of-cloud. Dan thinks he missed biggest updraft. Will reverse course and target next penetration visually
		ER-2 now going from 40-80 km away from CP-2
17:00:55		In-cloud Pen 9; same storm
		1000 ft/min up; ltng
17:01:40		Out-of-cloud
		Cloud top climbing above 21 kft. Dan will climb to stay in tops during turn
17:05:20		Rolling out on hdng 330°
		Build-up at 9 o'clock going to 23 kft
		In-cloud Pen 10 same cloud
17:08:40		Out-of-cloud; not much activity.
		Has fuel for only one more pass. Will stick with same cell even though it is dying. Will drop to 19 kft for last pass.
		ER-2 operating visually
17:14:25		In-cloud Pen 10
		Nothing in it
17:15:15		Out-of-cloud
		Return to base
17:17:40		land

NOTES

Weather

Towering cumuli and small Cb's

Maintenance

Telemetry did not work; reverse-flow temperature sensor malfunctioned; lightning probably hit prop near beginning of Pen 9 at ~17:01. Looks like it left a nick in one blade.

Operations

First flight in a week. Replacement short-blade propeller installation just completed yesterday. Coordination with T-39 went reasonably well; did not coordinate well with ER-2