

- 2. There are three displays on the panel: and altitude [ALIT], flight path angle [FPA], and calibrated air speed [CAS]. The displays usually show the current values for the altitude, flight path angle, and air speed of the altract. Newever, the pilot can eiter a new value into a display by dialing in the value using the knob next to the display. This is the target or "pre-selected" value that he pilot wishes the aircraft to attain. For example, if the pilot wishes to climb to 25000 feet, he will dial 25,000 into the altitude display window and then press the ab_ong button to engage the altitude mode. Once the target value is achieved or the mode is disengaged, the display reverts
- 3. If the pilot dials in an altitude that is more than 1,200 feet above the current altitude and then presses the alz-rag button, the altitude mode will not directly engage. Instead, the altitude engage mode will change to "armed" and the flight-path angle select mode is engaged. The pilot must then dial in flight-path angle for the flight-control system to follow until the arieraft attains the desired altitude. The flight-path angle select mode will remain engaged until the aircraft is within 1,200 feet of the desired altitude, then the altitude engage mode is automatically engaged.
- 4. The calibrated air speed and the flight-path angle values need not be pre-selected before the corresponding modes are engaged-the current values displayed will be used. The pilot can dial-in a different target value after the mode is engaged. However, the altitude must be pre-selected before the altitude engage button is pressed. Otherwise, the command is ignored.
- 5. The calibrated air speed and flight-path angle buttons toggle on and off every time they are pressed. For example, if the calibrated air speed button is pressed while the system is already it calibrated air speed mode that mode will be disengaged. However, if the attitude control whose steering button is pressed while the attitude control wheel steering mode is already engaged, the button is ignored. Likewise, pressing the altitude engage button while the system is already in altitude engage mode has no effect.

Because of space limitations, only the mode-control panel interface itself will be modeled in this is example. The specification will only include a simple set of commands the pilot can enter plus functionality needed to support modes switching and displays. The actual commands that would be transmitted to the flick-control commuterto maintain modesets, are not modeled.