

fix or closest fix outside the final fix, depending on the unit's programming. In the case of a vectors-to-final approach, activating the vector-to-final causes the FMS to draw a course line along the final approach course.

Once you have loaded and activated the GPS or RNAV (GPS) approach procedure, flying it is similar to flying between any other waypoints in a programmed flight route. However, you must be prepared for two important changes during the approach.

Terminal Mode

The first important change occurs when the aircraft reaches a point within 30 NM of the destination airport. At this point, regulations require that every GPS-based FMS/RNAV unit increase its sensitivity and integrity monitoring (receiver autonomous integrity monitoring, or RAIM, which continuously checks GPS signal reliability and alerts you if RAIM requirements are not met). If the system determines that RAIM requirements are met, the FMS/GPS RNAV unit automatically switches from en route sensitivity to terminal sensitivity within 30 NM of the destination airport. Terminal mode increases the sensitivity of the course deviation indicator (CDI) from 5 NM to 1 NM. The FMS/GPS RNAV displays an annunciation to let you know that it has switched from en route sensitivity to terminal mode.

Approach Mode

The second important change occurs 2 NM prior to reaching the final approach waypoint. At this point, the FMS/GPS

RNAV unit automatically switches to approach sensitivity. At this stage, the FMS/GPS RNAV further increases RAIM requirements, and increases the CDI sensitivity from 1 NM to 0.3 NM (i.e., a full-scale CDI deflection occurs if you are 0.3 NM or more from the desired course).

As long as the annunciation for approach mode is displayed, you may continue the approach. If, however, the computer fails to switch to approach mode, or the approach mode annunciation disappears, you must fly the published missed approach procedure. You are not authorized to descend further or to the MDA. Making changes to the FMS/GPS RNAV after reaching the 2 NM point could result in automatic cancellation of the approach mode.

Approach Not Active

If you arrive at the final approach waypoint and the approach mode is not active, you must fly the missed approach procedure. There should be no attempt to activate or reactivate the approach after reaching the final approach fix using any means—simply fly the missed approach procedure.

Vectored Approaches

As in conventional approaches, it is common for air traffic control to issue vectors to a GPS or RNAV (GPS) final approach course. Flying a vectored GPS or RNAV (GPS) approach is a simple matter of using the course intercept technique described in the previous section. The technique is illustrated again in *Figure 3-51*.

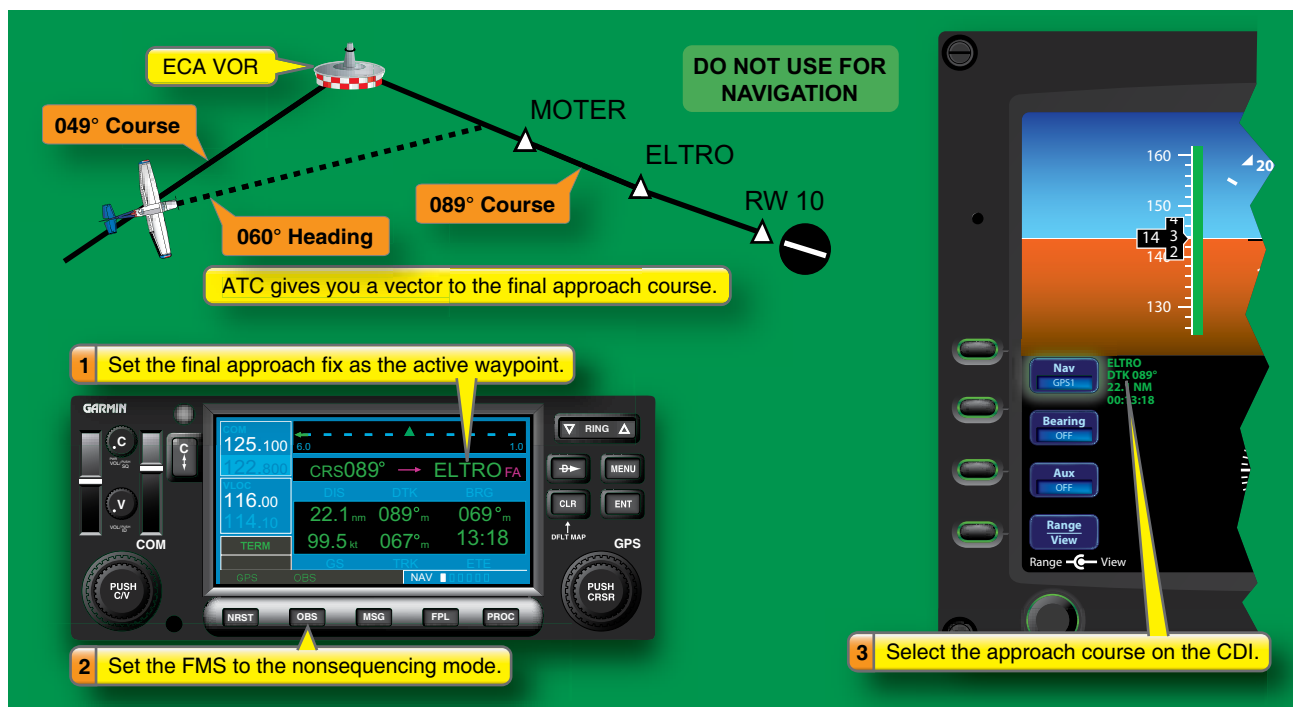


Figure 3-51. A vectored RNAV approach.