

T-28 Pilot Report

Flight: 562
Date: 071991
Flight Time: 13:45 – 16:05 EDT
Pilot: Dan Custis
Controller: Dennis Musil
Location: Melbourne, FL
Mission: Research flight

Computer Time	Video Time	Comments
		Aiming for target at 340°/21 nmi from CP-2
13:45		Take-off
14:05		Getting lined up on a target
14:10		Still VFR; going for altitude block 16-17 kft; aiming for storm @ 1 o'clock at range 10 nmi
14:14		Cell at 270° looks strongest. Aim for that one.
14:17		In-cloud; Pen 1
14:19		In strongest echo; light turb; 500 ft/min up; moderate precip
14:20		Exiting cloud
		Run next pen from SW of cell at 3 o'clock position towards the NE; altitude is 16.8 kft; will drop to 16.5 kft to be in middle of block
14:24		In-cloud Pen 2; heading NE
14:25:30		ltng
14:25:50		Out-of-cloud
		Do 90/270 turn and head back into same cell on reverse heading
14:28:57		In-cloud Pen 3; hdng 240°
		16.5 kft; p-static; light turb; cloud-cloud ltng
14:31		Out-of-cloud
		Head for cloud to west
14:32:55		In-cloud Pen 4; mdt turb; mdt precip; 500 ft/min up
14:33:40		Do 90/270 and pick up hdng 045°
		Going to 180° to avoid traffic
14:34:50		Trying to get back to target cell
14:35:28		In right turn
		T-29 above at 35 kft doing last penetration
		Take 070o hdng to go through more cells; very thin cloud
14:37:55		In-cloud Pen 5
14:38:30		Out-of-cloud
14:40:17		In-cloud
		Go a couple more miles then reverse course
		Not too much activity; some precip; another storm is doing better right now
14:45:00		In-cloud Pen 6; hdng 250°
		p-static
14:46:45		Coming out momentarily
		Take 270° hdng to get to other more active storm
14:48:10		Correct to 290°
		Another 20°; gets to new storm; still in-cloud

14:51:07		Good ride; p-static; alcohol on; carb heat on; hit a minor cell
14:52:02		Breaking out momentarily
		Best growth on north half off storm, according to radar
		Hold this heading
		Reverse course
14:56:08		In-cloud Pen 7
14:56:45		Out-of-cloud; hardly anything in that cloud
		Take turn to left; reverse course
14:59:08		In-cloud Pen 8; hdng 280°; same cell
		On edge of cell; coming to 290° hdng to better target cell
		1000 ft/min down; icing
15:01:00		Out-of-cloud
		Head back towards MLB for a new developing cell; initial point will be 285°/38 nmi
15:04:30		Dan has target in sight
15:06:45		Take hdng 090°. Dan sees target. Going IFR
15:07:50		Will take hdng 110°. Dan says target tops out at 18 kft MSL.
		Dennis defers to Dan to pick target visually
		Dennis confirms that target Dan picks is the best looking one on the radar display at the moment.
15:10:30		In-cloud for Pen 9
15:10:30		Out-of-cloud; just in tops; a little precip; some ice
		Clouds generally topping out at 17.5 kft
15:12:30		Will pick up cell to left of present heading
15:12:45		In-cloud Pen 10
15:13:08		Out-of-cloud
		Will go to 130° hdng to pick up another target
		Going to 150°; now going to 160°
15:14:25		In-cloud Pen 11
15:15:08		Out-of-cloud momentarily
		Coming left to pick up another target; Dennis confirms that all clouds are TCU
15:15:40		Out-of-cloud; lgt turb; lgt icing
		Dennis asks Dan to look around. Dan says there is nothing above him in his current field of view
15:17:25		Aiming for target to west
15:18:33		Correct hdng 10° to right
15:19:14		Another 10° to right;
15:19:23		in-cloud Pen 12
15:19:55		Out-of-cloud momentarily; then back in for Pen 13
15:20:20		Out-of-cloud
		Continue ahead 5 nmi for another buildup; hdng 290°; quite a bit of ice on windshield but can make out buildup
15:21:03		Come to hdng 320°
15:22:00		In-cloud Pen 14
		No icing
15:22:48		Out-of-cloud; turn and go back through same cloud
15:24:00		Has 20-25 min of fuel left
15:26:38		In-cloud Pen 15; come to hdng 070°

		Turb; 500 ft/min up & down; mod turb; mod precip
		1000 ft/min up
15:27:40		picked up quite a bit of ice
		1800 ft/min up; steady hdng 070°; mod turb
		1000 ft/min down
15:28:42		10° to right
15:29:10		2000 ft/min up; out-of-cloud; pushed up to 17 kft
15:30:40		Trying for block 14-16 kft; will drop to 15 kft.
15:33:15		Orbiting; trying to get new altitude block from ATC
15:35:28		Got block 15-17 kft; Has visual on target cell
15:36:47		In-cloud Pen 16; Dennis confirms that hdng is good
		Precip; mod turb
		20° right; p-static; 800 ft/min down; p-static
15:37:25		ltng
		p-static
15:38:30		Lightening up but still in-cloud
		Almost out; will take a 270° turn to set up for next pen
15:39:19		Out-of-cloud
15:40:15		Has fuel for a couple more presentations
15:41:00		In turn; will pick up 090° when rolls out
15:41:49		10° to left to hdng 080°
15:42:10		In-cloud Pen 17
		p-static; hdng 080°
		Mod turb; mod precip; 1000 ft/min up; p-static
15:44:13		Out-of-cloud
		There is a cell off to the right a bit
15:44:40		In-cloud Pen 18; 120° hdng
		p-static; 1500 ft/min down
15:45:30		Out-of-cloud
		Go for target 10° to right; then head home
		Hdng 140°
15:46:30		In-cloud Pen 19
		Come to hdng 080°
		Mod rain
15:48:40		Out-of-cloud; Nothing ahead; return-to-base
16:05		Power off

NOTES

Weather

Towering cumuli and small Cb's

Maintenance

Operations

Foil never stopped after first pass; exhausted early in flight