



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

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### **Attachment 14 – Collins Pro Line 21 Pilot's Guide**

# **OPERATIONAL FACTORS**

**ERA13MA139**

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### A. GO AROUND BUTTON

**Pilot's Guide  
Flight Guidance System**

**Pro Line 21 Avionics System  
For The Raytheon Premier I**

Operation of the SYNC switch resets the reference IAS/Mach to the current IAS/Mach (Autopilot not engaged).

When VNAV is the active vertical mode and the FMS is commanding FLC mode, the IAS/Mach reference is commanded by the FMS.

Engaging the Autopilot synchronizes the vertical speed reference to the current vertical speed.

When the reference is IAS, climbing through the transition altitude toggles the reference to Mach. When the reference is Mach, descending through the transition altitude toggles the reference to IAS.

Pushing the IAS/MACH button on the FGP toggles the IAS/Mach reference between IAS and Mach.

FLC mode is cleared upon manual selection or automatic capture of another vertical mode.

#### **Vertical Navigation (VNAV) Mode**

The VNAV button on the FGP is used to select VNAV mode (push-on/push-off). Selection is inhibited when vertical Approach capture/track state is active, or when Overspeed mode is active.

When VNAV is the active vertical mode, the system generates commands to follow the pitch command from the FMS.

Vertical approach arm takes precedence over VNAV arm (both arm states are not allowed at the same time).

#### **Go Around (GA) Mode**

Go Around mode is selected by pressing the throttle mounted GA switch. Selection is inhibited when Preselect Altitude mode is active, and when Overspeed mode is active.

Selection of Go Around mode disengages the Autopilot and activates both Flight Directors. The Yaw Damper remains engaged.

The Flight Directors display fixed 10° pitch-up and heading-hold commands. In flight, the heading reference is reset to the current aircraft heading. On the ground, the heading reference is continuously reset to the current heading.

Engaging the Autopilot clears Go Around mode.

Selecting another lateral or vertical mode clears Go Around mode.

SYNC switch operation clears Go Around mode and selects basic Pitch and Roll Hold modes.