

PILOTS FLIGHT COMMENTS

Flight 1-39-63 October 7, 1963

Capt. Joe Engle

Engle: The alpha indicator looked like it was working up until drop. After drop it took me a few seconds of staring at the thing to realize it wasn't going to work. I remember reaching up and rapping it with my hand a couple of times. I may have reached for the reset switch, too. I know it seemed like a good idea at the time. I took my hand off the throttle tho, and by then I'm sure I'd dropped pretty low. I was slow coming up on what was supposed to be the alpha so I simulated a delayed engine lite as we had done in the simulator and left it at about 75% thrust I guess until after the nose had come up through the horizon. The velocity, altitude and H-dot parameters started to fall in and cross checkout OK, so I left it at 50% throttle. I went to a 1.5 g rotation to theta and theta seemed to come pretty quick -- in fact theta wasn't too much after 26 seconds. It also seemed like it took a lot of deflection to get the 1.5 g. Of course, I had a delayed lite from reaching to rap the alpha indicator, but it seemed like theta came up just about on time. As I mentioned, the other cross checks; H dot, velocity and altitude seemed about normal, so I left the power at 50%. It seemed like the pitch angle was awfully steep for 20°, but the theta vernier was nulled, and the ball indicated a little less than 20°. I took a quick glance outside and it looked steeper than 20° but decided to stay on the gages. The events seemed to come a little bit prior to the programmed times. At Bob's call of 69 seconds I had already pushed over and was just about at zero g. Speed brake velocity came a little early also. The nose dropped through the horizon so I had to pull that back up and then shutdown occurred a little bit early. I shutdown on the velocity indicator at just a tad over 4,000 feet per second. As for the rest of the flight, the whole thing went pretty fast. The two things I most clearly remember doing was rapping the alpha indicator after launch and then trying to guide it down the runway. After we once got off the hooks, the flight seemed to go as advertised other than for the alpha indicator. I didn't worry about heading too much until just about -- well, I was coming up on theta. I didn't even look at the cross-range indicator. For the course corrections, when Bob said 5° right, I racked up to about a 60° bank and tried to pull it on around. Then when Bob called me to roll back on heading, I think he said we were about 10 miles out. I rolled back then and held it level until after he called that we'd passed Pilot Knob. I could sure hear the skin banging away at about 3800 to 4000 feet per second. I remember hearing Bob talk about it before so I was kind of ready for it but it sure seemed like it was close. Right down by the old knee bone. I was a little high on energy coming over Cuddeback but it didn't seem too bad. A few rolls, pulling a few g's and trying some pulses seemed to bleed off the energy pretty well. During the B-52 climb-out, it looked like we were a lot higher than our indicated altitudes, but I guess that's because you're looking down through all that glass at an angle and you don't get a very good look at the ground. The landing pattern sure seemed normal -- just like in the 104's. In the pattern, I was a little high and had some extra airspeed, so I used speed brakes and left them out a little longer than I had intended. I thought I was going to be a little short on touchdown, so I delayed the gear just a little bit to try and make up some, but didn't worry about the touchdown spot. I couldn't tell too well when the skids hit, but if you'd happen to be relaxing at the time that nose sure draws your attention when it raps down. It would sort of wake you up. During slide-out, the airplane didn't seem to veer off either direction but I tried some aileron and rudder inputs. It seemed like you could guide down to, oh, not quite a 100 knots as Bob had briefed me. Below that nothing seemed to make much difference. As for bank angle, well, I rolled up to over 90° while pulling some g's after starting down hill. The flight was on the side stick until after crossing Cuddeback, and when I called I was going over to center stick trim, I went to the center stick for control. At launch I was so preoccupied with that alpha indicator I didn't really get a good correlation between the trim rates and the forces in the airplane to those in the simulator. I was trying to figure out why the indicator wasn't moving and if there was anything I could do to break it loose.

Question: After the initial abort, we picked up the checklist I think at 10 minutes, were you rushed this time?

Engle: No, the second time around we did use the old times for countdown, but by then I'd been through the procedure three times, so it was no problem at all keeping up.