

6. Heading slew knob - Select great circle heading.
Slewing of the great circle heading can be accomplished on the ground or during flight.
7. Heading slew knob - Check OFF.

which may be used with any of the major modes except ILS APP. (Refer to "Altitude Hold Switch" in this section.) The flight director computer is powered by the right primary ac bus.

FLIGHT DIRECTOR SYSTEM.

The flight director system, using a CPU-27/A flight director computer, provides a selection of navigation signals to the attitude director and horizontal situation indicators. The system is powered by the right primary ac and dc busses and the essential ac bus.

FLIGHT DIRECTOR COMPUTER - CPU-27/A.

The electronic CPU-27/A flight director computer combines the altitude, heading, attitude, and radio navigation information and presents it on the attitude director. The computer combines heading, roll, course, and localizer signals for roll indications and altitude, pitch, and glideslope signals for pitch indications. The computer is controlled by a switching arrangement, which puts the computer into any one of five modes (four major modes and one submode). The combination of input signals used is determined by the mode selected which changes the input signals for the proper programming of flight paths to fit the particular flight profile. Depending on the mode of operation selected, the computer supplies either command heading steering, localizer steering or TACAN signals to the attitude director indicator bank steering bar. The computer also supplies glide slope deviation signals to the glide slope indicator or glide slope steering signals to the pitch steering bar. Balancing of various input signals will center the bank and pitch steering bars of the attitude director indicator. With no steering or deviation signals selected (the computer on stand-by), bias signals drive the steering bars out of view. (The bank steering bar is used to show sideslip when on standby, and PILOT is selected.) The computer also serves as a coupler for signals going to the integrated flight displays and must be on though not functioning. There is also one submode, altitude hold,

FLIGHT DIRECTOR MODE SELECTOR SWITCH.

The five-position rotary switch (29, figure 1-3), on the pilot's instrument panel, selects the mode of operation of the flight director computer. When the switch is at STBY, the pointers and warning flags on the attitude director indicators are driven out of view by a signal from the flight director computer. (Refer to "Flight Test Instrumentation" in this section.) With the switch at ILS, localizer deviation from the ILS localizer receiver is sent to the flight director computer and combined with roll information to produce an ILS heading error which is displayed by the attitude director indicator bank steering bar. This mode is normally selected after let-down but before reaching the glide slope beam. When the bank steering bar is centered, the airplane is "on course." When "on course" for an instrument landing, the flight director mode switch can be moved to the ILS APP. By watching the downward movement of the pitch steering bar, the glide slope interception can be anticipated and the descent prepared. In the event of a go-around with the switch at ILS or ILS APP, the back course of the ILS can be flown or the switch can be moved to MAN HDG and a predetermined heading flown. The same information is used in the TACAN mode as in the ILS or ILS APP modes except that distance information is added. Distance from TACAN station to the airplane is displayed in the range window of the horizontal situation indicator in nautical miles. The ILS, ILS APP, and MAN HDG modes are read primarily from the attitude director indicators, while the TACAN mode is read from the horizontal situation indicator. The mode selector switch receives power from the right primary dc bus.