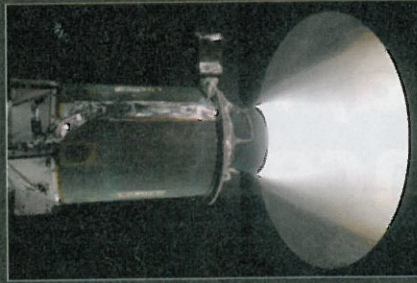


# INDUSTRY OUTLOOK

Edited by Patricia J. Parmalee

## ROCKET SCIENCE

The U.S. Air Force's Arnold Engineering Development Center (AEDC) is testing Stage III rocket motors used in the Minuteman ICBM series. The latest, conducted at the center's J-6 Large Rocket Motor Test Facility, was the 100th since the complex was completed early in the 1990s. The test is aimed at discovering age-related problems with this series of motors. The latest engine tested was built in 2000. AEDC and Northrop Grumman engineers are looking for degradation in ballistic performance and any structural problems. As active Minutemen missiles are replaced the tests will help to validate new-production rocket boosters already in the field. The center chiefly vets Minuteman Stage II and III, STAR 37 FM space, Peacekeeper ICBM Stage II and III and ORBUS 1A motors.



ARNOLD ENGINEERING DEVELOPMENT CENTER

## EC725s South of the Border

Eurocopter has sold six EC725 medium-lift helicopters to Mexico and is negotiating to build an industrial facility. Sale of the EC725s—for transport and civil security applications—was announced during a state visit last week by French President Nicolas Sarkozy. Mexico already operates EC225s, Super Pumas and Panthers, and a Mexican subsidiary supports more than 350 Eurocopter helicopters in Latin America. According to Mexican sources, construction of the plant could cost up to €550 million (\$688 million) and would be tied to an additional buy of six Panthers. Eurocopter declines to comment.

## Satcom Capacity Sales

The European Defense Agency will set up a procurement unit to coordinate purchase of commercial satellite communications services by European Union members for the EU's growing crisis management operations. The three-year pilot project—with an anticipated business volume of €30 million (\$37.5 million)—is intended to lead to a permanent unit. The move follows the recent decision to make Europe's new Multinational Space-based Imaging System (Muisis) an EDA project (*AW&ST* Mar. 9, p. 19).

## Shopping for Thales Shares

The European Commission has approved the proposed purchase of a 26.56% share in Thales by Dassault Aviation. The EC inquiry focused on space, civil/military aviation and mili-

tary flight simulators, where the two companies cooperate or have client-supplier relationships. The French government owns 38% of the voting rights in Thales and it jointly controls Dassault Aviation with the Groupe Industriel Marcel Dassault through TSA, a state holding company. The Dassault bid is awaiting approval by authorities in key nations in which Thales operates, including the U.K. and the U.S.

## ISR With Teeth

AeroVironment says it has completed an end-to-end demonstration of its Switchblade lethal small UAV. The 2-lb. man-portable, tube-launched Switch-

blade carried a video sensor and small warhead. In flight, the electrically powered air vehicle sends streaming video back to a hand-held controller. When a target is detected and designated by the operator, the UAV becomes a weapon, autonomously guided by a video tracker on to the target. The demo was funded by the U.S. Air Force Research Laboratory. AeroVironment says two other customers have now funded demonstrations of different applications of the Switchblade.

## Full Speed Ahead

NASA and the U.S. Air Force have named three national hypersonic science centers to conduct jointly funded research into materials and structures, combined-cycle propulsion and boundary-layer control for vehicles flying Mach 5 and faster. Each university/industry team will receive \$2 million annually for up to five years to conduct research and train hypersonic researchers. The University of Virginia will lead work on modeling supersonic/hypersonic flow physics and controlling combined-cycle mode transition. A Teledyne Scientific & Imaging team will study hybrid hierarchical materials with increased oxidation resistance and temperature capability. Texas A&M University will lead work on laminar-to-turbulent boundary-layer transition.

## ON THE MARK

AAI has flown a new Mark 4.7 version of its Aerosonde small unmanned aircraft, aimed at tactical and maritime endurance missions. The UAV, flight-tested last month at Yuma Proving Grounds in Arizona, retains the Mark 4.4's engine and avionics, but has a larger fuselage and wing and a multi-sensor payload combining electro-optical, infrared and laser rangefinder/designator capability. Endurance exceeds 12 hr., says AAI, adding that the new launch and recovery system allows space-constrained field and shipboard operations.

