



# **AIRSCOOP**

*Edited by Wendy Leland*



## SHARP Enters Development

The Navy accepted the first engineering and manufacturing development version of the Shared Reconnaissance Pod (SHARP), above, on 24 June. The SHARP system will provide high- and medium-altitude tactical reconnaissance capability for F/A-18 C and D *Hornets*, and is projected to deploy on board *Nimitz* (CVN 68) in mid-2003.

## Scramjet Engine Begins Testing

The Defense Advanced Research Projects Agency and the Office of Naval Research are developing a scramjet missile engine to cruise up to Mach 6. Unlike conventional rockets, which carry a mixture of fuel and

oxidizer internally, the new engine will need only conventional liquid hydrocarbon fuel and extract the oxygen needed for combustion from the air. The term “scramjet” is used to describe the engine’s supersonic combustion ramjet design, which follows the same principles as a ramjet engine in which air coming into an engine is compressed as it is forced through a narrow neck on its way to the combustion chamber, but at supersonic speeds. On 30 May at NASA Langley Research Center, Va., the engine reached Mach 6.5 at 90,000 feet altitude in simulated hypersonic conditions, marking the first successful ground test of a scramjet engine.

## New Simulator Joins the Fleet

Northrop Grumman delivered to the Navy the first of five Mobile Remote Emitter Simulators (MRES) for the Atlantic test ranges at NAS Patuxent River, Md. The simulator provides a single workstation that can generate virtually all of the threats that may be encountered in an air defense scenario, and can be easily towed to different locations. The MRES will be used to help train naval pilots and other personnel to identify and counter potential enemy missile or artillery threats, and to calibrate, test and validate the operation of electronic warfare systems.

**Opposite, a Helicopter Combat Support Squadron 6 CH-46E *Sea Knight* transfers cargo from *John F. Kennedy* (CV 67) to *George Washington* (CVN 73) at the conclusion of *JFK*’s service in support of Operation Enduring Freedom.**

## FIRE SCOUT TAKES OFF

The Navy’s RQ-8A *Fire Scout* vertical takeoff and landing unmanned aerial vehicle began its flight test program at Naval Air Weapons Station China Lake, Calif., on 19 May. The *Fire Scout* is a fully autonomous unmanned aerial vehicle designed to provide situational awareness and precision targeting support for the Navy and Marine Corps.



## Laser Eye Protection a Reality

Spectacles to protect against the threat of eye damage from antipersonnel lasers will soon be available to Naval Aviators. Developed by the Naval Air Systems Command Crew Systems Science and Technology Division at NAS Patuxent River, Md., the EDU-5P multiple wavelength laser eye protection spectacles can be utilized in fixed- and rotary-wing aircraft during both day and night operations. They are also compatible with night-vision goggles and heads-up displays.

## For the Record

The **X-31** thrust-vectoring demonstrator resumed flight testing on 17 May at NAS Patuxent River, Md., following a year of reconfiguration and ground testing.

On 14 June an F/A-18F became the **100th Super Hornet** delivered to the Navy.



Vernon Pugh

A 4 June test flight at NAS Patuxent River, Md., above, was the first for the MV-22 *Osprey* since the aircraft was grounded in December 2000.

The Navy accepted delivery of the **first production AIM-9X Sidewinder** missile during a 1 May ceremony at Raytheon facilities in Tucson, Ariz.

Under a \$10 million contract modification that runs through

FY 2004, Northrop Grumman will continue work on a **naval unmanned combat air vehicle**, including additional technology and risk-reduction studies such as modeling and simulation of autonomous flight operations from



Senior Airman Cheresa D. Clark, USAF

In the skies above *Wasp* (LHD 1), two Marine Medium Helicopter Squadron 261 (Reinforced) CH-53E *Super Stallions* prepare to refuel from a KC-130 *Hercules*.

# H-1 HELO UPDATE



Paul Davidovich



The Marine Corps' H-1 upgrade program is remanufacturing UH-1N "Hueys" and AH-1W *Super Cobras* into UH-1Y and AH-1Zs, which will share a common drive train, rotor head, tail boom, avionics, software and controls to achieve 84 percent commonality between the two airframes. Another common feature of the upgraded H-1s will be the TopOwl helmet-mounted display and cueing system, above right. Flight testing on both airframes reached milestones at NAS Patuxent River, Md. On 2 July an AH-1Z *Super Cobra* prototype passed 300 flight hours. The next day the UH-1Y made its first flight at Pax, above left. Right, Maj. Jeff Greenwood (left) and Bell test pilot Gregg Shimp depart the UH-1Y on the flight line following the successful first flight.



Paul Davidovich

an aircraft carrier.

## Mishaps

A Naval Strike and Air Warfare Center F/A-18A *Hornet* crashed at NAS Fallon, Nev., on 6 June. The pilot ejected safely.

A civilian was killed and a crew member injured when a UH-1N "Huey" of NAS Lemoore, Calif., made an emergency landing during a search and rescue hoist on 13 June.

A Marine Attack Squadron 231 AV-8B *Harrier II* crashed while operating from *Nassau* (LHA 4) in the Atlantic Ocean on 22 June. The pilot ejected safely.

A Helicopter Combat Support Squadron 4 MH-53E *Sea Dragon* was damaged when landing following a takeoff emergency at NAS Sigonella, Italy, on 27 June.

Two aircrew members were injured when a Marine Medium Helicopter Squadron 264 AH-1W *Super Cobra* crashed near MCAS Cherry Point, N.C., on 27 June.

A Helicopter Combat Support Squadron 2 UH-3H *Sea King* crashed on board *Cushing* (DD 985) and was lost overboard while operating in the Arabian Gulf on 5 July.

An F-14B *Tomcat* of Fighter Squadron 101 crashed in the Virginia Capes area on 8 July. The aircrew ejected safely.

Three Helicopter Antisubmarine Squadron H-60 *Seahawks* were damaged during a flight line incident at NAS Fallon, Nev., on 9 July. The

main rotor of a taxiing helo struck the turning tail rotor of a stationary helo, generating debris which damaged another aircraft.

Two Marine Medium Helicopter Squadron (Reinforced) 166 CH-53 *Sea Stallions* were damaged during a flight line incident in Singapore on 16 July. The main rotor of a taxiing helo struck the turning rotor of a stationary helo, generating debris which struck and killed a civilian.



Larry E. Conley

Left, Naval Air Depot Cherry Point, N.C., airframe mechanics test the hydraulics on an AH-1W *Super Cobra* participating in the Integrated Maintenance Concept. Most recently instituted at MCAS Futenma, Okinawa, the IMC allows preventive maintenance to be performed on a more regular basis at less cost than standard depot-level maintenance. The AH-1W was the first Marine platform to integrate the new maintenance concept.