

Into the Glass Cockpit

By Capt. E. H. Swenson, USMC

What is the "glass cockpit"? Literally, it is a cockpit configured with digital instrumentation—dubbed Cockpit-21—in the Navy's newest jet trainer, the T-45C *Goshawk*. But more than that, the term "glass cockpit" has come to represent the future of primary flight and advanced jet training.

The digital cockpit replaces many analog presentations with two multi-function displays in each cockpit to provide navigation, weapons delivery, aircraft performance and communications data. Cockpit-21 also makes the T-45C the first training command aircraft to be equipped with a head-up display (HUD). The upgrade will allow students to transition more easily into operational jet aircraft by providing instrumentation and cockpit options so similar to fleet aircraft that students may forget they're in a trainer.

This summer, students at NAS Meridian, Miss., will be the first to use the T-45C's glass cockpit. Basically the same airframe as the T-45A, which has been flying at NAS Kingsville, Texas, since 1994, the "C" model *Goshawk* with Cockpit-21 brings Naval Aviation training into the next century.

The HUD is the same type used in the F/A-18 *Hornet*, F-14D *Tomcat* and AV-8B *Harrier*, with many of the same bells and whistles—including an inertial navigation system with embedded global positioning system. The glass cockpit allows the presentation of various displays and func-

tions as the flight regime demands or as the pilot desires. Because of the makeup of the new cockpit, future Naval Aviators will have a smoother transition to fleet aircraft when they begin fleet readiness squadron training.

New pilots will be better equipped to handle the advanced systems of the various fleet aircraft, because of their training in the glass cockpit. This will allow less time focused on basic operation of navigation systems and transition in cockpit style, and more time focused on learning tactics and employment of aircraft.

When the first T-45C class gets underway, Naval Aviation training



will take a giant step—into the glass cockpit—toward producing a more qualified nugget. 

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Top, the T-45C equipped with the "glass cockpit" made its initial flight on 21 October 1997. Above, the traditional analog cockpit looks outdated compared to the "fleet-look" Cockpit-21, right.

