GPS 155/165 PILOT'S GUIDE ADDENDUM

1. ROUTE RAIM PREDICTION FUNCTION

The GARMIN GPS 155/165 software versions 3.09 and higher incorporate a change to add the Route RAIM Prediction Function (**RAIM prd**). This change evaluates the enroute RAIM availability over the entire route that the pilot intends to fly. This enhancement meets the minimum system requirements required to conduct BRNAV/RNP-5 Operations (FAA Advisory Circular 90-96).

1. From the Route Catalog Page (Figure 1), select the desired route for RAIM prediction (if the route is empty, enter the route first). Highlight the route action field, select **'RAIM prd'** and press **ENTER**. The Route RAIM Prediction Page will be displayed (Figure 2).

Figure 1. Route Catalog Page

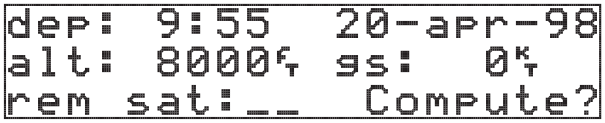

Figure 2. Route RAIM Prediction Page

2. Highlight and enter depart time, depart date, enroute altitude, and enroute ground speed. Press **ENTER** to accept.

NOTE

You may also enter the satellite ID number in the **'rem sat'** field for any satellite (1-32) which has been notamed as "out of service" during the flight, to exclude that particular satellite from participating in predicting the Route RAIM availability. If nothing is entered in the **'rem sat'** field, the unit assumes all satellites are usable.

3. When all of the parameters are properly entered, the **'Compute'** field will start flashing. Press **ENTER**. The unit will start to predict the RAIM availability over the entire route, and the flashing **'Compute'** field will switch to **'WAIT ->'**, with the arrow sign continually rotating, indicating that the prediction is in progress.

NOTE

The prediction function takes a certain amount of time, depending on the route distance and the enroute speed (i.e., 1000 nautical miles = approximately 2 minutes). The longer the route distance, the longer the time. The slower the enroute speed, the longer the time. Also, if there is a RAIM unavailability detected based on the associated requirement, the prediction process will stop immediately, and display **'NO RAIM'** as shown in Figure 3.

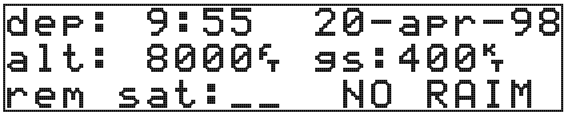

Figure 3. 'NO RAIM'

4. If the entire route has RAIM availability, it will take a longer amount of time to complete, and display **'RAIM OK'** as shown in Figure 4.

NOTE

'NO RAIM' does not mean RAIM is unavailable for the entire route. It is actually the outcome of detecting the RAIM unavailability for more than 5 minutes over the intended flight, based on the BRNAV requirements.

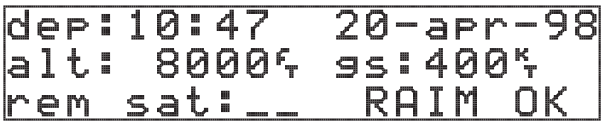

Figure 4. 'RAIM OK'

2. ROUTE SETTINGS PAGE (pg. 87, Pilot's Guide)

The GARMIN GPS 155/165 software versions 3.07 and higher incorporate a change which removes the **Route Settings Page** which allowed Automatic Leg Selection and Automatic Leg Sequencing to be enabled/disabled by the pilot.

3. APPROACH SELECT PAGE (pg. 66, Pilot's Guide)

GARMIN GPS 155/165 software (all versions):

An "unkn" (unknown) approach type is displayed on the Approach Select Page when the unit software does not know how to display a new approach type in the database. **DO NOT USE THIS APPROACH TYPE.**

4. CANCELLING PARALLEL OFFSET NAVIGATION (pg. 56, Pilot's Guide)

The GARMIN GPS 155/165 software versions 3.07 and higher incorporate a change which cancels parallel offset navigation when entering the 30 NM arrival approach circle (if an approach is present in the active route to allow approach to arm). The change also allows indication of "**approach not active**" if parallel navigation is re-instated after approach navigation has been armed.

5. I/O CHANNEL 2 SETUP PAGE

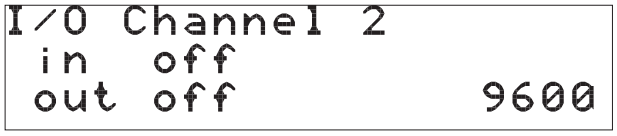

Figure 5. I/O Setup Page

The GARMIN GPS 155/165 software versions 3.07 and higher incorporate a change which adds the I/O Channel 2 Setup Page to the user-defined settings that are available. The I/O setup page lets you configure the GPS 155/165 to output to an RS-232 mapping device or a PC (with the optional GARMIN PC Kit or other mapping software) and select the appropriate baud rate. The I/O setup page only provides access to I/O channel 2 input/output. For information on using I/O channel 1, please see your GPS 155/165 installation manual. The input option for channel 2 is intended for future interfacing capabilities and is not a selectable option at this time.

To change the output settings for I/O channel 2:

1. Press SET and rotate ◯ until the I/O setup page is displayed.
2. Use ● to select 'off' or 'plotting' for output to an RS-232 device.
3. Rotate ◯ to advance the cursor to the baud rate field.
4. Use ● to select the desired baud rate (300, 1200, 2400, 4800, 9600).
5. Press **CRSR** to finish.

6. SID SELECTION (pg. 79, Pilot's Guide)

The GARMIN GPS 155/165 software versions 3.07 and higher incorporate a change which allows the pilot to select a SID from the nearest airport when the active route does not have a departure airport as the first waypoint.

7. OFF-ROUTE DIRECT-TO WAYPOINT (pg. 59, Pilot's Guide)

The GARMIN GPS 155/165 software versions 3.07 and higher incorporate a change which retains a direct-to waypoint as an off-route direct-to waypoint if a SID/STAR/Approach procedure waypoint is the active direct-to-waypoint when the procedure is deleted and only the airport associated with the procedure remains in the active route.

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