



ALASKA MISSILE DEFENSE WEEKLY (Thirty-Sixth Edition)

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ALASKA SPECIFIC NEWS BREAKS #36

NOVEMBER 4, 2002-NOVEMBER 8, 2002

SYSTEM-LEVEL MISSILE DEFENSE, [Armed Forces Journal](#), November 2002. In an exclusive interview with AFJ three days [after IFT-9], Gen. Kadish described the full-layered defense system that the Defense Department, now freed from Anti-Ballistic Missile treaty testing restrictions, is developing and a corresponding change in management approach that he has implemented. Flight test program: ... "We've been saying all along that we're going to 'walk before we run.' We're making the interceptor flight tests a little more complex each time we do one. But we clearly have established confidence in hit-to-kill technology at these speeds of intercept..." Layered defense

system: “From a conceptual standpoint, what we envision is that, if a threat missile was launched, we would have an opportunity-perhaps multiple opportunities-to intercept it in the boost phase of flight before it releases its warhead...If we were unable to do that, we would launch multiple attacks on it in its midcourse phase. Should it penetrate our midcourse layer, eventually we would have a terminal layer that would protect regions of the U.S. or other territory that we were defending... Benefits of U.S. withdrawal from the ABM treat: ...“With the treaty’s demise...we can test sea-based and boost-phase missile-defense technologies - mobile systems - against threat missiles of all ranges and not get into a fine distinction of what falls under the treaty and what doesn’t...” Restructuring the program earlier this year: “...The major change that’s occurring is that we are having to put resources into systems engineering in order to make this a layered defense systems. So we are transitioning from an element-centric-management, technology-demonstration effort into a full R&D multi-layered complex system development...”

Activities in Alaska: “...We always wanted to get to a point where we could test different geometrics and have the latency requirements that long-distance operations from different linked sites would always give us, because we can never be sure - although our models would tell us a lot about it - until we hooked it up that is would work as designed...When we had the opportunity...we put together a test bed [road map] that includes almost the entire Pacific Range, encompassing Fort Greely, Kodiak, Vandenberg Air Force Base, Kwajalein and other area, so that we can expand the test envelope and do many different things, not only for the ground based, long-range target intercepts but for multiple intercept ranges...” Sea-based missile defenses: “The Navy midcourse defense program...is performing very well and is a key party of our planned layered defense system. Our first two intercept tests, as limited as they were in their objectives, were very successful, hitting the target twice in a row...” Airborne Laser: “The revolutionary potential of having a high-energy laser perform the ballistic missile defense mission is absolutely stunning...It’s a tough job, but we’ve come a long way...We have very high hopes that in the next two to three years we will demonstrate – for the first time in history - destroying a ballistic missile in its boost phase with a high-energy laser.

MDA PLANS FOR FIRST FLIGHT OF MISSILE DEFENSE INTERCEPTOR LATE NEXT YEAR, Defense Daily, November 4, 2002. The Missile Defense Agency (MDA) late next year hopes to start flight tests of the actual interceptor it plans to use for its Ground-based Midcourse Defense (GMD) program, Air Force Lt. Gen. Ronald Kadish, director of MDA, said last week. For all of the GMD test flights to date, MDA has been launching a Raytheon kill vehicle on a prototype payload launch vehicle...Under the new booster development program, Orbital Sciences is building a new second booster and Boeing turned over its work on the COTS booster to Lockheed Martin. Lockheed Martin initially tried to push a Minuteman-derivative booster, but that

was ruled out as an option. Boeing, in its role as GMD lead systems integrator, will assess the two latest booster options and present recommendations to MDA for a down select as early as this spring. Currently, the plan calls for incorporating the new booster into the 2004 Fort Greely, Alaska, testbed and then continue to upgrade those boosters with performance upgrades...Orbital based its vehicle on a derivative of its flight-proven Pegasus, Taurus and Minotaur space launch vehicles. The Boeing COTS booster that was taken over by Lockheed Martin consists of a graphite epoxy motor from Alliant Techsystems. The second and third stages of the rocket are both United Technologies Orbus II stages.

ICBMS USEFUL IN RETIREMENT, Space and Missile Defense Report, November 7, 2002. In a talk given to industry representatives, Air Force Col. James Neumeister, who commands Detachment 12 of the Space and Missiles Systems Center, said retired intercontinental ballistic missiles (ICBM) have many uses. As one of its major responsibilities, Detachment 12 manages retired ICBMs under the Rocket Systems Launch Program (RSLP), he explained. "Think of everything and anything to be done with retired ICBM assets. We do the storage in environmentally controlled conditions; we do the aging surveillance where we pull them out and we X-ray those motors and do test firing of them. And then we do the refurbishment and the buildup of those motors into space launch vehicles and target launch vehicles to satisfy the needs of our customers." Neumeister said... Neumeister added that the Missile Defense Agency is one of the detachment's primary customers in this area. Mentioning recent successful launches, Neumeister cited the Quick Reaction Launch Vehicle-2 (QRLV-2) that was launched out of Kodiak Island, Alaska, in April, and Test Target Vehicle-4 supporting Navy Theater Wide launched in June. For Integrated Flight Test-9, in support of the Missile Defense Agency, RSLP launched a successful target and provided the boosters for the interceptor's successful intercept. The IFT-10 target and its interceptor are slated for launch in early 2003, as is the Aegis BMD target. Neumeister said that adds up to two launches scheduled to be performed by RSLP, plus RSLP providing a motor set for the IFT-10 interceptor "It's a very busy schedule," Neumeister said, "with a lot of customer funding primarily from MDA that pays for the work that we do in RSLP."

GLOBAL NEWS BREAKS #36

MONDAY, NOVEMBER 4, 2002

MISSILE DEFENSE "SHAKEUP" SEEN IF DEMOCRATS CONTROL

CONGRESS, Aerospace Daily, November 4, 2002. Democrats likely will try shifting missile defense funds from early development efforts to mature programs if the Nov. 5 elections give them control of both the House and Senate, according to congressional

sources. Programs that could suffer from a Democratic takeover include the Space Based Laser (SBL) and the sea-based and space-based boost-phase interceptor programs, all of which are a long way from being deployed, sources said in recent interviews... Democrats have argued that limited resources should be directed toward systems that are most likely to be fielded soon. Republicans have countered that promising technologies should be funded even if they will not yield results for many years. Some changes in President Bush's missile defense budgets already have been made since the Democrats took control of the Senate in 2001... But controlling both chambers of Congress could allow Democrats to make even more changes... If Democrats win the House but lose the Senate, their ability to change Bush's missile defense proposals might be increased slightly, because majority status in the House is less susceptible to minority party resistance than in the Senate. If Bush's party wins back the Senate and keeps control of the House, it is expected that his missile defense efforts will encounter few serious obstacles.

SINCE GULF WAR, ARMY HAS IMPROVED SCUD-KILLING, Defense Week, November 4, 2002. In the 11 years since the Gulf War, the Army has made "fairly remarkable" improvements in countering the ballistic-missile threat to ground forces, a top general said last week. From finding and destroying missiles before they launch to warning soldiers when they launch to intercepting them before they land, the service has made great strides, said Lt. Gen. Joseph Cosumano, commander of Army Space and Missile Defense Command, or SMDC, which is responsible for fielding Army tactical antimissile systems... Allied intelligence agencies say Iraq has perhaps two dozens Scuds, and the Al Samoud, a modified SA-2, with a range of less than 150 kilometers... "Since Desert Storm, the Missile Defense Agency has researched, developed and turned over to the Army more than 300 Patriot PAC-2 Guidance Enhanced Missiles, which have destroyed Scud missile targets in tests," said an official with the Missile Defense Agency, or MDA. The Patriot's radar and battle management have also been upgraded, and the Army has begun fielding yet another upgrade, the "hit to kill" PAC-3 interceptor, which destroys threats by high-energy impact, not by blowing up a warhead nearby... Israel has held several exercises with the United States to coordinate the missile systems, and with U.S. funds has developed the interceptor for the Arrow Weapon System, an anti-ballistic missile system now deployed in Israel. During Desert Storm there was no way for ground forces to get a direct satellite warning that a threat missile was launched, or know which portion of the battlefield was affected... From those concerns came the Joint Tactical Ground Station, or JTAGS, Cosumano said... Once a missile launch has been detected, the impact point is refined and determined among a series of grids laid out on a theater map, he said... There's been a lot of progress over the past decade, Cosumano said. "Do we still need to do better than we have done? Yes. Is it difficult to locate and destroy missile threats on the ground? It's difficult, but we've had a lot of advances in technology."

HARD TO SOLVE, Defense Daily, November 4, 2002. While MDA is getting a better handle on defeating potential countermeasures, that problem will not go away any time soon, according to Air Force Lt. Gen. Ronald Kadish, director of MDA. “The countermeasures problem is always going to be with us,” he says. “It’s inherent in any military system.” Kadish also says as testing becomes more rigorous in the overall missile defense program, MDA will be even more secretive about its use of decoys in testing. Earlier this year, MDA decided to classify specifics about the balloon decoys used in the Ground-based Midcourse Defense flight tests. While the details will be secret, Kadish says MDA will be doing “a lot more testing of more capabilities in our kill vehicles and sensors” in upcoming tests.

U.S. AND RUSSIA NEAR ACCORD ON MISSILE EXPERIMENT, CQ Monitor News, October 31, 2002. Lt. Gen. Ronald Kadish, chief of the Pentagon’s anti-missile program, told reporters Thursday that U.S. and Russian negotiators are nearing agreement on a joint missile defense experiment that had been a bone of contention between the Clinton administration and a leading congressional advocate of anti-missile defense. Using two Russian-launched satellites equipped with detection equipment from both countries, the so-called RAMOS project is intended to collect data on missile launches that could be used to design future missile tracking satellites. For years, House Armed Services Committee member Curt Weldon, R-Pa., has promoted the project. In addition to producing important technical data, Weldon argues, the project is a valuable political signal that the U.S. anti-missile program is not aimed at Russia but at rogue countries trying to develop missiles to carry unconventional warheads that could threaten both the United States and Russia...Negotiations on the technical agreements needed for the project to go ahead recently have shown progress, and the space experiment is slated for 2006...According to Missile Defense Agency spokesman Lt. Col. Rick Lehner, there is still no timetable for concluding the RAMOS agreement. “But we are on the path,” he said.

LIBYA SEEKS NEW CAPABILITIES, MISSILE DEFENSE CHIEF WARNS, Army Times, October 31, 2002. Libya is keen to acquire short- and medium-range ballistic missile capability, Air Force Lt. Gen. Ronald Kadish, director of the Pentagon’s Missile Defense Agency (MDA), said. “The Libyans have been active about getting missile capability, not just short-range,” Kadish said during a breakfast meeting with reporters Oct. 31. “They have enough money to buy it.” After trying to build their own capability, Libya now thinks “their indigenous capability is not as good as they thought it was,” Kadish said. Citing classification rules, Kadish declined to elaborate about who Libya might buy missiles from or how soon. Because the administration of President George W. Bush wants to develop anti-missile systems based on capabilities rather than specific threats, the MDA tracks emerging missile threats throughout the world in order to develop a broad range of defenses, Kadish said.

TUESDAY, NOVEMBER 5, 2002

MDA STILL ASSESSING POSSIBLE DATE OF ABL SHOOTDOWN TEST, KADISH REPORTS, Defense Daily, November 5, 2002. The Missile Defense Agency (MDA) and the Air Force are continuing to integrate and test components of the Airborne Laser (ABL) but have no firm date when the system will demonstrate its ability to shoot down a target, Air Force Lt. Gen. Ronald Kadish, director of MDA, told reporters last week. While MDA and the Air Force are still aiming for the first shootdown test of the ABL in 2004, Kadish said the certainty of the date is in flux at least until completion of ongoing hardware integration and laser lab tests over at least part of next year... Kadish also confirmed the ABL team is grappling with some problems concerning the aircraft's weight. While the overall weight of the system is not a problem, Kadish said too much weight currently is distributed in the back portion of the plane...The ABL team is currently addressing that issue and making the necessary adjustments, according to Kadish...The team also is proceeding toward the "first light" of the laser module in the laboratory setting, he noted. A shootdown test of the ABL could follow about four to five months after that testing is complete, he added. "This is revolutionary technology to put together, so we'll inevitably have problems...but we're not saying this can't be done," Kadish said.

JAPAN'S DEFENSE CHIEF BACKS U.S. MISSILE SHIELD, Associated Press, November 5, 2002. Japan's defense chief backed the country's right to participate in a potential U.S. missile shield, saying it was in line with Japan's pacifist constitution, an official said Tuesday. "Japan is committed to an exclusively defensive security system. The (U.S.-Japan) missile defense program is in accord with this commitment," Defense Agency spokesman Ichiro Imaizumi quoted Japan's top defense official, Shigeru Ishiba, as saying...Japanese critics argue that the program could clash with constitutional restrictions on Japan's ability to aid allies under attack. Many in other countries say the program may prompt an arms race. Tokyo has so far kept a neutral stance on the issue, indicating it would make a decision by 2003 or 2004. But Ishiba - who replaced his predecessor just over a month ago - has been more vocal in leaning toward a commitment.

MARSHALL ISLANDS, MICRONESIA WANT MORE U.S. AID, Pacific Business News (Hawaii), November 4, 2002. The Federated States of Micronesia and the Marshall Islands have decided to sign a 20-year, \$3 billion foreign aid agreement with the State Department, but will then ask the U.S. Congress to increase the amount of aid...Washington gets value for its aid including agreement that it may bar any other nation from sailing in the two nations' waters, which cover 2 million square miles, about as much as the entire 48 contiguous states. The Marshalls are home to the Kwajalein missile testing range, the single most important U.S. missile defense test

site...U.S. negotiators appeared to enter the talks with the objective of significantly reducing U.S. payments and services, including the cessation of Federal Emergency Management Agency disaster services.

INSIDE IT: RICHARD BLEACH, CHIEF INFORMATION OFFICER, MDA, Defense News, October 28, 2002. In January, the Secretary of Defense re-designated the Ballistic Missile Defense Organization as the Missile Defense Agency... With this new focus, the agency is required to develop missile defense as a single, integrated system that no longer differentiates between theater missile defense and national missile defense... Richard Bleach is the chief information officer for the Missile Defense Agency...Bleach spoke with writer Tranette Ledford about the re-designated agency's information technology program and, specifically, the priority being given to aspects of information systems management. "What is your agency's current IT priority involving homeland defense?" "One of the Missile Defense Agency IT priorities is to continue to build our missile defense enterprise information management system..." "How is the information system being implemented and what does it entail? ..." "The gateway to missile defense enterprise information is through secure, web-based portals. We have been able to improve access to our information, reduce costs, such as those involved in travel, improve data quality, improve speed and efficiency of communication, and increase the horizontal and vertical access..." "What kind of challenges do you face...?" "The biggest challenge has been achieving the ability to reach across the enterprise, empowering people, sharing information and access, and doing so in a secure fashion while not resorting to centralized control..." "Can you highlight the major difference between the priorities of what was the Ballistic Missile Defense Organization and what is now the Missile Defense Agency?" "As the Missile Defense Agency, we are committed to, and have been tasked with, ensuring that the decision-making cycle times are as rapid as possible for proposed executive decisions on missile defense."

WEDNESDAY, NOVEMBER 6, 2002

ARMY SHOOTS DOWN ARTILLERY SHELL WITH LASER, Reuters, November 5, 2002. The U.S. Army used a high-energy laser to shoot down an artillery shell in flight Tuesday in a defense industry breakthrough, the Army and the manufacturer said. The Army and TRW, which developed the weapon, said in a joint statement that the laser tracked, locked onto and fired a burst of concentrated light energy at the speeding shell over the White Sands test range in New Mexico. "Seconds later, at a point well short of its intended destination, the projectile was destroyed," the Army's Space and Missile Defense Command said. The Mobile Tactical High Energy Laser is being developed by TRW for the Army and the Israeli Defense Ministry. Lasers have been used in past tests at the range to shoot down slower Katyusha Rockets similar to those fired at Israel by militant guerrilla groups in neighboring Lebanon... The laser was fired from a static test bed in a carefully controlled test, but TRW officials said they

looked forward to producing a truly mobile version as the program progressed. Tuesday's test — the first time a laser had shot down an artillery shell — was part of a new series to determine the system's requirements and demonstrate its capabilities against a wide range of airborne targets.

Editor's Note: In a Live Vote poll accompanying this article on MSNBC.com 96 percent of 14,000 respondents favor research on combat lasers. Live Votes reflect respondents' views and are not scientifically valid surveys. Number reflects votes cast at EA Digest press time.

MOBILE THEL SHOOTS DOWN ARTILLERY PROJECTILE IN LATEST TEST, Defense Daily, November 6, 2002. The Mobile Tactical High Energy Laser (MTHEL) in a test yesterday at White Sands Missile Range, N.M., for the first time destroyed an artillery projectile in flight, Army Space and Missile Defense Command (SMDC) reported...MTHEL consists of three major subsystems: a command, control, communications and intelligence subsystem; pointer-tracker subsystem; and the laser subsystem. As the Army began to transition the static THEL into the mobile system, officials said it would have an added capability against cruise missiles and unmanned aerial vehicles. The program also is expected to be supported in the Army's long-term budget plans, while in the past it survived solely on congressional plus-ups to the annual budget request. In March, the Army finalized a long-term \$118 outyear budget plan for the MTHEL...As currently envisioned, the MTHEL would be significantly smaller than the standard THEL and easily transported on a Lockheed Martin [LMT] C-130 airlifter. Under the current plan, an MTHEL demonstrator will be completed in the 2006-07 timeframe.

MDA PREPARES FOR NEXT INTERCEPT TEST IN SEA-BASED MIDCOURSE PROGRAM, Defense Daily, November 6, 2002. The Missile Defense Agency (MDA) plans to conduct the next flight test in its Sea-Based Midcourse Defense (SMD) program at the end of this month, program officials said. The flight test, tentatively slated for the week of Nov. 18, will test the ability of the Raytheon Standard Missile-3 (SM-3) to shoot down a target in the ascent phase of flight, program officials said...Navy and MDA officials for the upcoming flight test have also been considering testing some new software designed to direct the interceptor to a more precise aimpoint on the target, officials said. The next test will be the first in expanding the test envelope for the SMD program, they said...The Navy and MDA have been evaluating the possibility of developing an SMD missile beyond the SM-3. The service also is mulling the idea of using a dedicated test ship for the SMD test program, Navy officials said. And, there is consideration of putting two Aegis ships on each coast in some sort of prototype status for a capability in the near future.

DEFENSE CHIEF GIVES MISSILE PROGRAM WITH U.S. PUSH TOWARD DEVELOPMENT, The Japan Times, November 6, 2002. Defense Agency chief

Shigeru Ishiba said Tuesday he hopes to see a bilateral missile defense initiative with the United States enter the development phase soon. "The missile defense is nothing but a posture meant exclusively for self-defense," he told the House of Representatives Security Committee. "I believe we should exert efforts to get the program to leave the research phase as soon as possible." ...The defense chief stressed the need for coordination within the national government and said the issue should be debated by the Security Council of Japan, which is chaired by the prime minister...Ishiba's remarks were the most affirmative that Japan has made about the missile program so far. Japan's official stance is that a final decision on moving from research to development is to be made in 2003 or 2004. Japan and the U.S. are conducting a joint study on a system that would protect Japanese and U.S. forces in the country from medium-range ballistic missiles. The study was agreed to in a bilateral accord in September 1998.

CIA: NORTH KOREA'S NEW ICBM MAY BE READY FOR TESTING, Defense Week, November 4, 2002. North Korea's new ICBM may be ready for testing at any time, and the country's reclusive leader might use it-and "whatever means are at his disposal"-if his regime's survival is at stake, U.S. intelligence agencies have concluded. The means at Kim Jong-il's disposal reportedly include at least one nuclear warhead and the missiles to deliver it. The new ICBM, called Taepo Dong-2, could, if it works, deliver a nuclear-armed missile to most parts of the United States, U.S. experts say...North Korea has continued developing the Taepo Dong-2 despite the fact that Pyongyang has foresworn flight tests for now, the head of the U.S. Missile Defense Agency said Thursday. Air Force Lt. Gen. Ronald Kadish told reporters: "From all indications I see, the answer is, yes." The intelligence finding suggests that North Korea not only has covertly pursued nuclear weapons, an admission Pyongyang made in October, but also that North Korea is making progress on its most capable ICBM despite the freeze on flight tests. And the letters to the Senate committee indicate U.S. officials believe that, while North Korea possesses these weapons mainly to deter and coerce other countries, Pyongyang is also capable of using them-despite the threat of massive U.S. retaliation.

ST. PETERSBURG PLANT MAKES NAVY MISSILE DEFENSE SYSTEM, Miami Herald, November 4, 2002. Over the past decade, about \$1 billion has been quietly funneled into the Raytheon Systems Co. facility [in St. Petersburg, Fla.] and its manufacturing plant in Largo. The purpose: developing a missile defense system for the U.S. Navy's fleets. Now operational and being deployed in the Middle East, the high-tech communications network known as CEC, for Cooperative Engagement Capability, has attracted interest from other branches of the military, as well as from international allies. It also has possible applications for ensuring homeland security...CEC pulls together radar data from every ship in a fleet and every plane overhead to create a comprehensive picture of the surrounding airspace... Seeing it all - especially enemy missiles - is the Holy Grail for naval commanders, whose ships have long been floating

targets for enemy fire. Though ships are equipped with radar, those images can be dropped, jammed and disrupted by bad weather. They are also limited to line of sight. A Navy plane overhead or neighboring ship can see more, but in the past communication between battlefield components was by voice or teletype only...Using high-speed wireless transmissions, CEC collects and integrates data from dozens of different radars into a single comprehensive image that appears on each participant's radar screen within thousandths of a second...Of special concern were low-flying cruise missiles, which can travel at variable speeds, be launched from sea, land or air and are highly maneuverable during flight...As missile technology has improved, so has proliferation of the weapons. Today, more than 70 countries, including Iraq, Iran, North Korea, Syria and China, have cruise missiles in their arsenals.

CAE, BOEING AGREE TO COLLABORATE ON MISSILE DEFENSE, ANSER, November 6, 2002. Boeing and CAE have announced a partnership to develop solutions in ballistic missile defense. Through this agreement, the two companies will collaboratively evaluate and develop opportunities in missile defense drawing on their existing skills and capabilities. Boeing plans to use CAE's suite of modeling and simulation software tools such as STRIVE(TM) to evaluate and develop systems related to air and missile threats, sensors, interceptors, and battle management/command, control and communications systems. "We're proud to partner with Boeing at the early stage of developing missile defense technology that will ultimately benefit the people of many nations around the world," said Donald W. Campbell, group president, Military Simulation and Training, CAE. "This agreement is also representative of our strategy to use CAE's modeling and simulation expertise throughout the development cycle of large defense programs." The announcement follows similar agreements that were signed this past summer at the Farnborough Air Show between Boeing, Alenia Spazio, a Finmeccanica Company of Italy, European Aeronautics and Defense Systems and BAE SYSTEMS of the United Kingdom.

Jim Evatt, president of Missile Defense Systems, a business unit of Boeing Integrated Defense Systems, said: "Boeing's presence in Canada spans many years and we believe this partnership, with such a key company as CAE, strengthens our relationship and highlights our continued commitment in Canada. This agreement also represents another important step in global cooperation that is critical for the future security of our nations, military forces and allies." Boeing Integrated Defense Systems, currently a prime contractor for the U.S. government on integrated missile defense systems, established the technical assistance agreement with CAE as an open framework for long-term cooperation. Boeing is responsible for the development and integration of the ground-based mid-course defense elements, including the ground-based interceptor, early warning radars and interfaces to the space-based infrared system satellites. CAE's STRIVE is a modeling and simulation framework that gives software developers the ability to easily design complex, interoperable systems. STRIVE will give software

developers, designing a range of ballistic missile defense technology, the ability to model systems and how these systems interact and interoperate. Boeing also intends to use CAE's Interactive Tactical Environment Management System (ITEMS(TM)) and Real-Time Advanced Visualization Environment (RAVE(TM)) software tools in developing ballistic missile defense systems.

NORTH KOREA TO "RECONSIDER" MISSILE MORATORIUM, SEOUL (AFP), November 05, 2002. North Korea on Tuesday warned it would "reconsider" its moratorium on missile tests if normalization talks with Japan failed to make progress. Japanese Prime Minister Junichiro Koizumi, however, reacted coolly to Pyongyang's threat, which he said Tokyo "would not take seriously." The North's official Korean Central News Agency (KCNA) quoted a foreign ministry spokesman as saying last week's opening of normalization talks in Kuala Lumpur was a failure and blamed Japan. "Upon learning about the outcome of the talks, the relevant organs and people of the DPRK (North Korea) are becoming increasingly assertive that it is necessary to reconsider various points related to security, including the nuclear and missile issues," the spokesman said. "The DPRK should reconsider the moratorium on the missile test fire in case the talks on normalizing the relations between the DPRK and Japan get prolonged without making any progress." But Koizumi shrugged off North Korea's reported threat to possibly break its pledge to extend the moratorium beyond 2003. "I do not expect the North Koreans will trample on the fundamental principles and the spirit of that declaration," Koizumi told reporters in Phnom Penh, where he was attending the annual Association of South East Asian Nations summit. "So we would not take seriously that sort of statement."

At a summit with Koizumi in Pyongyang in September, North Korean leader Kim Jong-Il agreed to extend the moratorium on missile tests. North Korea stunned the world in 1998 by test-firing a multiple stage Taepodong missile that overflew Japan before falling into the Pacific. No headway towards normalizing their relations was made at talks last week, as the Japanese officials pressed the North over its nuclear weapons program and the kidnapping by North Korea of Japanese citizens. The North's foreign ministry spokesman said "no progress" was made because the Japanese were sidetracked by other issues. "It was because the Japanese side insisted on discussing outstanding issues such as nuclear and abduction issues before taking up the issue of settling the past, the core problem for the normalization of bilateral relations, thus damaging confidence between the two parties to the talks," the spokesman said. North Korea is pressing Tokyo for an apology and some 10 billion dollars in compensation for Japan's colonial rule over the Korean peninsula from Japan normalized relations with South Korea in 1965, paying 500 million dollars in compensation, and has sought for years to do the same with the communist North. The two countries launched normalization talks in January 1991 but these were broken off in November 1992 due to Tokyo's charges of abductions by the North. Talks resumed in April 2000 but broke off

again in October the same year. Though no progress was reported in Kuala Lumpur, the two sides agreed to meet for further talks. North Korean leader Kim Jong-Il admitted during the historic summit with Koizumi in Pyongyang that the regime had abducted at least 13 Japanese citizens to tutor spies and that eight had since died. Last month North Korea agreed to allow the survivors to return to Japan for a two-week visit. Japan, however, has refused to send them back.

THURSDAY, NOVEMBER 7, 2002

MISSILE DEFENSE AGENCY TO RETIRE AIRBORNE SURVEILLANCE

TESTBED, Aerospace Daily, November 6, 2002. The Pentagon's Missile Defense Agency soon will retire the Airborne Surveillance Testbed (AST), a highly modified Boeing 767 that have been used since 1985 to collect infrared data on missile tests, according to MDA. AST's primary mission will be taken over by the High Altitude Observatory (HALO) II, the agency said...The AST's captive-carry mission will be handled by the Widebody Airborne Surveillance Platform (WASP), a modified DC-10, the agency said...Boeing describes AST as a technology demonstration effort supporting development and evaluation of defenses against intercontinental and theater ballistic missiles... When the program began, the aim was to determine whether an airborne IR sensor could provide early warning and pass ICBM tracking information to ground radar. In 1991, at the time of the Gulf War, emphasis was shifted to defending troops and installations from theater ballistic missiles, and the modified aircraft, renamed AST, was used to gather data on theater ballistic missiles as well and ICBMs, according to Boeing...The aircraft has flown more than 100 missions, MDA said. Boeing said AST missions have included operational exercises with real-time links to Army, Navy and Air Force elements to demonstrate the utility of an airborne IR platform in a theater missile defense roll...Technology developed for AST "is applicable to many sectors of the defense community," one of which is the Airborne Laser (ABL) program, according to Boeing. AST personnel are supporting that effort, the company said.

PAKISTAN MAY SEEK MISSILE DEFENSE SYSTEM, Aerospace Daily,

November 6, 2002. Pakistan may seek to buy missile defense systems from the United States, according to a diplomat with the Pakistan High Commission here. The diplomat said Islamabad is interest in buying the Patriot Air Defense System, the Hawk missile system or the Nike Hercules system...The Hercules system dates to the 1950s, the Hawk to the 1960s, although it has been upgraded over the years. A spokesman for Hawk builder Raytheon said the system is deployed by 18 nations. The U.S. has some in storage...Pakistan estimates a missile system could cost it around \$1.5 billion, and the diplomat said buying the system would not be a priority if it mean cutting spending on other sectors of the defense forces.

FORCE TRANSFORMATION OFFICE EXAMINING NEW VENTURE

CAPITAL MODEL, Inside The Pentagon, November 7, 2002. The Pentagon's Office of Force Transformation is examining a new model for venture capitalism to benefit the military, sources say. As an initial experiment, the office tapped a Southern California capital investment firm called the Tech Coast Angels to scan the area for fledgling technologies that might be of interest to the military. The company returned with a list of 85 technologies being pioneered by some 50 companies -- all of which were shared with defense officials at an exposition in Los Angeles last week. Sources say the result was promising enough that the transformation office envisions its "tech finder" model incorporated into DOD's acquisition process, possibly requiring new direction from Defense Secretary Donald Rumsfeld. The Institute for Defense Analyses hosted a two-day workshop this week for military leadership and venture capitalists to meet and discuss the recent expo. A group is planning to brief Rumsfeld on these latest developments in early December, insiders say...Proponents say providing seed money to small businesses is attractive because military transformation relies on innovative technologies and most of these products are being developed at small firms that shy away from DOD's acquisition process. But using taxpayer dollars to invest in start-up companies can be risky. The answer could be to "cast a wide net and use the venture capitalists as a go-between," said one defense official. Once a promising technology is found, DOD can begin investing, gaining access to the research and perhaps even help develop a prototype for fielding.

FAVORITE IS STRONGER THAN PATRIOT, Defense And Security, November 6, 2002. The world learned about the Russian S-300 air defense missile system, when the similar American Patriot system acted in the Persian Gulf area in 1991. Americans designed the Patriot back in the mid-1980s. Later they upgraded the system and enabled it to kill tactical and tactical theater ballistic missiles. Comparative analysis of characteristics of the Patriot and the S-300 done by Russia shows that according to some parameters the Russian system is superior to the American system and according to some parameters is on par with it. Time has confirmed that the S-300 is the most effective air defense missile system of the world...The S-300PMU1 includes the command post and up to six air defense missile systems. The command post includes the combat control post and the target detection radar. Each launcher has a multifunctional illumination and aiming radar and up to 12 missile launchers with four missiles in each. The system can also be supplemented with an all-altitude detector...The S-300 can kill airplanes and cruise missiles in all altitudes beginning from 10 meters, whereas, according to available information, the Patriot has the minimum effective altitude of 60 meters...The S-300 can be converted from the traveling into the combat condition (deployed) in 5 minutes and is converted back into the traveling condition in 5 minutes too. The American system requires 30 minutes for each of these operations...Due to the vertical launch of its missiles the S-300 can attack targets flying from any direction without turning of the launchers. The Patriot has

inclined launch of the missiles. This means that during intensive maneuverable combat it is necessary to turn the launchers or to place them beforehand so as to cover all dangerous directions...Some experts say that the S-300 is inferior to the Patriot according to the number of simultaneously attacked targets...The Patriot can track nine trajectories, but at the terminal stage it can kill only three missiles simultaneously. From the very beginning the S-300 has been able to aim its missiles at all targets locked onto until their killing.

FRIDAY, NOVEMBER 8, 2002

ISRAEL TESTS PATRIOT MISSILE, Agence France Presse, November 7, 2002. A U.S.-Israeli team has successfully tested the latest model in Patriot anti-missile missiles, military sources said on Thursday, as Israel braces for a possible conflict with Iraq. The test was carried out on Wednesday in the Negev desert in southern Israel and had long been scheduled to take place, the sources said. During the 1991 Gulf War to drive Iraqi forces out of Kuwait, Israel was pounded by dozens of Scud missiles from Iraq, which killed two people and injured hundreds, despite the presence of earlier model Patriot batteries. Patriot missiles have been deployed to protect Israel's nuclear plant at Dimona in the Negev. Israel's own brand of anti-missile missiles, the Arrow, developed in conjunction with the US military, have been deployed near Tel Aviv to protect the densely populated coastal plane.

ISRAEL UNVEILS ANTI-MISSILE SYSTEM, Associated Press, November 7, 2002. Israel's defense against a potential Iraqi missile attack was on full display Thursday. Arrow anti-missile batteries, pointed skyward amid the sand and scrub brush, were shown to reporters as part of a public relations blitz aimed at discouraging Saddam Hussein from firing his Scuds. Israel's Arrow system is the most advanced in the world currently deployed, and the air force expresses full faith that it has closed a window of vulnerability that allowed Iraq to rain 39 missiles on Israel during the 1991 Gulf War. "I'm sure we are better prepared today," said Brig. Gen. Yair Dori, head of the military's air defense forces. "In 1991, we had almost nothing. Now we have a very active, robust defense."... For Israel, having the system is only part of the battle. The military also believes that advertising the Arrow will deter Saddam from striking if he comes under attack from the United States...Israel on Thursday brought a bus load of journalists for briefings and a view of the four dun-colored missile launchers, each loaded with six Arrow missiles, air force officials said. The launchers are set about 100 yards apart in the otherwise empty flatlands a short distance from the sea. "I'm sure (Saddam's) motivation is to bring Israel into this conflict," Dori said as he stood next to a 25-foot-tall Arrow. "But I'm also sure that fewer missiles will fall into Israel." ...The Iraqi missiles can reach Israel in less than eight minutes...Israel now has a radar system that should be able to pinpoint Iraqi missile launches. Israel hopes to have a minimum

of five minutes to respond to any attack, and needs two to three minutes to launch an Arrow, air force officials said.

U.S. MISSILE DEFENCE PLAN TO GET KEY DANISH SUPPORT: REPORT, Agence France Presse, November 8, 2002. Denmark will support controversial U.S. plans to create a ballistic missile defence shield, providing an essential link in the project, a newspaper reported here on Friday. The conservative-liberal coalition government plans to approach U.S. officials on the subject at a NATO summit in Prague later this month, the Jyllands-Posten paper said, quoting unnamed parliamentary sources. The office of Danish Prime Minister Anders Fogh Rasmussen refused to comment on the report when questioned by AFP. Danish participation is seen as key, since one of the major listening posts thought to be required is a U.S. Cold-war era radar station on Danish-controlled Greenland...The Danish government would next Friday present fuller details on its plans for cooperation on the project to a foreign policy committee, the paper said. Ruling Liberal party spokesman Troels Lund Poulsen told the newspaper: "If the Americans ask us to participate in the missile defence shield, I think that we, in Denmark, should show a positive attitude." It would also be necessary to consult Greenland residents, he said, who are known generally to oppose the US plans amid concerns it will increase instability and put their island at the centre of a new cold war. The Thule base on Greenland was built in 1951 as an early-warning station in the event of Russian nuclear attack on the United States.

GAO PRELIMINARY REPORT ON REVIEW OF KWAJALEIN SUPPORT CONTRACT EXPECTED SOON, Defense Daily, November 8, 2002. The General Accounting Office is expected by early next week to provide a preliminary assessment of a protest over the Army's selection of a Bechtel-Lockheed Martin team to provide range support at the Ronald Reagan Test Site on Kwajalein Atoll in the Pacific, according to industry officials. The GAO is expected to release a preliminary report on its results next week, giving the protesting contractors a period of weeks to further respond with comments, industry officials told Defense Daily...The protest has not impacted work at Kwajalein because SMDC got approval to override a stop work order that would have halted work there until the GAO resolved the dispute. At the time of the protest filing, SMDC initiated steps to keep work moving forward for transitioning work to the new support contractor at the range. Typically, a stop work order is issued and work cannot proceed while a protest is under review. SMDC officials said yesterday the entire protest review may not be completed until mid-January...The contractors heading the protest contend there were problems with the SMDC selection process.

U.S. TO PRESS JAPAN TO BUILD MISSILE SHIELD, The Daily Yomiuri (Tokyo), November 8, 2002. The United States will call on Japan to develop and deploy a ballistic missile defense system in response to North Korea's development of nuclear weapons, which could present a threat to Japan, a high-ranking U.S. Defense Department official said. According to the Pentagon official, who unveiled the plan to

The Yomiuri Shimbun on Wednesday, U.S. Undersecretary of Defense Douglas Feith will call for such a system to be put in place as soon as possible when he meets Defense Agency Director General Shigeru Ishiba in Tokyo Friday... Japan has been studying a missile shield system using Aegis-equipped warships--Navy Theater-Wide Defense (NTWD) system--while the United States has improved the accuracy of antiballistic missiles through repeated tests in the Pacific. Of the NTWD system, Japan is studying the sensor technology using infrared rays and lightweight and low-cost rockets. This system is designed to intercept missiles during their ascent by taking advantage of the mobility of the naval ships...Japan and the United States plan to discuss the missile defense program in a meeting that will be held in December. The foreign minister and Defense Agency director general will attend the meeting with their U.S. counterparts.

ISRAEL, U.S. TO HOLD JOINT EXERCISE IN INTERCEPTING BALLISTIC MISSILES, Associated Press, November 8, 2002. Israel and the United States plan a joint exercise in January on intercepting ballistic missiles, the Defense Ministry said Friday. The Israeli daily Haaretz said the drill would be held in Israel unless the United States has attacked Iraq by then. Israeli officials have said there is a high probability Iraq will attack Israel with Scud missiles in response to a U.S. strike. Rachel Ashkenazi, a spokeswoman for the Israeli Defense Ministry, said the exercise is part of ongoing cooperation between armed forces from both countries. Haaretz said large air defense units from both countries would participate in the exercise, and that the United States would leave behind three upgraded Patriot missile batteries to help boost Israel's anti-missile defenses. Ashkenazi confirmed that Israel's test-firing of two Patriots earlier this week was successful. On Thursday, Israel's air force presented Arrow anti-missile batteries to reporters as part of a public relations blitz aimed at discouraging Saddam Hussein from firing his Scuds. The Arrow system is the most advanced in the world currently deployed, and the air force says it has closed a window of vulnerability that allowed Iraq to rain 39 missiles on Israel during the 1991 Gulf War.

MISSILE DEFENSE AGENCY CONTRACT, DoD, November 8, 2002. SPARTA Inc. is being awarded a cost-plus fixed-fee contract for \$37,160,881 over a five-year period of performance. This contract supports the deputy for Force Structure Integration and Deployment by providing assistance to match emerging Ballistic Missile Defense System (BMDS) capabilities with existing and future warfighter needs; integration, transition and delivery of BMDS capabilities to the warfighters, technical program management, engineering analysis and exercise assessments. Work will be performed both at the Missile Defense Agency in Arlington, Va., and off-site, to include locations in support of exercises. The contract will be funded by research and development appropriations applicable to the fiscal year 2002; contract funds will not expire at the end of the current fiscal year. The Missile Defense Agency is the contracting activity (HQ0006-03-C-0002).