

services business and created new divisions, particularly Unmanned Airborne Systems, to respond to shifting defense budgets. Despite the name change, the current operating units within BDSS will remain the same: Boeing Military Aircraft, Network and Space Systems, and Global Services & Support. But the realignment includes consolidation of Combat Systems—and Command, Control & Communications Networks—into a new Network and Tactical Systems Div. within BDSS. The realignment includes a number of new assignments at the vice presidential level.

GPS Set for Transition

The Global Positioning Systems Wing and the 50th Space Wing at Shriever AFB, Colo., will bring improved ground systems software for telemetry, tracking and command to support the USAF's GPS on Jan. 11. The upgrades include new navigation signals for civil users, encrypted military codes, crosslink enhancements and improved navigation signal accuracy. They anticipate mid-2010 launch of the first of 12 GPS-IIF satellites from Boeing.

Cyber Ready

The 24th U.S. Air Force, the service's newest numbered force for cyber-operations, has been declared "ready" after a major command readiness assessment by an Air Force Space Command

inspector general team. A USAF statement Jan. 4 said the goal was to evaluate the force's ability to conduct USAF network operations, as well as command and control of the service's network. The 24th was stood up Aug. 18, 2009, and came into being after a massive cyber attack in late 2008.

ITT Defense Re-Org

ITT Corp. last week announced a restructuring. A new division, which represents areas with about \$6.5 billion in annual sales, will include three components: Geospatial Sensors will subsume areas including digital and analog sensors and the night-vision business; Electronic Systems will comprise the networked communication and electronic warfare businesses; and Information Systems will address the "sharing, collation, fusion and timely, secure application of the vast amounts of information made available by more integrated networks," a company official says. This area will be postured to address the government's growing need for cyber security.

New Name for Sensor Unit

Lockheed Martin says it will expand its Systems Integration-Owego (N.Y.) unit under the name of Mission Systems & Sensors. Abbreviated MS2, the unit is one of three operating companies within its Electronic Systems Business Area

for naval operations, including a Ship & Aviation Systems Div. as a new unit.

Tougher Panthers for Brazil

Brazil has awarded Eurocopter subsidiary Helibras a contract to modernize 34 AS365K Panther helicopters for army troop transport and light support. The upgrade includes reconstruction of two aircraft and installation of more powerful Turbomeca Arriel 2C2 engines with full authority digital engine control, Rockwell Collins Pro Line 21 glass cockpit and 4-axis autopilot. Deliveries will take place from 2011-21.

Progress on Joint BMD

Lockheed Martin has completed two-thirds of the preliminary work leading up to a critical design review in August for the Medium Extended Air Defense System (Meads), says Mike Trotsky, the company's vice president for air and missile defense. Armaments directors for Germany, the U.S. and Italy have reaffirmed their commitments to the joint development program, though Germany has requested integration of its IRIS-T interceptor into the architecture. A contract is expected this year.

WGS 4 Plus Delta IV

USAF has selected a United Launch Alliance (ULA) Delta IV to boost the fourth Wideband Global Satcom (WGS) into orbit. Launch of the Boeing-built

WISE SPACECRAFT CAPTURES FIRST (INFRARED) LIGHT

California Institute of Technology controllers are calibrating NASA's Wide-field Infrared Survey Explorer (WISE) spacecraft, after commanding its telescope cover to open and using the instrument to capture this first-light image of about 3,000 stars in the constellation Carina.

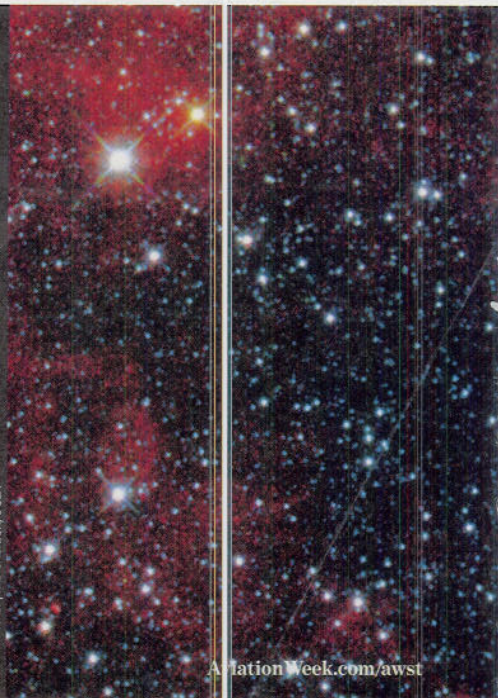
"Right now, we are busy matching the rate of the scan mirror to the rate of the spacecraft, so we will capture sharp pictures as our telescope sweeps across the sky," says William Irace of the NASA Jet Propulsion Laboratory, the mission project manager.

WISE uses an internal scanning mirror to counteract the spacecraft's motion in orbit, directing light into the 40-cm. telescope's collecting mirror to produce freeze-frame images

every 11 sec. and relying on a block of frozen hydrogen to keep its detectors chilled as low as 8K (-445F) for maximum infrared sensitivity.

Launched on Dec. 14, the new spacecraft will spend the next 10 months surveying the entire sky in four wavelengths, producing a map that will guide higher-resolution space telescopes for decades to observe objects as diverse as distant ultra-luminous galaxies where new stars are being born, and previously unseen brown-dwarf stars that may be the closest stellar objects to the Sun. WISE also may help spot potentially dangerous near-Earth objects (NEOs) as it picks out the reflected heat from tens of thousands of asteroids in the main belt between Mars and Jupiter.

The hydrogen should last about 10 months, giving the instrument enough sensitivity to



satellite is expected between December 2011 and February 2012, according to ULA. Three WGS have been launched into orbit so far. The most recent was lofted Dec. 5, 2009, also on a Delta IV.

EUROPE

R&D Decline

European defense research and development investment has fallen by nearly €1 billion (\$1.4 billion) according to the European Defense Agency, a finding that only serves to bolster industry fears of a continuing downward trend. The EDA figures released recently reveal that R&D expenditures among the 26 member states dropped by 9.5%. European spending continues to fall far behind that of the U.S., with Washington spending almost seven times as much. EDA figures show that in 2008, collective R&D expenditure fell to €8.6 billion from €9.5 billion in 2007. R&D investment is also concentrated mainly in France, Germany and the U.K.

Mods for Merlins

The U.K. is considering modifying surplus AgustaWestland Merlin Mk1 helicopters as the basis for a replacement airborne search and control (ASAC) platform for the navy's current Sea King Mk7, which is due to be withdrawn from service in 2016. A deci-

sion on whether to pursue converting spare Merlin Mk1s for the ASAC role is "subject to the [Strategic] Defense Review and investment approval," Bill Rammell, the minister for the armed forces, told Parliament last week.

Not Now

Ryanair says it is not looking to mount a third takeover attempt of Aer Lingus, in which it holds a 29.8% stake. With Aer Lingus's share price continuing to sag, there has been an expectation that Ryanair may use its cash cushion to take over the Irish carrier. But Ryanair says nothing is in the works and as long as the Irish government retains its 25% stake, another takeover bid is "highly unlikely."

Time To Talk

British Airways and its cabin crew union are talking to resolve their disagreements over contract terms and avoid a potential strike. A court last month invalidated the union's strike ballot just before a 12-day walkout was planned over the Christmas holiday period. The union had threatened to seek another strike mandate, but has now entered negotiations under the auspices of the Trade Union Congress.

Financing Deal for Mubadala

A recent engine acquisition and maintenance deal with Air Berlin worth several hundred million dollars

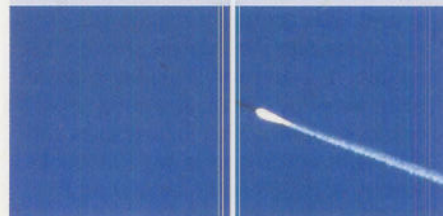
detect infrared light reflected even from dark NEOs (*AW&ST* Nov. 30, 2009, p. 61). That may help NASA meet a congressional requirement to track 90% of all NEOs as small as 140 meters in diameter. In its upcoming final report, a National Research Council committee is likely to urge funding for dedicated assets to track the small NEOs, which have the potential to cause "a very significant threat to life on Earth if they strike in or near urban areas."

Meanwhile, the panel in its interim report found WISE "inherently less biased against discovery of low-albedo objects than are optical surveys." But the panel warned that the new spacecraft "is not a stand-alone NEO survey and requires coordination with other surveys to make full use of its data."

IRON DOME SCORES TEST SUCCESS

Israel's Iron Dome counter-rocket system has taken a small step toward fielding by successfully intercepting salvos of 122-mm. Grad-type rockets in a series of tests on Jan. 5-6.

It was the first time Israel tested the whole

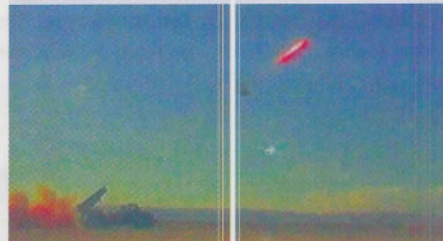


Iron Dome system, consisting of Rafael fire control and launchers, and the multi-mission radar developed by Israel Aerospace Industries' Elta unit. The trials complete the development stage of the system, which will



be delivered to Israel's Air Defense Corps within weeks. A first battery of the Iron Dome will be deployed near the Gaza Strip in May.

The Iron Dome is designed to counter rockets from a range of 4-70 km. (2.5-44 mi.), such as the Palestinians' indigenously



developed Qassam, Grad-type rockets and Iranian Fajr rockets deployed in Gaza and in Lebanon by Hezbollah. The system is based on a unique hit-to-kill interceptor with a low-cost radar seeker for terminal guidance and advanced warhead. Rafael is also marketing the system to international costumers.

