Airplane: XF-88b
Pilot: Reedor
Flight: Fl. 2

T. 0. 2 8:15, Engines off @ 9:23 = 0 4 30. Wind 8 mph from SSW, 820, runway 30, 4000 ft. run. Use some brake first 500 ft., then full rudder.

10-13,000 feet. Trim 300, go to 420 and push 7 lbs. (?), 30-50 lbs. left rudder force. At 200 mph 10 lbs. pull.

Force in turns @ 300 about 10 lbs. at 2g.

Static directional stability adequately high in sideslips and full aileron roll maneuvers at 300, though rudder forces light to produce sideslip.

At 310 from level trim an oscillation resulting from a rudder displacement and release damped in 6 cycles either way. Airplane returned to wing level flight.

Aileron power good at 300, adequate at 200. Not as fast as some.

Speed brakes, slight nose up trims change @ 300, not effective enough, light buffet of airplane.

Stall, clean, glide condition. Lateral and directional motions begin @ 170 (1900 lbs. fuel), buffet begins @ 170, long, instability to low force at 160, increasing pull again at 140, lateral motion and buffet increasing down to 130 (Lowest comfortable speed). Can control for rolling motions but can't keep level for any length of time.

Turn at 200, elevator force lightening and buffeting begin 1/2g. Little uncontrolled - for rolling. Elevator force never dropped to 0, 1600 lbs. of fuel.

Stall, landing condition, slight lateral motions begin 1/4g, get worse with increasing buffet down to 125 (Lowest comfortable speed). Can control laterally, but can't maintain wings level flight for any length of time.

Slip left to full right rudder landing condition @ 150. Run out of rudder with about 3/8 aileron. Apparently no hi slip. Dihedral at all speeds and conditions tried would appear high.

Landing condition wave-off, military on both engines not enough for level flight at 175 @ 8000 ft.

Can just fly level gear down with one engine at military at 170, other engine idling, at 6000 ft.

Began landing flare 152 or so as I eased off throttles. Little float. Dropped left wing, right wing in quick succession, then settled to runway as I moved stick back rapidly. Can hold nose up after contact for only short time.

Landing time: 09:20.

Prop. test club 10' dia. @ 1700 RPM
XT-38-A-S
Fuel reduced from 693 to 631, \( \Delta \) 62 gals = 37.2°
(See AF Report)
Plugs for 1700, 3600, 6000 RPM res. props
J34 WE-34's with AB's
C.N. @ D.O. 208/0°, c.g. at 22.9° gear up
Full expanded (100/30 gals) 26.2% limit 30%
Est augmentation with AB = 1.41 (Actual 1.12-1.19)

Reder * Emergency feather Va prop \( M = 0.95 \) @ 39,000 ft.
\[ = 425 \text{ mph} \quad V_i = 645 \text{ mph} \quad V_f \]
Airplane: XF-93b
Pilot: Reeder
Flight: #2, t.t.

Date: 30 June 1953

T. 0. 3 11:00, Engines off 3 11:33 = 0 4 33. Wind 8 mph from SW, 880, runway 30, 1600 ft. run. No brake used, could hold with full rudder.

Right engine overheat light came on momentarily after first firing of afterburners, then out. Came on again just after lift off, tailpipe temperature only 600. Out again momentarily following A.B. cut off. Would come on at 100% at all altitudes to 20,000 ft. Found by adjusting eyelids that warning would come on when tailpipe temperature exceeded 570. 3 100%. 3 16,000 ft. Climbed with right engine at 90% and 590°.

Started fuel transfer 3 11:07. Reached 20,000 ft. 3 11:14 with 1700 lbs. of fuel indicated. Read 1600 lbs. fuel 3 11:21 (just finish transfer 7 1/4 minutes.)

Start T-33 3 20,000 ft. 3 250. Govern 90%, power up to 800° TIT. Nose up trim change in airplane. Nose over to 300, overheat light on. Pull throttle back, but no effect after reasonable time so feather. Adjusted pitch and used brake to set prop for landing. Go to 430 without prop turning.

Landing with 1100 lbs. of fuel.

Start easy flare from 157, then pulled throttle off, float, go thru same left wing then right wing down as before, ballooned a little, then as began settling pulled full elevator without checking descent. Contact probably 130 or so.
Airplane: XF-66b
Pilot: Reeder
Flight: #3 F.C.

Date: 1 July 1953

T.O. @ 6:06 P.M., Land 6:39, Engines off @ 6:45 @ 0 @ 39

Right engine overheat on after A.B.'s lit at end of runway before T.O. Retard throttle to 90%, light off. Advance throttle again during T.O. run and light stayed off. After A.B.'s shut down in air, military power, overheat on for right engine unless throttled back, or temperature at 500° or below.

Fuel just after A.B.'s shut off after T.O. = 2500 lbs. @ 6:06.

Begin fuel transfer @ 6:08.

Start T-38 and power up to 760°, 96% (rpm max. can get) @ 6:12 @ 11,000 ft., 2300 lbs. remaining.

Clouds delayed climb for several minutes here and accelerated to 130 mph.

2100 lbs. remaining @ 15,000 ft. @ 6:15.

2100 lbs. remaining @ 20,000 ft. @ 6:16.

1950 lbs. remaining @ 27,000 ft. @ 6:20.

A.B.'s on @ 27,000 ft., right one no light.

F/G @ 300 @ 27,000 ft. adequate. Lateral directional oscillations damped 6-7 cycles, much roll.

Prop governing seems satisfactory, but 97% seems maximum. Tachometer oscillating somewhat erratically @ 3%.

Feather engine at about 350 @ 25,000 ft. Did not stop. Tried manual pitch change, but had no effect (probably did not have throttle forward to energize pitch switch).

Tried A.B.'s at 10,000 ft., lit OK. Overheat light right engine on again after A.B.'s off, this time above 530°.

Motorod T-38 again at 8600 ft. Tachometer did not register until about 50% rpm reached. Against lo pitch flight stop can fly airplane level at 250. Trim change and longitudinal control affected but not critically, apparently. Feathered and adjusted position of prop. OK.

Broke landing glide easily from 160 with slight power, easy touchdown. However, while still airborne went thru left, then right lateral trim change. Keeping up with it a little better now.