

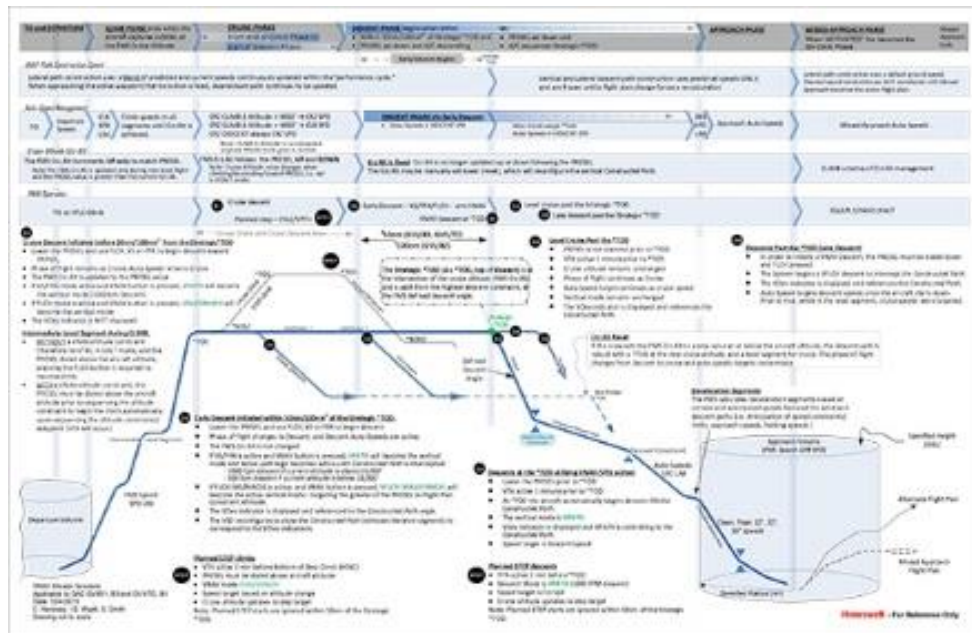
# Inside the FMS (NG FMS Vertical Navigation Graphic Representations)

## VNAV Logic

By David Rogers

Last year, Honeywell Flight Technical Services ran a five-part series on vertical navigation that included understanding VNAV concepts, modes, performance entries, and usage for all phases of flight. The series was focused around the NZ and EPIC Flight Management Systems (FMS) (see Direct-TO Newsletter archive for copies).

For those operating Next Generation FMS- (NG FMS) equipped airplanes (such as G-500/600/650), there are many changes to the VNAV architecture that add functionality while making the system more intuitive. Honeywell has detailed a specific graphical VNAV diagram for NG FMS that describes operational behaviors across all phases of flight. It addresses Strategic Top of Descent (TOD), early and late descents, cruise altitude, and other areas that previously may not have been clear to the pilot. This diagram, referred to as the “VNAV placemat” within Honeywell, is shown below.



**Gulfstream NG FMS VNAV Placemat**

The Gulfstream NG FMS VNAV placemat is now available for download by clicking the diagram above or by accessing it from the Virtual Classroom section on the [Honeywell Pilot Gateway](#).

To download from the Pilot Gateway:

1. Log in to the [Honeywell Pilot Gateway](#).
2. From the Home Page, click on the **Virtual Classroom**.
3. Click on the **Vertical Navigation** button.
4. Click on the **Learning Material** dropdown menu.
5. Select the **Gulfstream VNAV Mission Scenario** document.

Look for more material to be placed in the Virtual Classroom section of the Pilot Gateway in the upcoming year, including more information on FMS usage and VNAV functionality. Thank you for all the positive feedback.

Please contact [Honeywell Flight Technical Services](#) with any questions or operational issues.

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The Honeywell logo, consisting of the word "Honeywell" in a bold, red, sans-serif font.