

VIREO / Day12 / Flight24

TEST: Closed-loop control law validation. Right elevon stuck at 5deg trailing-edge up. First flight of single surface controller.

RESULT: Good flight for control law validation.

EVENTS:

1. First flight for single surface (SS) controller. This SS controller operated only the left elevon. The right elevon was held fixed at its trim position, which is equal to the elevator trim position.
2. The SS controller tracked roll angle and commanded the left elevon appropriately.
3. The throttle was controlled by the TE-only controller.
4. Performed a change in circle center.
5. Performed a box route.
6. The winds were high. The aircraft seemed to exhibit a pronounced phugoid behavior when flying upwind. At one instance, the pronounced phugoid was so bad that Curt switched into the alpha mode to help the aircraft recover.
7. Since we ran out of time, we did not attempt an aborted autoland in bravo mode.