

4) FMC

Most of us by now are familiar with how to program a route into an FMC and fly an advanced procedure with it. What Flight Simulator overlooks in its brilliant emulation of these FMC units is the intricate differences between the different types of FMC's available on the Boeing 757 and 767.

There are three different FMC's available for the aircraft

- 1) Basic FMC: has a basic database memory of 200k
- 2) PIP FMC: Product Improvement Program is essentially the same as the basic FMC, however, it has a database memory of 1 MB
- 3) Pegasus FMC: The Pegasus Advanced FMC has a navigation database capacity of 1-Meg and uses GPS updating in preference to DME-DME updating, thus maintaining a higher degree of accuracy than basic and PIP FMC's.

As you can see, the Pegasus FMC is the "best" available FMC for the aircraft type: all of the models that are available for flight simulator are modelled upon the Pegasus system.

In the above descriptions, I refer to "databases" which might seem a little odd for anything other than navigational data. The FMC's have two or three databases, however:

- Performance database
- Navigation database and, on Pegasus systems only:
- Airline Modifiable Information, AMI

The navigation database is known as an AIRAC cycle and is valid for 28 days from the start and end date that is displayed within the FMC. Pilots should always check the validity of their navigational data before a flight. The latest flight navigational database is available for flight simulator users through a pay ware service.

The performance database supplies all the necessary performance data to the flight crew. It supplies the FMC with the necessary data to calculate pitch and thrust commands. All necessary data can be shown on the CDU. The database includes:

- Drag and engine characteristics
- Maximum and optimum altitudes
- Minimum and maximum speeds

For General Knowledge Only...

The Pegasus FMC has a third database as earlier stated, known as AMI. AMI contains airline specific information on how the aircraft will behave in any given situation.