T-28 Pilot Report

<u>Flight</u> :	737
Date:	06221999
Flight Time:	14:52 – 16:32 MDT
Pilot:	Charlie Summers
Controller:	Andy Detwiler
Location:	Loveland, CO
Mission:	Research flight

Computer Time	Video Time	Comments
14:52		T-28 take-off
		Climbs toward GLL VORTAC, then turns back W before reaching storms to E.
15:06		ATC wants T-28 to use 19 kft altitude. Climbing through 15 kft at this time.
		Convair to be at 20 kft.
15:12		T-28 at 19 kft. Hdng 070° for storm
15:12:40		Right to 077°
15:14:25		Barely in-cloud
15:15:15		Back to left to regain 077° hdng
		Lgt turb
15:17		Mdt turb/lgt icing
		DMT LWC sensor not showing much
15:18		Ride rougher; distant lightning
		+15 kts IAS
		p-static
15:21		Out-of-cloud. Extending track out for a few miles
15:23		End Run #1
		Turning S to pick up 087° radial for a return pass to west.
15:26:17		In a small buildup during turn
15:28		Heading back in on 087° radial
15:29:50		In-cloud Run #2
		Lgt turb
		T-28 correcting to left on direction from Convair
15:35		T-28 nearly out; Anvil overhead.
15:36		End Run #2
15:37		T-28 out-of-cloud
		ATC wants Charlie to stay above 19 kft
15:40		180° turn to right, then back through
15:43		Start Run #3
		T-28 in lgt chop outside of cloud
15:49		T-28+20 kts; more turb
		Going ahead
15:53		T-28 out
15:54		Convair out; end Run #3
		Convair has lost TCAS
15:57		Convair and T-28 heading in in 262° radial
15:59:26		T-28 in-cloud; Start Run #4
16:01		T-28 going 1800 right to separate from Convair
16:04:55		End Run #4. Convair is out of cloud ahead of T-28, who is still in-cloud
16:07:30		T-28 left 30°
		Prop de-ice alcohol is used up
16:09:30		T-28 out-of-cloud. Now 50 nmi E of CHILL. Will RTB.
16:32		Lining up to land at FNL

Weather

Numerous small cells come off the foothills just after noon. 60+ dBZ at low levels. Marble-size hail at FNL at ~13:30 MDT. Storms formed along a frontal boundary moving Ewd at 50 mph during mission. Winds behind front were diminished later in mission

Maintenance

Some artifacts in 2D-C images, but generally OK. Hail images are OK but some stuck bits starting with Run #3. Some artifact oscillations in accelerometer and static pressure signals.

Operations

The project works a line of convection east of CHILL that was moving rapidly eastward due to strong westerly steering winds. Charlie was making 240 kts groundspeed on his way out. The Sabreliner worked independently of the Convair and T-28. Audio was very scratchy for much of flight as aircraft were 50+ nmi E of CHILL ops trailer.