Guide to the MD-11 Autoflight System for FlightGear – by John Williams
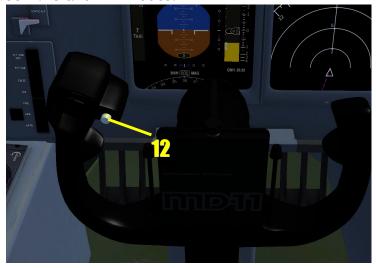

1. IAS/MACH selector – switch between IAS and Mach A/T modes.

2. A/T adjustment knob – in IAS mode, adjusts target speed in increments of 1 kt; in Mach mode, adjusts target mach in increments of 0.001 mach.

3. BANK LIMIT Knob – AP bank angle limiter (Auto, 5, 10, 15, 20, 25 deg). *Note: If BANK LIMIT is set to "Auto," the aircraft will not turn at speeds greater than 0.85 mach.*

4. NAV – Follow the flight plan specified in the route manager. *Note: a minimum of two (2) points must be specified in the route manager for NAV to work properly. The departure and arrival airports are sufficient. When using NAV mode with closely spaced waypoints and frequent turns (such as the end phase of RNAV STAR), monitor your speed closely. Flying too fast can cause you to miss waypoints and may lead to unpredictable AP behavior.*

5. HDG knob – Rotate (using the mouse scroll wheel) to adjust target magnetic heading. Push (left click) to hold current heading. Pull (middle click) to turn to and hold target magnetic heading.

6. APPR/LAND – Push once to arm and activate LOC lateral mode to follow VOR

radials or localizer approach paths. Push a second time to arm and activate G/S mode to follow ILS glideslope path. Pressing a third time will deactivate and disarm both LOC and G/S modes.

7. AUTOFLIGHT – Press once to arm and activate the autothrottle. Press a second time to activate the autopilot. Subsequent pushes of the button will deactivate and activate the autothrottle.

8. ALT knob – Rotate (using the mouse scroll wheel) to adjust the target altitude in increments of 100 feet. Push (left click) to hold the current altitude (rounded to the nearest 100 feet). Pull (middle click) to activate LEV CHG mode, which will climb or descend to target altitude shown in ALT display. Mode automatically changes to ALT HOLD within 50 feet of the target altitude.

9. PROF – Activate profile mode to hold and change altitudes as specified in the route manager flight plan. *Note: PROF only looks ahead to the next waypoint. It is designed to make minor altitude adjustments during the cruise phase of the flight. It does not control vertical speed or pitch angle, and therefore is not equipped to properly manage the climb and descent phases of the flight. When PROF activates LEV CHG mode, target altitude cannot be changed until system returns to PROF mode.*

10. V/S wheel – Adjusts the vertical speed when in V/S mode in increments of 100 fpm. Adjusts the flight path angle when in FPA mode. Rotating the knob in either direction activates V/S mode. Mode automatically changes to ALT HOLD within 50 feet of the target altitude.

11. VS/FPA toggle – Switches between V/S and FPA modes.

12. Disengage button – Press once to disengage AP. Press a second time to disengage A/T.

Note: Below 100 feet agl, the autopilot will enter autoland mode if the vertical mode is set to G/S. Otherwise, the AP and A/T will deactivate automatically below 100 feet.