

UPGRADES/RETROFITS

New Lives for F-5s from Northrop Grumman-Led Refurbishment

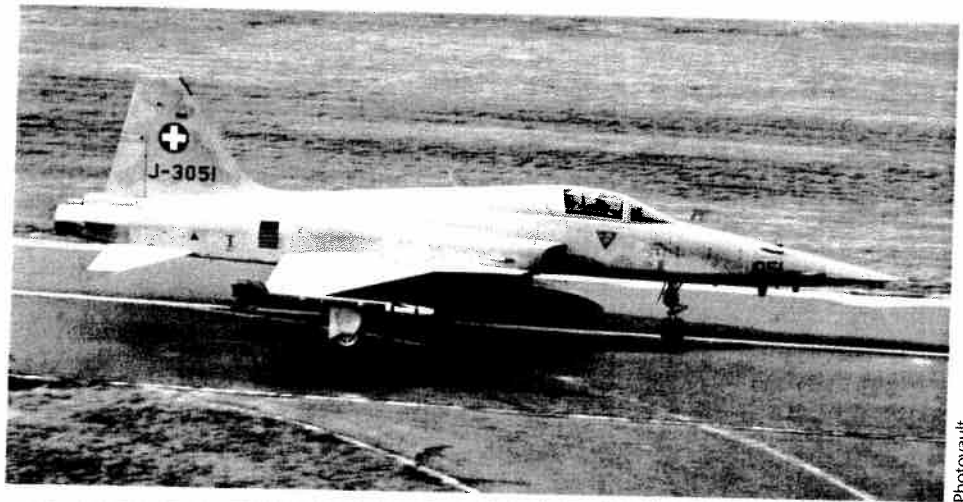
By John Fricker

In a rare case of the U.S. government repurchasing military equipment from previous customers, NAVAIR's Support and Commercial Derivative Aircraft Support Office Adversary Team recently detailed a six-year program to buy and refurbish 44 retired Swiss Air Force (SAFAAC) Northrop F-5E Freedom Fighters. According to U.S. Naval Air Systems Command at Patuxent River, Md., these will allow the Navy to fly in a dedicated adversary role until at least FY15. Each Swiss F-5E was airlifted from RUAG's plant at Emmen, Switzerland, to St. Augustine, Fla., in a U.S. Navy Lockheed Martin C-130T.

This reverse Foreign Military Sales program began in 2000, when the Navy needed to supplement its F-5E Tiger II adversary aircraft. As long-term F-5 operators, said U.S. Capt. James Wallace, Support and Commercial Derivative Aircraft program manager, the Swiss had surplus aircraft available. An agreement between the U.S. and Swiss governments was signed, for initial transfer of 32 single-seat SAFAAC F-5Es under the \$50 million F-5E Replacement Program.

The Swiss aircraft were manufactured with improved handling quality systems. Physical differences include a more pointed nose, modified wing leading-edge roots and automatic flaps, giving improved capabilities compared with U.S. F-5Es. "Switzerland's F-5s had very few flight hours and were in great shape," said Lt. Cdr. Jason Goff, U.S. Adversary and Commercial Air Services Deputy program manager.

"One F-5 was delivered to Northrop Grumman's plant in St. Augustine, Fla., every month to start



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the refurbishment process. We basically take one of our old F-5Es and a Swiss aircraft, and after five months' refurbishment we have a new F-5N. It made sense to refurbish the F-5s at Northrop Grumman's plant, where they were designed and built in the first place. They already do all our depot work and own all the drawings."

"In 2004, the Navy wanted to establish an Adversary training base in Key West, Fla. The Navy Reserve received funding to buy 12 extra jets," said Jay Bolles, Integrated Program Team lead for Adversary Aircraft in PMA-207. "We bought these from the Swiss, now totaling 44 aircraft, refurbished them with reserve funding, and could still meet original schedules."

NAVAIR's Support and Commercial Derivative Aircraft program office already is upgrading the Navy's F-5N adversary aircraft with 44 new LN-260 inertial navigation systems (INS), to save an estimated \$20 million in future costs.

Swiss Air Force Northrop F-5 Tiger

Funding for the \$6.1 million upgrade program is split between the U.S. Navy Reserve, which flies the F-5Ns, and the Support and Commercial Derivative Aircraft program office.

Also installed in U.S. Air Force F-16s, the LN-260 INS is produced by Northrop Grumman in Woodland Hills, Calif., and incorporates a cockpit display manufactured by Interface, Display and Controls, of Oceanside, Calif. The new INS and displays confer a multi-function touch screen capability, radar display, INS functions, embedded Global Positioning System, and a new fiber-optic gyro, with an estimated 5,000-hour operation between possible failures.

Installation work is under way at Northrop Grumman's facility in St. Augustine, Fla. Five F-5Ns are still being upgraded at the rate of about four per month, and will have the new INS installed during their conversion. ▀