

## T-28 Pilot Report

Flight: 547 COPS91  
Date: 06051991  
Flight Time: 11:46:30 – 13:40  
Pilot: Dan Custis  
Controller: Dennis Musil  
Location: Norman, OK  
Mission: Research flight

| Computer Time | Video Time | Comments   |
|---------------|------------|--|
| 11:46:30      |            | Departing  |
| 11:57:06      |            | Going to 9000  |
| 12:01:41      |            | ?  |
| 12:06:01      |            | Begin pen #1. Precipitation  |
|               |            | 3000' up. 3000' up   |
|               |            | Throttle way back  |
|               |            | Altitude 12.9 kft, still going up  |
|               |            | Been in cloud about a minute and it's quite a ride                               |
|               |            | At top of 11-13 kft block, trying to stay in. Am I about out now?                |
|               |            | Strongest part still ahead (control)   |
| 12:0?-??      |            | Ltng   |
|               |            | Don't want to get much stronger than what we just went through                   |
|               |            | Able to stay in block (control)  |
|               |            | Yeh, hit right at top but stayed in  |
|               |            | Getting pretty good precip   |
|               |            | Getting hail (can hear on wind screen mike) (opens catcher)                      |
|               |            | Looks like you're about 3-5 mi. from the core (control)                          |
|               |            | Turb   |
|               |            | Out in clear momentarily – see core – will keep on this heading                  |
| 12:08:53      |            | Sampler closed at 08:53  |
| 08:59         |            | Ltng   |
|               |            | Break off to SW. It's getting above 60 now (control)                             |
|               |            | You may be coming out of it. May be just as well to proceed on through (control) |
| 12:10:39      |            | Out of cloud. Heading 350  |
|               |            | Would probably be better to move 5 mi out (control)                              |
|               |            | Will hold this heading for a bit longer  |
|               |            | VOR out  |
| 12:20:19      |            | Pen #2, hdg 150° 14 kft IAS 140  |
|               |            | p-static   |
|               |            | 1000' down   |
| 20:58         |            | Ltng; prcp   |
|               |            | 1000' up. Ltng   |
|               |            | 1000' up   |
|               |            | 1000' down   |
| 21:35         |            | Ltng<br>20° right  |

|       |  |   |
|-------|--|---|
| 21:46 |  | Ltng  |
| 22:01 |  | Ltng  |
| 22:06 |  | Ltng. Hdg 070   |
| :13   |  | Ltng  |
| :14   |  | Ltng  |
| :19   |  | Ltng  |
| :23   |  | Ltng  |
| :33   |  | Ltng  |
| :37   |  | Ltng  |
| :44   |  | Ltng  |
| :47   |  | Ltng<br>p-static  |
| :54   |  | Ltng<br>Mod turb  |
| 23:16 |  | Ltng  |
|       |  | Ltng  |
|       |  | p-static  |
|       |  | c-g   |
|       |  | 1000' up  |
|       |  | p-static (long)   |
|       |  | 1000' down  |
| 24:01 |  | Ltng  |
|       |  | Turb  |
|       |  | Mod turb  |
|       |  | p-static  |
| :22   |  | Ltng  |
|       |  | Prep  |
|       |  | Lot of ltng on this trip. Not as severe as last trip.   |
|       |  | Mod turb  |
|       |  | 100' up   |
| 25:15 |  | Mod turb  |
|       |  | 2000' up, power back  |
|       |  | Still going up, power back more   |
|       |  | Mod turb  |
|       |  | 2000' down  |
|       |  | Pulling up  |
|       |  | Severe turb   |
|       |  | Going up again  |
|       |  | 1000' up now  |
|       |  | Going up again  |
|       |  | 2000' up  |
|       |  | Down finally  |
|       |  | Last minute had about as severe turbulence as I've ever had. Believe I'm coming out at this time. |
|       |  | Lots of updraft. Having trouble staying in block. Up to top. Power back to 20"                    |
|       |  | Go a little bit out to SW (control)   |
|       |  | Still getting turbulence and updraft  |

|          |  |   |
|----------|--|---|
|          |  | Go SW 3-5 mi get clear (control)  |
|          |  | Still getting turbulence  |
|          |  | Still in updraft and still getting turb. Seem to be out of precip. It's fairly light skywise.                 |
|          |  | Move off to west at 255 (control)   |
| 12:28:55 |  | End of pen #2 hdg 180   |
| 12:30:47 |  | Pen #3 hdg 260, turb, alt 13.7 kft (quite a bit of downdraft prior to rolling out)                            |
|          |  | Smooth now. Airspeed down to 120 alt 14 kft, hdg 260  |
|          |  | Anything off to right? (control)  |
|          |  | In cloud now; getting severe turbulence   |
|          |  | Keep going west (control)   |
|          |  | Light turb, IAS 140   |
|          |  | Updraft   |
|          |  | Still in cloud. Breaking out shortly. Quite a bit of turbulence. Won't have to go much further to be in clear |
|          |  | Not going to break out. Come to hdg 360 (control)   |
| 12:38:33 |  | Pen #4 hdg 360, alt 14 kft  |
|          |  | Mod turb  |
|          |  | 1000' down  |
|          |  | ?   |
|          |  | 1000' up, precip, mod turb (confirms view from radar)   |
| 12:41:03 |  | Out-of-cloud. Hdg 350, alt 14 kft   |
| 12:48:33 |  | Setting up pen #5, hdg 190, alt 14 kft  |
| 12:49:40 |  | In-cloud, hdg 190   |
|          |  | 1500' up  |
|          |  | 2000' up  |
| :52      |  | Ltng  |
|          |  | Power back  |
|          |  | Mdt precip  |
|          |  | Just about coming through echo now (control)  |
| :50:31   |  | Ltng  |
|          |  | Out now?  |
|          |  | Affirmative (control)   |
|          |  | Through strongest part. A while before you break out (control)  |
|          |  | Would have to go too far to break out. How about reversing course to the left? (control)                      |
| :51:36   |  | Complete pen #5   |
| :53:45   |  | 010° at 14 kft; setting up Pen #6   |
| :54:00   |  | In-cloud  |
|          |  | Hdg 010, 14 kft   |
|          |  | p-static  |
|          |  | Momentarily in clear, hdg 010, alt 14 kft   |
|          |  | In clear for a few sec. begin another pen shortly   |
|          |  | East of main echo? (control)  |
|          |  | What I'm entering is a lot stronger than what's off to my west.   |
|          |  | In-now  |
|          |  | lgt turb  |

|                   |  |  |
|-------------------|--|--|
|                   |  | Out in clear, on western edge of most activity. Either that or it's deteriorating quite a bit. |
|                   |  | Move out about 3 mi and take a look at it again (control)                                      |
| 13:07:19          |  | Pen #7 (he calls it #6) 210°, 14 kft, IAS 140  |
| :07:56            |  | Ltng at 1:00   |
| 13:08:15          |  | Ltng   |
|                   |  | Still haven't gotten into any clouds, alt 14 kft   |
|                   |  | Little precip  |
|                   |  | Come to 270°, go out west side (control)   |
| 13:10:03          |  | Coming to 270°   |
|                   |  | Not much activity  |
|                   |  | 500' down, light turb, hdg 270   |
|                   |  | Light turb, 500' up  |
|                   |  | Mod turb   |
| 13:11:05          |  | Breaking out   |
| 13:14:00          |  | Pen #8 (he calls it #7) hdg 070, 14 kft  |
|                   |  | Go 20° left (control)  |
|                   |  | Going to 050   |
| 13:15:20          |  | Cloud switch on, hdg 050   |
|                   |  | 700' up, lgt turb  |
|                   |  | Down, mod turb   |
|                   |  | Not much activity on north side  |
| 13:16:24          |  | Out-of-cloud   |
|                   |  | If you can see anything visually then reverse and come back through it (control)               |
|                   |  | Left turn to 240°  |
|                   |  | Adjust south of last pen   |
|                   |  | Come left to 210°  |
|                   |  | Then coming home   |
|                   |  | Making that heading 200°   |
| 13:18:52          |  | Pen #9 (he calls it #7)  |
|                   |  | In-cloud   |
|                   |  | Lgt turb, 500' up, precip  |
|                   |  | Good turb. How does my course look?  |
|                   |  | Maintain hdg (control)   |
|                   |  | p-static   |
|                   |  | lft → mod turb   |
|                   |  | hdg 200°   |
|                   |  | calm air now   |
|                   |  | pretty intense echo straight ahead. Break off now and come home (control)                      |
| 13:21:10          |  | Out-of-cloud   |
| 13:28:26-13:29:26 |  | FM test?   |
| 13:40             |  | Down   |

**NOTES**

Weather

Maintenance

Operations