Professional Reading

"Space Notes" excerpts professional articles of interest to Space professionals. The section will attempt to present a broad spectrum of newsworthy items, with references to the full article for those who wish to read further. Suggestions and submissions for this section are solicited, and should be forwarded to the Managing Editor at richard.burks@smdc-cs.army.mil.

Analysis: Missile Defense Semantics

by Pamela Hess, UPI Pentagon correspondent
Washington DC (UPI) Jan 17, 2005

With the failure of the latest test of the U.S. national missile defense system in December, the Pentagon seems to now be engaged in semantic gymnastics, declining to say whether the system is operational or not, and suggesting it never promised it would be.

President George W. Bush kicked off a serious — and expensive — efforts to deploy the national missile defense system in December 2002, shortly after he withdrew the United States from the 1972 Anti-Ballistic Missile Treaty that had been arranged with the Soviet Union.

Bush heralded the system, but downplayed it at the same time, setting expectations low. It would be a "modest" system that would "serve as a starting point for improved and expanded capabilities later."

Expected Patriot Sale Panics Pakistan

by Anwar Iqbal, UPI South Asian Affairs Analyst
Washington DC (UPI) Feb 21, 2005

Pakistan is expected to take up with the U.S. administration the expected sale of Patriot missile defense system to India, diplomatic sources told United Press International Monday.

A U.S. defense team began briefing Indian officials in New Delhi Monday on the Patriot missiles. In Washington's diplomatic circles the visit is seen as a prelude to the sale of the advanced capability anti-ballistic missiles to India.

"It's a serious development and comes into conflict with the existing nuclear deterrence in the Subcontinent," said a South Asian defense expert familiar with the system.

Since the May 1998, when both India and Pakistan tested their nuclear devices, there exists an undeclared balance of power in the Subcontinent based on the fear that a clash between the two nuclear-armed neighbors could lead to the destruction of both.

But the Patriots, which can bring down an incoming missile, can seriously tip the balance in India's favor, making Pakistan vulnerable.

"If the Patriots are delivered to India, it will seriously imbalance Pakistan's strategic capabilities and can trigger an arms race in the Subcontinent," said the South Asian defense expert.

"The Pakistanis will need to do some soul searching to determine what effect it will have on their strategic defense," said the expert.

When asked what Pakistan could do to meet the threat posed by the expected sale of Patriot missiles to India, the expert said: "Pakistan will have to acquire counter-capability. This new development will tip the balance in India's favor unless it is redressed."

"They will take up the issue with the Americans," said the expert when asked what could be Pakistan's immediate response.

Sources in Washington say that the Bush administration gave clearance for a classified technical presentation of the system to India as part of the Next Step in Strategic Partnership agreement initiated by the two countries last year.

The sources said the decision to give a classified briefing about the Patriot system to India was taken during the first phase of NSSP that concluded in October.

The NSSP envisages cooperation in what is known as the "quartet issues" — civilian Space and civilian nuclear fields, hi-tech trade and missile defense.

The conclusion of the first phase of NSSP was marked by the U.S. partially easing export controls on supply of equipment and technology for India's Space and nuclear programs.

Wireless Networks: Open To Stealth Attacks

by Charles Choi
Washington (UPI) Feb 22, 2005

Wireless networks could link up police on the streets, soldiers in the battlefield and rescue workers in disaster zones, but computer scientists warned they remain dangerously vulnerable to stealth attacks.

"An attack might be a terrorist who wants to disconnect emergency crews from each other and make his physical attack more effective, or a criminal who wishes to disconnect members of police in their efforts to chase him," said researcher Markus Jakobsson at Indiana University in Bloomington. Such an attack also "could hijack normal traffic for corporate espionage or identity theft."

Jakobsson and colleagues are developing the digital equivalents of magic envelopes and invisible ink that promise to protect cell phones and laptops against these attacks.

"We hope to have a version in a few months," Jakobsson told United Press International.

Israel redevelops top-of-range spy satellite

JERUSALEM (AFP) Feb 23, 2005

Israel is redeveloping its top-of-the-range Ofek 6 spy satellite after its prototype crashed into the sea nearly six months ago, the top-selling Yediot Aharonot daily reported Wednesday.

Ofek 7, under development by Israel Aircraft Industries (IAI), will use a perfected radar system enabling it to identify objects from a distance of 400 to 600 kilometers (up to 370 miles) by night or day, and regardless of weather conditions. Ofek 6 did not possess those capabilities.

The innovative system, which is known as a synthetic aperture radar (SAR), is similar to the radars installed on fighter planes and drones, the paper said.
"This satellite will provide us with 24-hour surveillance of enemy countries," one of the project heads told Yediot.

Space Race 2: NASA Ups The Space-Ride Ante

Irene Mona Klotz
Cape Canaveral FL (UPI) Feb 22, 2005

Back in the heady days of commercial Space, when start-up rocket-launch services firms sprang like spring flowers in response to what looked like a robust market for placing small communication satellites into orbit, Kistler Aerospace Corp. was riding high.

With private financing, a high-powered and well-connected management team and accomplished engineers, the firm, in Kirkland, Wash., was widely regarded as a front-runner in the race to develop an alternative Space transportation system.

Lured by the prospect of launching satellites for mobile communication networks such as Iridium and Globalstar, Kistler developed a two-stage reusable rocket it called the K-1 and announced plans to build launch complexes in Woomera, Australia, and at the U.S. military's Nevada Test Site, located 60 miles north of Las Vegas.

The company caught NASA's eye as well. Back when the agency was still enamored with the idea of reusable launch vehicles — an interest that consumed billions of dollars in a series of projects ultimately dispatched to the agency's inactive files — Kistler's concept seemed ahead of its time.

Not only would the K-1 be able to haul about 7,000 pounds to an orbit as high as the International Space Station's, but it also could be loaded with cargo and returned to Earth.

Japan's Return To Space Delayed By Bad Weather

Tokyo (AFP) Feb 22, 2005

Japan's Space agency Tuesday postponed the launch of a domestically developed rocket, which is due to mark Tokyo's return to the Space race after a flop in 2003, because of bad weather.

The H-2A rocket, carrying a multi-function satellite that can monitor weather and navigate aircraft, was scheduled to lift off Thursday evening from the Tanegashima Space Center in southern Kagoshima prefecture.

"We will postpone the scheduled launch to February 26 or later due to bad weather," said a spokeswoman for the Japan Aerospace Exploration Agency.
"The new launch date will be announced at a later date," she said.

The Tanegashima region will experience rain and strong winds on Thursday, but fine weather is expected for Saturday through early next week, according to the Meteorological Agency.

Japan has sent up five H-2A rockets successfully, but suffered a setback in November 2003 when it had to destroy the sixth H-2A rocket just 10 minutes after lift-off.