**T-28 Pilot Report**

**Flight:** 575 - CaPE  
**Date:** 08151991  
**Flight Time:** 16:35:00-18:30:00  
**Pilot:** Dan Custis  
**Controller:** Dennis Musil  
**Location:** Melbourne, FL  
**Mission:** Research flight

<table>
<thead>
<tr>
<th>Computer Time</th>
<th>Video Time</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:41:00</td>
<td></td>
<td>Rolling</td>
</tr>
</tbody>
</table>
| 17:08:28      | Pen #1     | on hdng of 180, 18,000’  
|               |            | Cloud sw on.  
|               |            | Very light precip. Ltn.  
|               |            | Very smooth ride so far.  
| 17:09:15      | Mod turb, mod precip, icing, precip static, Ltn.  
|               | 500’ up, Ltn.  
|               | RT 500’ up.  
|               | ---- Coming right to 200°. Still in Pen #1.  
|               | RT. Still in smooth air and appears to be clear to east. Ltn.  
|               | RT. Ltn. .10 left to 190. Steady on 190.  
|               | Ltn. light precip  
|               | Ltng light turb  
|               | 1000’ up. Ltn. Mod precip Ltn. Mod turb  
|               | 500-1000’ up Ltn. Precip turning to ice Ltn. Ltn.  
|               | 1000’ up. Ltn. Ltn. Ltn. Mod turb Mod precip.  
|               | Ltn. Ltn. Light precip  
|               | Ltn. Mod precip  
|               | RT Mod precip Mod turb Ltn. Ltn. Mod turb  
|               | 1000’ up  
|               | 1500’ up Mod precip  
|               | Still in mod precip turning to light precip now  
|               | Mod turb  
| 17:19:28      | Out of cloud  
|               | Camea is out of film on 1st pen.  
| 17:21:34      | Back in shortly on same hdng.  
|               | In-cloud Mod turb Light precip  
|               | 1000’ up Mod turb Mod rain  
|               | 1500’ up Severe turb Smooth now with a bit of ice on the airframe  
|               | Light precip Mod turb Mod precip turning to ice Mod turb Ltn. Light precip  
| 17:24:39      | Out of cloud and in clear. RT  
| 17:30:20      | Pen #3, hdng 350  
|               | In cloud Icing Light precip Light turb  
|               | 1000’ down Now in smooth air with neg turb or precip  

Light precip turning to mod precip, mod turb
1000’ up    severe turbulence, hvy precip
2000’ up    Ltng, hdg 350, Pen #3
10° RT to 360    Ltng    more Ltng    mod turb    Ltng    hvy precip turning to ice
1500’ up, 2000’ up, still in mod turb, Ltng, 10° RT to 010    Ltng    hvy precip
1000’ up, Ltng

17:33:16
Hvy precip, Ltng,
1000’ up, still 1000-1500’ up, hvy precip, RT
Right to 020 hdg, still in hvy precip with lightning and mod turb.    Ltng    light precip now
Still in light precip with mod turb, Ltng, light turb now
RT out of cloud

17:36:16
Pen #3 complete

17:37:52
Storm 8 is in cloud on hdg of 060 for Pen #4. 18,000’, light turb, mod turb, Ltng
Ltng icing    Ltng    light turb    icing    light precip    Ltng    mod precip   Ltng    Ltng    Ltng
Still in light turb    light turb    light precip
1500’ down momentarily in clear, be punching into another cell @ 15 secs
17:41:01
Back in cloud, still on Pen #4, hdg 067, correcting to 060
17:41:30
Icing    light turb
Momentarily out of cloud, believe I will be re-entering shortly, can’t see much ahead due to ice.
How does it look Gator?

17:42:20
OK we will call Pen #4 complete. RT.
17:46:07
Be Pen #5 on hdg of 240, 18,000’. Be penetrating shortly
17:47:02
Pen. #5, hdg 240, 18,000’. In-cloud.
Light precip with icing    light turb
RT    20° left to 220
RT    momentarily out of cloud

17:49:01
Back in cloud, still on Pen #5.
Light turb
500-1000’ down, 500’ down, 1000’ down, 1000’ up, 1500’ up

17:51:12
Momentarily out of cloud.
Penetration complete.

17:55:44
Pen #6 on hdg of 090, alt 16,000’
Light precip with icing    light turb
17:56:40
Pen complete

Coming left at this time

17:59:20
Pen #7, hdg of 020, alt 16,000’
Light precip    light icing
Momentarily out of cloud.

18:00:20
Still in Pen #7    light turb    light precip    mod precip
1000’ up    Ltng    light precip
Out and in clear

18:01:06
Pen #7 complete

18:07:44
Pen #8 on hdg of 200°, 14,000’.
In cloud.
10° left to 190    precip static    light precip
RT in moderate rain    hvy rain
<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18:11:26</td>
<td>Momentarily out of cloud.</td>
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<tr>
<td>18:11:32</td>
<td>Pen complete</td>
</tr>
<tr>
<td>18:17:04</td>
<td>Pen #9 hdng 030, 12,000’, light precip</td>
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<tr>
<td></td>
<td>20° left to 010   still in light precip   light turb</td>
</tr>
<tr>
<td></td>
<td>500’ up momentarily out of cloud</td>
</tr>
<tr>
<td></td>
<td>RT turning right to 030   light turb   mod rain   hvy rain</td>
</tr>
<tr>
<td></td>
<td>500’ up   still in hvy rain   mod turb</td>
</tr>
<tr>
<td></td>
<td>500’ up mod rain light turb light rain back in mod rain light turb</td>
</tr>
<tr>
<td>18:20:32</td>
<td>Out and in clear</td>
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<td></td>
<td>Completes Pen #9</td>
</tr>
<tr>
<td>18:24:51</td>
<td>Logging a pen on return to MelB @ 11,000’, hdng 210</td>
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<tr>
<td></td>
<td>Moderate rain   mod rain   light to mod turb</td>
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<tr>
<td>18:25:42</td>
<td>Pen complete</td>
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<td>Pen # 10 started on hdng of 210 and terminated on 220</td>
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<td>18:40</td>
<td>Mission complete</td>
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**NOTES**

**Weather**

**Maintenance**

**Operations**