

VIREO / Day11 / Flight20

TEST: Closed-loop control law validation. Testing autoland with nominal controller.

RESULT: Good flight for control law validation.

EVENTS:

1. Turned off all longitudinal control loops except total energy to throttle. Elevator was held fixed at -5 deg TE up.
2. Under the degraded conditions, the altitude tracker was assisted by an airspeed damper and an airspeed filter. The BW of the airspeed filter was 1 Hz, thus ensuring that the high frequency noise in the airspeed measurements are not propagated down to the throttle command.
3. The addition of airspeed damper and filter to the altitude tracker was beneficial in keeping the airspeed from diverging. However, the performance was still not as good as TECS.
4. We completed the autoland.