

[Virtual Library] HP <http://www.space-library.com> ミルスペース 080819 をアーカイブにアップ

Defense News 080804, 080728, AW&ST 080811, ASCEND 0808, Military Technology 0808 をアップ。

2008/8/26 22:53 【Technobahn】 **[編注]** ミルスペース 080819 page 5-6 で恐れていた懸念が現実化、進展。以下複数筋のニュース掲載

ロシア、国際宇宙ステーションからグルジアを偵察

国際宇宙ステーション(ISS)搭乗ロシア人宇宙飛行士が ISS からデジタルカメラを使いグルジアとロシア間で軍事衝突が起きた南オセチア付近の映像を撮影する偵察活動を行っていたことが 22 日、NASA 公表資料によって明らかと。

NASA 公開している「国際宇宙ステーション・ステータス・レポート (International Space Station Status Report)」によるとオレグ・コノネンコ(Oleg Kononenko)宇宙飛行士(ロシア)は 9 日、グルジアとロシア間で軍事衝突が起きた南オセチア付近の映像を 800 ミリ望遠レンズ装備デジタルカメラとビデオカメラを使って撮影。

NASA では今のところコノネンコ宇宙飛行士の行った行為は「南オセチア自治州の首都、ツヒンワリの水道供給が停止したとの情報が伝えられたため、当該地域における人道支援を行う目的で実施した」とする

<http://www.technobahn.com/cgi-bin/news/read2?f=200808262253>

説明を口連邦宇宙局(Roskosmos)から受けたとだけ述べている。

NASA では事実関係以上の事柄に関しては説明を行っていないが、米と口は 1998 年に ISS 軍事目的利用を禁止した ISS 利用に関する相互協定を結んでおり、今後のグルジア問題の進展次第では、コノネンコ宇宙飛行士の行った行為は、米露間で政治問題化する可能性も。



August 26, 2008 orlandosentinel.com Robert Block and Mark K. Matthews | Sentinel Staff Writers

ロシア宇宙飛行士のグルジアの写真撮影は問合せをまきおこす

Cosmonaut's photos of Georgia spur inquiry

CAPE CANAVERAL – Just days after the Russian army rolled into Georgia, Moscow instructed a Russian crew member aboard the international space station to shoot pictures of the breakaway South Ossetia province from 200 miles above Earth.

Russia claims that cosmonaut Oleg Kononenko's photos Aug. 9 were part of a digital-mapping exercise, done for “humanitarian” reasons. But some space experts say it is possible the pictures were part of a military-related reconnaissance exercise that made use of the vantage point of the orbiting lab complex.

The incident, referenced in a status report on NASA's Web site more than two weeks ago and first reported by Aviation Week, comes as reaction to the Russian invasion of Georgia is threatening to disrupt America's space program.

Imperils U.S. space program

NASA is depending on Russian rockets to ferry U.S. astronauts to the space station once the shuttle program is shut down in 2010. But using Russian-built Soyuz rockets will require congressional authorization, already problematic because of

deteriorating U.S.-Russian relations.

A congressional decision that the Russians photographed Georgia for military reasons could derail NASA's plans to pay hundreds of millions of dollars for Russian transport to the \$100 billion station.

(中略)

Taking pictures is a common assignment for crew members. When former NASA astronaut Leroy Chiao was aboard the station from October 2004 to April 2005, he said he shot more than 16,000 pictures of Earth with a camera similar to the one used by Kononenko.

Among them were pictures of Iraq after the U.S. attacked, he said. But Chiao said the resolution wasn't sharp enough to yield much military value.

“I would be surprised if this order came from the [Russian] military,” he said. “It's possible, but I would be surprised.”

Feeney wants to know more

U.S. Rep. Tom Feeney, R-Oviedo, the top Republican on the

House subcommittee that oversees NASA, wanted more information before responding.

"By definition, the space station is to be used for peaceful purposes," he said. "It is a concern when any of our international space partners use the station . . . for what could be used for strategy or tactics," he said. "But those lines are awfully gray. Are you going to stop our astronauts from taking pictures of the Middle East because there's a conflict there?"

<http://www.orlandosentinel.com/news/space/orl-station2608aug26.0.6714597.story>

Sunday, August 24 AFP — 7:27 pm ET (2327 GMT)

米露の冷却は NASA の宇宙プログラムを脅かす

US-Russia chill threatens NASA space program

WASHINGTON (AFP) — The chill left on US-Russian relations by Moscow's military incursion into Georgia could spell problems for future US access to the International Space Station, US experts said.

The National Aeronautics and Space Administration will become dependent on flights to the ISS by Russia's Soyuz spacecraft when it retires the shuttle fleet that has long ferried US astronauts into space in 2010.

NASA will only get its successor space vehicle, Orion, planned for a revival of trips to the moon, ready for flight in 2015 at the earliest.

That leaves the needs of US astronauts visiting the ISS vulnerable to the possibility of a new Cold War between Washington and Moscow after Russia's powerful military overran much of Georgia two weeks ago in the dispute over South Ossetia.

"If recent Russian actions are any indicator, a technical excuse to completely block US access to the ISS for geopolitical reasons would fit nicely into the Kremlin toolkit," Vincent Sabathier, an expert on human space exploration at the Center for Strategic and International Studies in Washington, told AFP.

Sabathier noted that not only was the short Georgia war a serious thorn in relations, but also the US determination to set up in Poland and the Czech Republic its missile defense system, which Russia calls a threat to its military.

"Almost immediately after the Czech Republic signed an agreement with the US to place missile defense tracking radar in its territory, oil supplies through the Druzhba pipeline to the

An official with the State Department said it was up to NASA to "evaluate whether this [incident] is any kind of a violation."

Robert Block, who reported from Cape Canaveral, can be reached at 321-639-0522 or rblock@orlandosentinel.com. **Mark K. Matthews**, who reported from Washington, can be reached at 202-824-8222 or mmatthews@orlandosentinel.com.

central European country were reduced to a trickle ... ostensibly for technical reasons," Sabathier said.

The end of the three-decade-old shuttle program leaves NASA with at least a five-year hole on which it will have to pay Russia's space agency to deliver and retrieve US astronauts and cargo to the ISS.

That depends as well on the US Congress voting an exemption to a 2000 law that bans US government agencies from opening contracts with countries like Russia that are considered aiding Iran and North Korea, which the US has labelled supporters of terrorism.

Even before the Georgia fighting erupted on August 8 there was opposition in the Congress to such an exemption, and now that has likely increased, according to Florida Democratic Senator Bill Nelson.

"In an election year, it was going to be very difficult to get that waiver to pay hundreds of millions of dollars to an increasingly aggressive Russia," Nelson said.

"Now, I'd say it's almost impossible."

Nelson, who supports allowing NASA to contract the Soyuz, said that without the exemption the US could find itself in 2011 with no access to the 100-billion-dollar space station -- largely paid for by the United States.

Because the ISS needs someone aboard all the time to keep it going, the situation, Nelson said, would mean leaving the station to "degrade and burn up on reentry, or with us ceding it to those who can get there."

NASA's chief Michael Griffin told AFP just days before the

Georgia conflict erupted that it was a "great concern" that something could happen to make Soyuz unavailable.

(中略)

John Logsdon of George Washington University's Space Policy Center expects Congress to allow the waiver, "as long as Russia can be said to be abiding by the terms of the cease-fire (in Georgia)."

http://afp.google.com/article/ALeqM5jEfaL_ODFJDEIBHmcspf6kpbJAqg

Last Updated: 7:09PM BST 23 Aug 2008 telegraph.co.uk By Tim Shipman in Washington

グルジアの危機は宇宙において新しい冷戦の口火/火種に

Georgia crisis sparks a new Cold War in space

Russia's clash with the United States over the conflict in Georgia has sparked fears that American astronauts could soon be grounded with no means of getting into space.

The US space agency Nasa is due to mothball the Shuttle programme in 2010 but the replacement spacecraft is not due to be ready until 2015, leaving a five year gap where the US is dependent on the Russians for a ride to the international space station.

Space campaigners in the US are now concerned that the Russians will pull the plug on the arrangement as the Kremlin flexes its diplomatic muscles, turning the future of space exploration into a diplomatic bargaining chip.

Vincent Sabathier, director of Human Space Exploration Initiative at the Centre for Strategic and International Studies, a Washington think tank, wrote last week: "If recent Russian actions are any indicator, a technical excuse to completely block US access to the International Space Station for geopolitical reasons would fit nicely into the Kremlin toolkit."

(中略)

Democratic senator Bill Nelson of Florida, where the shuttle

<http://www.telegraph.co.uk/news/worldnews/northamerica/usa/2608300/Georgia-crisis-sparks-a-new-Cold-War-in-space.html>

August 22, 2008 nasawatch.com

軍事偵察を行うのに ISS を使用か？

Using the ISS To Do Military Recon?

Cosmonaut Photographed South Ossetia From ISS, Aviation Week

"On Aug. 9 Cosmonaut Oleg Kononenko used a digital camera equipped with an 800mm telephoto lens and a video camera to photograph "after-effects of border conflict operations in the

NASA ISS On-Orbit Status 9 August 2008 <http://www.spaceref.com/news/viewsr.html?pid=28822>

"There is an issue but I don't think it's so strong to prevent the waiver from passing, as long as Russian behavior is what it has been agreed to on Georgia," Logsdon told AFP.

However, he said, "if the situation with Russia gets much worse, then it's very hard to project what might happen because again, there is really no viable alternative."

launches, said the prospects of passing a waiver are in freefall. "With the aggressiveness of Russia in Georgia, I think it's dead on arrival," he said. "It is a lose-lose situation. We have a \$100 billion space station, and in theory, we couldn't even get people up there."

He added: "US civil space activity should not become a hostage to Russian objections to Georgia's Nato membership goals" or "new Cold War political manoeuvring."

The alternative to hitching a ride with the Russians would be for the US to try to strike a deal with China, which is rapidly expanding its human space flight programme.

But Mr Aldrin, like some senior Nasa staff, has voiced fears that China might beat the US back to the Moon, where Nasa wants to establish a permanent manned base.

Joining forces with the Chinese might be seen as an even greater humiliation than dependence on the Russian space agency.

Caucasus," according to the ISS status report for that day published by NASA on its website."

(以下抜粋) “Also working from the discretionary task list, Oleg Kononenko conducted another session of the **Russian GFI-8 “Uragan” (hurricane) earth-imaging program**, using the **D2X digital camera** with the **F800 telephoto lens** and the **HVR-Z1J SONY video camera**. Uplinked target areas were glaciers on the north slope of the main Caucasus Ridge, the Dombai region, **after-effects of border conflict operations** in the Caucasus ...”

http://www.nasawatch.com/archives/2008/08/using_the_iss_t.html

Aug 22, 2008 aviation.com By Frank Moring, Jr. moring@aviationweek.com

ロシア宇宙飛行士が南オセチアをISSから写真撮影した

Cosmonaut Photographed South Ossetia From ISS

Russia has claimed humanitarian motives in its use of the International Space Station (ISS) to collect overhead imagery of South Ossetia shortly after it invaded the breakaway Georgian province.

On Aug. 9 Cosmonaut Oleg Kononenko used a digital camera equipped with an 800mm telephoto lens and a video camera to photograph “after-effects of border conflict operations in the Caucasus,” according to the ISS status report for that day published by NASA on its website.

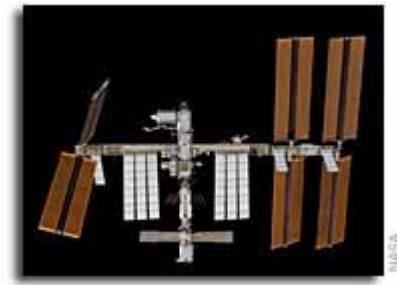
Use of the space station for military purposes would violate the Jan. 29, 1998, ISS cooperation agreement between NASA and the Russian Space Agency, which makes repeated references to the civil nature of the orbiting facility.

“The Space Station together with its additions of evolutionary capability will remain a civil station, and its operation and utilization will be for peaceful purposes, in accordance with international law,” reads Article 14 of the agreement.

Apparently with that language in mind, Russia’s space agency Roscosmos informed the U.S. space agency that Kononenko’s actions two days after Russian forces moved into South Ossetia were not military in nature.

“Roscosmos informed us that the pictures were requested to support potential humanitarian activities in the area, including serious water resource management issues,” said a spokesman for NASA’s Office of External Relations, who added that NASA was not pursuing the matter.

Kononenko’s photography was conducted as part of the long-running Russian “Uragan” (hurricane) Earth-imaging program on the ISS, according to the NASA status report. On



Aug. 9, in addition to the war zone, the civilian cosmonaut photographed glaciers on the north slope of the Caucasus, the Kalmyk steppe, the Volga River from Astrakhan to the Caspian Sea, and other surface features as the space station moved eastward.

In the runup to hostilities, Russian news media reported that water was scarce in Tskhinvali, the main city in South Ossetia, because of diversions by Georgian villagers to the south. And once fighting broke out, international aid organizations struggled to get water to the population in Tskhinvali.

“We’re hearing reports that the entire water supply to Tskhinvali has been shut off,” the aid group World Vision said in an Aug. 8 press release. “Potable water is the number-one humanitarian need right now for the city and surrounding areas.”

While the fighting in South Ossetia has severely strained U.S./Russian relations, the nature of the two nations’ cooperation on the ISS makes it extremely difficult for either side to withdraw from the 1998 agreement.

The U.S. depends on Russian Soyuz vehicles docked to the station for crew rescue in case of an emergency in orbit, and will rely on them at least temporarily for crew access to the station once the space shuttle fleet is retired in 2010.

But NASA provides essential utilities on the station, including most electrical power, and Russia needs those systems and the U.S. astronauts who are trained to operate them to conduct on-board operations.



Photo: ESA

<http://www.aviationweek.com/aw/generic/story.jsp?id=news/OSS08228.xml&headline=Cosmonaut%20Photographed%20South%20Ossetia%20From%20ISS&channel=space>

August 18, 2008 csis.org Synopsis Vincent Sabathier, G. Ryan Faith, and Alexandros Petersen

解説：国際宇宙ステーションへの米国のアクセスを確保すること

Commentary: Ensuring U.S. Access to the International Space Station

(前略) Despite hopes for a new world order, tension is spreading into almost every realm of U.S.–Russia relations—except for that most visible of Cold War battlegrounds: space. Following the collapse of the Soviet Union, the United States and Russia have cooperated, along with Canada, Japan, and Europe, to build and operate the International Space Station (ISS), the most technologically complex and ambitious international project ever undertaken. From the first crew to take up residence in the ISS in October 2000, the station has been inhabited continuously, principally by U.S. and Russian crews, with additional visitors from Europe, Japan, Canada, and elsewhere. Currently, all station partners rely on the U.S. space shuttle and the Russian Soyuz capsule together as the only vehicles able to transport people to and from the space station. That is, until the 2010 retirement of the U.S. space shuttle. The retirement of the three-decade-old system will mark the beginning of a U.S. inability to send its own astronauts into space, a gap in capability that will last for at least five years, as well as the start of an absolute reliance on the Russian Soyuz.

However, even the U.S. ability to continue to purchase seats on the Soyuz capsule is now in jeopardy. The Iran, North Korea, and Syria Nonproliferation Act (PL 109–112) prevents the purchase, either in kind or in cash, of Russian space technology and services, so long as Russia remains viewed as a proliferation threat for nuclear and missile technology. Due to a 2005 congressional waiver of these restrictions for operating the ISS, the United States has been able to purchase seats on launches of the Soyuz spacecraft to augment U.S. space shuttle flights. Although the current purchase of Soyuz flights will extend

through 2011, the manufacturer of the Soyuz has stated that there is a three-year lead time to manufacture new capsules. Therefore, the uncertain fate of a new waiver currently under discussion in Congress means that the United States would lose access to a key component of the station logistics and transport system, requiring it to radically restructure its ability to maintain a presence on the station. This already precarious situation could become disastrous when combined with the planned 2010 retirement of the aging U.S. space shuttle fleet.

Granted, the ISS is the most significant achievement remaining from the glory days of Russia’s space endeavors and remains both a potent symbol and a steady source of income for their cash-strapped program. Today, the Russian inclination to rely on the ISS as source of revenue may provide some reason to believe that Russia will continue to ensure access to the ISS. If recent Russian actions are any indicator, a technical excuse to completely block U.S. access to the ISS for geopolitical reasons would fit nicely into the Kremlin toolkit. Almost immediately after the Czech Republic signed an agreement with the United States to place a missile defense tracking radar in its territory, oil supplies through the Druzhba pipeline to the Central European country were reduced to a trickle. Lithuania, one of the Europeans Union’s most vocal critics of Moscow’s policies, has grappled with similar cuts to its energy supplies from Russia for years, ostensibly for technical reasons. Given the current tense climate between the United States and Russia, Moscow would have ample incentives to exert oblique leverage over Washington or other countries by restricting access to the ISS.

These vulnerabilities come at a particularly sensitive time for the

United States and its allies in the area of space cooperation. The United States and its partners on the station will have spent more than \$100 billion on the ISS by the time of its completion in 2010. Current U.S. spaceflight plans will effectively cede the control of the ISS to Russia on its 2010 completion by leaving with Russia a monopoly on the ability to transport crew—including U.S., European, and Japanese astronauts—to and from the station. Effectively, the United States will have worked at great length with its partners to give Russia the best space station money can buy. Beyond this, as we have seen with the aftermath of the 2003 Columbia disaster, logistical support for the ISS is always difficult, and without an alternate means to send crew and supplies to the station, continued operation of the ISS could be seen as too risky to continue. In the longer term, there are already significant doubts about the future of ISS after 2015, when the United States is planning to shift its focus to returning to the Moon before the 50th anniversary of the first 1969 Moon landing. However, these plans to return to the Moon are also somewhat shaky and reflect a lack of concrete international participation. This host of future uncertainties makes it clear that it is in the interest of the United States and other ISS partners to strongly consider other options for transporting astronauts to the station and space in general.

At first glance, the possibility of a U.S.-led joint effort with Europe and Japan to quickly develop a backup transportation system, perhaps a capsule that could make use of existing U.S., European, or Japanese launch technologies. A joint program would bring the original space station partners together, finally delivering on the more than 20-year-old promises of the space station. A joint effort would leverage resources and capabilities using the U.S., European, and Japanese common interest in succeeding on the ISS, even if only to declare the station a success and move forward. However, the lack of any discussions thus far—let alone any concrete planning along these lines—means that although such an approach might be most beneficial, such an outcome is by no means certain and will most certainly require a fair amount of time to implement.

It therefore behooves U.S. policymakers to explore other options for access, if nothing else to prevent the reintroduction of Cold War competition to space. Perhaps somewhat ironically, a more promising option may lie with the world's fastest-growing space

power: China. Since China generated great controversy with its unannounced and highly polluting **antisatellite** test in early 2007, the United States and other space-faring nations have been skeptical about the underlying nature of China's space program. Although there is no real practical way for China to immediately step up as an alternate means of station access today, such an option could still prove to be a fairly quick remedy, despite the fact that the United States has substantially blocked any dialog on the subject. However, Chinese officials have for many years expressed a keen interest in joining the ISS and seem determined to push forward with ambitious objectives for a Chinese role in space. The United States' space gap—the half-decade period in which it will not be able to launch its own astronauts into space—would seem an opportune time to attempt confidence-building measures with Beijing. Although China has seen Russia as its historical partner in developing much of its spaceflight infrastructure, an overture from Washington could serve to break down significant barriers on space policy.

After China's **antisatellite** test, the strong world reaction led many analysts to speak anew about the weaponization of space. It was thought that Beijing was either testing its ability to counter the U.S. asymmetric advantage in networked warfighting prowess or was reacting to intelligence about U.S. plans for satellite defense mechanisms. However, there have been few notable incidents since, and details have emerged that suggest Chinese military planners may have overstepped their bounds in ordering the test. That said, although cooperation on specific military technology is unlikely between China and the United States, exploring synergies in the realm of commercial space activities and civil space exploration hold the potential to build confidence and reduce skepticism across the board.

With China rallying its growing resources to host the 2008 Olympic Games, the sensitivity of its decisionmakers to the advantages and ideals of international cooperation will be heightened. This presents an excellent opportunity for senior U.S. policymakers to begin a new era of space cooperation with the world's fastest-growing major economy. Alternately, the United States could pursue cooperation with its traditional partners in space to find solutions to the problems it faces. Either option has the potential to not only provide much-needed international support for U.S. plans to return to the Moon but also to ensure

access to the ISS for the foreseeable future, effectively isolating the United States from any potential new Cold War tensions. U.S. civil space activity should not become a hostage to Russian objections to Georgia's NATO membership goals, U.S. missile defense plans, or any facets of new Cold War political

maneuvering. In a time of increasing tensions, the International Space Station can now help to serve the mission for which it was undertaken: greater cooperation among all space-faring nations.

Vincent Sabathier is a senior fellow and the director of Human Space Exploration Initiative at the Center for Strategic and International Studies (CSIS) in Washington, D.C. G. Ryan Faith is a program manager with the CSIS Human Space Exploration Initiative, and Alexandros Petersen is an adjunct fellow with the CSIS Russia and Eurasia Program.

http://www.csis.org/component/option,com_csis_pubs/task/view/id,4776/type,1/

2008/8/23 05:22 【Technobahn】

NASA、ALV X-1 ロケットの打上げに失敗・地上からの指示で打上げ 27 秒で自爆処理

NASAは22日、超音速飛行実験機「HYBOLT」を搭載したALV X-1ロケットの打上げ失敗を発表。ALV X-1ロケットは同日午前5時10分、バージニア州にあるNASAワロップ打上げ基地から打上げられたが、飛行コースから逸れたため、打上げ27秒後に地上管制からの指示により自爆処理された。ALV X-1ロケットにはNASAが開発を行った超音速飛行実験機、HYBOLT（Hypersonic Boundary Layer Transition）と再突入用実験カプセルSOAREX（Sub-Orbital Aerodynamic Re-entry Experiments）などが搭載されていたが、全て喪失した。今回、打上げに使われたALV X-1ロケットは米防衛産業、アライアント・テックシステムズ（Alliant Techsystems）が開発した固体ロケット方式の観測用ロケット。観測用ロケットとしては大型で数10キロから数100キロの物資を高度50キロから1500キロの高度まで打上げる能力を持つはずだった。今回の打上げではALV X-1ロケットは高度400キロまで上昇した後、ペイロードを分離、分離されたHYBOLTとSOAREXは弾道軌道を描きながら地球を半周して戻ってくる予定だった。ロケットを開発したアライアント・テックは固体ロケットを利用したミサイル分野では全米でもトップ企業。本格的な宇宙ロケット開発は今回打上げに失敗したALV X-1ロケットが初だが、防分野では高度な

<http://www.technobahn.com/cgi-bin/news/read2?f=200808230522>

技術と豊富な経験を備えていただけに、今回の結果に関しては意外。今のところ打上げ失敗原因は不明。

【編注】 low reso 画像略



http://skyrocket.de/space/img_lau/alv-x1_1.jpg

<http://mid-atlanticregionalspaceport.blogspot.com/>

2008/8/22 15:06 【Technobahn】

NASA、「アレスI」の地上噴射テストを完了・いよいよ来年打上げへ

NASAは18日、スペースシャトルに代わる次世代有人ロケットとして開発を進めている「アレスI（Ares I）」型ロケットの第2段用ロケットエンジン「J-2X」エンジンテスト完了を発表。

8月15日には20回目となる「J-2X」のガスジェネレータ実験が実施されて一連の検証テストが無事に完了したことが確認された。

「アレスI」の第2段用に搭載予定の「J-2X」エンジンは、米がアポロ計画を実現するために開発を行った「サターンV」型ロケットの第2段と第3

段に使用されていたエンジン改良版。「J-2」エンジンは1970年代初頭に生産が打ち切られて以降、30年以上に渡って生産が行われなかったため、昨年末以降、エンジン噴射実験を繰返すことで過去30年間で失われてしまった技術と経験の再取得を進めた。

NASAでは2009年中に「アレスI」の最初の高高度飛行実験ロケット「アレスI-X（Ares I-X）」を打上げる方向で現在、実ロケット開発を進めている。「アレスI-X」による打上げ実験では、4セグメントの固体ロケッ

トブースタ(現実のアレスIは5セグメント)による第1段による燃焼だけが実施され、ロケットは第2段切離し作業が実施された後、弾道コースを描いて地上落下予定。



<http://www.technobahn.com/cgi-bin/news/read2?f=200808221506>

2008.08.22 11:15:28 中央日報 Joins.com

月探査、2020年に国産ロケットで可能

韓国が2018年までの独自開発を目指している純国産衛星打上げロケット(KSLV-2)を利用すれば月探査も可能、という研究結果が発表された。韓国航空宇宙研究院(【編注】KARI:Korea Aerospace Research Institute)の李相律(イ・サンリユル)博士は19日、ソウル瑞草区良才洞(ソチョグ・ヤンジェドン)教育文化会館で開かれた韓国科学財団主催第5回宇宙開発振興戦略シンポジウムで「月探査開発方向(案)と所要技術分析」というテーマ発表を通じてこの認識を示した。これは、教育科学技術部が昨年「2020年をめどに韓国独自の月探査計画を進める」と発表したのを受け検討した結果。発表内容によると、KSLV-2に固体ロケットと月探査機を搭載し打上げれば、月の軌道に550キロの月探査機を投入できる。月探査機打上げは2回にわたって行われる。最初は羅老(ナロ)宇宙センタ(全羅南道高興郡蓬萊面外羅老島)から地上300キロのところまで月探査機と固体ロケットを同時打上げ後、宇宙からもう一度月に向け固体ロケットを打上げる方式。そうすると地球から平均38万キロ離れている月軌道に探査機を投入できるという分析。仮に月

<http://japanese.joins.com/article/article.php?aid=103770&servcode=300§code=330>

画像は「アレスI」(左)と「アレスI-X」(右)の想像図。

着陸探査機を送るとしても、この重量の範囲内で解決しなければならない。李博士は月着陸探査機の場合、重さを160キロ、付属燃料と推進システムを390キロと考えている。着陸機が地球帰還するには、着陸機中に離陸モジュール(50キロ)、燃料と推進システム(110キロ)などの重量が適切に配分されなければならない、と分析。李博士は「2020年には月軌道探査を、2025年には月に着陸機を投入後、地球に帰還させる月探査を、それぞれ行うのがよい」と提案。しかし費用がかかる施設や技術開発は控え、なるべく外国から借りて使う案を検討しなければならない、と付加えた。韓国科学財団の張泳根(チャン・ヨンゴン)宇宙団長は「韓国型月探査の妥当性および戦略」というテーマ発表を通じ、「韓国の月探査成功には、NASAが進める国際月探査ネットワーク(ILN)事業を基礎にする必要がある」と指摘。韓国は現在、ILN事業への参加を検討中。同団長は「何よりも成功率の高い衛星打上げロケット開発が前提にならなければならない」と述べた。

【LATE NEWS】

2008.07.31 中央日報

【編注】ILNの参加はこの記事では既に署名となっている。上記最近の記事と若干異なる。

韓国、月探査でNASAと連携へ

韓国がNASAの「月に科学基地を建設するプロジェクト」に加わるため第一歩を踏出した。NASAは「韓、日、英、独など8カ国が米とともに月探査を遂行する「国際月ネットワーク(ILN)」への参加に署名した」と公表。NASAが主導するILNは、6~8の探査船を月面に着陸させ、

月の環境と資源を研究するプロジェクト。科学基地の役割を果たす探査船は、月の諸地域に着陸、情報収集し、参加国はネットワークを通じて情報共有する。NASAは早ければ2013~14年にも月面に初めて2つの月着陸船を送る計画。

韓国空軍、「航空宇宙軍」の創設を目指す 「宇宙特別兵科」を新設へ

韓国空軍が 2020 年代をめどに、宇宙で独自作戦を遂行する能力を備えた「航空宇宙軍」創設を目指し、「宇宙特別兵科」新設を推進することを決めた。空軍はこれに向けた準備を進めるため、まず宇宙専門要員を選抜する計画を打出している。空軍関係者は 19 日、「航空宇宙軍の創設という夢を実現するため、第 1 段階として、今年から宇宙専門要員の選抜を行う」と発表。空軍は操縦、航空統制、防空砲兵、情報通信といった、宇宙での戦力の運用や作戦の遂行と直接的に関連がある八つの兵科に勤務している大尉から大佐までの将官を対象とし、今年中に 27 人の宇宙専門要員を選抜し、来年からさらに増員していくこととしている。その上で今後、3 段階に分け、宇宙での戦力を構築していく計画だ。今年末までに「宇宙戦力構築計画書」を

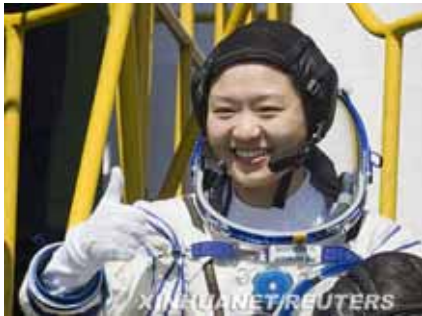
<http://www.chosunonline.com/article/20080820000042>

まとめ、2015 年までに電子工学を活用した宇宙監視システムや、宇宙の気象予報・警報を伝達するシステム、レーザーを利用した人工衛星追跡システムといった、宇宙での戦力の基盤となるシステムを構築することとしている。さらに 16 年から 20 年にかけて、人工衛星からの映像受信や、人工衛星を利用した接近攻撃、精密着陸といった、宇宙で作戦を遂行するための能力を備え、21 年から 30 年にはレーダを利用した宇宙監視システムや、衛星打上げシステムの運用など、宇宙で独自作戦を展開するための能力を備えていく計画。一方、国防部や合同参謀本部も、宇宙に関する業務を担当する部署や組織を設け、これを土台として「宇宙司令部」を創設する計画を進めているという。張一鉉(チャン・イルヒョン)記者

2008 年 08 月 21 日 10:10:22 新華社 xinhuanet.com

[編注] 中国は韓国のニュースと類似ニュースを報道。

韩发展“航空宇宙军”设立“宇宙特技”新兵种



韓国空軍 F-15K

据《朝鮮日報》20 日报道，韩国空軍为在 21 世纪 20 年代成为具备独立太空作战能力的“航空宇宙軍”，决定新设“宇宙特技”兵种。

《朝鮮日報》援引空軍相关人士的话说：“为实现建立航空宇宙軍的梦想，首先将于今年选拔宇宙专业人员。”韩国空軍计划今年从飞行员、航空指挥、防空砲兵、信息通讯等与宇宙战斗力运用及执行太空作战有直接关系的 8 个兵种服役的上尉和大校军官中，选拔 27 名宇宙专业人员，并从明年开始增加选拔人数。

据《韩国日报》20 日报道，韩军方将优先向被选拔的专业人员提供相关研修机会，提高他们的专业素质。国防部和联合参謀部计划建立负责宇宙领域相关项目的部门，最终目标是建立宇宙司令部。

首先，最晚于年末发行《太空战斗体系构筑计划》，在 2015 年前

http://news.xinhuanet.com/mil/2008-08/21/content_9565270.htm

构筑电子光学宇宙监视体系、宇宙气象预报及警报传播体系、雷达卫星定位体系等“太空战斗力基础体系”；

从 2016 年至 2020 年，培养接受卫星影像信息和卫星准确接近及着陆体系等太空作战能力；

从 2021 年至 2030 年，具备雷达宇宙监视体系和卫星发射器运用能力等独立太空作战能力。

2001 年，时任韩国总统金大中在空軍士官学校毕业典礼上表示：“韩国空軍应缜密准备，以建设 21 世纪航空宇宙軍。”“最迟应在 2015 年制造出先进的国产战斗机。”此后，韩国一直在努力实现建设航空宇宙軍的梦想，并制定“国家宇宙开发计划”。韩国目前已发射“阿里郎 2 号”卫星，并正在自行研发新卫星。今年 4 月，韩国首位太空人升空后，韩国空軍宣布在 2017 年之前培养出宇宙飞船驾驶员。(环球时报 詹德斌)

2008 年 08 月 21 日 人民網日本語版 / 北京週報

海南省の宇宙センタ、2014 年に運用開始

海南省の方曉宇常務副省長は 20 日「海南省の文昌**衛星**発射センターは現在急ピッチで建設が進められており、2014 年には運用を始めら

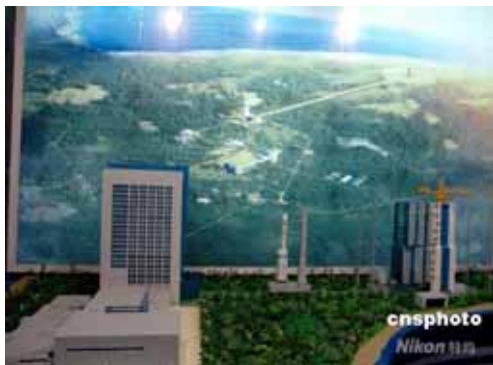
<http://j.people.com.cn/94471/6482179.html>

http://www.pekinshuho.com/wh/txt/2008-08/21/content_145172.htm

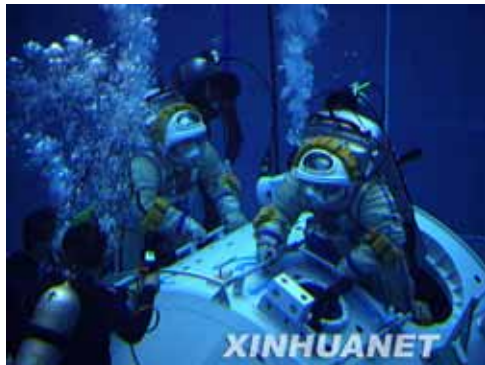
れる見込みだ」と表明。宇宙テーマパークを含む発射センター総合プロジェクトは 20 日午前に契約締結。総投資額は約 70 億元。(編集 NA)

2008 年 08 月 25 日 09:06:14 新華社 xinhuanet.com

【編注】上記ニュース関連。韓国が中国に関して報じたニュースを引用し再報道



海南島宇宙セ



中国 EVA 訓練

韓国《中央日報》8 月 22 日文章, 原題: 中国计划在**海南島**建设自己的“肯尼迪**航天中心**” 中国将在最南端的**海南島**上建设第四个**卫星发射基地**(**衛星打上げ発射基地**)。该方案预计共投入 120 亿元人民币同时建设**宇宙主题公园**(**宇宙テーマパーク**)和大型基地, 将吸引急速增长的全世界**卫星发射需求**, **强化宇宙军事技术**(**宇宙軍事技術強化**), 同时开发新的旅游项目。

新基地在规模和设施方面达到仅次于美国航空航天局(NASA)引以自豪的肯尼迪太空船**发射基地**的程度, 中国的航天产业有望大大发展。

现在在中国四川省的西昌和山西省的太原、甘肃省的酒泉等 3 地都建有**卫星发射基地**。然而这些基地都是处于重视**军事目的**的**西部内陆**, 因此在**一般的卫星产业**的发展上有局限性。

20 日下午, **海南島卫星发射基地**建设总部的总技术主任陶钟山在香港太空**博物馆**召开了记者见面会, 他在会上说:“将于今年 12 月开工、2013 年完工的基地具备中国最尖端技术和效率

http://news.xinhuanet.com/mil/2008-08/25/content_9704336.htm

系统, 它将成为先进型的航天中心。”将建在**海南島**海边的文昌地区的基地共投资 50 亿元, 面积达 20 平方公里。陶主任自信地说:“基地使用了达到美国水平的设计技术”, “这意味着中国的**卫星发射技术**已经达到航天产业发达国家的水平”。

基地的另一特征是将同时建设大规模的**主题公园**。预计将投入 70 亿元建设面积达 700 万平方米的公园。在**主题公园**内将建设中国航天发展历史馆和全世界航天发展有关的**展示场**。另外, 这里还将建造有关**宇宙体验**的游戏设施。此举是把卫星开发基地和旅游业联系起来, 使地区经济活化的战略。据分析, 基地和公园完工之后, **海南島**游客将增加 10~20%。

2008 年 08 月 18 日 人民網日本語版

嫦娥 1 号、2 回目の月蝕試練を経験

中国の月周回**衛星**「嫦娥 1 号」は 17 日午前、今年 2 回目の月蝕試練を順調にパスした。現在嫦娥 1 号は正常態勢で周回し、各機器も正常に作動。「新京報」伝。部分月食が起きたのは 17 日午前 3 時 35 分から同 6 時 44 分。北京宇宙飛行制御センターは 16 日夜に、嫦娥 1 号に一連の制御指令を出した。17 日午前 3 時 21 分に月蝕影部分に入ると、嫦娥 1 号は事前設定プログラムに従って観測システムを自ら停止、「沈黙」状態に。地上との交信も一時的に途絶えた。約 3

<http://j.people.com.cn/94471/6479311.html>

時間後、嫦娥 1 号は順調に影から拔出し、再び陽光に姿を現した。30 分後、北京センターは次々に遠隔観測システム再始動を指令。嫦娥 1 号からのデータにより、同**衛星**の各機能は正常と判断された。嫦娥 1 号は月蝕の試練を無事通過。同センター劉俊沢・飛行管理室主任は、今回の主眼が省エネにあることを指摘し「冬眠状態に入るように、大脳と心臓の働きだけを維持する。**衛星**は月蝕環境を拔出すや、各機器を 1 つ 1 つ再始動」と説明。(編集 NA)

アポロ 11 号の着陸地点もパッチリ撮影します、NASA の月探査衛星「LRO」

画像は来年、2月27日打上げが決定した NASA の月観測衛星「ルナリコネッサンス・オービタ(LRO: Lunar Reconnaissance Orbiter)」の想像図。**[編注]** low reso 画像略

この探査衛星、恐らくこれまでの NASA 観測ミッション中でも最も世間的注目を集める可能性が高いものとなりそう。探査衛星は月全周調査を予定、その中にはアポロ 11 号着陸地点も含まれている。アポロ 15 号着陸地点に関し日本の月観測衛星「かぐや」も映像撮影に成功し、今年 5 月に映像送信してきたが、「かぐや」の光学カメラの場合、解像度は 10m と粗く、実のところ、これがアポロ 15 号着陸によって生じたハローと呼ばれる噴射跡だといわれても、映像は微妙で良く判らなかったというのが本音。しかし、LRO に搭載されているナローレンジカメラの場合、解像度 1m と段違いに細かくアポロ 11 号着陸船は理論上では縦横が 5x5 ピクセル位の映像として認識できる。LRO は当初、年内打上

<http://www.technobahn.com/news/2008/200808170954.html>

げが予定されていたが、米空軍次世代スペースシャトル X-37B 打上げスケジュールとバッティングしたため、2月に延期。この延期はアポロ 11 号着陸ポイントの CG 作成に手間取ってしまったからと勘ぐってはいけない。画像は地上施設で月面活動のリハーサルを行うアポロ 11 号乗組員たち(画像提供:NASA)。



http://www.nasa.gov/centers/goddard/images/content/174593main_LRO_Rendering.jpg

jmf (社)日本機械工業連合会 平成 19 年度調査研究報告書リスト (抜粋)

| 委託先 | 平成 19 年度 報告書名 | 備考 (URL: 本冊、要旨) |
|-----------------------------|---|--|
| (社)日本航空宇宙工業会 | 即応型宇宙システムの製造に係わる競争力強化に関する調査研究報告書 | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_y04.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_04.pdf |
| (財)資源探査用観測システム・宇宙環境利用研究開発機構 | 次世代衛星搭載サーマルイメージングセンサに関する調査研究報告書 | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_y08.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_08.pdf |
| | 将来の光学系リモートセンシングにおける機上データ処理技術に関する調査研究報告書 | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_y10.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_10.pdf |
| (社)中部航空宇宙技術センタ | 航空宇宙等次世代産業技術の利用活用による地域中小企業の技術高度化に関する調査研究報告書 | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_y11.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kodoka_11.pdf |
| 日本戦略研究フォーラム | 安全保障環境の変化が我が国の～ | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_y01.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_01.pdf |
| | 宇宙の平和利用原則の見直しとこれが～ | |

| | | | |
|----------------|--|--------------------------|--|
| (財)安全保障貿易情報センタ | 国際的制度調和に向けた安全保障貿易管理制度の比較・分析に関する調査研究報告書 | 米国における安全保障貿易管理制度に関する調査研究 | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_y03_1.pdf |
| | | インドの輸出管理法制度実態調査 | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_03_1.pdf |
| | | 中国における暗号規制調査 | http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_y03_2.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_03_2.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_y03_3.pdf http://www.jmf.or.jp/japanese/houkokusho/kensaku/pdf/2008/19kankyo_03_3.pdf |

http://www.jmf.or.jp/japanese/houkokusho/list/list_19.html

mssf(財) 機械システム振興協会 平成 19 年度調査研究報告書 リスト(抜粋)

| 委託先 | 平成 19 年度 報告書名 | 備考 (URL: 要旨) |
|---------------------|---|---|
| (財)無人宇宙実験システム研究開発機構 | 高度なマヌーバビリティを有する地球観測監視衛星の具体化に関する調査研究 宇宙利用支援システムに関する調査研究 | [編注] 公開は要旨だけでも拘わらず、印刷さえできないセキュリティ設定にしている。下記の HP トップにおおざっぱにリンクされてのみ。不親切！： http://www.usef.or.jp/ |
| (社)日本航空宇宙工業会 | 宇宙マイクロ・ナノ技術に関する調査研究 | http://www.sjac.or.jp/common/pdf/sjac_gaiyo/jigyohoukoku/h19_hokoku_fuzoku.pdf |
| (財)次世代金属・複合材料研究開発協会 | 航空機等輸送系機械システム用革新的アクチュエータシステムに関する調査研究 | http://www.rimcof.or.jp/pdf/shisukyou-19.pdf |

<http://www.mssf.or.jp/sub19.htm>

Aerospace Daily & Defense Report Aug 18, 2008 National Research Council Review of Prompt Global Strike (PGS)

委員会でレビューされた従来型のプロンプト・グローバル・ストライク(敏速全球規模攻撃)の代替システムの要約

Summary of Conventional Prompt Global Strike Alternatives Reviewed by the Committee

| Alternatives | Origins | Launch Vehicles | Range (Payload-Dependent) ^a | Munitions Payload Capacity ^b | Earliest IOC ^c | 20-Year Cost ^d |
|-----------------------------|--|---|--|---|---------------------------|---------------------------|
| Existing systems | USA, USAF, USMC, USN | Cruise missiles, tactical aircraft, & heavy bombers | 1,500 to >6,000 nmi | 1,000-2,000 lb | Available now | Not applicable |
| CTM | USN (sea-based) | Trident: D5 (3- stage) | >4,000 nmi | >1,000 lb | 2011 | 1 |
| CTM-2 | Committee (sea-based) | Trident: 2-stage | ^e >4,000 nmi | 2,000 lb ^e | 2013 | 3 |
| SLGSM | USN (sea-based) | 2-stage rocket booster | 3,000 nmi | 2,000 lb | 2014-2015 | 5-10 |
| Boost-glide missile (CSM-1) | Committee/ USAF (land-based) ^f | Minotaur III | >6,000 nmi | 2,000 lb | 2016-2020 | 10-20 |
| Boost-glide missile (CSM-2) | Committee/ USAF (land-based) ^f | Minotaur III | >6,000 nmi (plus additional glide range vs. CSM-1) | 2,000 lb | 2018-2024 | 10-25 |
| Hypersonic cruise missiles | USN (sea-based) or USAF (land-based or B-52) | Single-stage rocket booster | 2,000 -3,000 nmi | 1,000-2,000 lb | 2020-2024 | 10-20 |

^aData on range and payload for CTM, SLGSM, CSM-1, CSM-2, and hypersonic cruise missile options are extracted from Amy F. Woolf, 2007, Conventional Warheads for Long-Range Ballistic Missiles: Background and Issues for Congress, CRS Report to Congress,

Washington, D.C., June 19, pp. 10–12, 24–26.

bThe reader is cautioned that direct mass-to-mass comparisons of munitions capacity do not reflect weapons effectiveness. Different types of munitions will have different weapon impact for the same mass.





cThe reported initial operational capability (IOC) data in this table are the committee’s best estimates based on information presented to the committee and the experience of committee members, assuming an authorization date of 2008. Actual IOCs for all but the CTM are likely to be later for many reasons, including delays in decision making, the time required to stand up program offices, and unanticipated problems in systems engineering.

d (relative to CTM: billions of 2009 dollars) The 20-year cost estimates are based on contractor briefings. The numbers quoted are imprecise estimates of costs relative to the projected cost for CTM.

eThe committee-generated CTM-2 concept would have a larger payload capability due to the throw weight and volume freed up by removing the third-stage motor of a Trident missile. Range, however, would be somewhat lower depending on payload.

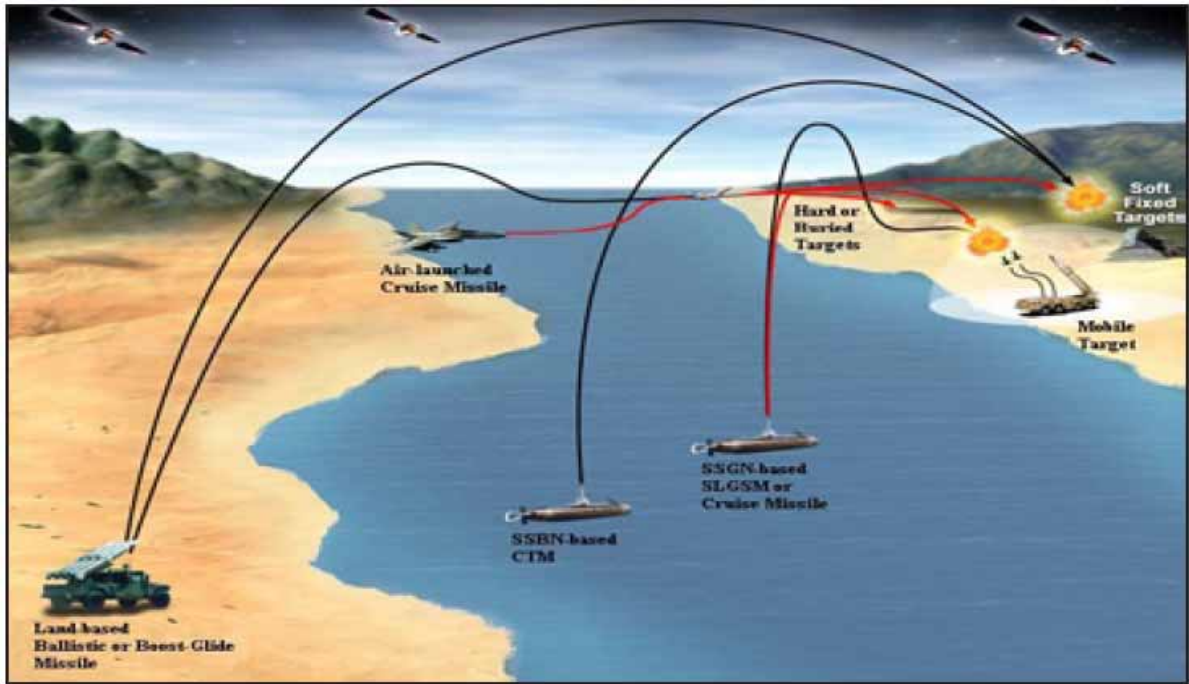
fCSM-1 and CSM-2 are committee modifications of the Air Force-proposed CSM and CONUS missile concepts, respectively.

Aerospace Daily & Defense Report Aug 21, 2008 National Research Council on Prompt Global Strike

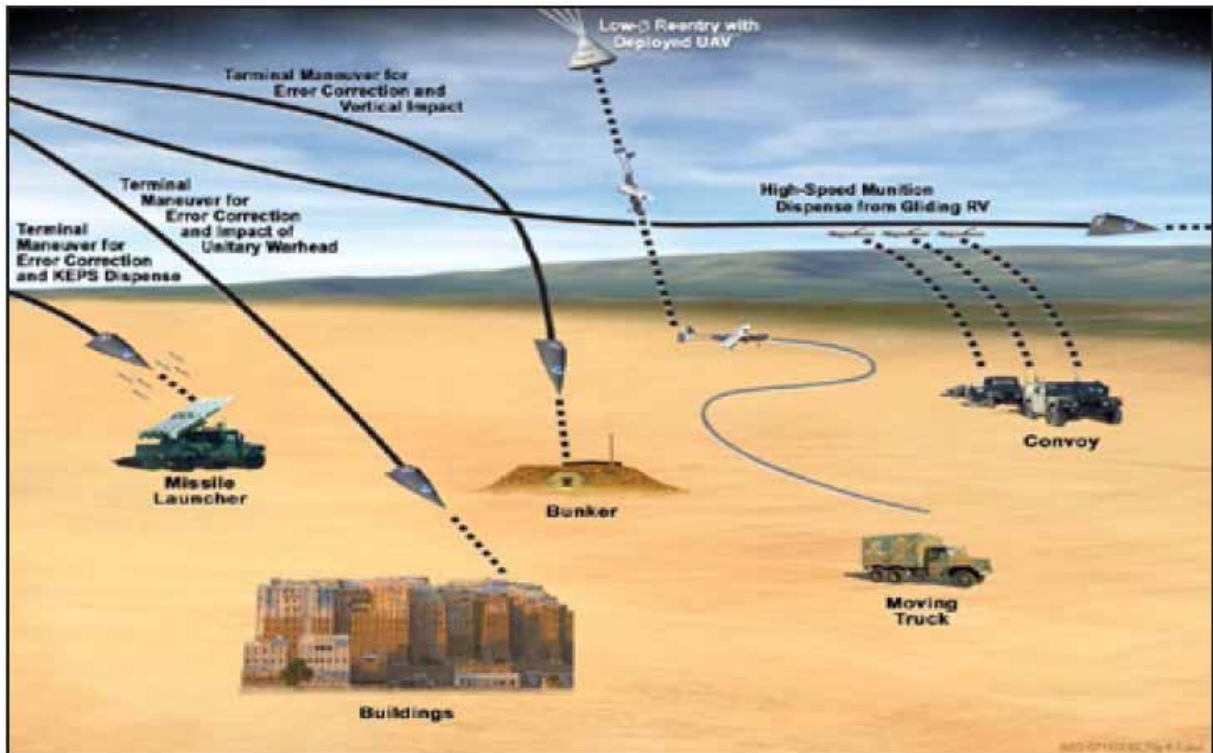
|  <p>CTM</p> |  <p>SLGSM</p> |  <p>CSM-1</p> |  <p>CSM-2</p> |
|---|---|--|---|
| <ul style="list-style-type: none"> •Built on E2 and LETB experience •Small warhead •Error correction •Limited footprint expansion | <ul style="list-style-type: none"> •Built on Mk 500 RV experience •300-s TPS •Large warhead •Moderate trajectory flexibility •Error correction •Trajectory flexibility and footprint expansion with RV having moderate lift-to-drag ratio | <ul style="list-style-type: none"> 2•Built on AmaRV experience •800-s TPS •Large warhead •Footprint expansion with RV having moderate lift-to-drag ratio | <ul style="list-style-type: none"> •Technology being developed in FALCON program •3,000-s TPS •Large payload with dispense capability •Significant footprint expansion with RV having high lift-to-drag ratio |

Source: National Research Council

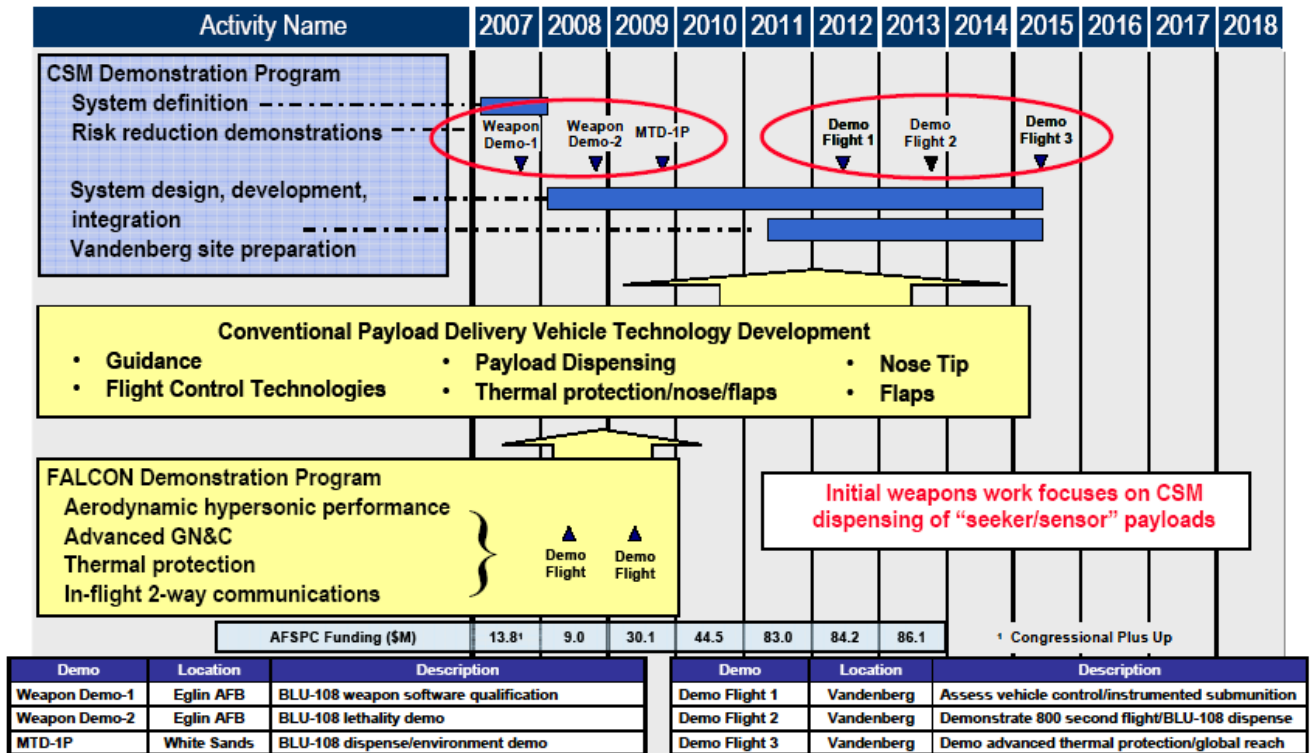
Candidate Concepts for Conventional PGS Source:



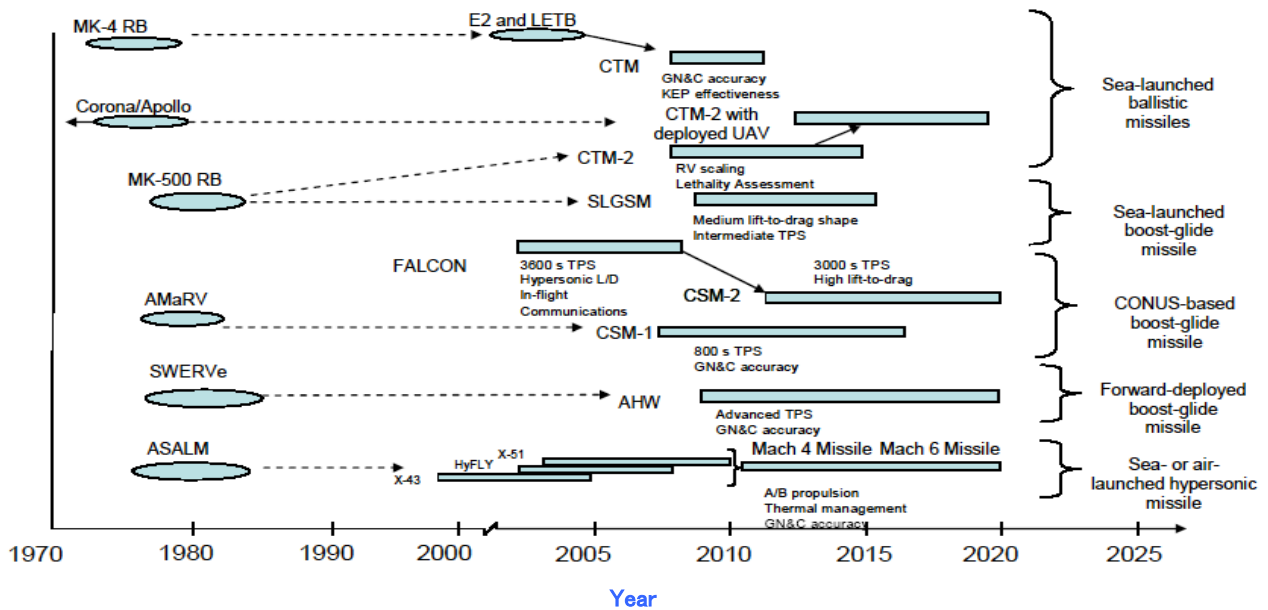
Terminal Phase Options for Conventional PGs



Conventional Strike Missile Technology Demonstration Plan



Conventional Prompt Global Strike Timelines



Source: National Research Council

Aerospace Daily & Defense Report Aug 20, 2008 DOD Selected Acquisition Reports (SAR) Program Acquisition Cost Summary

空軍調達コスト(要約)

| Program | Base Year | Base Year \$ | Then Year \$ | Quantity |
|---------------------|-----------|--------------|--------------|----------|
| AEHF | 2002 | 6,738.3 | 7,362.0 | 4 |
| AMRAAM | 1992 | 13,156.3 | 14,880.6 | 13,953 |
| B-2 EHF INCREMENT 1 | 2007 | 636.4 | 681.0 | 21 |
| B-2 RMP | 2004 | 1,093.7 | 1,225.4 | 21 |
| C-130 AMP | 2000 | 4,521.0 | 5,800.2 | 222 |
| C-130J | 1996 | 9,804.7 | 12,029.3 | 134 |

| | | | | |
|-------------------------------|------|--------------------|--------------------|----------------|
| C-17A | 1996 | 58,664.8 | 62,306.7 | 190 |
| C-5 AMP | 2006 | 1,377.0 | 1,405.3 | 112 |
| C-5 RERP | 2008 | 7,146.6 | 7,694.1 | 52 |
| F-22 | 2005 | 66,991.8 | 64,539.9 | 184 |
| FAB-T | 2002 | 2,962.7 | 3,622.2 | 222 |
| GBS | 1997 | 727.0 | 805.5 | 1,121 |
| GLOBAL HAWK (RQ-4A/B) | 2000 | 8,101.9 | 9,740.7 | 54 |
| JASSM | 1995 | 4,466.1 | 6,065.8 | 5,006 |
| JDAM | 1995 | 4,522.1 | 5,260.1 | 201,993 |
| JPATS | 2002 | 4,914.5 | 5,534.3 | 768 |
| LAIRCM | 2008 | 383.6 | 366.0 | |
| MINUTEMAN III GRP | 1993 | 2,095.4 | 2,427.7 | 652 |
| MINUTEMAN III PRP | 1994 | 2,189.8 | 2,601.8 | 601 |
| MP RTIP | 2000 | 1,114.7 | 1,225.0 | |
| NAS | 2005 | 1,423.5 | 1,490.7 | 91 |
| NAVSTAR GPS - SPACE & CONTROL | 2000 | 5,963.1 | 6,306.1 | 33 |
| NAVSTAR GPS - USER EQUIPMENT | 2000 | 1,790.6 | 2,093.7 | |
| NPOESS | 2002 | 9,363.0 | 11,140.2 | 4 |
| SBIRS HIGH | 1995 | 9,558.7 | 11,554.5 | 4 |
| SBSS B10 | 2007 | 811.0 | 823.9 | 1 |
| SDB I | 2001 | 1,252.0 | 1,476.9 | 24,070 |
| WGS | 2001 | 1,764.4 | 1,950.5 | 5 |
| AIR FORCE SUBTOTAL | | 233,534.7 | 252,410.1 | 249,518 |
| ARMY SUBTOTAL | | 265,972.7 | 343,742.5 | 250,967 |
| NAVY SUBTOTAL | | 467,480.2 | 581,008.5 | 46,686 |
| DOD SUBTOTAL | | 348,318.1 | 465,407.5 | 221,072 |
| GRAND TOTAL | | 1,315,305.7 | 1,642,568.6 | 768,243 |

Source: Department of Defense

Aerospace Daily & Defense Report Aug 25, 2008

米英の防衛輸出協定、時間切れに近づく

Time running out for U.S.-U.K. defense trade treaty

CLOSING WINDOW: The closing window of opportunity for Senate ratification of the U.S.-U.K. Defense Trade Cooperation

Treaty is focusing minds on wheth... . . .

ILS社は2011年にInmarsat向けにEuropaSat打上げ予定

ILS to launch EuropaSat for Inmarsat in 2011

EUROPASAT: International Launch Services (ILS) will launch the S-band EuropaSat spacecraft for Inmarsat aboard a Proton

rocket in early 2011 under a n... . . .

国家安全保障が大統領選の議論の最初のトピックになる予定

National security to be first presidential debate topic

SECURITY DEBATE: Foreign policy and national security will be the topics when Sens. John McCain (R-Ariz.) and Barack Obama

(D-Ill.) hold their first t... . . .

英防衛関係による調達見直しは秋にずれ込む

U.K. defense ministry procurement review slips to autumn

QUICK, SLOW: Second guessing continues as to just when the U.K. Defense Ministry will complete what it originally billed as a

quick review of its proc... . . .

GD は地上車輛用途の全周をカバーする最初の化学剤検出器を提供予定

GD unit to provide first chemical detectors with 360-degree coverage for ground vehicles

SMIFF TEST: The U.S. Army Research Development and Engineering Command is awarding General Dynamics Armament and Technical Products around \$15.7 milli... . . .

米国議員はグルジアの支援に人道・軍事支援を考慮予定

U.S. lawmakers to consider humanitarian, military aid for Georgia

GEORGIA RELIEF: The chairman of the House Foreign Affairs Committee says Congress will take up assistance to the Republic of Georgia – including aid f... . . .

インド米国原子力の協議は NSG 核供給グループのところで暗礁に乗り上げ

India-U.S. nuclear deal hits snag at NSG

WAVERING WAIVER: Members of the Nuclear Suppliers Group (NSG) are expressing reservations on the wording of the proposed waiver that would allow the U... . . .

米海軍は Bunker Hill イージス戦闘システムの初期化 8 月 25 日を道標と宣言

Navy declares Bunker Hill's Aegis combat system initialization Aug. 25 a milestone

BREAKING UP: The USS Bunker Hill's Aegis combat system initialization Aug. 25 will mark the first step in a planned series of ship-activation mileston... . . .

ロシア宇宙飛行士は南オセチアを ISS から撮影、ロシアは人道的動機と主張

Cosmonaut photographed South Ossetia from space station

Russia has claimed humanitarian motives in its use of the International Space Station (ISS) to collect overhead imagery of South Ossetia shortly after... . . .

イラクで無人対無人の戦闘作戦が出現しつつある

Unmanned-on-unmanned combat ops emerging in Iraq

Combat that's been talked about for the last century – unmanned systems destroying other unmanned systems – is now a reality following the destruction... . . .

KSC ケネディ・スペース・センタが熱帯嵐により若干の被害を受けて再度開く

KSC reopens with minor damage

NASA's Kennedy Space Center reopened for the first shift Aug. 22 after being closed since Aug. 20 while Tropical Storm Fay stalled over Florida's Spac... . . .

ATK 社は Hybolt 打上げの失敗で厳しい軌道要求に言及

ATK cites tight trajectory in failure of HyBolt launch

Rigorous trajectory requirements for a pair of NASA aeronautics experiments probably contributed to a loss of control that forced range-safety destruc... . . .

DISA 防衛情報システム庁は契約と BRAC の動きの問題に直面とその筋は述べる BRAC = 基地再編と閉鎖 Base Realignment and Closure

DISA faces contracting, BRAC move issues, Input says

The U.S. Defense Information Systems Agency (DISA) apparently is having difficulties using performance-based contracting (PBC),

ensuring competition a... . . .

新データリンクで Raven 無人機に関しリンクが失われて飛んで行ってしまうのを減らす予定

New datalink to reduce lost link fly-aways for Raven

The U.S. Army is planning to wrap up testing of a new digital datalink (DDL) that is expected to reduce interference in

controlling its Raven unmanned... . . .

インド空軍の先進型 Su-30MKI 戦闘機が米にレッド・フラッグ訓練と精密調査にやってくる

Advanced Su-30MKIs come to U.S. for Red Flag training, scrutiny

American, French and South Korean aircrews are getting a close look at one of the world's fabled aircraft – the Indian Air Force's

(IAF) Su-30MKI stri... . . .

議会はなお DHS 国土安全保障省の衛星画像共有プログラム問題と取組む

Congress still grappling with DHS satellite imagery-sharing program

A controversial program to share classified satellite imagery with nonfederal agencies – including local law enforcement – is one of

the unresolved is... . . .

Aerospace Daily & Defense Report Aug 22, 2008

米陸軍は Sky Warrior 武装型無人機の早急な生産を検討

U.S. Army mulls earlier production nod for Sky Warrior

The U.S. Army is considering accelerating the production decision for its Sky Warrior system, noting that experience flying

variants of the Predator-b... . . .

GAO 行政監察院は宇宙服に関する抗議を却下、Oceaneering は敏速な行動を期待

GAO dismisses spacesuit protest; Oceaneering expects quick action

The U.S. Government Accountability Office (GAO) has formally dismissed a protest brought by Hamilton Sundstrand and ILC

Dover over NASA's selection of... . . .

熱帯嵐 Fay による洪水で KSC ケネディは閉鎖

Flooding from Fay keeps KSC closed

NASA's Kennedy Space Center (KSC) remained closed for a second day Thursday morning as Tropical Storm Fay dumped as

much as 30 inches of rain on the a... . . .

MDA のフレキシブル・ターゲット・ファミリーの初飛行は 2009 年にずれ込み

First flight of MDA Flexible Target Family slips to 2009

Lockheed Martin says the first flight for its Flexible Target Family (FTF), a set of at least eight new targets designed for the

U.S. Missile Defense... . . .

自動化兵器が米国の戦術的優勢を脅かすと CSBA 戦略的予算評価センタは述べる

Automated weapons threaten U.S. tactical dominance, CSBA says

Tactical dominance may no longer be relevant as automated systems and weapons threaten U.S. training superiority,

according to Barry Watts, senior fel... . . .

ロッキードはルーマニアに対する最初の長距離レーダ能力向上を完了

Lockheed Martin completes first long-range radar upgrade for Romania

ROMANIAN RADAR: The site acceptance for the third of five Romanian Air Force AN/FPS-117 long-range surveillance radars

is planned for late August. Loc... . . .

ジェネラル・ダイナミクスは新しい戦闘暗号鍵ジェネレータを米空軍向けに設計・開発予定

General Dynamics to design, develop new combat key generator for USAF crypto

CRYPTO KEEPER: General Dynamics will design, develop and test a new combat key generator for the U.S. Air Force

Cryptologic Systems Group (CPSG). The... . . .

イスラエルにおいて FBX-T レーダは米国人のみで作動される予定

FBX-T radar in Israel to be operated only by U.S. personnel

The Forward-Based X-Band Radar-Transportable (FBX-T) radar, which Washington is proposing to position inside the Middle

Eastern ally, will be operated... . . .

Intelsat は IS-18 通信衛星の製造に Orbital 社を選定

Intelsat picks Orbital to build IS-18

INTELSAT ORDER: Intelsat has picked Orbital Sciences Corp. to build the Intelsat-18 (IS-18) communications satellite. To be

based on Orbital's STAR-2... . . .

Aerospace Daily & Defense Report Aug 21, 2008

JSF pre-STOVL システムのフライトテストが中断に続き切迫

JSF pre-STOVL system flight test imminent, followed by break

PALMDALE, Calif. - Lockheed Martin plans to conduct more test flights of the first short-takeoff-and-vertical-landing (STOVL)

F-35B this week to evalu... . . .

Wallops のサブオービタル打上げは再突入探査器を搭載予定

Wallops suborbital launch will carry re-entry probes

An Alliant Techsystems ALV-X1 launcher is set to carry two hypersonic and re-entry experiments on a suborbital mission

from NASA's Wallops Flight Faci... . . .

下院軍事委員会 Skelton 委員長は米次期大統領の直面する国家安全保障への取組み目標を概説

Skelton outlines national security challenges facing next president

The next U.S. president must pursue development of a wide range of counterinsurgency and irregular warfare tools that could

cost as much as \$2 billion... . . .

NASA Global Hawk オペレーション・センタに関する作業始まる

Work begins on NASA Global Hawk operations center

EDWARDS, Calif. – NASA and Northrop Grumman are starting construction of a Global Hawk Operations Center here at Dryden

Flight Research Center from wh... . . .

グルジアはロシアの作戦計画、武器及びインテリジェンスの弱点を暴露

Georgia reveals weaknesses in Russian planning, weapons & intel

Russian military officials, in writings that are catching U.S. analysts' attention, are concluding that Russia's offensive into

Georgia was morally ju... . . .

プロトン飛行再開でカナダ商業通信商業打上げを設定

Proton return to flight sets up Canadian launch

International Launch Services is preparing to launch Canada's NIMIQ 4 commercial communications satellite, now that it has

returned to flight with the... . . .

ジェネラル・ダイナミクスは Jet Aviation を買収する計画 **【編注】** かつて F-16 の製造部門を売却したのに、また航空機製造業を買収？

General Dynamics planning to buy Jet Aviation

GD BUYS: General Dynamics signed a purchase agreement Aug. 18 to acquire Jet Aviation for \$2.25 billion. The companies

expect to close the deal by the... . . .

ロッキードマーチンは熱赤外カメラで\$8.9M の契約

Lockheed Martin awarded \$8.9 million thermal camera contract

HEAT SEEKER: Lockheed Martin received an \$8.9 million production order for 150 Integrated Dewar Cooler Assembly

thermal cameras from Gyrocam Systems.... . . .

Ares は振動対策をした後も余裕しゃくしゃくと NASA は述べる

Ares still has comfortable margin after vibration fix, NASA says

Managers with NASA's Constellation program say the Ares I rocket design still has about 6,600 pounds of performance margin

after the addition of hardw... . . .

AeroVironment 社はステルス無人機で\$4.6M の DARPA の資金を得る

AeroVironment receives \$4.6 million DARPA funding for stealthy UAS

STOP AND STARE: The Defense Advanced Research Projects Agency has awarded AeroVironment (AV) \$4.6 million to fund the

development of a small Unmanned... . . .

Aerospace Daily & Defense Report Aug 20, 2008

米のレーダと衛星データではイランの打上げは失敗したことが示されている

U.S. radar and satellite data indicate Iran launch failed

Iran's flight test of a space launch vehicle failed Aug. 17,

according to radar tracking by a U.S. Navy destroyer and infrared

data from U.S. Air Forc... . . .

米陸軍はモバイル・レーザ・ウェポン開発に関する契約を行う

U.S. Army awards contracts for mobile laser weapon development

The U.S. Army took another step closer to having a mobile solid-state laser weapon system as the two competing teams

announced milestones in their dev... . . .

シャトル・フライトはクルーの振動の影響に関するデータを収集予定

Shuttle flight to gather data on crew vibration effects

When shuttle Discovery blasts off on STS-119 next year, three of the astronauts' chairs will have instruments installed to gather

data for the Ares/Or... . . .

熱帯嵐で KSC ケネディ・スペースセンタ閉鎖、Atlantis の VAB 垂直組立棟への移動遅れる

Tropical storm closes KSC, delays Atlantis move to VAB

CAPE CANAVERAL, Fla. - Tropical Storm Fay forced the closure of the Kennedy Space Center in Florida Aug. 19, delaying

a key milestone in the preparati... . . .

ITT は海外への軍用品売却で\$490M にも達する契約を得る

ITT awarded Foreign Military sales contract with \$490 million potential

ITT AWARD: ITT Corporation was awarded a five-year Foreign Military sales (FMS) contract by the U.S. Army Communications

Electronics Command (CECOM) t... . . .

米空軍は合成燃料 (: 日本では通称バイオ燃料) のテストを拡大

USAF steps up synthetic fuel tests

Demonstration testing of a 50-50 blend of synthetic fuel with petroleum-based JP-8 in F-15 and F-22 aircraft is starting this

week, and the first in-f... . . .

EU 欧州共同体の動きは宇宙探査における欧州のプロファイルを強化しうる

EU moves could boost profile of Europe in space exploration

PARIS - A pledge by European Union ministers to place the EU at the center of space policymaking, coupled with European

Space Agency (ESA) efforts to... . . .

調査会社 Forecast International は次の 10 年に ELV 使捨て打上げロケットで売上げ\$48B を予測

Forecast International predicts \$48B in ELV production over the next decade

SPACE MARKETS: Forecast International is projecting that over the next decade, launch vehicle providers around the world will

produce 636 expendable l... . . .

Aerospace Daily & Defense Report Aug 19, 2008

Ares I 技術者たちは推進系の振動問題を解決したと信じる

Ares I engineers believe they have fix for thrust oscillation problem

Ares I engineers are scheduled to present their final recommendation this week on fixing a potentially dangerous

thrust oscillation on the new crew la... . . .

BAE の熱赤外撮像器は特殊作戦車輛のもつ視認性を改善する

BAE thermal imagers will improve visibility on Special Ops vehicles

VISIBLE FORCES: Special operations forces' vehicles will soon be equipped with BAE Systems' thermal imaging systems to

enhance forward and rear visibi... . . .

NASA の宇宙服調達に関して利害の衝突が言及される

Conflict of interest cited in NASA spacesuit procurement

NASA's inspector general has found a conflict of interest among members of the outside panel set up to review its Constellation

Space Suit System (CSS... . . .

インドとマレーシアは戦闘機の運用で結束を強化

India, Malaysia boost ties with fighter services

NEW DELHI – India's Chief of the Air Staff, Air Chief Marshal FH Major, will be on an official visit to Malaysia Aug. 18–20 to meet

the Malaysian Defe... . . .

英国防衛閣僚は無人の都市部での運用の最終戦を開催

U.K. defense ministry holds unmanned urban ops finals

U.K. CHALLENGE: The British Defense Ministry was due to begin the finals of its "grand challenge" August 16 to select a winner

from the teams competin... . . .

米空軍は将来の Predator/Reaper の公式訓練部隊を発表

U.S. Air Force announces its future Predator/Reaper formal training unit

UNMANNED TRAINING: Holloman Air Force Base, N.M., is the "preferred potential location" for an additional Unmanned

Aircraft System (UAS) Formal Traini... . . .

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ノースロップ・グラマンとロックウェル・コリンズは新しい B-2 のデジタル・コックピットを開発中

Northrop Grumman, Rockwell Collins developing new B-2 digital cockpit

B-2 COCKPIT: A new digital cockpit for the B-2 is being designed and built by Northrop Grumman and Rockwell Collins. A

prototype has been tested as th... . . .

米ポーランドのミサイル防衛へのロシアの反動はさらに激しくなる

Russian reaction to U.S.–Polish missile defense grows harsher

THAW OVER: U.S. and Polish leaders declare their newly signed missile defense–based deal has nothing to do with Russia, but

Russian leaders are making... . . .

ボーイングはブラジルの F-X2 戦闘機の受注合戦で提案書を提出

Boeing throws hat in the ring for Brazil F-X2 competition

BOEING BID: When the Brazilian Air Force evaluates bids for its F-X2 fighter competition, among the offerings will be a Boeing

proposal for its advanc... . . .

安全委員会は NASA のセンタが多すぎかもしれないと示唆

Safety panel suggests there may be too many NASA centers

PRUNING NASA: NASA's Aerospace Safety Advisory Panel continues to worry that the agency isn't adequately funded for all

of the work it has, particular... . . .

MDA ミサイル防衛庁は STSS 宇宙追跡監視システム後継の開発は急がず

MDA in no hurry to develop STSS follow-on

STSS SEQUEL: With the launch of two Northrop Grumman Space Tracking and Surveillance System (STSS) satellites set

for early 2009, there are no plans t... . . .

NASA は入札への抗議に続き宇宙服の契約を解約

NASA cancels spacesuit contract following bid protest

SPACESUIT SCUTTLED: NASA is canceling its contract with Oceaneering International Inc. (OII) to build spacesuits for the

Constellation program, follow... . . .

DOD 国防省はさらに多くの WGS 衛星購入を検討すべきと Campbell は述べる

DOD should consider more WGS buys, Campbell says

HUNTSVILLE, Ala. - The Pentagon should begin to explore purchasing a sixth and possibly seventh Wideband Global Satcom

(WGS) satellite from Boeing, sa... . . .

安い！\$1 の改修で Predator 無人機の運用の助けに、メールの代わりに、秘匿インターネット電話ができる

Cheap fix helps Predator operators

CHEAP INNOVATION: A \$1 fix to the MQ-1 system allows Predator pilots to talk over a secure internet telephone rather

than having to rely on text messa... . . .

安全委員会は次期 NASA リーダに関する迅速な決断を求める

Safety panel seeks quick decisions on next NASA leadership

NASA's Aerospace Safety Advisory Panel (ASAP) is calling on the next Congress and presidential administration to make quick

decisions about the leader... . . .

Aerospace Daily & Defense Report Aug 15, 2008

安全保障宇宙の専門家によるブルーリボンパネルは軍事宇宙マネジメントの大規模の人員異動を要求

Panel calls for massive reshuffling of military space management

HUNTSVILLE, Ala. - A blue-ribbon panel of national security space experts is calling for a number of "bold steps" - including

abolishing the National... . . .

NASA はシャトルの打上げを繰上げることはしないことに決定

NASA decides not to advance shuttle launches

Managers on NASA’s space shuttle, International Space Station and Hubble Space Telescope programs have decided not to

advance launch dates for the tw... . . .

Ariane 5 は日本と SES の衛星を打上げ

Ariane V Orbits Satellites for Japan, SES

ARIANE SUCCESS: Engineers at Japan’s Space Communications Corp. and SES Americom are checking out two new

communications satellites after Arianespace’... . . .

射場問題で GeoEye-1 打上げ日程遅れ

Range issues push back GeoEye-1 launch date

Launch of the **GeoEye-1** high-resolution commercial-imaging satellite will slip from Aug. 22 until Sept. 4 to give United Launch

Alliance more time to o... . . .

Gates 国防長官はグルジアの紛争で米軍は、当面の作戦には臨まないものの、ロシアとの長期的対話の前提条件に疑問と述べる

Gates says U.S. military force off table in Georgian conflict

Russia’s recent actions in Georgia could “adversely affect” U.S.–Russian relations for years to come, Defense Secretary

Robert Gates says, but he does... . . .

Cassini のフライバイで Enceladus の蒸気とガスの放出経路の近接写真を撮る

Cassini flyby yields closeups of Enceladus vents

NASA’s Cassini spacecraft has taken closeup images of Damascus Sulcus, one of the “Tiger Stripes” on Saturn’s moon

Enceladus that spews water vapor an... . . .

米は NSG 原子力供給者グループにインドの核取引の認可を求める

U.S. asks NSG for waiver allowing Indian nuclear deal

NEW DELHI – The U.S. is circulating a draft request among the member nations of the Nuclear Suppliers Group (NSG) for a

waiver to allow nuclear trade... . . .

DIA 防衛インテリジェンス庁は\$6.6B の SITE IT 契約の提案要求(案)を発行 SITE = Solutions for the Information Technology Enterprise

DIA issues draft RFP for \$6.6B SITE IT contract vehicle

INTELLIGENT RFP: The U.S. Defense Intelligence Agency has released a draft request for proposals (RFP) for its Solutions for

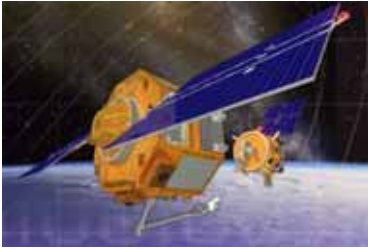

the Information Technolog... . . .

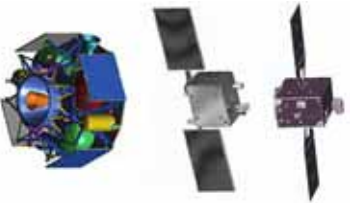

Alliance Spacesystems 社は NRL 米海軍研究所に衛星のロボット・アームを納入

Alliance Spacesystems LLC Delivers Satellite Robotic Arm To NRL

ROBOTIC ARM: Alliance Spacesystems LLC has delivered a prototype robotic arm to the U.S. Naval Research Laboratory

(NRL) that could be used to repair... . . .

| Program | FY 07 | FY 08 | FY 09 | DARPA's notes | Potential? |
|--|-------|-------|-------|--|---|
| Orbital Express Space Operations Structure | 34.7 | 0.0 | 0.0 | <p>"The goal of the Orbital Express Space Operations Architecture program was to validate the technical feasibility of robotic, autonomous on-orbit refueling and reconfiguration of satellites to support a broad range of future U.S. national security and commercial space programs. Refueling satellites would enable frequent maneuver to improve coverage, change arrival times to counter denial and deception and improve survivability, as well as extend satellite lifetime...The Orbital Express advanced technology demonstration designed, developed, and tested on-orbit a prototype servicing satellite (ASTRO) and a surrogate next generation serviceable satellite (NextSat). The elements of Orbital Express demonstration, coordinated with the Air Force Space Command and Air Force Space and Missile Command, was tied together by non-proprietary satellite servicing interfaces (mechanical, electrical, etc.) facilitating the development of an industry wide on-orbit servicing infrastructure. Orbital Express successfully launched in March 2007 as part of the Air Force Space Test Program's STP-1 mission. The demonstration program met all mission success criteria and was completed in July 2007."</p>  <p>http://space.newscientist.com/article/dn11511-mechanic-satellite-looks-under-its-own-hood.html</p> <p>http://www.afcea.org/signal/articles/templates/SIGNAL_Article_Template.asp?articleid=1320&zoneid=41</p> | This sort of maneuvering power could provide a latent offensive, anti-satellite capability. |
| Falcon | 51.5 | 25.0 | 25.0 | <p>"The Falcon program objectives are to develop and demonstrate hypersonic technologies that will enable prompt global reach missions. This capability is envisioned to entail a reusable Hypersonic Cruise Vehicle (HCV) capable of delivering 12,000 pounds of payload at a distance of 9,000 nautical miles from CONUS in less than two hours. The technologies required by a HCV include high lift-to-drag technologies, high temperature materials, thermal protection systems, and guidance, navigation, and control. Leveraging technology developed under the hypersonic technology vehicles (HTVs) to incrementally demonstrate these required technologies in flight. The HTV-2 program will demonstrate enabling hypersonic technologies for future operational systems through rocket-boosted hypersonic flights with sufficient cross-range and downrange performance to evaluate thermal protection systems, aerodynamic shapes, maneuverability, and long-range communication for hypersonic cruise and re-entry vehicle applications. The HTV-3X program will demonstrate key Hypersonic Cruise Vehicle technologies in a realistic flight environment by developing a re-usable hypersonic aircraft test bed capable of takeoff from runway under turbojet power, acceleration to Mach 6 speed under combined turbojet and scramjet propulsion, controlled deceleration, and runway landings. In order to implement this flight test program in an affordable manner, Falcon will develop a low-cost, responsive Small Launch Vehicle (SLV). The SLV will be capable of launching small satellites into low earth and sun-synchronous orbits and will provide the nation a new, small payload access to space capability. Thus, the Falcon program addresses many high priority mission areas and applications such as global presence and space lift. DARPA established an MOA with the Air Force for the HTV-2 program in May 2003 and with NASA in October 2004. Falcon capabilities are planned for transition to the Air Force."</p>  <p>http://www.air-attack.com/news/news_article/2828/Defense-bill-provides-100-M-for-FALCON-hypersonic-cruise-vehicle---UPDATED.html</p> | This program could yield a space-based strike capability, and could allow misunderstandings to arise about the nature of the HCV 's payload (i.e., another country might see the HCV being launched and mistake it for a nuclear-tipped ballistic missile). |
| Blackswift Test Bed (formerly HTV-3X) | 0.0 | 35.0 | 70.0 | <p>"The Blackswift Test Bed program will develop an extended duration hypersonic test bed will allow for the study of tactics for a hypersonic airplane that includes a runway take-off, Mach 6 cruise, and a runway landing. This test bed is an evolution of the reusable Hypersonic Cruise Vehicle developed under the Falcon program. Key technologies that will be demonstrated include efficient propulsion, heating, low lift-to-drag</p> | It could provide ample opportunity to work on a space-based |

| | | | | | |
|---|------|------|------|--|---|
| | | | | demonstrated include efficient aerodynamic shaping for high lift to drag, lightweight and durable (reusable) high-temperature materials and thermal management techniques including active cooling, autonomous flight control, and turbine-based combined cycle propulsion. To accomplish this objective, the Blackswift program will leverage propulsion component technologies developed by the Air Force and DARPA. It is envisioned that flying this hypersonic aircraft test bed in a relevant, flight environment will permit the future development of enhanced-capability reusable high-speed vehicles for intelligence, surveillance, reconnaissance, strike or other national need missions. This program will transition to the Air Force following completion of flight-testing.” | strike capability. |
| Microsatellite Demonstration Science and Technology Experiment Program (MiDSTEP) | 8.0 | 10.0 | 8.0 |  <p>http://www.thespacereview.com/article/670/1</p> <p>“ The Microsatellite Demonstration Science and Technology Experiment Program (MiDSTEP) will develop the advanced technologies, capabilities, and space environment characterization required to demonstrate a suite of advanced lightweight microsatellite technologies integrated into high performance microsatellites across the continuum from low earth orbit (LEO) to deep space super geo-synchronous (GEO) environment. The program will integrate a variety of advanced technologies, which have not been previously flight-tested, and may include: lightweight optical space surveillance/situational awareness sensors, lightweight power, chemical and electric propulsion systems, advanced lightweight structures, advanced miniature radio frequency (RF) technology including micro crosslink and use of commercial off the shelf (COTS) approaches, active RF sensor technology, COTS processor and software environment, miniature navigation technologies, including the use of starfields for deep space navigation, and autonomous operations. The developed capabilities will include high thrust, high efficiency solar thermal propulsion systems that can enable responsive orbit transfer as well as provide radiation high-density electrical power. The program will also explore ultra-stable payload isolation and pointing systems and components to enable advanced miniature communication systems. In addition, the program will also consider affordable, responsive fabrication and integration approaches and the possibility of networking microsatellites/modules to create a flexible architecture of assets responsive to multiple missions and threats. If successful, MiDSTEP will demonstrate these technologies in space. The anticipated transition partner is Air Force Space Command.”</p> | This sort of maneuvering capability could be used to power anti-satellite weapons; microsatellite ASATs would also be more difficult to detect and track. |
| System F6 | 12.2 | 21.0 | 37.2 |  <p>http://www.3rdeyenews.com/</p> <p>“The goal of the System F6 program is to demonstrate a radically new space system composed of heterogeneous network of formation flying or loosely connected small satellites that will, working together, provide at least the same effective mission capability of a large monolithic satellite. Current large space systems used for national security purposes are constrained due to their monolithic architecture. They can be launched only a small number of large launch vehicles, cannot be readily upgraded and/or reconfigured with new hardware on-orbit, and are risk-intensive, since the unforgiving launch and space environments can result in the total loss of investment with one mistake. The System F6 will partition the tasks performed by monolithic spacecraft (power, receivers, control modules, etc.) and assign each task to a dedicated small or micro satellite...This program will develop, design, and test new space system architectures and technologies required to successfully decompose a spacecraft into fundamental elements. Such architectures include, but are not limited to, ultra-secure intra-system wireless optical and RF arrays, distributed spacecraft computing systems, and reliable, robust, rapidly re-locatable ground systems. The anticipated transition partner is the Air Force.”</p> | This sort of microsatellite capability could yield a dual-use anti-satellite capability. |
| Front-end Robotics Enabling Near-term Demonstration (FREND) | 13.1 | 11.4 | 10.7 | <p>“The goal of Front-end Robotics Enabling Near-term Demonstration (FREND) program is to develop, demonstrate, and fly robotic manipulator technologies designed to allow interaction with geosynchronous orbit (GEO)-based military and commercial spacecraft, extending their service lives and permitting satellite repositioning or retirement. Existing GEO spacecraft are outfitted with sufficient propellant to provide for needed station keeping, repositioning, and retirement maneuvers, which in many cases defines their useful mission duration. FREND technologies can enable significant service extension to non-cooperative</p> | This sort of maneuvering capability coupled with the ability to grapple or dock with |

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|--|-----|-----|------|---|--|
| | | | | <p>durations...FREND technologies can enable significant service extension to these spacecraft through re-boosting near end-of-life. FREND combines detailed stereo photogrammetric imaging with robotic multi-degree-of-freedom manipulators to autonomously grapple space objects not outfitted with custom interfaces. A FREND-based servicing spacecraft offers the potential for spacecraft salvage, repair, rescue, reposition, de-orbit and retirement, and debris removal. The anticipated transition partner is the Air Force.”</p> | <p>non-cooperative satellites could yield highly effective anti-satellite capabilities.</p> |
| Fast Access Spacecraft Testbed (FAST) | 4.3 | 7.0 | 12.0 | <p>“The goal of the Fast Access Spacecraft Testbed (FAST) program is to demonstrate a suite of critical technologies required to perform rapid orbital repositioning in the geosynchronous belt. The ultimate goal of FAST is to demonstrate technology to enable a high-efficiency, high-power (50–80 kW), fast-transfer roaming satellite permitting on-demand access to any point on the geosynchronous ring or within the high-altitude, super synchronous “graveyard” (where derelict systems are regularly repositioned in order to free up orbital slots within the ring), greatly improving our space situational awareness capabilities. The FAST demonstrator satellite, while possessing high power (20 kW or more), would be revolutionary in its small size. At just 500 kilograms, a FAST spacecraft would carry a novel solar power collection and distribution system, composed of large-aperture (5–10 m diameter) concentrating mirrors, high-efficiency solar photovoltaics, and ultra-lightweight, deployable radiators, achieving specific power (130 watts/kilogram at the power substation level) figures an order of magnitude better than today’s state of the art. The anticipated transition partner is the Air Force.”</p> | <p>This rapid orbital repositioning capability could provide for killer satellites based in geostationary orbit (GEO).</p> |
| NanoPayload Delivery (NPD) | 0.0 | 3.0 | 6.0 | <p>“The goal of a NanoPayload Delivery (NPD) program is to validate the technical feasibility of ultra-lightweight, rapid response spacecraft delivery from land, sea, or air-based platforms. Such nanopayloads (1–10 kilograms) could be boosted to low earth orbit (200 km altitude) in a matter of hours following call-up. Multitude sorties are envisioned, enabling a number of small spacecraft to be placed in an orbit “box” and aggregated together to perform a mission. The NPD program will develop and test a lightweight rocket platform similar in size to existing small missile systems such as the High-Speed Anti-Radiation Missile (HARM), AIM-7, or AIM-120. Current technology does not permit such small systems to reach orbit, owing to disproportionately high drag and low thrust-to-weight rocket engines. NPD will leverage ongoing technology development efforts, which permit the fabrication of microscale pumps, thrust chambers, and valves. Such rocket engines, which are theoretically capable of thrust-to-weight ratios of 100: 1 or greater, would allow for significant reductions in overall engine mass and permit nanosatellites to be placed in low orbits for several weeks to months. The delivery system would rely on one of several methods for launch, including: (1) a stock aircraft, such as the F-15E or F-16, (2) a truck-mounted erector, or (3) the deck of a small naval vessel. The goal for per-sortie cost is \$100,000. Fielding NPD will allow U.S. forces to rapidly emplace short-term capabilities in low-orbit, when they are needed, without resorting to legacy domestic launch systems that are sized and costed for much larger payloads. NPD will also allow many non-traditional users (e.g. laboratories, operational commanders, and small commercial firms) the capability to “use space” by lowering the significant barrier to entry into space. NPD will allow a streamlined, inexpensive approach to launch, descoping lengthy test and documentation requirements and demanding far fewer engineers, technicians, range personnel, and spacecraft operators per mission. Potential transition customers include the Air Force and Navy.”</p> | <p>These nanosatellites could be used in an anti-satellite capacity, and would be particularly difficult to detect and track due to their tiny size.</p> |
| High Delta-V Experiment (HiDVE) | 0.0 | 4.0 | 7.0 | <p>“The goal of the High Delta V Experiment (HiDVE) program, an outgrowth of the MiDSTEP program, is to design, develop, and demonstrate a low-mass, low-volume, high delta-V solar thermal propulsion (STP) engine suitable for integration with a ~15 kg nanosatellite host. The enabling technologies are very high-temperature materials and innovative receiver and concentrator designs. A HiDVE system will provide small satellites, historically constructed</p> | <p>The ability to insert nanosatellites into one orbit and rapidly move them</p> |

| | | | | | |
|--|-----|-----|-----|---|--|
| | | | | without propulsive capability, with substantial delta-V affording nanosatellites increased orbital range, in terms of both attitude and plane. In addition, this flexibility will be essential to future nanosatellite mission designers and operators, who will be able to take advantage of less-than-optimal insertion orbits and later move to an intended mission orbit. Specific objectives of the HiDVE program include: development and demonstration of a functioning STP system in a relevant environment; an operational test plan that outlines the steps needed to flight-qualify an integrated nanosatellite with an STP system.” | could be used to create nearly impossible to detect anti-satellite weapons on orbit. |
| Micro Electric Space Propulsion (MEP) | 4.6 | 0.0 | 0.0 | “The Micro Electric Space Propulsion (MEP) would have demonstrated flexible, lightweight, high-efficiency, scalable micro-propulsion systems to enable a new generation of fast , long-lived, highly flexible, and highly maneuverable 1-100 kg-class satellites/spacecraft.” | Highly maneuverable satellites based on such propulsion systems could be used in an anti-satellite capacity, either to directly target another satellite via collision or to move closer to a target satellite to disrupt it using directed energy payloads. |

<http://www.cdi.org/pdfs/DARPAAsamson.pdf>

上記は PE 0603287E のほぼ半分の規模である。数値は小数点2位以下を切捨てて数値に若干差異あり。下表参照:

[\$ in millions]

| PE 0603287E | FY 07 | FY 08 | FY 09 |
|-----------------|-------|-------|-------|
| Orbital Express | 34.7 | 0.0 | 0.0 |
| Falcon | 51.5 | 25.0 | 25.0 |
| Blackswift | 0.0 | 35.0 | 70.0 |
| MIDSTEP | 8.0 | 10.0 | 8.0 |
| System F6 | 12.2 | 21.0 | 37.2 |
| FREND | 13.1 | 11.4 | 10.7 |
| FAST | 4.3 | 7.0 | 12.0 |
| NPD | 0.0 | 3.0 | 6.0 |
| HiDVE | 0.0 | 4.0 | 7.0 |
| MEP | 4.6 | 0.0 | 0.0 |
| subtotal | 128.4 | 116.4 | 175.9 |

| | | | |
|---|------|------|-------|
| SST (Space Surveillance Telescope) | 19.7 | 12.8 | 7.0 |
| NSC (Novel Sat Comm) | 16.2 | 15.6 | 3.8 |
| ISIS (Integrated Sensor in Structure) | 23.3 | 29.0 | 44.0 |
| Deep View | 10.2 | 4.7 | 0.0 |
| Long View | 9.4 | 13.8 | 18.9 |
| SOH (Sleight of HAND) | 9.6 | 12.7 | 17.0 |
| RAD Hard by Design | 5.0 | 4.2 | 4.7 |
| SSA & Counterspace Operations Response Environment | 0.0 | 4.0 | 7.0 |
| MEOSAR | 0.0 | 0.0 | 4.0 |
| Bi-Static Shield | 0.0 | 0.0 | 4.5 |
| subtotal | 93.4 | 96.8 | 110.9 |

Total 221.8 213.2 286.8

<http://www.darpa.mil/body/pdf/DARPA09February2008.pdf>

宇宙技術のスパイ： 高い優先度

Space espionage: a high priority

MOSCOW. (RIA Novosti political commentator Andrei Kislyakov)

– Replacements are expected to take place soon in the “space spy community”. Yet another American **GPS** (Global Positioning System) Navstar satellite will be launched into the low earth orbit in autumn.

It might seem an ordinary event, had it not been for this satellite being equipped with a platform for intelligence equipment. A purely navigational **GPS** has turned into an advanced intelligence system, appropriate for a variety of special tasks.

Military experts expect the world’s major powers to spend as much as \$30.6 billion for intelligence satellite programs in the next decade. By that time, around one hundred military satellites of various types will be orbiting earth.

Intelligence satellite constellations, including imagery intelligence (optic and electronic, and radar intelligence), electronic surveillance, military communications, and space navigation satellites are packed with the following capabilities:

- early warning of a nuclear missile attack;
- timely detection of preparations for and start of hostilities,
- sustained communication and combat control in the interest of the state leadership, strategic nuclear forces, and other branches and services;
- navigational, hydro-meteorological support, cartographic survey support, time and frequency support for the armed forces.

The U.S. possesses the most powerful space intelligence network, having launched over 500 satellites by now. The Key Hole imagery intelligence satellites, also codenamed Big Bird, are the heart of the U.S. space intelligence system.

The first of the series, the **KH-9**, was deployed in 1971. Now these “birds”, weighing up to 15 tons, provide coverage of nearly all the Earth’s surface. One of these satellites was given a special assignment in 2001 to track down Bin Laden in Afghanistan.

Nevertheless, the further operation of “Big Birds” is at risk. The

Misty program, launched by Boeing and Lockheed Martin and aimed at the creation of advanced imagery intelligence satellites, has already consumed \$7.6 billion with no significant results.

In late winter last year, a U.S. Navy cruiser fired a missile and shot down the malfunctioning satellite **USA-193**, which, military experts believe, could be the latest **KH-14**. In September 2007, a transitional model of Key Hole, the **KH-12-4**, which was a prototype of the **KH-13** series, fell to earth in Peru.

In Russia, the fate of the intelligence satellite program is inseparable from the fate of the national space program. There was a great decline between the late 1990’s and early 2000’s. By 2005, only one Russian electronic reconnaissance satellite was in orbit, compared to 12 American satellites, surveying Russia’s territory.

Currently Russia has almost nothing to match the Big Bird. In November 2006 and August 2007, optical reconnaissance satellites ceased operation.

Still, there’s no need to panic.

In late July this year, a Persona optical reconnaissance satellite was placed into orbit. It is a modern intelligence space vehicle, able to transmit images via a radio channel. Russia’s Defense Ministry plans to launch two Persona satellites a year, starting with 2009.

Moreover, in late January, Vladimir Popovkin, who was in charge of Russia’s Space Force at that time, said a new domestic-made satellite will be launched next year to retransmit signals from Russian intelligence space vehicles to ground centers. It will have a lifetime of 12 years, while the satellites currently in service operate a maximum of three years.

The opinions expressed in this article are the author’s and do not necessarily represent those of RIA Novosti.

<http://en.rian.ru/analysis/20080820/116152920.html>

宇宙ニュースの小部屋 <http://d.hatena.ne.jp/t-naka/200808>

2008-08-27-Wed Spaceref(8/25)

[有人宇宙]NASA、ISS で軽微なコンピュータウイルス発見

コメント: "It was noted that most of the IP laptops and some of the payload laptops do NOT provide virus protection/detection software" だそうです...地上の一般企業よりセキュリティレベルが低いとは...

2008-08-23-Sat Spaceref(8/22) NASA プレスリリース(8/22)

[ロケット]NASA/ATK、サブオービタル試験機打上げに失敗、指令破壊

Wallops Flight Facility から ATK 社の ALV X-1 ロケットにより超音速飛行実験機 HYBOLT と SOAREX が打上げられたが、打上げ 27 秒後に異常が見つかり、ロケットは指令破壊された。破片の大半は大西

洋に散乱したと見られるが、陸上で発見されたとの報告もあり、NASA では危険の可能性があるので触らずに通報するように要請中。

打上げ動画(破片が海に落下するまで): <http://mfile.akamai.com/18566/wmv/etouchsyst2.download.akamai.com/18355/wm.nasa-global/822launch/822launch.asx>

(sora.jp 記事: <http://www.sora.jp/030899/2539.html>)

コメント: このロケットは ORS(operational responsive space)用に ATK が開発した小型ロケットで、2006 年 10 月に射場試験が行われた、

今回が初フライト。当初は 2007 年中のフライトが予定されていた

2008-08-22-Fri MSNBC(8/21)

[ロケット]米国、イランのロケット打上げは失敗との見方

米軍情報筋によると、ペルシャ湾の米海軍駆逐艦 USS Russell の観測の結果、同ロケットは高度 150km 程度で第 2 段が破壊し、破片はイランとオマーン湾に散らばったと見られるとのこと。軌道から、投入計画

軌道は高度 650km、軌道傾斜角 62 度と見られている。NORAD も同打上げが失敗であったとしている。

イランは、打上げ後に、(事前に準備していたと思われる)「衛星を軌道に投入した」との声明を発表したが、数時間後に、「近い将来の衛星

打上げに道を開く試験を行った」と修正。

2008-08-21-Thu SpaceDaily(8/20)

[有人宇宙]NASA、J-2X エンジンのワークホース GG 試験シリーズを終了

試験は J-2X 開発試験の一部であり、ワークホース GG/ポンプを使って、性能・耐久性・燃焼環境等を確認した。

2008-08-20-Wed Spaceflightnow(8/19)

[有人宇宙]NASA、Ares 1 振動対策として 1/2 段の間にダンパを入れることを提案予定

パッシブダンパのみで振動レベルは 1G 程度に低減できる見通したが、宇宙飛行士の能力への影響を避けるため 0.25G 以下とすることを目標とし、アクティブダンパも装着する計画。

が停止しても、上述のパッシブダンパによって乗員への健康被害は避けられる。

パッシブダンパは 1/2 段の間に挟み、機体の剛性を低下させることで燃焼振動の周波数(燃焼後半のモータケース内の音響振動)との共振を避けるもので、スプリングとダンパで構成される。

本システムによる打上能力低下は 1200 ~ 1400 ポンド(約 540 ~ 630kg)であるが、システムマージンとして確保している 8000 ポンド(約 3.6ton)の能力余裕の範囲内。なお、1 段構造の打上能力への効きは 1/10。

アクティブダンパは段間部内の 1 段側に 16 箇所装着されるスプリングで支持されたマスダンパで、機体振動状況に応じたコンピュータ制御でマスを移動させる。系統は冗長構成となり、仮にアクティブダンパシステム

2008-08-19-Tue NASA Spaceflight(8/18)

[ロケット]ILS 社、Proton-M による商業打上げの再開ミッションに成功
3月のAMC-14 打上げ時のBreeze-M 上段の失敗後、初の商業打上げ。

SpaceNews(8/11)

[機関]OSC 社、Huntington Beach にエンジニアリングセンタを新設
開発中の Taurus 2 ロケットおよびミサイル防衛システムのエンジニアを
雇用予定。同地域では、Boeing の次世代 GPS 衛星開発の受注失

敗およびULA 社のDelta2ロケットプログラムのDenver への移管に伴い、
宇宙関係エンジニアが豊富にいる状況である。

今週の軍事関連ニュース <http://www.kojii.net/news/index.html>

今週の軍事関連ニュース (2008/08/26)

今日の小ネタ

グルジア向け人道支援物資空輸は、累計 36 ミッション。空軍
C-17 と C-130 に加え、海軍 C-9、C-130、C-40 も参加。艦船 2
隻で搬入した物資は 95t。Poti 南方 Batumi に入港した USS
McFaul がパレット 72 枚分、USCGC Dallas がパレット 50 枚分の

荷物を下ろした。こうした救援物資輸送の状況を、24 日に米欧州軍
司令官 Bantz J. Craddock 陸軍大将が視察に訪れている。(AFPS
2008/8/24)

ただ、こうしてグルジア近海に西側諸国の軍艦が現れている状況に
対し、口は不快感を示しており、撤収するよう圧力をかけている。Poti
の港は依然として、口軍がコントロール。このほか、アゼルバイジャンから

グルジアに燃料輸送していた列車が、Gori 西方で爆発・炎上する事
件も発生。(DefenseNews 2008/8/24)

Boeing 広報担当・Dan Beck 氏が AFP 取材に対し、KC-X コ
ンペティションから降りる可能性について示唆。新機種をベースにした提
案をまとめ直すには 6 ヶ月かかると思われるが、実際はそんな時間が

ないため、コンペティションから降りる以外の選択肢はない、という説明。
(DefenseNews 2008/8/22)

今日の報道発表 (Defense-Aerospace.com 2008/8/22)

NATO の Carmen Romero 広報官によると、ロシアは NATO に
対して「追って沙汰があるまで、口と NATO 間の軍事的協力関係を
停止する」という通告を軍用通信回線経由で受けたことを明らかに。
2002 年以降ではもっとも関係が悪化した状況ではあるが、双方とも

「より御しやすい」とみれば協力関係を再開する、としている。つまり、外
交的な関係悪化は見かけ上の話にとどまる、ということ。もっともホワイト
ハウスでは、グルジアをめぐる状況が改善されなければ、口との軍事協
力もなし、といっている。(Deutsche Welle German radio)

米シンクタンク・CSBA (Center for Strategic and Budgetary Assessments) が、4 種のレポートをまとめた。以下に示す:

The Challenges to U.S. National Security, by Andrew F. Krepinevich, Robert Martinage and Robert Work

U.S. Combat Training, Operational Art, and Strategic Competence, by Barry Watts

Defense Investment Strategies in an Uncertain World, by Andrew Krepinevich

U.S. Defense Budget - Options and Choices for the Long Haul, by Steve M. Kosiak

その上で、米政府に対してまとめた勧告要点は以下の通り。

主要 3 脅威 (イスラム過激派と関連テロ組織、独裁的で対立を露わにしている中国、大量破壊兵器の拡散) への対処に集中のこと
国土防衛に使用するコンポーネントに関する、以下の課題への対応

数を重視して、より安価な新兵器の開発に注力する /// 小規模なグループによる、長期的な戦略の策定

単に脅威に対応するのではなく、軍事的な競争 (competition) に対応する能力をサポートできるような投資の実現

なお、この後は特殊作戦部隊、産業基盤、人員削減、陸・空・宇宙における軍事作戦のコンセプト、といった分野のレポートをまとめる予定。

2009 年に予定している次期 QDR (Quadrennial Defense Review) を視野に入れた動き。(CSBA)

今日の小ネタ

グルジア向け人道支援任務を行う目的で、米海軍・第 6 艦隊はギリシア・Crete 島の Souda Bay から、USS McFaul (DDG-74) と沿岸警備隊のカッタ・Dallas を送込んだ。さらに USS Mount Whitney

(LCC-20) が伊の Gaeta で貨物の搭載を行っており、後に続く。(AFPS 2008/8/21)

米国防総省は、グルジアにある HMMWV をロシア軍が押収しているとして、「米の国家資産だから即時返還せよ」と要求。これは、合同

演習のために送込んであった米軍 HMMWV を、Poti でロシア軍が押収したものの。(AFPS 2008/8/21)

8/19 に F-15E が、FT 燃料と JP-8 燃料を 50:50 でブレンドした代替燃料を使った初の試験飛行を実施。(AFMCNews 2008/8/21)
USS George Washington (CVN-73) が乗組員の受入れを完了し、San Diego を出航、横須賀に向かった。(NavNews 2008/8/21)

今日の報道発表(Defense-Aerospace.com 2008/8/21)

今日の小ネタ

OSCE (Organization for Security and Cooperation in Europe) が、南オセチアに 20 名規模の監視チームを送込む構想を進めている件につき、グルジア Eka Tkeshelashvili 外相は「任務内容にロシアが制限を加えているし、ロシア軍のコントロール下にある地域には入れない。これでは実効性は疑わしい」と発言。また、橋が壊されたり地雷が仕掛

けられたりしているため、ロシア軍撤収後に地雷除去作業が必要とされている。そのほか、グルジアの黒海側でロシア軍が封鎖を実施している件については、グルジアだけでなく、アルメニアもパッチリを受けていると発言。(DefenseNews 2008/8/20)

インド国内の造船所が多忙なため、印海軍のフリゲートや護衛艦艇を韓国造船所で建造してはどうか、という話が持ち上がり、韓国側と

折衝中とのこと。(DefenseNews 2008/8/20)

今日の報道発表 (Defense-Aerospace.com 2008/8/22)

Lockheed Martin は、ルーマニア空軍向けの AN/FPS-117 長距離対空捜索レーダ×5 基のアップグレードを受注しているが、そのうち 2 基について 6/26 と 7/23 にルーマニア国内で領収試験を実施して、更新作業を完了したと発表。今年末には 3 基目も作業を終えて、半年以内に 5 基すべての作業を終える予定。担当は同社 Radar Systems 部門 (Syracuse, NY)。シグナル プロセッサとデータ プロセッサを更新し能力向上を図るほか、電子機器キャビネット更新、ディスプレイ新型化、遠隔メンテナンス センタ設置、といった作業も行う。

もともとルーマニア空軍が 1998-1999 年にかけて調達したレーダで、2006 年 12 月にアップグレード契約を受注している。これにより、今後さらに 15-20 年間運用が可能になったとしている。AN/FPS-117 は航空管制や対空監視に使用する 3 次元 L バンド レーダで、14 ヶ国・127 基の納入実績がある。英で使用している 2 基を同様にしてアップグレードしたほか、2006 年には独空軍の AN/FPS-117×8 基もアップグレードした。(Lockheed Martin)

ILS (International Launch Services) は Immarsat から、S バンド移動体通信・放送衛星、Immarsat-4 F3 (a.k.a. EuropaSat) の打上げを受注。打上げ予定は 2011 年初頭で、Proton Breeze M プ

ースタを使用する。衛星の製造担当は Thales Alenia Space で、バスには Spacebus 4000C3 を使用する。重量 5,700kg。(ILS)

Orbital Sciences は Intelsat から、IS-18 (Intelsat-18) 通信衛星を受注。同社の STAR-2 パスを使い、C バンドのトラポン×24 本と Ku バンドのトラポン×12 本を搭載する。前者は北半球と南半球

をカバーするもので、後者は米・仏領ポリネシア・豪州・ニューカレドニア・その他の太平洋諸国をカバーする。軌道位置は東経 180 度。(Orbital Sciences)

今日の米軍調達 (Contracts 2008/8/21)

Space Computer Corp. (Los Angeles, CA) は米空軍 から、Spectral Processing for Real-Time Improved Target Detection and Exploitation プログラムで使用するアルゴリズムの、開発・試験・デモを 1,700 万ドル (maximum) で受注。NASIC、659th AESS、DIA

で使用するもので、SPIRITT・HyCas・ACES Hy などのハイパースペクトラル リモート センサを使い、リアルタイム目標探知・キューイングを実現する。AFRL/PKSE, Wright-Patterson AFB, OH (FA8650-08-D-1374/0001)

今日の報道発表 (Defense-Aerospace.com 2008/8/21)

Northrop Grumman は、MQ-8B Fire Scout VTUAV (Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle) に BRITE Star II センサ ターレットと TCDL (Tactical Common Data Link) を装備し、Webster Field (Naval Air Station Patuxent River, MD) で初の飛行試験を実施。BLITE STAR II は FLIR Systems 製 (すでに UH-1N/Y にも搭載実績がある)、TCDL は Cubic 製で、Common Architecture TCDL の最新技術を利用している。これらの

組合せにより、センサ ターレットが捕捉したストリーミング動画を艦上の端末機にリアルタイムで送ることができる。また、将来的に新センサを追加するのも容易という説明。この後、2009 年には O.H.Perry 級ミサイルフリゲートを使った **TECHEVAL** (Technical Evaluation)、そして 2009 年夏には **OPEVAL** (Operational Evaluation) を実施、その完了を待って **IOC** (Initial Operating Capability) 達成となるスケジュール。(Northrop Grumman, FLIR Systems, Cubic)

今週の軍事関連ニュース (2008/08/22)

一般ニュース

ある種の蝮蛇 (Deutsche Welle German radio via Defense-Aerospace.com 2008/8/19, Deutsche Welle German radio & US State Dept. via Defense-Aerospace.com 2008/8/21)

グルジアでの紛争後にポーランド Rzeczpospolita 紙が実施した世論調査結果では、ポーランド国内に米軍 MD エlementとして **GBI** (Ground-Based Ballistic Missile Defense Interceptor) × 10 発を配備する件について、賛成が 48% となり、反対の 46% を上回る結果となった。**GBI** 配置場所は、口との国境線から 185km 離れた所。

また、両国は「戦略的協力合意に関する宣言」も実施しており、米がポーランドの安全保障に責任を持つ、と明文化。米は **GBI** 配備の交換条件として、ポーランドへの米陸軍の防空部隊駐留や、ポーランド軍の防空システム更新に対する支援を行うことになる模様。

ちなみに、7 月初頭時点で実施した世論調査では、反対が 53% もあった。直近の世論調査では賛成が 58% に増えている。また、**GBI** の配備がポーランドの防備を強化という意見を表明したのは、全体の 45%。反対に、防備が弱体化するとしたのは全体の 30%。

この件は過去 18 ヶ月にわたってモメ続けてきた。ところが、グルジアに

おける紛争結果を反映し受入れに向けて話が進み、20 日にはポーランドの Donald Tusk 首相・Lech Kaczyński 大統領・Radoslaw Sikorski 外相と米の Condoleezza Rice 国務長官が出席して、合意文書への調印を実現。ただし、最終的にこの件が実現するには、両国議会による承認が必要。また、今回の文書とは別に、ポーランド国内に駐留する米軍を対象として地位協定 (SOFA : Status of Forces Agreement) の締結を予定。一方、口では参謀総長の Anatoly Nogovitsyn 大将が「すでに難しい状況になっているのに、さらにややこしいことにするものだ」と、配備に反発する発言をしている。これに対し Rice 国務長官は「純粋に防衛的なものであり、イランや北朝鮮といった国の脅威に備えるものである」と反論。

今日の小ネタ

グルジア向け人道支援物資の空輸に、米空軍に加え米海軍も C-9 輸送機を送込んだ。(NavNews 2008/8/19)

USS **Kitty Hawk** (CV-63) の乗組員のうち 600 名ほどが、USS **George Washington** (CVN-73) に転勤した。1 日あたり 150-200

名もチェックインするため、作業迅速化する目的で格納庫甲板にテーブルを設置して対処。(NavNews 2008/8/19)

イランは 17 日、ダミー人工衛星軌道投入に成功と発表していたが、後になって「人工衛星軌道投入が可能なロケット試射に成功」という話も出てきて、錯綜しているところ。これについて米軍関係者は「あれ

は失敗で、軌道に達していなかった」と宣告。(DefenseNews 2008/8/19)

NATO 加盟国の外相が、ロに対してグルジアからの即時撤退を要請。(DefenseNews2008/8/19)

今日の報道発表 (Defense-Aerospace.com 2008/8/19)

スウェーデン Fredrik Reinfeldt 首相はグルジア情勢を受けて、ロとの合同演習や相互訪問を中断と発表。先週、米・英・カナダもロとの合同演習 "FRUKUS" を中止すると決めている。このほか、NORAD

の演習 "Vigilant Shield" にもロが参加するはずだったが、これまたキャンセル。(DefenseNews 2008/8/18, JDW 2008/8/20)

ロの支持者数千名が、グルジアを支持する Web サイトに対してサイバー攻撃を仕掛けた、という話を研究機関・Team Cymru が明らかにした。ネットでの呼びかけに応じた志願者が stopgeorgia.ru なるサイトで攻撃目標と攻撃用のツールを入手、DoS 攻撃を仕掛けたとのこと。

ボットネットを使った攻撃も仕掛けた。7 月頃からグルジアに対する攻撃は発生していたが、これは軍事行動と直接の関係はないとみられる。(DefenseNews 2008/8/18, JDW 2008/8/20)

今日の報道発表 (Defense-Aerospace.com 2008/8/15)

Arianespace は、8/14 に Ariane 5 ブースターで衛星 2 機の打上げに成功と発表。Ariane 5 としては通算 41 回目、過去 12 ヶ月間で 9 回目。打上げのうち 1 機が、宇宙通信 (SCC :Space Communications Corp.) のスーパーパード 7 号機で、三菱電機製。

重量 4,820kg、軌道位置は東経 144 度、Ku バンドのトラポン × 28 機を装備、予定運用寿命 15 年。バスは三菱電機の DS2000 を使用。ちなみにもう 1 機の方は、SES AMERICOM の AMC-21 衛星。(Arianespace, 三菱電機)

HRW (Human Rights Watch) は、ロ空軍機がグルジアでクラスタ爆弾を使用し、11 名が死亡、数ダースの負傷者が出たと発表。ロに対しクラスタ爆弾使用停止を求めている。使用爆弾は RBK-250 で、これは PTAB 2.5M サブmunition (炸薬 1lb、電気アミング・撃発式で、120mm 装甲板を貫通可) × 30 発を搭載、これを 8/12 に Kareli 地区 Ruisi で投下し 3 名が死亡・5 名が負傷、Gori でも使用し 8 名が死亡、数ダースの負傷者が出た、と説明。オランダ人ジャーナリスト Stan Storimans 氏が死亡、イスラエル人ジャーナリスト Zadok Yehezkel 氏が重傷を負った。HRW は現地で医師への聞き取り調査や証拠集めを行い、Gori で RBK-250 爆弾ノーズコーンを発見・撮影したと説明。なお、一方の当事者であるグルジアも RBK-500

を保有しているが、そのグルジアに対してもクラスタ爆弾使用禁止に加わるよう呼びかけている。HRW 声明では、ロでは Bazalt State Research and Production Enterprise が航空機搭載用クラスタ爆弾を、Mechanical Engineering Research Institute が 120mm・152mm・203mm クラスタ砲弾を、Splav State Research and Production Enterprise Rocket が 122mm・220mm・300mm のサブmunition入りロケットを、それぞれ手掛けているとしている。ちなみに RBK とは "Razovaya Bombovaya Kasseta" の略。サブmunitionには、破片、HEAT、焼夷、滑走路破壊、センサ起爆式といったものがある。(HRW)

今日の報道発表 (Defense-Aerospace.com 2008/8/20)

市場調査会社の Forecast International は、使捨て式の衛星打上げブースタ (ELV : Expendable Launch Vehicle) についての予測レポート "The Market for Expendable Launch Vehicles." をまとめた。欧州で開発している小型の Vega から、米空軍 EELV (Evolved Expendable Launch Vehicle) のように大型のものまである。

今後 10 年間で 636 基の需要があるとしており、そのうち米が 161 基・179 億ドル、ロ・ウクライナ・中国が合計 306 基で 159 億ドル。この逆転が生じるのは、米が Atlas V・Delta V・Ares I といった大型 ELV を多く使用するため。印・日・イスラエルが合計 73 基、欧州勢が合計 92 基と予測。2007 年には、打上げ全体の 66% を政府機

関カスタマが占めており、この傾向は今後も続くともみている。(Forecast

International)

Boeing は米陸軍から、トラック搭載型のレーザ兵器、HEL TD (High Energy Laser Tactical Demonstrator) 開発継続分 (フェーズ II) 契約を 3,600 万ドルで受注。飛来する砲弾や迫撃砲弾を撃落す

ための高出力レーザ。実際にデモンストレータを製造し HEMTT (Heavy Expanded Mobility Tactical Truck) に搭載、評価試験に供する。(Boeing)

ILS (International Launch Services) の Proton Breeze M ブースタを使って、カザフスタンの Baikonur Cosmodrome から Inmarsat-4 F3 通信衛星を打上げ。ブースタ製造は Khrunichev Space Center

(Moscow, Russia) が担当。衛星は EADS Astrium 製で、Eurostar 3000GM モデル。静止衛星で、軌道位置は西経 98 度。(ILS)

今日の報道発表 (Defense-Aerospace.com 2008/8/19)

Northrop Grumman は、米陸軍レーザ兵器開発計画・HEL TD (High Energy Laser Technology Demonstrator) で使用するビーム制御システムについて、予備設計審査 (PDR : Preliminary Design Review) を実施したと発表。HEL TD は車載式ソリッドステートレーザで、いわゆる C-RAM (Counter Rockets, Artillery and Mortars)

システムのひとつ。ビーム制御システムは 1 年前に、Northrop Grumman が米陸軍 SMDC (Space and Missile Defense Command) から受注し開発を進めている。設計完了後は製造・組立と統合作業に入り、2010 年にテスト実施予定。HEL TD を担当している企業チームの役割分担は以下:

Northrop Grumman : システム エンジニアリング、システム 統合、ビーム制御システム、動力サブシステム、サーマル サブシステム、C3I

BAE Systems : 車両、プラットフォーム統合 /// L-3 Communications Brashears : ビーム ディレクタ

Ball Aerospace & Technologies : ビーム アライメント/スタビライゼーション サブシステム

(Northrop Grumman)

今日の報道発表 (Defense-Aerospace.com 2008/8/15)

Boeing は 7/30 に、ブラジル空軍の次期戦闘機・F-X2 計画に対し F/A-18E/F ブロック II の提案書を提出。レーダは Raytheon 製 AESA (Active Electronically Scanned Array) レーダ・AN/APG-79。これは同社が 6/12 に受取った RfI に対する回答で、今週の軍事関連ニュース (2008/08/19)

機数については初期段階で 36 機、将来的には 120 機に増加する可能性がある。F/A-18E/F 累計納入実績は米海軍向けに 360 機以上、さらに豪州から F/A-18F x 24 機受注済。(Boeing)

今日のフカシ (DefenseNews & VoA 2008/8/17)

イラン、日曜に「人工衛星の打上げも可能な国産ロケット・Safir を試射した」と宣言。当初は「国産人工衛星を軌道に投入した」と報じていたが、後になって内容修正。これに対しホワイトハウスの Gordon Johndroe 報道官は「イランが開発したとしているロケットは、弾道ミサ

イルにも転用可能」として、国連安保理決議に反した行動をとっていると非難。それに対しイランは、自国宇宙開発は研究用と通信衛星打上げ用としている。

今日の小ネタ

グルジア向けの人道支援物資空輸に、C-17A に加えて C-130 も参加した。米空軍機が毛布や医薬品などの物資を空輸、それを

NGO が配布する構図。(AFPS 2008/8/15)

米とポーランドは 14 日、ポーランド国内への GBI (Ground Based Interceptor) x 10 発の配備について合意。隣国・チェコに配備する X バンド レーダとともに 2011-2013 年にかけて整備を行い、米・グリーン

ランド・英・東欧にまたがるミサイル防衛システムを完成させる。これに対して口は反発、Dmitry Medvedev 大統領はポーランドの迎撃ミサイル基地について「(米は否定しているが) これは口の核ミサイルを対象とす

るものであり、攻撃目標に値する」と発言。(DefenseNews

2008/8/15)

今日の小ネタ

米陸軍の第 21 戦域支援コマンドと在欧米空軍 (USAFE : U.S. Air Forces in Europe) が 12 日から、グルジアへの人道支援ミッションを開始。C-17 による援助物資空輸は、独 Ramstein AB から実施。関与部隊は、陸軍の第 66 輸送中隊と第 39 輸送大隊、空軍

の 723rd AMS (Air Mobility Squadron)。物資は国務省がストックしているものや、U.S. Army Medical Materiel Center Europe が人道支援用として独 Pirmasens の倉庫に保管しているものを提供。(AFPS 2008/8/14)

今日の泥仕合 (Deutsche Welle German radio & Northrop Grumman via Defense-Aerospace.com 2008/8/14)

Aviation Week 誌が KC-X 計画に関し、「複数の情報源によると、Boeing は KC-X 計画からの撤退を検討中」と報じている。これにつ

いて Boeing では、「何も決まったわけではない。すべての選択肢は手の中にある」としている。

今日の米軍調達 (Contracts 2008/8/14)

L-3 Communications (Pittsburgh, PA) は米空軍から、口径 1m のレーザー伝播・乱気流検出用望遠鏡×2 基を \$6,128,869 で受注。

旋回俯仰式架台に載せるもので、**Starfire Optical Range** (Kirtland AFB, NM) に設置。Kirtland AFB, NM (FA9451-08-C-0262)

今日の報道発表 (Defense-Aerospace.com 2008/8/14)

Boeing は 8/7 にニューメキシコ州 Kirtland AFB で、**ACTD** (Advanced Concept Technology Demonstration) を実施している **ATL** (Advanced Tactical Laser) について、システム全体を対象とする初の地上試験を成功裏に実施。ATL は高出力の化学レーザーとビー

ム制御システムを C-130H に搭載、地上ターゲットを攻撃する。レーザー砲は胴体下面の回転式ターレットに装備。さらに追加地上試験と飛行試験を実施、年末には飛行しながら地上ターゲット攻撃試験を予定。レーザー自体の初発射は、5/13 にラボで実施済。(Boeing)

Lockheed Martin は、次世代エレクトロニクス製品向けのカーボンナノチューブを手掛けている、Nantero, Inc. 政府担当部門を買収すると発表。所属する従業員 30 名ほどは、Lockheed Martin に移籍する。今後は Lockheed Martin Space Systems Company の

Advanced Technology Center 傘下で業務を継続する。また、Lockheed Martin では、Nantero の知的所有権を政府機関向けに独占利用するライセンスも取得。(Lockheed Martin)

[DefenseNews.com](http://www.defensenews.com/) UPDATED: 27 Aug 2008 16:55 EDT (20:55 GMT) <http://www.defensenews.com/>

Latest Headlines

Saab Offers 85 Gripen for Dutch Fighter Program

Former Patria CEO Still Under Investigation

Iran General Says Israel Too Vulnerable to Attack

Russia Complicates Georgia NATO Ambition

Russian Sells APCs to Indonesia

U.K.'s Serco To Buy SI International

S. Korea To Tout T-50 Trainer to Singapore

AgustaWestland Wins India VIP Helo Battle

French Leaders Mull Changes in Afghanistan

Mechanical Failure Keeps Troubled LPD-17 at Pier

[Space News](http://www.space.com/spacenews/) <http://www.space.com/spacenews/>

McCain, Hutchison, Vitter は 2010 年を越えてシャトル飛行のオプションを保つようブッシュ大統領にせまる

McCain, Hutchison, Vitter Urge Bush to Preserve Option to Fly Shuttle Past 2010

WASHINGTON Acknowledging that a NASA authorization bill is unlikely to be enacted this year, three U.S. Republican senators including presidential candidate John McCain (R-Ariz.) have

written President George W. Bush imploring him to direct NASA to hold off for at least a year taking any action that would preclude the agency from flying space shuttles beyond 2010.

Gilat 社は売上げが宙ぶらりんになって訴訟の恐れ

Gilat Threatens Lawsuit as Sale Hangs in Limbo

ORLANDO, Fla. Gilat Satellite Networks has given U.S. and Israeli private-equity investors until Thursday to honor their commitment to purchase the company or face legal action as

Gilat seeks at least \$47.3 million in deal-termination penalties, Gilat Chief Executive Amiram Levinberg said Aug. 25.

Soyuz はギアナ宇宙センターから Koreasat 6 打上げ予定

Soyuz to Launch Koreasat 6 from Guiana Space Center

ORLANDO, Fla. A European version of Russia's Soyuz rocket will launch the Koreasat 6 telecommunications satellite in late 2010 from Europe's Guiana Space Center spaceport under a

contract with Korea Telecom (KT), the Ariespace launch consortium announced Aug. 25.

NASA の極超音速ペイロードを積んだサブオービタル・ロケットは Wallops Island からの打上げで指令破壊

Suborbital Rocket Carrying NASA Hypersonic Payloads Crashes off Wallops Island

WASHINGTON An Alliant Techsystems (ATK) ALV-X1 suborbital rocket carrying two NASA hypersonic flight experiments was destroyed by range officials shortly after launch

from the U.S. space agency's Wallops Flight Facility on Virginia's eastern shore.

Inmarsat は S バンド衛星に Thales Alenia と ILS を選定

Inmarsat Picks Thales Alenia, ILS for S-Band Satellite

PONTE VEDRA, Fla. Inmarsat has selected Thales Alenia Space to build a large S-band satellite for two-way mobile communications in Europe to be launched aboard an International Launch Services (ILS) Proton Breeze M rocket in early 2011,

London-based Inmarsat announced Aug. 22. The satellite construction and launch agreements are subject to Inmarsat's receipt of a license from the European Commission to operate the service

レポート: NASA の近未来技術への重点化は将来の宇宙探査を危険にさらす

Report: NASA's Near-Term Technology Focus Puts Future Exploration at Risk

WASHINGTON A new report from the National Research Council warns that the near-term focus of NASA's technology

development efforts could jeopardize the agency's longer-term space exploration goals.

イランの宇宙庁は人を 10 年以内に宇宙に送ると発言

Iran's Space Agency Says It Will Send Man to Space

TEHRAN, Iran (AP) State TV says Iran's space agency aims to send an astronaut to space within 10 years.

ILS Proton は Inmarsat 4 F3 衛星を打上げ成功

ILS Proton Successfully Lofts Inmarsat 4 F3 Satellite

PONTE VEDRA, Fla. The third and last Inmarsat 4 mobile-broadband satellite was successfully placed into orbit Aug. 19 by an International Launch Services (ILS) Proton Breeze M rocket, ILS and Inmarsat announced. The launch completed a

decade-long, \$1.5 billion investment by London-based Inmarsat and returned ILS to commercial service five months after a failure that forced a redesign of the Proton Breeze M upper stage.

Sat News <http://www.satnews.com/>

Lockheed Martin Press Releases <http://www.lockheedmartin.com/news/>

August 21, 2008 ロッキード・マーチンはルーマニアの2台の長距離レーダの延命性能向上を完了

Lockheed Martin Completes First Two Life Extension Upgrades Of Long Range Radars For Romania

http://www.lockheedmartin.com/news/press_releases/2008/082108_Long_Range_Radar_Romania.html

August 19, 2008 ロッキード・マーチンは\$8.9M の熱赤外線カメラの契約を得る

SBF=Santa Barbara Focalplane の製品

Lockheed Martin Awarded \$8.9 Million Thermal Camera Contract

[http://www.lockheedmartin.com/news/press_releases/2008/MFC_081908_LockheedMartinAwarded\\$8.9.html](http://www.lockheedmartin.com/news/press_releases/2008/MFC_081908_LockheedMartinAwarded$8.9.html)

August 13, 2008 ロッキード・マーチンはナノチューブの技術をもつ Nantero 社の政府対応部門を買収

Lockheed Martin Acquires Nantero, Inc. s Government Business Unit

http://www.lockheedmartin.com/news/press_releases/2008/0813hq-nantero.html

Boeing News Releases <http://www.boeing.com/news/releases/index.html>

Aug. 19, 2008 ボーイングはモバイル・レーザ兵器の開発継続契約を得る

Boeing Awarded Contract to Continue Developing Mobile Laser Weapon

http://www.boeing.com/news/releases/2008/q3/080819a_nr.html

JDW, Jane s Defence Weekly <http://jdw.janes.com/public/jdw/index.shtml>

21-Aug-2008 ロシアは NATO 諸国との軍事活動を停止

Russia suspends military activity with NATO countries

The Norwegian Ministry of Defence (MoD) received an official statement from the Russian Embassy in Oslo on 21 August

confirming the latter's intention to ...

19-Aug-2008 NATO はグルジアにおける停戦をロシアが尊重しない限り、ロシアとの関係を停止

NATO puts relations with Russia on hold until Moscow honours ceasefire deal in Georgia

There can be "no business as usual with Russia under present circumstances", NATO Secretary General Jaap de Hoop

Scheffer said on 19 August. He ...

21-Aug-2008 ロシアは黒海の艦隊の使用に関して Ukraine と交渉準備整う

Russia is ready to negotiate with Ukraine over use of Black Sea Fleet

Moscow is ready to negotiate with Ukraine on the use of the Russian Black Sea Fleet, which is based at Sevastopol, said

Russian President Dmitri...

20-Aug-2008 スウェーデンはロシアとの軍事協力をキャンセル

Sweden cancels military co-operation with Russia

Sweden has cancelled all military exercises and co-operation with Russia, citing the conflict in Georgia and South Ossetia.

"The Russian troops must end operations ...

21-Aug-2008 英国軍隊はアフガニスタンにおいて Desert Hawk III を使用開始

UK troops begin using Desert Hawk III in Afghanistan

UK troops in southern Afghanistan have begun using the Lockheed Martin Desert Hawk III tactical unmanned aerial vehicle

(UAV) in a bid to improve ...

20-Aug-2008 イランの2段 SLV はテスト打上げ

Iranian two-stage SLV passes test launch

Iran has test fired a satellite launch vehicle (SLV) that could pave the way for the eventual firing of a ballistic missile with a ...

[平山ニュース 2008 年 月 日]

<http://www.wikihouse.com/space/>

バックナンバ

<http://backno.mini.mag2.com/M0000575>

[NEWS]

8/27 宇宙開発戦略本部が発足(共,時,経,産)

8/26 日本科学未来館が来館 500 万人(共,読)

8/25 まいど 1 号完成(共,時,毎,産,読,朝)

8/23 0602JST 放球成功:B08-01 大気球実験システム実証試験(1),大樹

8/22 きぼうで科学実験始まる(JAXA,時,共,毎,朝,経)

8/19 イランの衛星打上げは失敗か(産,CNN)

8/18 2243GMT 打上成功:移動体通信衛星 Inmarsat4-F3,Proton/Breeze M,Baikonur

[予定]

8/29 0715GMT 打上:地球観測衛星 RapidEye(5 基),Dnepr,Baikonur

[EVENT]

9/27 JAXA 地球観測センター「宇宙の日」ふれあい月間一般公開

9/20-21 宇宙開発フォーラム 2008, 東大(本郷)武田ホール <http://www.sdfec.org/>

主催:宇宙開発フォーラム実行委員会(SDF)

日時:2008 年 9 月 20 日(土)10:30 ~ 20:00、21 日(日)10:30 ~ 18:30

場所:武田ホール(東京都文京区弥生 2-11-16 東京大学武田先端知ビル 5 階)

アクセスhttp://www.u-tokyo.ac.jp/campusmap/cam01_04_16_j.html

http://www.u-tokyo.ac.jp/campusmap/map01_02_j.htm

費用:無料 ただし、レセプション参加費のみ実費を徴収いたします。

予定入場者数:300 人

9/14 「かぐや」打上げ 1 周年記念イベント,日本科学未来館,申込先着

9/13-14 「宇宙の日」ふれあいフェスティバル,阿南市情報文化センター

・9/13 若田光一宇宙飛行士 スペーストークショー,9/10 申込締切,小3-中3 優先 500 名

9/6 四日市市立博物館プラネタリウム 宇宙塾「宇宙と教育について」的川泰宣

8/31 まで 京大総合博物館 企画展「京の宇宙学-千年の伝統と京大が拓く探査の未来」

8/30 宇宙と天文の講演会「内之浦から宇宙を目指せ!」森田泰弘,

静岡県函南町月光天文台,高校生以上 80 名,要申込 8/24-26 CANSAT 甲子園,能代

8/29 申込締切:北東北三県"だいち"データ地域実利用プロジェクト成果発表行事, 9/5-7,盛岡

8/23-24 能代宇宙イベント

「宇宙の日」JAXA 施設一般公開

・8/24 増田宇宙通信所 /// ・8/23 勝浦宇宙通信所

8/23 国立天文台野辺山特別公開

[学会]

9/16-19 9th Advanced Maui Optical and Space Surveillance Technologies (AMOS) Conference, Maui, Hawaii

9/13 申込締切:第 22 回数値流体力学シンポジウム, 12/17-19,国立オリンピック記念青少年総合センター

8/27-29 シンポジウム「はやぶさ後継機にむけた太陽系小天体の科学」,ISAS 相模原

8/22 申込締切:JSASS 西部支部講演会(2008),11/14,九大(伊都)

[etc.]

8 月 新刊:西川純子「アメリカ航空宇宙産業」日本経済評論社

.....
[中国宇宙開発-1 Morning China] <http://www.wsichina.org/morningchina/topiclist2.asp?id=54>

.....
[中国宇宙開発-2] http://dailynews.yahoo.co.jp/fc/world/china_space_exploration/

.....
[宇宙開発] http://dailynews.yahoo.co.jp/fc/science/space_exploration/

.....
人工衛星「まいど」、つくばへ = 宇宙センターで最終調整(時事通信)26 日 - 11 時 4 分

夢で打上げるんや! 衛星「まいど1号」ついに完成(産経新聞)26 日 - 0 時 0 分

<人工衛星>「まいど1号」完成...つくばで性能検査(毎日新聞)25 日 - 23 時 29 分

「きぼう」正念場 最初の宇宙実験スタート(産経新聞)25 日 - 10 時 44 分

打上げ失敗でロケット爆破 = 有害物質、大西洋に落下 - NASA(時事通信)23 日 - 8 時 59 分

「きぼう」初の直接操作実験(産経新聞)22 日 - 16 時 24 分

「きぼう」で初の実験、遠隔操作で成功(時事通信)22 日 - 10 時 39 分



筑波宇宙センター

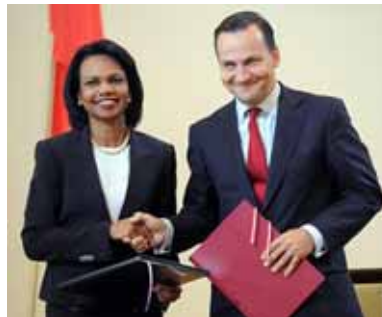
河村洋・諏訪東京理科大教授(中央)

<きぼう>初の科学実験始まる 10年までに100件予定(毎日新聞)22日 - 10時37分
「きぼう」の初科学実験成功 = 液体対流を観察 - 筑波宇宙センター(時事通信)22日 - 8時36分
イランのロケット打上げ「成功」、米国防総省は疑念(産経新聞)19日 - 20時19分
イランのロケット打上げ「成功」、米国防総省は疑念 米CNN(産経新聞)19日 - 9時42分
エンケラドスのジェット噴出地点(ナショナルジオグラフィック Web サイト)18日 - 21時26分

[ミサイル防衛] http://dailynews.yahoo.co.jp/fc/world/missile_defense_system/?1181274734

[北朝鮮ミサイル開発問題] http://dailynews.yahoo.co.jp/fc/world/north_korean_missiles/

<ロシア>「外交手段超え対抗」...米ポーランドのMD調印で(毎日新聞)21日 - 11時53分
米・ポーランド MD配備正式調印 有事に軍事連携(産経新聞)21日 - 8時1分
NY原油、続伸(時事通信)21日 - 6時9分
ミサイル配備協定調印 = 米・ポーランド(時事通信)20日 - 22時26分



米 ライス国務長官

ポーランド シコルスキ外相

米・ポーランドMD調印、米露関係さらに悪化へ(読売新聞)20日 - 22時5分
<ポーランド> 米国とMD計画に調印(毎日新聞)20日 - 21時7分
米国とポーランド、ミサイル防衛施設配備で正式調印(ロイター)20日 - 20時37分



米 ライス国務長官

ポーランド シコルスキ外相

ミサイル配備協定に調印 = ロシアとの一段の関係悪化必至 - 米・ポーランド(時事通信)20日 - 18時53分
<グルジア紛争> 東欧諸国、露を警戒 「ブラハの春」想起(毎日新聞)20日 - 12時4分
<ロシア> ベラルーシと会談 秋に共同MD導入交渉合意へ(毎日新聞)20日 - 10時5分

[米軍動向] http://dailynews.yahoo.co.jp/fc/world/us_armed_forces/

イラクの米軍、削減可能 = アンバル州治安権限移譲へ(時事通信)28日 - 7時5分
飛行経路を28日から調査 = 普天間離着陸の米軍へ - 沖縄防衛局(時事通信)27日 - 17時38分
防衛省、グアム移転事業室設置 09年度概算要求(琉球新報)27日 - 16時11分
米大統領、独立承認で対露非難強める 米艦艇のポチ港接岸強行も(産経新聞)27日 - 8時16分
アフガン邦人拉致 危険覚悟のNGO活動 自衛隊は派遣できず 国際貢献に課題(西日本新聞)27日 - 7時6分

ロシア、NATO 艦船を監視 = 米駆逐艦もグルジア海域に(時事通信)27日 - 0時32分
 治安悪化続くアフガニスタン パキスタンからの越境テロも要因(産経新聞)26日 - 21時26分
 政策綱領を採択 = イラク撤退、核廃絶など盛る - 米民主党(時事通信)26日 - 19時1分
 米国、2011年末までの米軍撤退で合意 = イラク首相(ロイター)26日 - 12時2分
 「沖縄新報」米軍が全訳 資料に「秘密」指定(琉球新報)26日 - 10時55分
 <イラク> 首相が米軍撤退合意と声明 米は否定(毎日新聞)26日 - 10時7分
 中南部核に県土再編 「嘉手納」より南米軍5施設(琉球新報)26日 - 10時1分
 アフガンでの米軍作戦を批判 = グルジア紛争めぐる対立激化 - ロシア(時事通信)26日 - 6時59分
 11年末までに米軍撤退 = 米国務省、最終合意との見方否定 - イラク首相(時事通信)26日 - 0時6分
 イラク首相「2011年末までに米兵撤退で合意」(読売新聞)25日 - 23時25分
 京大・阪大の加速器写真発見 = 原爆開発懸念で破壊の直前 - 米公文書館(時事通信)25日 - 15時42分
 グルジアの被害から教訓を = 「サイバー防衛」の強化必要 - 米軍高官(時事通信)25日 - 14時41分
 米艦艇グルジア到着 米国旗振り市民が歓迎(産経新聞)25日 - 8時0分
 米艦艇がグルジア沖に到着...露軍、石油輸送列車を爆破か(読売新聞)24日 - 20時59分
 アフガン政府「多国籍軍空爆で民間人76人死亡」と非難(読売新聞)23日 - 18時37分
 原潜放射能漏れ原因究明で抗議文 沖縄市が日米両政府に(琉球新報)23日 - 10時35分
 <アフガン> 米軍主導の多国籍軍空爆で民間人76人死亡(毎日新聞)23日 - 10時21分
 イラク協定交渉は「継続中」 = 撤退期限合意、確認せず - 米(時事通信)23日 - 9時40分
 <イラク> 「米軍11年末までの撤退」で合意(毎日新聞)22日 - 23時58分
 イラク駐留米軍、「2011年末撤退完了」で合意(産経新聞)22日 - 21時22分
 <トルコ> 米の艦船派遣に難局も(毎日新聞)22日 - 20時58分
 イラクの米戦闘部隊、11年末までに撤退...両国合意と米報道(読売新聞)22日 - 19時45分
 <米原潜放射能漏れ> 佐世保港での監視強化を 長崎県が要請(毎日新聞)22日 - 19時17分
 米国防総省そばに同時テロ追悼公園完成(時事通信)22日 - 15時46分



11年末までに駐留軍撤退 = 米・イラク協定交渉妥結 - 交渉担当者(時事通信)22日 - 15時32分
 同時テロ、追悼公園を公開 = 乗っ取り機激突現場 - 米国防総省(時事通信)22日 - 14時32分
 「中台開戦の可能性、ますます縮小」と分析 米専門家(Record China)22日 - 9時11分
 米国、グルジア軍の建て直しを支援する可能性 = 軍幹部(ロイター)22日 - 6時48分



<米国務長官>イラク首相と会談...米軍撤収「重要な進展」(毎日新聞)22日 - 1時16分

<米国>艦艇3隻、グルジアへ(毎日新聞)21日 - 22時14分

米海軍、戦闘部隊派遣の動きでロシアに圧力(産経新聞)21日 - 18時56分

原潜放射能漏れ「入港安易に認めぬ」佐世保市議会 40年ぶり「拒否」意見書(西日本新聞)21日 - 15時5分

グルジア向け人道支援、米が海軍艦艇など黒海へ派遣(読売新聞)21日 - 12時55分

米、戦闘艦を派遣へ グルジア人道支援、露に圧力(産経新聞)21日 - 8時1分

イランのロケット打上げ「成功」、米国防総省は疑念(産経新聞)19日 - 20時19分

国防部長官が韓米軍事演習を指揮、「異例」の評価(YONHAP NEWS)19日 - 17時18分

イラク撤退は「失敗の道」=オバマ氏を批判 - マケイン氏(時事通信)19日 - 11時2分

[核兵器] http://dailynews.yahoo.co.jp/fc/world/nuclear_weapons/

<核軍縮国際委>10月にも発足...川口元外相が発表(毎日新聞)25日 - 22時26分

インドへ核技術輸出解禁の動き、川口元外相ら懸念示す(読売新聞)25日 - 20時35分

中韓首脳が「協力関係強化」を確認(産経新聞)25日 - 19時31分

日豪主導で10月に「核不拡散」の国際委員会(産経新聞)25日 - 18時32分

韓中首脳「非核化2段階措置の早期全面履行を促進」(YONHAP NEWS)25日 - 17時4分

京大・阪大の加速器写真発見 = 原爆開発懸念で破壊の直前 - 米公文書館(時事通信)25日 - 15時42分

6カ国協議発足から5年、非核化はどこまで進んだか(YONHAP NEWS)25日 - 13時8分

<原子力供給国>「インド例外扱い」認めないまま総会閉会 8月23日 9時59分配信 毎日新聞

<原子力供給国>米印協定承認めぐり総会始まる(毎日新聞)21日 - 23時26分

「日本政府は反対を」=米印原子力協定で被爆者団体 - 広島(時事通信)21日 - 15時50分

<原子力供給国>21日から総会...米印協定承認を協議(毎日新聞)20日 - 21時29分

「核拡散につながり反対」=米印原子力協定で被爆者団体 - 長崎(時事通信)19日 - 17時4分

核兵器管理に懸念 = 米専門家 - パキスタンの政治的空白(時事通信)19日 - 14時29分

米の核技術提供を容認(産経新聞)19日 - 8時0分

[ASAGUMO NEWS] 朝雲新聞社 <http://www.asagumo-news.com/>

8/27「コラム」更新

・朝雲寸言 /// ・小沢「無投票」3選へ /// ・北京五輪、幕閉じる

8/25 「ニュース」更新

輸入装備価格 現地調査の体制強化 /// 増員の専門官、今秋派米へ
空自輸空隊 /// 16期後段要員がクウェート入り
北京五輪水泳 /// 高桑選手(体校)5位入賞 /// 200メートル個人メドレーで日本初
普天間移設で 林大臣が初の訪沖 /// 県知事らと意見交換
米政府の職員が日本で研修する「マンスフィールド・プログラム」 /// 発案は林防衛大臣 米留学時に提案 連邦会議で法案成立
全自美術展受賞者 /// 中島技官らに総理大臣賞 3部門11人を表彰
宗谷岬沖でロシア原潜確認
検証 岩手・宮城地震災派 /// 順調だった初動 /// 早期交代で疲労防ぐ 自治体とも連携密に
国緊隊待機態勢整う /// 5旅団が総合訓練
施設部隊が切磋琢磨 /// 器材を使ってビルに突入 /// 東北方面隊
UH-60J 救難ヘリが海保巡視船に初着船 /// 空自救難教育隊
天塩川に浮橋構築 /// 旅団の渡河攻撃支援 /// 北方施設隊
防大 101キロ行進で自信と誇り /// 陸上要員220人全員完歩

8/21 「コラム」更新

・朝雲寸言 /// ・景気対策の大合唱 /// ・露のグルジア侵攻

[民間航空機関連 (ex-SJAC 三輪さん)]

DL(0826)

ボーイング 組合との交渉に楽観視

Boeing "optimistic" in talks with IAM

While the International Association of Machinists says its contract talks with Boeing remain "tense," the aircraft manufacturer remains optimistic it can avert a strike. "Sometimes I get the impression that analysts are predicting a strike because they're hearing a lot of the rhetoric out there," said company spokesman Tim Healy, noting that Boeing hopes to make its final offer by the Labor Day weekend. Reuters (8/25)

スイスのジェット・アヴィエーション社 ユタ州への工場進出計画 進める

Jet Aviation set to expand in Utah despite buyout

Swiss-based Jet Aviation says it is likely to go ahead with plans for a 70,000-square-foot maintenance facility in Ogden, Utah, despite the company's planned acquisition by General Dynamics Corp. "From the information I've been given, it's all systems go," said Patrick Sniffen, vice president of marketing and communications for Jet Aviation, noting that the Ogden deal predates the buyout offer. General Dynamics, seeking to expand its private jet business, announced last week it would buy Jet Aviation for \$2.25 billion in cash. The Deseret News (Salt Lake City) (8/26)

議会の予算委員会 FAAの次世代に向けてのゴールに注目

Congress eyes funding plan for NextGen

"NextGen is the singular goal of FAA," an agency official told attendees at the Summer Legislative Issues Conference of the Airports Council International-North America and the American Association of Airport Executives. Daniel Elwell, assistant administrator for Aviation Policy, Planning and Environment at FAA, said funding for NextGen could come from a \$25 levy on instrument flights, despite

opposition from general aviation groups. Airport Business (8/2008)

アメリカン航空株主会社 キャッシュを生み出すため 持株売却

AMR looks to sell up to \$300M in stock

AMR Corp., the parent company of American Airlines, says it plans to sell up to \$300 million in stock. AMR will sell the shares "from time to time" on the New York Stock Exchange. The company says proceeds from the sales could be used to purchase new aircraft or to reduce debt. American City Business Journals/St. Louis (8/25)

SmartQuote

"The final purpose of art is to intensify, even, if necessary, to exacerbate, the moral consciousness of people."

--Norman Mailer, American novelist

芸術の最終的な目的は、人々の倫理意識を強め、さらには、必要ならそれを過激化することである。

米作家 ノーマン・メイラー

DL(0825)

ボーイング組合への条件提示するも組合拒否 改めて9月1日最終提案

Union rejects Boeing deal; final offer expected Sept. 1

A Boeing union has called the aircraft maker's latest wage proposal "insulting," increasing the likelihood of a post-Labor Day strike. Boeing's proposal included a 2.5% pay raise in year one, followed by 2% hikes in each of the following two years. But a spokeswoman for the International Association of Machinists and Aerospace Workers said the union expected "at least the industry trend" in wage increases, which she pegged at 9% to 13% over three years. With current agreements set to expire Sept. 3, Boeing is expected to make its best and final offer by Sept. 1. Reuters (8/24)

§ 予想されるボーイングのストライキの影響

§ **Boeing strike could delay two cargo derivatives:** A strike at Boeing would delay not only the much-hyped 787 Dreamliner, but also derivatives based on two of the company's wide-body staples. The 747-8, a cargo plane that incorporates features from the 787, is slated to fly in mid-2009. Meanwhile, the 777 Freighter is scheduled for 500 hours of ground testing and 270 hours of flight testing as Boeing seeks to deliver its first orders in the fourth quarter of this year. The Herald (Everett, Wash.) (8/25)

§ 旅客機の客室乗員が直面する怒る乗客たち

§ Flight attendants face increasingly angry public

Cutbacks, delays and higher prices have led to surly passengers on many flights, and that means more stress for flight attendants. Attendants say any remaining vestige of glamor is gone from their job, as they deal with passengers angered by new policies both on the ground and in the air. One aviation analyst predicts the issue will come up during contract negotiations, when flight attendants may ask for more money to compensate for the added stress. The Atlanta Journal-Constitution/Newhouse News Service (free registration) (8/24)

アメックスの調査では ファーストクラス、ビジネスクラスの販売落ちる

American Express reports drop in first-class, business-class sales

Higher fares and a faltering economy are taking their toll on sales of first- and business-class tickets, according to a report from American Express. The company said only 3% of the domestic tickets it sold in the second quarter were for first-class travel, compared to 4% in the same quarter last year. Internationally, American Express said 49% of its ticket sales were for business-class seats,

compared to 51% last year. USA TODAY (8/25)

S 宇宙兵器についてマケーン候補は賛成、オバマ候補は反対

S When it comes to weapons in space, McCain is pro, Obama con

The best presidential choice for the U.S. aerospace and defense industry may not be as clear as in previous years. In one area -- putting weapons in space, Obama has come out in opposition to the plan, while McCain supports the importance of "the use of space as an asset in warfare," according to Marion Blakey, president and chief executive of the Aerospace Industries Association. BusinessWeek (8/23)

S 台頭するロシアの軍事主義 共同宇宙オペレーションを難しくする

S Russian militarism could endanger joint space operations

Add NASA to the list of possible casualties from Russia's invasion of Georgia. The space agency is depending on Russian rockets to take U.S. astronauts to the international space station once the shuttle program is shut down in 2010. But that will require congressional authorization, which could be hard to come by if U.S.-Russian relations continue to erode. The Sun (Baltimore) (free registration) (8/24)

SmartQuote

"My pessimism extends to the point of even suspecting the sincerity of the pessimists."

--Jean Rostand, French biologist and philosopher

わたしの悲観論は、自分の悲観論の中の誠実さ さえ疑う程度にまで達している。

フランス生物学者・哲学者:ジャン・ロスタン

DL(0822)

FAAとEASA 航空安全性協定調印(6月)

U.S., Europe sign long-awaited aviation safety agreement

The U.S. and Europe signed a long-anticipated bilateral aviation safety agreement aimed at increasing safety and improving efficiencies between FAA and the European Aviation Safety Agency in June. The bilateral aviation safety agreement allows for mutual acceptance of aircraft certification and product tests. Read more in the AIA update.

ボーイング タンカー入札競争から降りることも検討

Boeing mulls withdrawing from tanker contract competition

Boeing is reconsidering its plan to bid on a \$40 billion contract to build aerial refueling tankers for the Air Force. The company says it needs six months to develop a competitive proposal, but the DOD has given competitors 60 days to submit new bids. "I think the option we would have if we were not given the six months, there is a really high likelihood that we would no-bid the program," said Jim Albaugh, chief of Boeing's defense unit. Northrop Grumman is also competing for the contract. The Wall Street Journal (subscription required) (8/22)

英国エコノミスト誌 米国 バランスのとれた輸出政策 難しい舵取り

U.S. struggles for proper balance on export rules

The U.S. government struggles to strike a balance with its export rules that cover technology, satellites and weapons, according to an editorial in the Economist. The editorial notes that critics of the U.S. rules say the rules are unnecessarily restrictive. "The system, they complain, fails to distinguish between militarily sensitive hardware that should be controlled and widely available commercial technologies,

such as lithium-ion batteries and solar cells," the board writes. The Economist (8/21)

S アメリカ版ベビーブーマー退職後の防衛・宇宙エンジニア不足

S Defense, space engineers in demand as boomers retire

As baby boomers retire from defense and space engineering careers, the sector faces a hiring crisis. Many engineering graduates are choosing high-tech careers in the private sector over top-secret careers in the public sector. "It is critical that we replace these retiring engineers; this is not the kind of work that we can just outsource overseas," said the chairman of a defense industry group. Approximately 60% of the industry's work force could retire during the next 20 years, according to the Aerospace Industries Association. Orlando Sentinel (Fla.) (8/21)

ボーイング ユニオンと最終交渉

Boeing, union start final round of talks

Boeing and its machinists union began their final round of contract talks this week in Seattle. A Boeing spokesman said the company and the union have made "significant progress." Observers note that a potential strike by the union could delay the company's 787 program. Chicago Tribune (free registration) (8/22)

超軽量ジェット(VLJ)エクリプス FAAの特別検査

Eclipse VLJs face unusual FAA review

Facing a September hearing before the House Transportation and Infrastructure Committee, the FAA has ordered a rare 30-day review of Eclipse 500 very light jets due to discrepancies in the plane's certification process. Aircraft certification engineers at the FAA have charged that managers forced them to certify the planes for flight on the last day of the fiscal year even though tests were ongoing. Eclipse CEO Roel Pieper said he welcomed the review. "Customer safety has always been a priority at Eclipse, and we look forward to this investigation dispelling any inaccuracies about the certification of this airplane for once and for all," Pieper said. Associated Press (8/21) , The Dallas Morning News (8/20)

ユナイテッド航空の機内スナック有料化に乗客拒否反応

United's decision to end some free meals upsets fliers

With airlines adding fees for everything from pillows to checked luggage, most fliers have come to expect added charges. United's decision to stop serving free meals on some flights, however, has struck a nerve. "With so much bad news breaking lately, travelers have become pretty inured to the next fee, the next service cut, the next frequent flier devaluation, the next flight cancellation," said Tim Winship, publisher of the frequentflier.com Web site. USA TODAY (8/21)

今年の感謝祭、クリスマス・シーズン期の航空券大幅値上げの見通し

Steep increase predicted for Christmas, Thanksgiving fares

Airfares out of Atlanta are expected to rise more than 20% for Thanksgiving and Christmas from year-ago levels, but the increases are not expected to be as great as in other parts of the U.S., according to a fare forecasting site. The site predicted that U.S. fares will increase an average of 35% for Thanksgiving and 31% for Christmas. The Atlanta Journal-Constitution (free registration) (8/21)

S 次回のスペースシャトル打上げは10月8日と変わらず

S Shuttle launch remains on track for Oct. 8

NASA officials said the next shuttle launch remains on schedule for Oct. 8. They said the space center avoided major damage from a

storm that hit the area this week. "Right now, as far as we are able to tell, there will be no impact to the Oct. 8 launch date," a Kennedy Space Center spokesman said. Florida Today (Melbourne) (8/21)

SmartQuote

"The key to successful leadership today is influence, not authority."

--Kenneth Blanchard, trainer and author

現代のリーダーシップ成功のカギは、権威ではなく影響力。

人材育成・作家 ケネス・ブランチャード

DL(0821)

機械工組合のストライキでボーイング 787 更に遅れる危機

Machinists' strike would delay Boeing 787 program

Final talks between Boeing and its machinists' union begin today in Seattle. A potential strike by the workers could result in delays to the company's 787 program, which already faces a backed-up production line. Health care, pensions and job security are the major issues in today's negotiations. The Wall Street Journal (subscription required) (8/21)

エアライン株価上昇 原油価格が下がったおかげで

Airline stocks on rise thanks to lower price of oil

A \$30-plus drop in the price of a barrel of oil has changed the outlook for U.S. airlines, which appeared to be steering toward bankruptcy in July. The drop in oil, plus a number of measures taken by the airlines in recent weeks to boost liquidity, has prompted an increase in investment in stocks. USA TODAY (8/21)

ICAO 提案のカーボン計算基準 精度が粗すぎて使い物にならないと批評

Carbon calculators too crude to be useful, critics charge

Critics of carbon offsetting say airline passengers may be fooling themselves to think their contributions are actually making up for the CO2 they pump into the atmosphere while traveling. Although the International Civil Aviation Organization launched a standardized carbon calculator in June, even that may mask wide variances in actual travel conditions. For instance, according to one critic, a flight from London to Athens could produce 57 kilograms per person less than the ICAO standard -- or 153 kilograms more, depending on the type of aircraft flown and the load factor. Reuters (8/21)

ユナイテッド航空 客室乗員減らす、スナック類有料化

United to change flight attendant staffing, charge more for snacks

Soaring fuel prices have prompted United Airlines to start charging up to \$9 for snacks and to reduce flight attendant staffing to the minimum allowed by the FAA. "In the wake of high fuel prices and a challenging economic environment, we must continue to examine every aspect of our business and find new ways to improve our day-to-day operations through efficiencies that still meet our customers' expectations," United said in a memo. The Wall Street Journal (subscription required) (8/21)

世界のエアライン業界、2008 年は減益の年になりそう

Carriers could lose \$6.1B in 2008, group says

Airlines around the world could post losses of \$6.1 billion this year, according to a group representing international airlines. Geopolitical instability in Asia and higher oil prices are causing the downturn. Observers also predict another round of global consolidation in the industry. The Wall Street Journal (subscription required) (8/21)

DOD タンカー機の RFQ の発行 来週に

DOD plans to issue final request for tanker proposals next week

The DOD said it expects to issue the final request for proposals on a \$35 billion refueling tanker bid next week. Both companies met separately with Air Force officials on Wednesday at a meeting called by the Pentagon. The DOD expects to pick the winner of the contract by December. Chicago Tribune (free registration) (8/21)

ノースロップ 無人機(UAV)には特別なレーダーが必要

Northrop says UAVs need specialized radars

Northrop Grumman said a specialized radar is needed to solve the sense-and-avoid problem plaguing some unmanned aircraft systems. Company officials declined to name companies that may be selected to build the radar but noted that at least one has emerged in recent weeks. FlightGlobal.com (8/20)

ロッキード無人機(UAV)提案はリスクである GAO が却下

GAO denies Lockheed's UAV protest

The Government Accountability Office on Wednesday said the military rejected Lockheed Martin's proposal for Navy unmanned aerial vehicles because the proposal was riskier than other bids. The GAO denied Lockheed's protest of the decision to award the contract for the Broad Area Maritime Surveillance to Northrop Grumman. International Herald Tribune/Associated Press (8/21)

AIA News

航空宇宙産業のビジネス倫理規程 グローバルに展開

Viewpoint: Good business conduct going global

U.S. and European aerospace leaders agreed to organize regular forums on international business conduct during a top-level meeting at the Farnborough International Airshow in July. The first forum is tentatively scheduled in early 2009. The aerospace industry is among the most globalized in the world, and it is more important than ever that the industry operates on a fair and equal footing when it comes to ethical business conduct, AIA President and CEO Marion Blakey writes in the latest AIA Viewpoint. Read more in the AIA Update.

SmartQuote

"Science is organized knowledge. Wisdom is organized life."

--Immanuel Kant, German philosopher

科学は知識を体系化したもの。知恵は人生を体系化したものである。

独哲学者 イマニュエル・カント

DL(0820)

デルタ・ノースウエスト合併計画ほぼ予定通り順調に推移

Delta-Northwest merger appears on track for completion

No additional congressional reviews are planned for the proposed merger of Delta Air Lines and Northwest Airlines. A Delta spokeswoman said lawmakers don't see antitrust violations as a concern with the proposed transaction. "We are pleased with the progress that has been made and believe we are on track for completion by the end of the year," the Delta spokesman said. The Atlanta Journal-Constitution (free registration) (8/20)

ボーイング 機械工組合に対し交渉に先立ちインセンティブ・プランを提示

Boeing offers incentive plan to machinists ahead of talks

Boeing on Tuesday presented a new incentive plan to members of its machinists union. The plan will give workers extra pay for meeting and exceeding certain targets. Intensive contract negotiations between the company and union leaders will start on Thursday at a Seattle hotel. The Seattle Times (8/20)

アメリカン航空 本日から機内インターネット使用可能

American starts offering in-flight Internet access today

American Airlines will launch its in-flight broadband service today on its 767-200s. The service will allow travelers to use the Internet, check e-mail and access corporate accounts for a fee of \$12.95. Delta Air Lines has announced it will offer broadband on some of its planes this fall. The Dallas Morning News (8/20)

ユナイテッド航空 国際線で一部機内食有料化

United ends free meals in coach on some international flights

United Airlines said it will stop serving free meals in the coach section on some overseas flights. The change is part of a plan to offset higher fuel prices. The airline will offer snack boxes for \$6 and salads and sandwiches for \$9. Bloomberg (8/19)

シコルスキー ヘリコプタ高需要に対応してメンテナンス事業をテキサスで展開

Sikorsky builds maintenance business, expands in Texas

Sikorsky Aircraft has expanded its operations in Texas in recent years as part of a plan to capitalize on the growing demand for repair and maintenance of commercial and military aircraft. The company has acquired or opened three of its four Texas operations since 2005. Star-Telegram (Fort Worth, Texas) (8/20)

アメリカン航空 カンサス・シティのメンテナンス工場の人員削減を巡る討論会

Future of American's overhaul plant discussed in Kansas City

Political officials in Kansas City, Mo., met with representatives of American Airlines and the Transport Workers Union Local 530 to discuss drastic cutbacks at the airline's Kansas City aircraft overhaul plant. A union official said two-thirds of the plant's 1,000 jobs will be cut by Jan. 1. Mayor Mark Funkhouser said the city will "do what we can to support American's efforts to bring new work to the maintenance facility to try to keep as many employees as possible." American City Business Journals/Kansas City (8/18)

米国-ポーランド 欧州ミサイル防衛網協定調印 について民主党は、慎重な意見

Congressional Democrats wary of missile defenses in Europe

Even as Secretary of State Condoleezza Rice signs a deal with Poland to host a missile defense system, some Democrats in Congress are saying the system is untested in a European setting. "Go ahead and move on with research and development," said Rep. Ellen Tauscher, D-Calif. "But as far as putting holes in the ground in Poland, we are saying no." Critics charge that missile defenses have proved effective only in the case of long-range strikes, and that the two-stage rocket slated for use in Europe is still untested. The New York Times (8/19)

SmartQuote

"Part of the inhumanity of the computer is that, once it is competently programmed and working smoothly, it is completely honest."

--Isaac Asimov, Russian-born American author and biochemist

コンピューターの非人間性なところは、完璧なプログラム通りにスムーズに実行される限り、まったく正直なものである点である。

ロシア生まれ米作家・生化学者 アイザック・アシモフ

DL(0819)

オバマ、マッケーオン両候補とも NASA 予算積極的に支援を公約

Obama's plan for NASA includes \$2B in additional funding

A revised space plan presented by Democratic presidential candidate Barack Obama includes \$2 billion in additional funding for NASA. He also criticized policies that have created a five-year gap between the retirement of the space shuttle and the launch of the next spacecraft. The Washington Post (8/19)

McCain pledges to oppose cuts to NASA funding

Republican presidential candidate John McCain pledged to oppose cuts to funding for NASA. He noted that funding cuts would be "a shortsighted approach that fails to recognize the benefits of space exploration and the technology and economic advantages that result from the space program." Democratic presidential candidate Barack Obama recently called for higher funding for NASA. The Boston Globe/Associated Press (8/19)

エアライン 大型機の運航数を減らす

Carriers make fewer flights with wide-body planes

Airlines are pulling their jumbo jets out of service as they face soaring fuel prices. The number of wide-body flights has declined by one-third from year-ago levels, according to an analysis by USA TODAY. Business travelers often prefer flying in wide-body planes because the airliners offer more premium seating and overhead space. USA TODAY (8/18)

土曜宿泊付き割安航空切符

Column: Least expensive fares may require Saturday overnight

Some airlines are reviving the Saturday-night stay requirement for their most inexpensive fares, writes Scott McCartney in The Wall Street Journal. He notes that the stay requirement is part of an effort to boost fares paid by business travelers. "Of course, the problem the industry has is that discount airlines continue to grow, and business travelers see them as a more-viable alternative as the price gap widens in fares," McCartney notes. "If big airlines run their prices up too high by making discounted tickets unavailable to business travelers, they risk losing customers." The Wall Street Journal (subscription required) (8/19)

アメリカン航空 オーバーホール工場人員削減をめぐりカンサスシティ当局と話し合い

Future of American's overhaul plant under discussion in Kansas City

Political officials in Kansas City, Mo., met with representatives of American Airlines and the Transport Workers Union Local 530 to discuss drastic cutbacks at the airline's Kansas City aircraft overhaul plant. A union official said two-thirds of the plant's 1,000 jobs will be cut by Jan. 1. Mayor Mark Funkhouser said the city will "do what we can to support American's efforts to bring new work to the maintenance facility to try to keep as many employees as possible." American City Business Journals/Kansas City (8/18)

アメリカン航空 MD-83 整備 FAA ルール違反賠償金は高すぎると反発

American calls proposed \$7.1 million in FAA penalties excessive

American Airlines says it does not agree with FAA findings on the airline's alleged safety violations. The airline calls the \$7.1 million in proposed civil penalties for the violations excessive, and it wants to meet with the FAA after it thoroughly reviews the findings. The FAA alleged that the airline flew two MD-83 aircraft 58 times in violations of FAA regulations, failed to make timely inspections of emergency escape path lighting systems and had deficiencies in its drug and alcohol testing program. Air Transport World (8/18)

S アメリカ 宇宙開発 50 年を振り返る

S 50 years of America in Space time line

Visit AIA's Web site at www.aia-aerospace.org to see the 50 Years of America in Space flight time line. Featuring 50 milestones in U.S. space history, the time line includes accomplishments of NASA, the Defense Department and national security agencies, commercial ventures, treaties and an array of space facts. Pictures include the Gemini 7 and Gemini 6A spacecraft, which demonstrated people could withstand weightlessness for the duration of a trip to the moon as well as the first ever space rendezvous. The site also includes AIA white papers and links to other space-related Web sites.

ゼネラル・ダイナミクス スイスのゼネラルアヴィエーション会社を買収

General Dynamics to buy business aviation firm for \$2.25B

General Dynamics will purchase Zurich business-aviation firm Jet Aviation for about \$2.25 billion in cash. The acquisition will close by the end of this year and will immediately add to earnings, General Dynamics said. Jet Aviation provides maintenance, repair and overhaul services for business jets. Reuters (8/19)

SmartQuote

"Life is a great big canvas, and you should throw all the paint on it you can."


--Danny Kaye, actor, singer and dancer

人生はおおきなキャンバスだ、できる限りの絵具を振りまけ！

俳優、歌手、ダンサー：ダニー・ケイ

[新刊紹介] アメリカ航空宇宙産業 歴史と現在 2008/08 発売 著者：西川純子 定価：4725 円(税込み)

ライト兄弟から防衛ミサイルまで、米の航空機産業が航空宇宙産業に転ずる過程を克明に分析。国防産業基盤が崩壊して軍産複合体が出現するまでを鮮やかに描き出す。

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|---|--|
|  | <p>第 部 歴史編：航空機産業</p> <p>第1章 初期の航空機産業(1903～1933年) 第2章 ニューディール期の航空機産業(1934～1939年) 第3章 5万機生産体制：第二次世界大戦期(1940～1945年) 第4章 量産体制と下請生産 第5章 朝鮮戦争と国防生産基盤(1946～1953年)</p> <p>第 部 現在編：航空宇宙産業</p> <p>第6章 航空機産業から航空宇宙産業へ 第7章 マクナマラの合理化とベトナム戦争 第8章 苦難の時代(1974～1980年) 第9章 レーガン軍拡(1981～1989年) 第10章 冷戦後の航空宇宙産業</p> <p>終章</p> |
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<http://www.nikkeihyo.co.jp/cgi-bin/menu.cgi?NEWS=1>

<http://www.nikkeihyo.co.jp/cgi-bin/menu.cgi?ISBN=978-4-8188-1964-1>

<http://www.globalsecurity.org/space/index.html>

National Security

US Patriot missile base in Poland by 2012 RIA Novosti 26 Aug 2008 -- A garrison of 100 U.S. military personnel will be based at an Army Patriot missile battery in Poland due to be established by 2012, a U.S. official said.

US & Dialogue With Moscow on Missile Defense VOA 26 Aug 2008

US Official: NATO Benefits From Missile Agreement AFPS 25 Aug 2008

Poland, US Sign Missile Agreement VOA 20 Aug 2008

Rice due in Warsaw to sign US missile shield deal RIA Novosti 18 Aug 2008

International

Russia military response & US missile shield RIA Novosti 27 Aug 2008 -- Pres. Medvedev said Russia will have to respond militarily to the deployment of elements of a U.S. missile shield in Central Europe.

Russia builds Angara launch pad RIA Novosti 27 Aug 2008

Iran to send first astronaut into space within 10 years RIA Novosti 20 Aug 2008

Proton-M carrier rocket successfully orbits Inmarsat 4F3 satellite RIA Novosti 19 Aug 2008

[\[軍事宇宙開発 spacetoday.net: military\]](#) http://www.spacetoday.net/articles_bycategory.php?cid=18

Tuesday, August 26

Satellite shooting unneeded says scientist

UPI 1:18 pm ET (1718 GMT)

Monday, August 25

Technical comments on the U.S. satellite shutdown

Bulletin of the Atomic Scientists 7:59 pm ET (2359 GMT)

Assessing the hazards of space hydrazine, and the media reportage of it

The Space Review 1:34 pm ET (1734 GMT)

European missile defense and military space

The Space Review 1:33 pm ET (1733 GMT)

Friday, August 22

Cosmonaut Photographed South Ossetia From ISS

Aviation Week 6:34 pm ET (2234 GMT)

Wednesday, August 20

Space espionage: a high priority

RIA Novosti 7:00 pm ET (2300 GMT)

Tuesday, August 19

Air Force to Pursue Space Capabilities

KBS Global 7:53 am ET (1153 GMT)

Air Force official discusses spaceport

Alamogordo Daily News 7:51 am ET (1151 GMT)

[\[中国宇宙開発-3 spacetoday.net: China\]](#) http://www.spacetoday.net/articles_bycategory.php?cid=42

Tuesday, August 26

Asteroid dubbed "Beijing Olympics" in space

People's Daily 7:04 am ET (1104 GMT)

[\[Space & Missile Report\]](#) [Table of Contents](#) via Rick Hashimoto (Boeing)

August 25, 2008

- * Poland, United States, Sign European Missile Defense Agreement To Erect Shield
- * ATK Rocket Destroyed After Liftoff From Wallops Island; NASA 'Very Disappointed' By Failure; Experts Seek Cause
- * NASA Devises Solution For Ares Rocket Thrust Oscillation Problem
- * Russian Invasion Of Georgia Proves U.S. Need For Directed-Energy Weapons Against Missile, Air Threats
- * Russian Cosmonaut Takes Pictures From Space Station Of War Zone In Georgia; Russia Says Photographs Are For Humanitarian, Not Military, Purposes
- * Defense Costs To Outstrip Funds Available; Immediate, Long-Range, Needs Clash

- * Expendable Launch Vehicles Market Seen At \$48 Billion In Next Decade
- * NASA Issues Request For Information On Lunar Communications, Navigation
- * Ballistic Missile Defense Programs Comprise 10 Percent Of Lockheed Revenues
- * Launches /// * Contracts
- * Tests Completed On Key Part For J-2X Engine In Ares Rocket
- * Notice: We Will Observe The Labor Day Holiday - Next Issue Is Sept. 8

August 18, 2008

- * Russia Deploys SS-21 Missile Launchers Into Georgia, Flouting U.S. Demands
- * Poland Signs Agreement Permitting United States To Install Interceptors In Silos For European Missile Defense
- * U.S. Public Supports Ballistic Missile Defense By A Wide Margin; 87 Percent Favor It
- * U.S. Forces Entering Georgia On Aid Mission;
- * Proof Of Need For Missile Defense In Europe: /// * From the Editors
- * Lockheed Martin Target Missiles Work Well, Company Reports
- * Beam Control Used In Advanced Tactical Laser Test;
- * Army Mobile Laser Beam Control System Passes Preliminary Review
- * Launches /// * Contracts
- * Cassini Spacecraft Zips To Close Encounter With Saturnian Moon
- * Boeing Begins New Satellite Assembly Process
- * Multiple Kill Vehicle Propulsion Unit Passes Test

[\[Defense Daily\]](#) [Table of Contents](#) via Rick Hashimoto (Boeing)

August 27, 2008

- * Lockheed Martin In Air Force Talks For C-130J Sale, Will Compete For Modernization Contract
- * Coast Guard Releases Five-Year C4 And Information Technology Strategic Plan
- * DoE Adopts New 'Graded' Terrorist Protection Policy
- * Army, Boeing Sign \$4.3 Billion CH-47F Helicopter Deal
- * Navy Conducts Successful Test of Trident II D-5 Ballistic Missiles
- * Lockheed Martin Acquires Tenix' Interest In RLM Holdings
- * Raytheon Stays On Course For Zumwalt Plan of Record, Eyes Issues For DDG-51 Rebuild

August 26, 2008

- * First UH-1Y Detachment Reports To Miramar For Training, AH-1Z Faces Two-Year Delay
- * DHS S&T Plans Standoff Technology Explosives Demo Programs
- * Hellfire II Missile Production Extended Under \$357 Million Army Contract
- * Australia Aims To Involve More Companies In Defense Work
- * TACOM To Hold Omnibus Industry Day
- * Reliability Issues Continue To Delay Navy's AMCM OPEVAL For MH-60S
- * Reformulated Bid Request Expected This Week In Air Force Tanker Saga
- * Security Firm O'Gara Group Plans \$150 Million IPO

August 25, 2008

- * Defense Watch

- * Brogan: Competitive Prototyping For Large Acquisition Programs Will Pay Off
- * NASA Terminates Flight of ATK Experimental Rocket At Wallops
- * Interoperability Seen As Key To Future Fighter Platforms

August 22, 2008

- * Air Force Seeks Steady Transition From JSF Development To Production Ramp-Up
- * Defense Costs To Outstrip Funds Available, CSBA Says
- * Cobham To Acquire ADG Microwave Systems Unit For \$26 Million
- * General Dynamics Moves Ahead With Stryker MGS Production
- * Lockheed Martin Receives \$80 Million Order For More ATACMS Unitary Missiles
- * ITT Corp. To Supply Night Vision Systems To U.K. MoD
- * GD To Produce 360-Degree, Advanced Chemical Detection Systems For Army Vehicles
- * Lockheed Martin Completes First Two Romanian Radar Upgrades
- * BAE Gains \$3.8 Billion MoD Munitions Contract; May Grow To \$5.6 Billion

August 21, 2008

- * Navy Developing Path Forward For Open Architecture Implementation
- * DOD Reports Small Decrease In Major Acquisition Costs, Highlights Cuts To C-5 Re-engineering
- * Ballistic Missile Defense Programs Comprise 10 Percent Of Lockheed Revenues
- * NORAD, NORTHCOM Leader Cites Challenges With Maritime Warning Role
- * AeroVironment To Work Small, Stealthy UAS For DARPA
- * Iraq Signs Comprehensive Nuclear Test Ban Treaty
- * Fire Scout Completes First Flight With BRITE Star Payload
- * Verified Identity Obtains \$44.4 Million In Venture Funding
- * ManTech Nets Potential \$820 Million Contract To Support Bomb Clearing Vehicles

August 20, 2008

- * Navy Now Wants A Third DDG-1000 Next Year
- * Air Force Pegs Cost of CSAR-X Contract Re-bid At Just Over \$1 Billion
- * DoD Preps For Last MRAP Order, Assesses Theater Request For Lighter Vehicles
- * GD To Expand Business Jet Services With \$2.3 Billion Acquisition
- * Team Stellar UAV And UGV Win U.K. MoD Grand Challenge
- * Lockheed Martin Completes Assembly of Fourth F-38B STOVL
- * Flir Gets \$14.7 Million Contract For Sensor System
- * Lockheed Martin To Supply Thermal Cameras For Mine-Protected Vehicles
- * Expendable Launch Vehicles Market Seen At \$48 Billion In Next Decade
- * ManTech To Acquire Small Cyber security Firm ETG

August 19, 2008

- * Pentagon Reports Schedule Slips For Navy's AH-1Z And MH-60S AMCM
- * Boeing's Hill Backers Call For Pentagon To Slow New Tanker Competition
- * Thales Validates Watchkeeper UAV Automatic Take-Off And Landing
- * Boeing Looks To Brazil's F-X2 Competition For Possible Future Super Hornet Sales
- * ATK Conducts Second Successful AARGM Operational Assessment Firing This Month
- * DHS To Extend Accenture's US-VISIT Contract

* BAE Systems Thermal Imaging Systems To Enhance Special Forces Vehicles

[Quote from the New Testament] II Cor. 5:1-2

For we know that if our earthly house, this tent, is destroyed, we have a building from God, a house not made with hands, eternal in the heavens. For in this we groan, earnestly desiring to be clothed with our habitation which is from heaven.

わたしたちの住んでいる地上の幕屋がこわれると、神からいただく建物、すなわち天にある人の手によらない永遠の家が備えてあることを、わたしたちは知っている。そして、天から賜うそのすみかを、上に着ようと切に望みながら、この幕屋の中で苦しみもだえている。