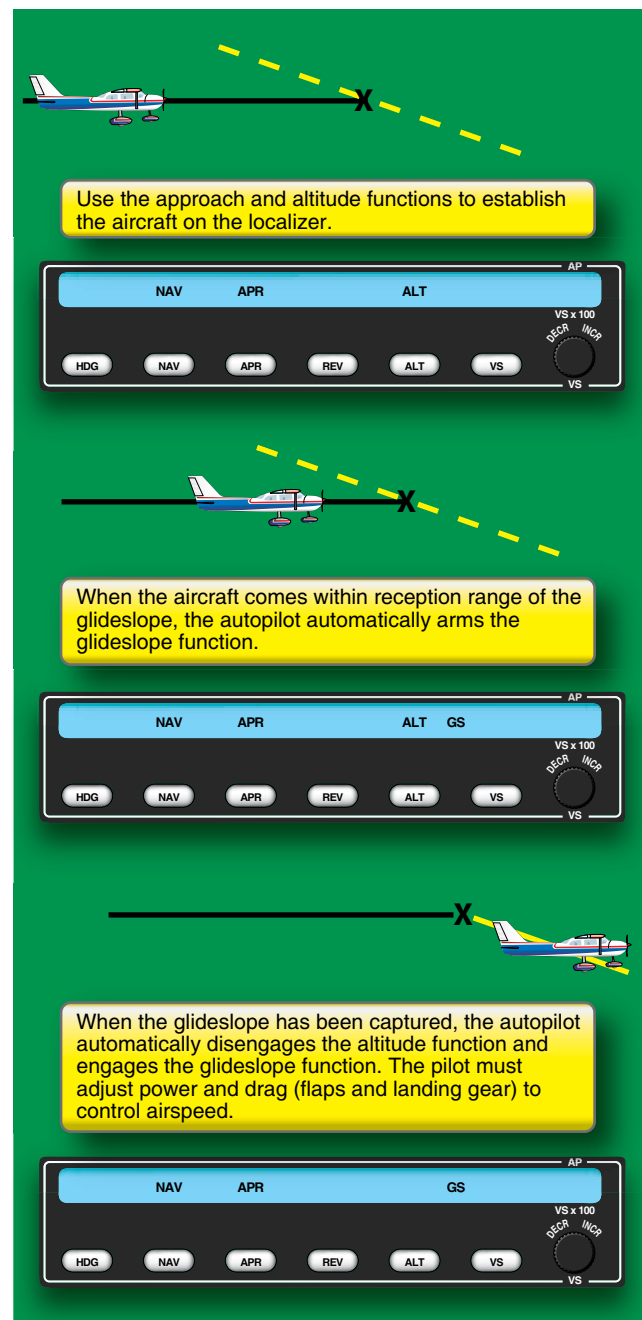**Figure 4-14.** *Flying a coupled nonprecision approach.*

functions of the autopilot are used in the same way to carry out the lateral and vertical guidance and control of the aircraft. This process is transparent to the pilot. Most "VNAV" functions do not qualify as approach vertical functions and many FMS/GPS units inhibit that function during approaches.

## Power Management

Since most autopilots are not capable of manipulating power settings, you must manage the throttle to control airspeed throughout all phases of the approach. The power changes needed during altitude changes must supply the necessary thrust to overcome the drag. The pilot must coordinate the powerplant settings with the commands given to the FD/autopilot. Remember, the FD/autopilot can control the aircraft's pitch attitude only for altitude or airspeed, but not both. The FD/autopilot attempts to perform as programmed by you, the pilot. If the climbing vertical speed selection is too great, the aircraft increases the pitch attitude until it achieves that vertical speed, or the wing stalls. Selection of an airspeed or descent rate that is too great for the power selected can result in speeds beyond the airframe limitations. Leveling off from a descent, without restoring a cruise power setting results in a stall as the FD/autopilot attempts to hold the altitude selected.

## Essential Skills

1.  Use the FD/autopilot to couple to a precision approach.

2.  Use the FD/autopilot to couple to a nonprecision approach.



**Figure 4-15.** *Flying a coupled precision approach.*

3.  Use the FD/autopilot to couple to an RNAV approach.

4.  Determine the power setting required to fly the approaches.

5.  Determine the power settings necessary for leveloff during nonprecision approaches and go-around power settings for both precision and nonprecision approaches.