

MD80 DIGITAL FLIGHT GUIDANCE SYSTEM©

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Amongst all its many other attributes, the “DC-9 Super 80”/MD80 may be best known & remembered within airline industry technical organizations as having the very first integrated Digital Flight Guidance System installed on a commercial airplane. Each of the 2 individually-selectable MD80 Digital Flight Guidance System Computers (DFGC’s) incorporate auto pilot (with numerous previously-unavailable modes including auto land), flight director, and full-authority auto throttle functions, usable from takeoff to landing. Additionally, an Automatic Reserve Thrust System (ARTS) function (independent of the auto throttle function within each DFGC) boosts the thrust (energizes a solenoid on the engine fuel control unit) on the good engine in the event of an “engine out” during high power settings, such as during takeoff. The DFGC’s, as designed and supplied by Sperry (now Honeywell), also embody user-friendly Built-In-Test (BIT) capabilities; the BIT function removes much of the “mystic” related to avionics trouble-shooting by non-avionics-type airline maintenance technicians. Basically, one only has to learn how to push a couple buttons, observe the results, and take the action as presented on a display. Perhaps most importantly, the Digital Flight Guidance System installed on the MD80 was the predecessor, and set the standard, for all modern auto flight systems on today’s aircraft! Wow was it a privilege and pleasure of mine and our on-site team (Bart Bertetto, Larry Lewis, & Brent Gong) to get a taste of all of this while assisting in introducing the MD80 to PSA, the first American operator, during December of 1980!

Certainly MD80 pilots learned to love the capabilities and reduced work load afforded them by the Digital Flight Guidance System.



MD80 DIGITAL FLIGHT GUIDANCE SYSTEM (DFGS) CONTROL PANEL

