

[Virtual Library] ホームページ <http://www.space-library.com> ミルスペースのアーカイブ, Virtual 書架 他

[What's New] 新着アップロード

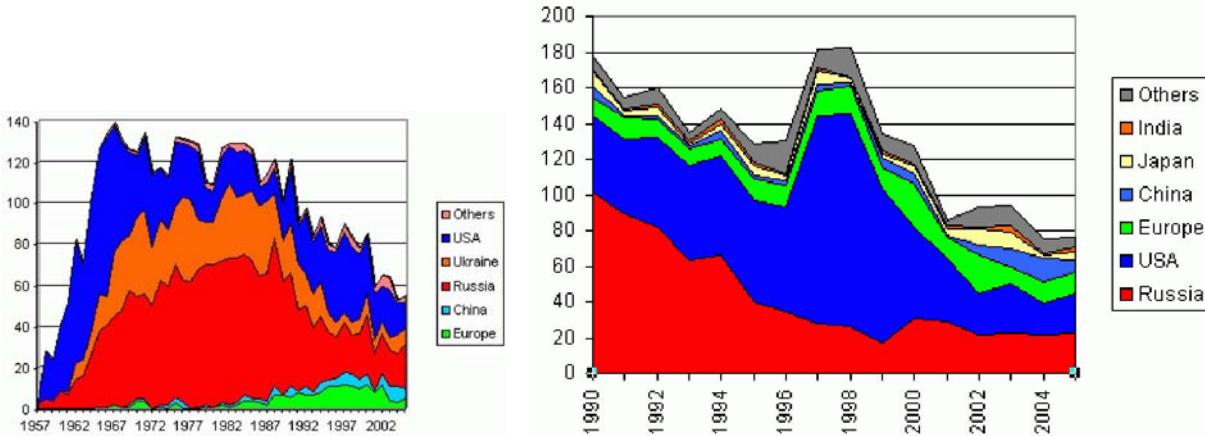
AF Space Command, High Frontier Vol.2 No.3

Peterson AFB, Space Observer Vol.50 No.19

Schriever AFB, Satellite Flyer Vol.8 No.19

spacesecurity.org, SSI(Space Security Index)2004 他

打上げシェアと実績の変遷 Launch History, The Year in Space - 2005 <http://www.astronautix.com/articles/thee2005.htm>



May 3rd, 2006 IASC(International Assessment and Strategy Center)

フ兰卡戦闘機の編隊 - PLA 人民解放軍の大きな杖

The Flanker Fleet -The PLA's 'Big Stick'

The PLA's acquisition, since 1991, of nearly 300 Sukhoi Su-27/30 Flanker long range fighter aircraft, represents the single greatest investment in modern fighter aircraft seen since the Soviet re-equipment with the Su-27 and MiG-29 during the 1980s.

With further growth in this fleet now inevitable, currently planned and deployed numbers are approaching 400 aircraft, making this fleet numerically competitive with the US Air Force fleet of 400 legacy F-15A-D fighters, and 200 F-15E strike fighters.

By any conventional metric, the Su-27 and Su-30 represent direct equivalents to the US F-15C and F-15E, and offer superior capabilities to the US fighters in several key areas. The latest variants include all of the avionic and systems refinements historically exclusive to US and EU combat aircraft.

以下 http://www.strategycenter.net/research/pubID.106/pub_detail.asp 参照



米 国防省が投入している無人機 と 機数

Number and Type of Unmanned Aircraft in DOD's Inventory, as of February 2006

Type	System	Service/Command	Total Aircraft Inventory
Small UAS	Pointer	Air Force/Special Operations Command	126

(weight less than 10 lbs. /airspeed less than 100 kts.)	Raven	Army/Air Force/ Special Operations Command	1776
	Dragon Eye	Marine Corps/ Special Operations Command	402
	Force Protection Airborne Surveillance System	Air Force	126
	Swift	Special Operations Command	212
	BATCAM	Navy and Marine Corps	54
Tactical UAS (weight less than 500 lbs. /airspeed less than 120 kts.)	Pioneer	Navy and Marine Corps	34
	Shadow 200	Army	140
	Neptune	Special Operations Command	15
	Tern	Special Operations Command	15
	Mako	Special Operations Command	15
	Tigershark	Special Operations Command	6
Theater-level UAS	Predator A	Air Force	70
	I-Gnat	Air Force	4
	Hunter	Army	32
	Fire Scout	Army	4
	Predator B	Navy/Army	6
	Global Hawk	Air Force	11
Total			3048

Source: Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.

[Aerospace Daily & Defense Report](#) May 11, 2006

火星探査計画は FY'07 カットから なお ぐらついている

Mars exploration program still reeling from FY '07 cut

NASA's Mars exploration program is in the middle of a strategic regrouping effort as it continues grappling with the nearly \$3 billion five-year cut contained in the Bush administration's fiscal 2007 budget request, which has left it unable to make firm plans for missions beyond 2016. In response, the agency has formed an ad hoc group to draw up plans for the next 10 years of Mars exploration. That group's work should be completed this summer, according to Mars Program Lead Scientist Michael Meyer.

The cut would have NASA's Mars program growing at an annual rate less than inflation, effectively diminishing its buying power each year. After 2016, "because buying power is decreasing and it's more than 10 years away, we're not quite sure what we should do after that," Meyer told The DAILY. "Certainly a lot will be discovered between then and now that will inform what would be the most interesting or most valuable scientific mission."

Although the White House's vision for space exploration includes manned Mars missions, NASA has backed away from actively planning such missions for the time being, concentrating its energies instead on the challenge of returning to the moon.

The next NASA mission to Mars will be the 2007 Phoenix lander, the first Mars Scout mission, which will dig in the martian soil. The next mission is the Mars

Science Laboratory (MSL), a rover the size of a small car carrying a 75-kilogram (165-pound) science payload that is due to launch in 2009.

The budget cut has prompted NASA to scale back the degree of new technology that will be carried on MSL, according Meyer. Although this won't affect the rover's own capabilities very much, it will have an impact on future missions that would have drawn on MSL's experience, Meyer told The DAILY.

MSL will be followed by the second Mars Scout mission in 2011. NASA released the announcement of opportunity for that mission on May 1, and proposals are due Aug. 1. In 2013, NASA is planning a new hybrid science/telecommunications orbiter to send to the red planet (DAILY, Feb. 27).

Then in 2016, the agency expects to launch either another MSL-sized rover, or two smaller rovers similar to the highly successful Mars Exploration Rovers.

The ambitious Mars Sample Return mission has dropped off NASA's scope entirely for the moment, Meyer told scientists during a meeting of National Academy of Sciences space committees in Washington May 10. The only hope for sample return may be an international mission that shares the expenses among countries, he said.

The budget cut also has pushed the Mars exploration program's

reserves down to a historic low. Though such a situation may admittedly be "unwise," the only alternative at this point is to cancel programs, Meyer told committee members.

"We view the program as fragile right now," he said. "We have

minimal options to fix anything that breaks. If something breaks ... we'll have to end up going to Congress and explain why we have to move a mission or not do a mission." - Jefferson Morris (jeff_morris@AviationNow.com)

ロードランナ・スパコンの作業が RFP 提案要求と共に立上げ

Roadrunner supercomputer effort launched with RFP

The Energy Department's National Nuclear Security Administration on May 9 issued a request for proposals to begin phase one of the

so-called Roadrunner supercomputer at the Los ...

トラブルに見舞われている NPOESS 衛星の機器は熱真空試験の段階に

Troublesome NPOESS instrument enters thermal vacuum testing

A prototype weather sensor whose development problems have contributed to the National Polar-orbiting Operational Environmental Satellite System's (NPOESS) woes is entering thermal vacuum testing, according to Raytheon.

Raytheon is developing the Visible Infrared Imager Radiometer Suite (VIIRS) to measure sea surface temperature and ocean color. Development problems have pushed delivery of the flight-ready sensor to NPOESS prime contractor Northrop Grumman from an original target of fall 2005 back to 2008.

The VIIRS advanced sensor engineering development unit (EDU) is being tested in one of Raytheon's thermal vacuum chambers, which replicates the extreme heat and freezing cold cycles of space. The testing is expected to be complete by mid-summer, and the EDU should be delivered to Northrop Grumman before the end of the year. Raytheon Space and Airborne Systems (SAS) is under contract to design and develop the VIIRS EDU, which the company says is the most advanced weather operational imaging sensor ever made, and to deliver three flight units with options for four more.

The EDU prototype originally was being developed in parallel with the VIIRS flight units. The decision was made earlier this year to develop the EDU first as a risk-reduction measure and push back development of the flight units, according to Raytheon spokeswoman Sabrina Steele.

The EDU has completed ambient testing and vibration testing. Its passive cooling system, intended to keep sensitive infrared components sufficiently cold, has performed well during its own thermal vacuum testing, Raytheon said. Managed jointly by the Air Force, the National Oceanic and Atmospheric Administration (NOAA) and NASA, NPOESS is the follow-on to the Defense Meteorological Satellite Program and NOAA's Polar-orbiting Operational Environmental Satellite constellation.

The projected total cost of NPOESS has grown from \$6.5 billion to nearly \$10 billion. The program's problems are blamed on development issues with its many sensors, particularly VIIRS and the Boeing-led Conical Microwave Imager/Sounder. The Air Force is in the process of restructuring and re-certifying the NPOESS program following a breach of the 25 percent Nunn-McCurdy cost growth cap last year (DAILY, Dec. 13). Pentagon acquisition chief Kenneth Krieg must sign off on the new program plan by early June for it to continue. The first operational NPOESS satellite is not expected to launch before 2011 or 2012, which could result in a gap in satellite coverage if current systems fail. - Jefferson Morris (jeff_morris@AviationNow.com)

2006年5月12日 7:56 【CNET Japan 2006年05月12日】

・ フォトレポート: 未来のオフィスはこうなる--マイクロソフト提案の作業環境
<http://japan.cnet.com/svc/nlt2?id=20109147>

・ MS が描く未来のオフィス--キーワードは「メタデータ利用とビジュアル化推進」

<http://japan.cnet.com/svc/nt2?id=20108927>

- ・ グーグル、複数の新アプリケーションを一举にお披露目

<http://japan.cnet.com/svc/nt2?id=20108768>

- ・ 「グーグルは検索技術で王座を狙う」—シュミット氏、ヤフーや MS との差別化戦略を語る

<http://japan.cnet.com/svc/nt2?id=20108809>

- ・ NASA システム侵入事件:英裁判所、被告の米国引き渡しを支持

<http://japan.cnet.com/svc/nt2?id=20108987>

- ・ 米国 新聞電子版の閲覧者急増 地方紙の広告収入奪う

<http://japan.cnet.com/svc/nt2?id=20108707>

2006年5月11日 7:57 【CNET Japan 2006年05月11日】

- ・ シスコ、第3四半期売上高は18%増—純利益は減少

<http://japan.cnet.com/svc/nt2?id=20107767>

- ・ 「ソフトバンクはラッキー」—孫氏が語る携帯電話事業の勝算

<http://japan.cnet.com/svc/nt2?id=20108507>

2006年5月10日 7:53 【CNET Japan 2006年05月10日】

- ・ LCDの生みの親 J・ファーガソン氏、レメルソン-MIT 賞を受賞

ウェスティングハウスで液晶実験に携わり、膨大な液晶ディスプレイ市場の道を切開いたファーガソン氏が先週、「Lemelson-MIT Prize」を受賞し、50万ドルを手に。

<http://blog.japan.cnet.com/staff/archives/002803.html?tag=nl>

- ・ [株価の真相]勝ち組東芝の株価 1000円乗せはあるか

総合電機大手の前期2006年3月期の決算と今期2007年3月期の業績見通しが出揃ったが、その中でも東芝が評価されている。

<http://japan.cnet.com/svc/nt2?id=20106207>

2006年5月12日 15:20 時事通信社「世界週報」 5月23日号 [【目次抜粋】](#)

<シリーズ>

- ・ 今週の軍事情報／米国境の監視体制と持ち上がる問題(江畑 謙介)
- ・ 日本と世界の安全保障／リベラル気取りは通用しない(田久保忠衛)
- ・ 宇宙よもやま話／勢ぞろいする月の艦隊(的川泰宣)

2006.05.08 日刊航空通信

わが国航空機産業育成に向けたシナリオ提示

経産省、「技術戦略マップ2006」を策定(上)

経済産業省は4月28日、「技術戦略マップ 2006」を策定し、その内容を明らかにした。「技術戦略マップ」は、新産業創造やリーディング産業の国際競争力強化のために必要な技術目標や製品・サービス需要創造の方策を示したものであり、製造産業分野では、「航空機」と「宇宙」が含まれている。

同省では、昨年3月に第1版にあたる「技術戦略マップ 2005」を策

定・公開した後、前年度の成果を基に、NEDO(新エネルギー・産業技術総合開発機構)等の協力を得て、全分野で内容の見直し・拡充を実施した。今後は、「技術戦略マップ 2006」をその研究開発マネジメントに活用するとともに幅広く産官学に提供し、わが国の研究開発の推進と、異分野・異業種の連携、技術の融合を推進するべく、活用していくこととしている。なお、航空機分野の技術戦略マップ全

文は次のとおり。

I. 基本的な考え方

(1) 航空機産業は、

i) 先端技術と高度な素材・部品を集約し、システムとして統合ないし擦合せを行う高付加価値産業である。

ii) 他産業への高い技術波及効果を有する。(例:新幹線への空力技術、材料技術の適用等)

iii) 航空機製造には数百万点の部品が必要(自動車では2~3万点)なため、中小企業も含め広い裾野産業を必要とし、成熟した時点には大きな雇用吸収力を有する。

等の特徴を持ち、その育成はわが国産業、技術政策上極めて重要である。また航空機は重要な防衛装備の一つであり、航空機の生産・技術基盤の維持・涵養は、わが国安全保障上の観点からも重要である。

(2) これまでに、わが国航空機産業は、研究開発事業や国際共同開発、防衛庁機の開発等により、産業規模を拡大するとともに航空機関連の要素技術力を蓄積してきた。特に複合材料等の材料・構造技術、機器システム技術や超音速機分野の空力・エンジン技術等については、わが国航空機産業の強みとして国際的に高い評価を得ている。今後、わが国航空機産業が中長期的にさらなる発展を図っていくためには、戦略的な研究開発によりわが国航空機産業の技術基盤を強化し、わが国主導の航空機開発や将来の国際共同開発プロジェクトへの主体的な参画を実現していくことが重要である。以上の観点から、航空機分野について、今後15年程度を見据えて技術戦略マップを作成する。

II. 導入シナリオ

(1) わが国航空機産業の育成を実現するため、研究開発と事業環境整備等の関連施策を一体的に推進する必要がある。航空機分野における技術は、大きく中核的要素技術と機体・エンジンの全機開発技術の2つに分けられる。

(2) まず、中核的要素技術については、わが国の強みを将来にわたり維持・強化していくため、材料・構造分野、システム分野等の要素技術開発を継続的に進めていくことが必要である。

本成果を社会に提供していくためには、開発中の小型航空機、小型航空機用エンジンや国際共同開発への適用を進め、開発される航空機の高性能化を実現することが必要である。併せて、自動車、鉄道等他分野にも成果を広くアピールし、波及を促進していくことも重要である。

(3) 次に、機体・エンジンの全機開発技術については、多くの要素

技術をすり合わせ1つのシステムとして統合する全機インテグレーション技術を獲得するために、小型航空機および小型航空機用エンジンの全機開発を進めるとともに、多額の国費を投じて開発された防衛庁機の民間転用による効率的な機体開発、空力特性や環境適応性等において高い技術が要求される超音速機開発を進めることが必要である。

本成果を社会に提供していくためには、各プロジェクトについて、民間における事業化を実現することが必要である。このためには、技術開発や調査研究を着実に実施するとともに、関連施策として、わが国航空機産業のブランド力向上や、事業環境整備等の取組みを進めることが必要である。具体的には、ブランド力向上については、国際共同開発におけるわが国のより大きな割合での参画や技術的に高度な部位への参画を支援し、世界市場におけるわが国航空機産業の実績、評価の確立を図ることが必要である。また、事業環境整備については、公的研究機関との連携や安全性審査に係る体制整備等、必要な関係省庁間の施策調整を実施するとともに、官民の役割整理やビジネスモデルの検討等、事業化に係る諸課題の検討を行うことが必要である。

III. 技術マップおよびロードマップ

(1) 技術マップ

航空機分野における技術は、材料・構造、空力等の要素技術および各要素技術をすり合わせ1つのシステムに統合する全機開発技術の2つに大別される。また、要素技術については、1)材料・構造、2)空力、3)装備品(システム)、4)エンジン要素技術の4分野に、全機開発技術については、1)全機インテグレーション技術、2)設計・生産技術の2分野に分類できる。

以上より、技術マップの作成にあたっては、航空機分野の技術課題を

①全機開発技術—1)全機インテグレーション技術、2)設計・生産技術

②要素技術—1)材料・構造、2)空力、3)装備品(システム)、4)エンジン要素技術
に分類して整理する。

(2) 重要技術の考え方

①全機開発技術

わが国が市場動向に対応しつつ主体的に事業活動を展開することを可能とするために必要な全機開発技術。具体例としては、以下のとおり。

・機体・エンジンの全機インテグレーション技術 等

②中核的要素技術

今後の航空機に求められる安全性向上、低コスト化、環境負荷低減に大きく寄与し、将来のわが国主導の航空機開発や国際共同開発への主体的参画においてバリエーションパワーとなり得る技術。具体例としては、以下のとおり。

- ・環境負荷低減に資する技術: エンジンに係る騒音低減技術やクリーン燃焼技術、超音速機に係る低騒音化技術 等
- ・低コスト化に資する技術: 複合材成形技術、構造シンプル化技

[編注] リリース: <http://www.meti.go.jp/press/20060428011/gijyutsusenryaku2006-p.r.-set.pdf>

概要: <http://www.meti.go.jp/press/20060428011/gijyutsusenryaku2006-gaiyou-set.pdf>

2006.05.10 日刊航空通信

打上げ機会を年1回以上提供/利用拡大に貢献

JAXA、H-II A活用ビジーバック衛星の募集開始

立川敬二 JAXA 理事長は10日に開かれた定例記者会見で、平成20年度以降に打上げるH-II Aロケット打上げ余剰能力を活かし、民間企業や大学などに、1~50kg の小型衛星打上げ機会を提供していくと発表。本日(11日)から8月31日まで、搭載候補を募集する。立川理事長は「平成20年度以降は最低毎年1回ぐらい打上げ機会を提供したい。既に、結構な数(10件ほど)の候補があると聞いている。申込み件数に制限はないので、(この機会を使って)研究開発や利用拡大に貢献していきたい」と、期待の程を述べた。

募集する衛星は、1~10kg 級もしくは50kg 級の小型衛星で、①わが国の宇宙開発利用の拡大につながる研究開発に資するもの、②大学などの教育への貢献など、宇宙分野の人材育成に資するものが対象。応募者の事業活動の広告宣伝や、直接営利活動を目的としたものは対象外となる。打上げ費用は無料で、応募者側に係る費用は、応募者側が行う衛星開発に係る次の作業となる。

<応募者側が実施し、負担する費用> ※概要

①小型衛星の実験計画書の作成、②JAXA が提示するインタフェース条件、環境条件、安全基準要求に基づく小型衛星(衛星分離機構)、小型衛星の代替搭載物(ダミー)、地上支援装置(GSE)の設計、製造、試験、③JAXA が実施する安全審査会等各種審査を受けること、および、審査資料作成等の準備作業、④応募者が用意する小型衛星やダミーなどの種子島宇宙センタ施設内への搬入・搬出、⑤小型衛星をロケットの衛星分離部に搭載する際の搭載手

[編注] リリース: http://www.jaxa.jp/press/2006/05/20060510_smallsat_j.html

応募要領詳細: <http://www.jaxa.jp/spacebiz/>

術、離着陸高揚力・低抵抗化技術 等

・安全性向上等に資する技術: 健全性診断技術、コックピット表示技術 等

以上の考え方により選定された重要技術は、技術マップ中に色分けして表示する。なお、超音速機開発については、材料・構造、空力、エンジン要素技術等において極めて高度な要素技術が要求されるため、必要となる個別の技術について整理する。(以下次号掲載)

順の提示や搭載作業、⑥応募者の実施作業に係る移動や滞在、⑦H-II Aから分離後の追跡管制やデータ受信を含む運用、⑧実施状況や成果を JAXA へ報告、⑨シンポジウムなどでの成果発表やプレスへの取材対応、JAXA 広報活動への協力

応募希望者はJAXAのHP(<http://www.jaxa.jp/spacebiz/>)から申込書を手し、必要事項を明記の上、8月31日までに小型衛星公募担当まで送付する。その後、JAXA は審査の通った提案を「小型衛星搭載候補リスト」に載せ、打上げ機会に合わせて、“その都度”、搭載衛星を選定する。これは、ある一時期に決めてしまうと、万が一、打上げが遅れて技術が陳腐化した際に、この仕組みの意義が失われてしまう懸念があるための措置。外部の有識者を含めた小型衛星選定委員会で審議することで透明性を確保し、打上げ15ヵ月前までに搭載衛星を決める。初号機は温室効果ガス観測衛星(GOSAT)と共に打上げ予定。立川理事長は「1回で1機とは限らない。50kg 級衛星を2個同時に打上げることもある」と述べ、リストアップが搭載の約束をするものではないものの、より多くの打上げ機会を提供していく考えを示した。なお、現在想定される応募候補には、千葉工大くじら衛星2号、東大阪協同組合まいど衛星、北海道宇宙科学技術創成センタ(HASTIC)観測衛星などがある。

米国 宇宙の軍事化

United States Militarizing Space

<p><i>Space is a highly strategic issue for the United States, which spends \$22.5 billion every year on its space programme, compared with just \$8 billion by Europe. The Gulf War marked a turning point in the military use of space. The U.S. defence system is based on four key components: navigation, telecommunications, intelligence and anti-missile defence.</i></p>	<p>米国にとって宇宙は非常に戦略的な問題であり、欧州の年間宇宙予算がUS\$8Bであるのに比べ、米国は宇宙計画に\$22.5Bを毎年使っている。</p> <p>湾岸戦争は宇宙の軍事利用の転換点になった。</p> <p>米国防衛システムは4つの鍵となる要素：航法、通信、情報収集分析、及びミサイル防衛に立脚している。</p>
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***** 本文(E-J 版)は、ホームページ <http://www.space-library.com>のバーチャル書架の CNES MAG のアップ済を参照

Aerospace Daily & Defense Report May 10, 2006

空軍は SBSS Pathfinder 計画のリストラを完了

Air Force completes restructuring of SBSS Pathfinder program

The U.S. Air Force last month completed a restructuring of the Space Based Surveillance System (SBSS) Pathfinder satellite program to address tens of millions of dollars in cost growth while maintaining its planned December 2008 launch date.

"We really did a hard scrub, looking at how we could generate an executable program," said Col. Gary Henry, system group director for space situational awareness (SSA) at the Air Force's Space and Missile Systems Center (SMC). In addition to compensating for the cost growth, the new plan added money for assembly, integration and testing, Henry said. Ball Aerospace and Boeing are developing the SBSS Pathfinder spacecraft, known as Block 10, which will use an optical sensor to perform surveillance of other satellites. Budgeted at \$400 million through fiscal 2011, the Pathfinder program will bridge the gap until the SBSS Block 20 follow-on constellation is launched.

The Block 10 restructuring was finalized during an April 4 meeting between the SBSS executive committee and SMC Commander Gen. Michael Hamel. Also at that meeting, Northrop Grumman agreed to step aside in its management role as the prime integrator for the Air Force's counter-space mission area to allow the Air Force to communicate directly with Ball and Boeing.

Numbering reconsidered

The Block 10 satellite will replace the Space-Based Visible (SBV) instrument onboard the Midcourse Space Experiment (MSX), which was launched a decade ago and already has exceeded its design life by five years.

Northrop originally was chosen as the Mission Area Prime Integrator Contractor (MAPIC) for counter-space in 2004, which gave it responsibility for integrating systems and doling out subcontracts for specific SSA programs. This made Northrop the prime contractor on SBSS, with Ball and Boeing as the subcontractors.

This arrangement eventually was deemed too cumbersome, creating a needless extra management layer between the Air Force and the industry team actually building the hardware. The Air Force and Northrop Grumman arrived at the mutual decision that the company should relinquish its oversight duties back to the service, Henry said.

"It wasn't the most efficient construct," Henry told The DAILY. "Northrop Grumman volunteered to step aside. The new arrangement required the consent of all the contractors, and the Air Force remains "appreciative" of their cooperation, Henry said.

Although it has been relieved of its management responsibilities, Northrop's MAPIC contract remains in place for now so that the subcontracts to Boeing and Ball don't have to be redone at additional cost and delay. The MAPIC contract will expire when the SBSS Pathfinder satellite is launched.

The follow-on SBSS Block 20 system had been envisioned as a four-spacecraft constellation in low-Earth orbit. However, that number is being reconsidered as the Air Force tries to determine the right balance between space-based systems and the terrestrial

telescopes and radars that comprise the bulk of the service's space surveillance network.

The Air Force expects to have its acquisition strategy settled for Block 20 by the fall, Henry said. The tentative plan is to release a

request for proposals for an initial 18- month study phase late this year or early in 2007. Previous plans called for the first two Block 20 SBSS spacecraft to be launched in 2013, which would be about when the Pathfinder satellite's design life expires. - Jefferson Morris (jeff_morris@AviationNow.com)

割当てられた金額は公正で、皆に最上、とノースロップグラマン述べる

Earmark fair, best for all, Northrop Grumman says

Northrop Grumman Corp., embroiled in a congressional debate over earmarks and defense spending, is defending a request for

\$200 million for hurricane disruption out of the supplemental . . .

ラムズフェルド長官：防衛は国内予算の出費であってはならない

Rumsfeld: Defense should not be domestic bill payer

RUMSFELD REACTS: "Our nation's defense should not be a bill payer for other parts of the budget at a time when our country is at

war," Defense . . .

上院軍事委員会は時間的に明確な調達実験に着眼

SASC eyes 'time-certain' procurement experiment

The Senate Armed Services Committee is proposing several legislative provisions for fiscal 2007 to boost the Defense

Department's oversight of its acquisition programs, committee staff have said. . . .

国防総省は戦闘空域の支援にロッキードマーチンを指名

DARPA taps Lockheed Martin for combat airspace help

The Defense Advanced Research Projects Agency (DARPA) has awarded Lockheed Martin Corp. a \$22 million, 48-month contract

to develop the Generalized Integrated Learning Architecture (GILA), the company . . .

SPACEHAB は9ヶ月の期間、第3四半期 の損失を報告

SPACEHAB reports net loss for third-quarter, nine-month periods

NET LOSSES: Commercial space services provider SPACEHAB Inc. said May 9 that it suffered net losses for both the third quarter and first nine months of fiscal 2006. The company sustained a third-quarter net loss of \$1.7 million on revenue of \$12.4 million. For the same period in '05, SPACEHAB had revenue of \$14.3 million and a net loss of \$500,000. For the nine-month period

ending March 31, the company net loss was \$12.4 million on revenue of \$36.2 million. For the same period in '05, SPACEHAB had a net income of \$5.2 million on revenue of \$40.4 million. The third-quarter '06 results were affected by slips in the space shuttle launch schedule, Michael E. Kearney, SPACEHAB president and chief executive officer, said in a statement.

フロリダの Nelson 上院議員は空母 JFK の早期退役に対して戦うことを誓う

Florida Sen. Nelson vows to fight JFK retirement

JFK DEFENDED: Sen. Bill Nelson (D-Fla.) has vowed to fight early retirement of the USS John F. Kennedy aircraft carrier or at

least receive a commitment from . . .

SAIC 社とノースロップグラマンは SPAWAR のサポートを継続

SAIC, Northrop Grumman continue SPAWAR support

SPAWAR SUPPORT: AMSEC, a limited liability company jointly owned by Science Applications International Corp. and Northrop Grumman Corp.'s Newport News, said May 9 it received an award potentially worth \$318 million from the U.S. Navy to support its Space and Naval Warfare (**SPAWAR**) Systems Center in Charleston,

S.C. Contracted services include installation of command, control, communications, computers, intelligence, surveillance and reconnaissance systems on ships, submarines and shore sites. AMSEC has been supporting **SPAWAR** Systems Centers in Charleston and San Diego since 2000.

Harris 社は LM から\$10M の JASSM ER ミサイルの契約を得た

Harris Corp. awards LM \$10M JASSM ER contract

JASSM ER CONTRACT: Harris Corp. said May 9 that it has been awarded a two-year, \$10 million contract by Lockheed Martin to

provide the Joint Air to . . .

Aerospace Daily & Defense Report May 9, 2006

レイセオンは DCGS 分散型共通地上システムのインテグレーション・バックボーン の 25 件の注文を報告

Raytheon reports 25 orders for DCGS Integration Backbone

Raytheon has taken 25 orders so far in 2006 for the Distributed Common Ground System (**DCGS**) Integration Backbone, which the company says is laying the foundation for future Web-based information sharing among the services.

DCGS is the Defense Department's tool for sharing intelligence, surveillance and reconnaissance (ISR) data from different platforms between the services in real time. The DCGS Integration Backbone (DIB) is a set of open standards designed to provide interoperability at the data services level for the entire U.S. military, according to Raytheon.

The DIB provides "the foundation for the development of interoperable DOD capabilities," said Bradley Whittington, chief engineer for special programs at Raytheon's Tactical Intelligence Systems, during a briefing in Washington May 8. Twenty-two DIB installations were ordered in 2005, of which one has been installed operationally for the U.S. Air Force, Whittington said. Raytheon estimates that 30 or more Air Force sites will receive the DIB. The Navy is expected to order 40-45 installations, and the Marines five to 10.

The DIB allows the military to extend the life of legacy ISR systems by making their data available to all military users via a Web browser, Whittington said. "I don't have to flip the on/off system with all my legacy systems," he said. "Over time, I will phase their functionality into this architecture. In the end, what we want is to have everything available as a Web service." Each DIB

installation includes a serv- er and a suggested bundle of commercial-off-the-shelf software, although users can incorporate other software because the DIB is based on open standards, Whittington said.

Raytheon developed the DIB under its DCGS Block 10.2 contract. The company's partners on the program include Lockheed Martin, General Dynamics, BAE Systems and Oracle.

The DIB currently is installed in the Air Force's DCGS Block 10.2 prototype at Langley Air Force Base. The DIB also is installed with the Army's Persistent Surveillance and Dissemination System of Systems (PSDS2) in Iraq, another Raytheon-built system that is being used to fuse sensor data and fight insurgents.

Raytheon has pitched a potential DIB road map to the Air Force and the Pentagon that has been "largely signed up to," Whittington said. The road map includes planned upgrades to increase speed.

Raytheon suggested to the Air Force that the DIB be used as the data backbone for the recently completed Joint Expeditionary Force Experiment (JEFX) network-cen- Aerospace key component of Eaton Corp.'s strategy CLEVELAND - In 1998, aerospace was a blip in industrial giant Eaton Corp.'s wide array of businesses, accounting for just \$195 million in sales. . . .

tric warfare exercise, but the DIB was completed too late in the exercise's planning cycle. The DIB will be incorporated into JEFX in 2008, Whittington said. - Jefferson Morris (jeff_morris@AviationNow.com)

上院軍事委員会はミサイル防衛と宇宙の 2007 予算要求を微調整

Senate defense authorizers tweak missile defense, space

While authorizing President Bush's fiscal 2007 budget request of \$9.3 billion for the Missile Defense Agency (MDA), the Senate Armed Services Committee has nonetheless cut funding for some longer-term developmental efforts to instead go to testing and speed up fielding of near-term missile defense capabilities.

The panel, which completed drafting of its FY '07 defense authorization bill on May 4, said it emphasized the need to focus missile defense efforts on near-term development, testing, fielding and improvement of capabilities to defend the United States, its deployed forces and allies against ballistic missile attack.

To that effect, among several tweaks made by the panel, senators added \$200 million for the Ground-based Midcourse Defense system for more flight-testing, test missiles and other efforts "to

facilitate concurrent test and operations."

They also added \$100 million for the sea-based missile defense system to increase the number of SM-3 interceptor missiles delivered and to ramp up improvements to the Aegis combat system, as well as boosting Army procurement of more Patriot PAC-3 missiles and \$100 million in upgrades to that system. In turn, SASC members cut the Kinetic Energy Interceptor program from \$406 million to \$206 million. They also included a requirement for annual reports on the Defense Department's plans to switch missile defense programs from the MDA to the military departments.

Operationally responsive space

Likewise, the SASC drafted a proposal to establish a DOD program office to centralize efforts to develop, acquire and field an operationally responsive space (ORS) capability. The panel also added \$25 million to the request for development and demonstration of small satellites for ORS missions.

On the other hand, the group sliced the Transformational Satellite program by \$70 million, or 7 percent, due to "unexecutable program growth." Nevertheless, the SASC said it was fully

supportive of the restructured program.

The SASC also cut the Space Radar program by \$66.4 million, citing "insufficient program and cost definition," and concerns about the DOD's "inability" to reach a cost-share agreement with the intelligence community.

'Nuclear ambiguity issues'

Finally, Senate defense authorizers said they included funds to develop conventional prompt global strike capabilities, including funding the request for \$127 million to begin development of a conventional version of the Trident D-5 submarine-launched ballistic missile. But senators prohibited the Navy from using more than \$32 million of the funds authorized until they receive a joint DOD-State Department report addressing "nuclear ambiguity issues." Lawmakers across Capitol Hill have expressed concern over how other countries will perceive formerly strategic strategic

forces used for conventional missions. The SASC similarly required the Air Force to provide a report on the bomber force structure before retiring any B-52H aircraft. The SASC also included \$20 million for further development and testing of a land-based advanced hypersonic weapon, plus directed the DOD to establish a joint technology office to coordinate, integrate and manage hypersonic research, development and demonstration programs and budgets.

ロッキードマーチンはハイブリッド・ロケットのコンセプトを検討中

Lockheed Martin studying hybrid rocket concept

Lockheed Martin announced May 8 that it is one of the four

contractors on the U.S. Air Force's Hybrid Launch Vehicle (HLV)

Studies and Analysis program, which is laying the groundwork for a quick-turnaround rocket with a reusable first stage that the service hopes to introduce by 2018.

Lockheed Martin received a 14-month, \$1.2 million contract on April 20 from the Air Force's Space and Missile Systems Center (SMC) at Los Angeles Air Force Base, according to a spokeswoman. The contract features a \$1.3 million six-month option. Lockheed's team includes Aerojet of Sacramento, Calif., and Pratt & Whitney Rocketdyne of Canoga Park, Calif., for reusable propulsion systems. Northrop Grumman also is working on the HLV program under a \$1.5 million base contract with a \$1.5 million option. The two other HLV contractors are Orbital Sciences and Andrews Space.

Part of the Air Force's Operationally Responsive Space initiative, the HLV is intended to provide simple, affordable launch for tactical space assets and conventional satellites into low earth orbit. The service hopes to reduce launch costs to 1/3-1/6 those of a medium Evolved Expendable Launch Vehicle (EELV) flight. Formerly known as the ARES (Affordable Responsive Spacelift) program, the HLV will feature a reusable first-stage booster and an

expendable upper stage and will be capable of orbiting payloads in the 10,000-15,000 pound range within 24- 48 hours of notice. Previous Air Force studies have found that such a hybrid approach should be cheaper than a fully expendable or fully reusable rocket, according to Lockheed Martin.

The HLV will feature a winged first stage that boosts the upper stages close to Mach 7 before releasing them at an altitude of 150,000 feet. The upper stages then put the payload in orbit while the first stage flies back and lands like a conventional unmanned aircraft. The first stage uses a rocket engine during ascent and air-breathing jet engines for its return.

HLV contractors will create conceptual designs for an operational system architecture, a subscale demonstrator and associated ground hardware and infrastructure. Preliminary design of the subscale demonstrators will be performed by two contractor teams under a separate procurement, with work to begin in fiscal 2007. The demonstrator will fly early in the next decade, followed by the full-scale HLV in 2018. - Jefferson Morris (jeff_morris@AviationNow.com)

欧州チームは風洞設備、試験の作業を連携協力強化することに

Europeans team to bolster wind tunnel activities

Several major European providers of wind tunnel facilities have decided to join forces in a bid to gain more work and coordinate

future spending. . . .

国防省のマネジメントは最近の OMB 管理予算局の得点表で悪化

DOD management worsens in latest OMB scorecard

DOD DRAGGING: President Bush may express full confidence in Defense Secretary Donald Rumsfeld, but the White House Office of

Management and Budget has issued worsening grades for . . .

EADS は Columbus を ESA に与える

EADS gives Columbus to ESA

COLUMBUS TO ESA: EADS Space has handed over the Columbus orbital laboratory, Europe's key contribution to the International Space Station, to the European Space Agency for delivery to NASA. German Chancellor Angela Merkel attended the handover ceremony at EADS's plant in Bremen, Germany. Germany is Europe's lead contributor to the ISS, providing 41

percent of European funds. At month's end, the 13-metric ton module will be shipped on an Airbus Beluga transport to Kennedy Space Center in Florida for pre-launch preparations. It is slated to join the ISS in late 2007, provided the shuttle return to flight proceeds as planned.

貿易グループはセキュリティ・ポリシーの破棄を望む

Trade groups want reversal on security clearance policy

CLOGGED CLEARANCES: Seven Washington-based trade associations want an immediate reversal of the Defense Security

Service's decision to stop processing security clearance applications and periodic reviews of existing . . .

下院歳出委員会は 2007 年度防衛予算を\$374.4B に設定

HAC sets defense funding at \$374.4B for fiscal '07

The House Appropriations Committee has set fiscal 2007 defense funding at \$374.4 billion, almost entirely what the Bush

administration requested for regular annual funds excluding supplemental money. . . .

米陸軍はさらに 9 機の Shadow 200 UAV システムを発注

Army orders nine more Shadow 200 UAV systems

The U.S. Army has ordered an additional nine Shadow 200 tactical unmanned aerial vehicle (UAV) systems from AAI Corp., the

company announced May 8. . . .

ドイツは EU の長として研究予算を増すことを確言

Germany vows to back research spending as head of EU

RESEARCH SPENDING: German Chancellor Angela Merckel says Germany will provide strong support for space research spending during its rotation at the head of the European Union presidency next year. Lukewarm support by the U.K. during the previous presidency has threatened to rein in the EU's space ambitions, which include helping bankroll the new Global

Monitoring for Environment and Security network. Although the R&D budget has yet to be determined, ESA Director General Jean-Jacques Dordain said the agency's working assumption is still that EC space research funding will be around 200 million euros (\$254.3 million) per year. This is at the lower end of the spread previously planned, but five times existing levels.

SS/L は Asia Satellite Telecomm 社に AsiaSat-5 を供給予定

SS/L to supply AsiaSat-5 for Asia Satellite Telecommunications Co.

ASIASAT-5: Space Systems/Loral has been picked to supply AsiaSat-5 for Asia Satellite Telecommunications Co., a Hong Kong operator partly owned by SES Global. The C-/Ku-band spacecraft,

to be launched in 2008, will replace and expand capacity on AsiaSat-2, located at 100.5 degrees east longitude.

EADS Test & Services は IFR 社を買収

EADS Test & Services buys IFR

EADS BUYS IFR: EADS Test & Services has acquired IFR, a French-based specialist in aircraft management software for

maintenance applications. IFR had revenues of 4.7 million euros . . .

米空軍宇宙コマンドは 5 月 10 日にヘリのホバリングのコンペを主催予定

AFSPC to hold helicopter hover competition May 10

HOVER: On May 10 Air Force Space Command (AFSPC) will host the Guardian Challenge 2006 Helicopter Hover competition at

Camp Guernsey, Wyo. Helicopter crews from Malmstrom, Minot, . . .

Aerospace Daily & Defense Report May 8, 2006

ネットワーク侵入能力が実験から欠落

Network invasion capabilities missing from experiment

SUTER ABSENT: Hints of secret activities the Pentagon thinks will improve its warfighting skills are usually provided at the

annual Joint Expeditionary Force Experiment at Nellis Air ...

NASA グリフィン長官はインドにかけた

NASA's Griffin headed for India

TRAVEL PLANS: NASA Administrator Michael Griffin is off to India this week to sign a memorandum of understanding with the Indian Space Research Organization covering U.S. plans to mount two instruments on India's upcoming Chandrayaan-1 lunar orbiter. Griffin will tour ISRO space facilities in Bangalore, Thiruvananthapuram and on Sriharikota Island, which should get him in shape for his trip to China this fall. NASA, through the State

Department, is still working out details of the visit, including the exact dates. The China People's Daily, official voice of the communist government, linked space cooperation with trade cooperation in a lengthy May Day commentary. But Griffin has warned that weapons-proliferation concerns make it particularly tricky for the U.S. and China to cooperate in space.

シャトルの飛行目標は可能、とボーイング述べる

Shuttle flight target doable, Boeing official says

SHUTTLE TARGET DOABLE: Space shuttle operators will have to meet their 25-year average flight rate to make the 16 flights that will be needed to finish the International Space Station before the fleet is retired in 2010. Given post-Columbia safety constraints, flying at that rate - and making a 17th flight to service the Hubble Space Telescope - will be difficult. But Boeing's shuttle program manager is optimistic it can be done, drawing on the lessons of the 1986 Challenger accident. "The pendulum has swung pretty far

over to the conservative side, for good reasons," says Steve Oswald, a former shuttle commander with three missions. "But after we flew Challenger...we got back on our horse and we did just fine. So I expect the same thing will happen." Oswald believes the external tank will perform well on the upcoming STS-121 mission, which should mean ISS assembly can resume with another flight before the end of the year.

NASA はシャトル外部タンクの推進剤の注入試験を行わないことを決定

NASA decides against shuttle propellant loading test

NO LOADING TEST: There will be no space shuttle external tank cryogenic propellant loading test on Pad 39 at the Kennedy Space Center pad in early June, NASA has decided. Some managers had argued for a test that would have been done about June 1 to assess the performance of tank sensor modifications under cryogenic

thermal loads. But others were concerned that the test, along with one or more STS-121 launch countdowns, could itself increase chances of foam cracking in flight. The more conservative position won out, and sensor modifications will be assessed as part of actual launch countdowns for STS-121 set for liftoff as early as July 1.

スペースステーションの軌道上昇される

Space Station's orbit raised

ORBIT RAISED: Russian controllers raised the International Space Station's orbit by 2.5 kilometers (1.6 miles) on May 4, using thrusters on the docked Progress supply vehicle. The 6 minute, 31 second thruster burn changed the station's velocity by 1.55 miles/second, slightly off the predicted 1.6 miles/second but still considered nominal. The maneuver set up orbit phasing for the

planned June 18 launch of the next Progress to the station, which will be reboosted again on June 8. A test of the station's own reboost engines was aborted last month when the crew noticed that one of the engine covers had not opened fully. Mission Control Center-Moscow says an antenna intended for communications with Europe's first Automated Transfer Vehicle blocked the thermal

cover.

Space Florida は\$43M の予算を得る

'Space Florida' gets \$43M in funding

'SPACE FLORIDA': Florida is reorganizing its commercial space funding, management and economic development efforts under a new organization designated "Space Florida." The new organization will fall under Enterprise Florida, the state's privatized economic

development organization. The state legislature is providing Space Florida with about \$43 million in initial funding, most of it incentives that will be used to aid whichever contractor team wins the NASA Crew Exploration Vehicle competition late this summer.

EADS Astrium は5機の通信衛星の受注を年半ばまでに決着がつくと予想

Bumper Telecom crop for Astrium

BUMPER CROP: EADS Astrium CEO Antoine Bouvier is predicting Astrium will land five telecom satellite awards by mid-year as the company emerges from several years of slow satcom sales. Sources in India say one of these is likely to be a new

order for a small satellite line being marketed in partnership with the Indian Space Research Organization's Antrix arm, set up in mid-2005. The first order under this alliance, for Eutelsat W2M, was placed in February.

ロッキードマーチンは Savi Technology を\$400M で買収予定

Lockheed Martin to buy Savi Technology for \$400M

Lockheed Martin has reached an agreement to acquire Savi Technology Inc., a privately held radio frequency identification (RFID) logistics company in Silicon Valley.

Terms of the deal were not disclosed. But JSA Research analyst Peter J. Arment, citing sources close to the deal, estimated the purchase price at about \$400 million.

Savi Technology designs hardware and software products that use **RFID**, barcode, cellular and satellite communications to monitor cargo shipments. Its customers include defense departments, civil government agencies and commercial enterprises worldwide.

Arment said Savi is the primary technology provider for the U.S.

Defense Department's wireless cargo monitoring network, and noted that the Pentagon plans to spend \$500 million over the next six years implementing **RFID**. He estimated that Savi had revenues of \$50 million last year and net income of about \$3 million.

The deal is expected to close in the second quarter after regulatory reviews. It has been approved by the boards of directors of both Lockheed Martin and Savi's parent company, Infolink Systems Inc. Lockheed Martin said Savi will be managed as a wholly owned subsidiary by the company's Integrated Systems & Solutions business in Gaithersburg, Md. - Joseph C. Anselmo (janselmo@aviationnow.com)

ブレンデッド・ウィング・ボディ・プロトタイプは風洞試験の結果をまとめ中

Blended wing body prototype wrapping up wind tunnel tests

NASA and Boeing Phantom Works soon will be wrapping up wind tunnel testing of a 21-foot blended wing body (BWB) aircraft at

Langley Research Center in Hampton, . . .

NASA は月 Centennial Challenge に関して X-prize 財団に加わる

NASA joins X-Prize Foundation in lunar 'Centennial Challenge'

NASA's Centennial Challenges program will join the Xprize Foundation in offering \$2.5 million in prizes to teams that develop lunar lander analogs and demonstrate them in a competition scheduled this October in New Mexico. Contestants will

demonstrate rocket-powered vehicles that can take off vertically, fly a course, hover and land to simulate a trip from the lunar surface to orbit and back again. Prizes ranging from \$150,000 to \$1.23 million will be offered in the Oct. 22 competition, which will involve two

levels of difficulty.

"We're confident the Lunar Lander Analog Competition will stimulate the development of the kinds of rockets and landing systems that NASA needs to return to the moon, while also accelerating the development of the private suborbital space flight industry," said Deputy Administrator Shana Dale, who announced

ST5 コンステレーションのチェックアウト完了し、動作中

ST5 constellation checked out, operating

Three micro-satellites in the Space Technology 5 (ST5) constellation have started being maneuvered by controllers at NASA's Goddard Space Flight Center into their operational "string-of-pearls" formation after a checkout period lasting less than a month found everything nominal.

Following their March 22 Pegasus launch, checkout of the three orbiting technology test beds was originally scheduled to take three months.

スウェーデンの北極宇宙センターが忙しい季節に

Sweden's Arctic Space Center having a busy season

Sweden's Esrange Space Center has recently added six polar-orbiting satellites at once for its controllers to track and launched two sounding-rockets in less than a month. A big Maxus 7 rocket delivered 12 minutes of microgravity to a package of five European Space Agency experiments on May 2 as it fell from an apogee of 702 kilometers (436 miles). Launch of the Maxus 7 by Swedish Space Corp. (SSC), which operates the facility north of the Arctic Circle near the mining town of Kiruna, followed the April 5 launch of a smaller Rexus 3 rocket with a package of student experiments on board.

きぼうの打上げミッションで日本の宇宙飛行士選ばれる

Japanese astronaut picked for Kibo launch mission

Takao Doi, the first Japanese astronaut to perform a spacewalk, may get a chance for a repeat performance on the space shuttle mission that will launch the Kibo Japanese Experiment Module to the International Space Station. NASA, the Japanese Aerospace Exploration Agency (JAXA) and Japan's science and technology ministry named the 21-year veteran of the shuttle program as the first member of the Kibo launching crew. Still unscheduled, the mission will be the eighth shuttle flight in the 16-flight assembly

the new prize.

NASA is also seeking regulatory approval to work with the private foundation, an offshoot of the organization that awarded the \$10 million Ansari X-Prize to Scaled Composites' SpaceShipOne team, on a competition for reusable suborbital sounding rockets.

"We have begun demonstrating all of the New Millennium Program technologies," says Art Azarbarzin, the ST5 project manager at Goddard.

The April 14 launch of the six-satellite U.S./Taiwanese Constellation Observing System for Meteorology, Ionosphere and Climate (Cosmic) mission boosted the workload for Esrange controllers by 42 additional satellite passes a day. Twenty-four satellites are controlled at Esrange overall, with eight more planned this year.

"We have the busiest civilian ground station for satellites in the world," says Lars Alm of PrioraNet, the partnership between SSC and U.S.-based Universal Space Network that offers commercial satellite control services through Esrange and sites in the U.S.

sequence that begins after the STS-121 mission upcoming in July.

Born in 1954, Doi holds doctorates in engineering from the University of Tokyo and in astronomy from Rice University in Houston. He flew on STS-87, a 15-day microgravity-science mission launched Nov. 19, 1997, that required him and astronaut Winston Scott to retrieve the failed Spartan free-flyer by hand in a 7-hour, 43-minute spacewalk.

海軍は5月17日に Maryland で BAMS(広域海上監視)インダストリー・デイを開催予定

Navy to hold BAMS industry day in Maryland May 17

BAMS DAY: The U.S. Navy's Program Executive Office for Strike Weapons and Unmanned Aviation will hold an industry day for the

Broad Area Maritime Surveillance (BAMS) program . . .

[宇宙開発]

- 金星の雲にさざ波模様? すばる望遠鏡がとらえる(共同通信)(17日8時13分)
- 米ボーイングが不正受注疑惑で司法省と和解、6億1500万ドル支払いへ(ロイター)(16日9時51分)
- シャトル機体が組立棟へ 7月飛行再開へ前進(共同通信)(13日11時29分)
- インド初の月探査、米が協力 宇宙分野で蜜月(産経新聞)(12日3時29分)
- 地球観測画像の取得成功=試験中の「ひまわり7号」(時事通信)(11日18時1分)
- シャトル飛行、心配ない=月・火星への道開ける-再搭乗の土井隆雄さん(時事通信)(11日17時1分)
- <JAXA>相乗りの小型衛星募集(毎日新聞)(10日19時32分)
- 小型衛星打上げます 宇宙機構が公募開始(共同通信)(10日12時47分)
- 米、月探査でインドと協力 観測機器を周回機に搭載(共同通信)(10日10時25分)
- UFOは存在せず 英国防省が結論(共同通信)(8日9時11分)
- 土井さん再び宇宙へ 来年末 日本実験棟「きぼう」建設(産経新聞)(7日3時9分)
- 「10年待った甲斐あった」来年末 土井さん再びシャトルに(産経新聞)(6日16時55分)
- <土井隆雄さん>日本棟組立でシャトル搭乗、来年宇宙へ(毎日新聞)(6日11時23分)
- 土井隆雄さん07年末宇宙へ 日本実験棟を建設(共同通信)(6日10時16分)
- 土星の衛星に地球似の砂丘 探査機カッシーニが観測(共同通信)(5日6時0分)

[中国宇宙開発]

- 中国、初の月面図作成へ 立体映像で - 人民日報(6日17時49分)
- 【中国】有人宇宙飛行計画への投資、「アポロ計画より少ない」(サーチナ・中国情報局)(3日11時23分)
- 【中国】ロケットから落下物か、ヒヤリ! 小学校から60M(サーチナ・中国情報局)(4月28日19時38分)

[米軍動向]

- 米政府、アメリカン機突入の9・11ビデオ映像公開(読売新聞)(17日11時2分)
- <米同時テロ>米国防総省への飛行機激突映像を公開(毎日新聞)(17日10時38分)
- 訓練移転の撤回 鹿屋市長が要請 米軍再編(西日本新聞)(17日10時1分)
- 国防総省がテロ攻撃の映像公開(時事通信)(17日9時55分)
- 「基地集中は差別」 国連人権委特別報告者 政府に是正再勧告へ(琉球新報)(17日9時54分)
- 国防総省テロ攻撃の映像公開=白い物体が真横から衝突-米(時事通信)(17日9時1分)
- <本社世論調査>米軍再編 日本負担金「高すぎる」72%(毎日新聞)(16日23時56分)
- <米軍再編>受け入れ自治体に「再編交付金」も 特措法素案(毎日新聞)(16日20時39分)

- <米軍再編>鹿屋市長、空中給油機訓練で反対(毎日新聞) (16日 20時 38分)
- 小池沖繩相、振興策検討に着手 あす内閣府職員を県に派遣(琉球新報) (16日 16時 54分)
- 訓練中燃料漏れ F15が緊急着陸 嘉手納基地(琉球新報) (16日 9時 59分)
- 共同使用での負担増許さず 3町村連絡協県に連携要請(琉球新報) (16日 9時 48分)
- 23日にも閣議決定 在日米軍再編で防衛庁首脳示す(琉球新報) (16日 9時 43分)
- 米、リビアと国交正常化 「テロ支援国」解除へ(産経新聞) (16日 3時 14分)
- <普天間代替施設>閣議決定文書に「V字形」明記せず(毎日新聞) (16日 3時 4分)

[民間航空機関連 (ex-SJAC 三輪さん)]

2006年5月13日 0:59 AIA dailyLead aia@dailylead.com May 12, 2006 -

「二つやり方があると思うの:一つは締めてしまう事で私にはこれは難しい。もう一つは、あることをうんと早く覚えてしまう事で、私はこちらの方を努力してきた。」 女優ジェーンフォンダ

"You can do one of two things: just shut up, which is something I don't find easy, or learn an awful lot very fast, which is what I tried to do."

--Jane Fonda, American actress and activist

2006年5月12日 0:35 AIA dailyLead aia@dailylead.com May 11, 2006 -

「チームメイトが何をしてくれるか考えるな。自分がチームに何が出来るかを考えよ。」

(ケネディ大統領語録のパロディ) バスケット選手 マジック・ジョンソン

"Ask not what your teammates can do for you. Ask what you can do for your teammates."

--Earvin "Magic" Johnson, basketball legend

2006年5月11日 1:17 AIA dailyLead aia@dailylead.com May 10, 2006 -

「この世には、意欲のある人がいっぱい。すなわち、働く事に意欲ある人、一方は他の人を働かせる意欲ある人とである。」

ロバート フロスト 米国詩人

"The world is full of willing people; some willing to work, the rest willing to let them."

--Robert Frost, American poet

2006年5月13日 0:59 AIA dailyLead aia@dailylead.com May 12, 2006 -

ボーイング 航空機価格上昇(平均4%)を発表

Boeing raises list prices for jetliners

Boeing has boosted prices for its jetliners an average of 4%. Separately, an analysis has suggested the cost of modernizing electronics of Boeing's C-130 military

transport plane has grown by 130%, putting the contract in danger of being canceled. [Seattle Post-Intelligencer/Bloomberg](#) (5/12)

ボーイング 連邦判事を法律担当役員に指名 Boeing names federal judge to general counsel post:

Boeing named a federal judge senior vice president and general counsel. Judge J. Michael Luttig resigned

from the 4th U.S. Circuit Court of Appeals on Wednesday. [San Jose Mercury News](#) (5/11)

デルタ航空 Q1 決算大幅な赤字

Delta reports large Q1 loss

[Delta Air Lines](#) reported a first-quarter loss of \$2.1 billion, including restructuring costs. Excluding restructuring costs, the carrier lost \$356 million. Chief Executive Gerald Grinstein said the results were in line

with expectations. [Houston Chronicle/Associated Press](#) (5/12), [The Cincinnati Enquirer](#) (5/12), [St. Paul Pioneer Press \(Minn.\)](#) (5/12)

デルタ航空 NY の JFK 空港での便数増やす予定

Delta announces JFK expansion plans Expanding on its New York Kennedy Airport plans announced in March,

[Delta Air Lines](#) will add 25 daily Delta Connection nonstop flights to 14 domestic destinations between July and October from JFK airport. Delta plans to offer

more than 140 peak-day daily domestic departures from JFK by October, more than double the number it currently offers. [Travel Weekly](#) (5/12)

FAA が今夏の航空便に雷による障害を警告

FAA says thunderstorms could affect summer travel

Federal Aviation Administration officials said severe thunderstorms could affect summer travel. In the past, the FAA has dealt with poor weather by keeping planes at small airports on the ground while large airports clear away backed up traffic. "It's a plan and an

approach that for the last two years has worked well with big airports and I think we're going to see us expanding that," FAA Administrator Marion Blakey said. [CNN/Associated Press](#) (5/11)

NASA と日本 (JAXA) との SST 提携の話は誤報

NASA denies talks with Japanese space agency

NASA and Boeing said they have not discussed developing a supersonic jet with Japan's space agency.

Media reports earlier this week reported ongoing discussions for a joint program. [Yahoo!](#) (5/11)

2006 年 5 月 12 日 0:35 AIA dailyLead aia@dailylead.com¹ May 11, 2006 -

ベルヘリ 米海軍向け生産 繰延べ方向で検討

Bell Helicopter to discuss delays with Navy official

An assistant Navy secretary wants to discuss production delays and budget problems with [Bell Helicopter](#) executives. Delores Etter oversees the

Navy's weapons purchase program and will meet with Bell executives on May 17. [Fort Worth Star-Telegram \(Texas\)](#) (5/10)

上院で F-35JSF プログラムも一年遅らす検討

Senate committee wants to delay F-35 JSF program

The Senate Armed Services Committee wants to delay production of [Lockheed Martin's](#) F-35 joint strike fighter for one year. The committee also wants to cut

\$1.2 billion from the program. A Lockheed spokesman said the delay could increase the cost of the program. [Fort Worth Star-Telegram \(Texas\)](#) (5/11)

エアバス A350 再設計方向未定

Airbus has not decided on A350 redesign

Airbus has not decided whether to redesign its planned A350 jetliner. Some airlines and leasing companies have criticized the plane's design. "We continue looking at further possibilities together with

the airlines," Airbus spokeswoman Barbara Kracht said. "No decision has been made." [San Diego Union-Tribune/Associated Press](#) (5/10), [Bloomberg](#) (5/10)

アメリカン航空 MD-80 エンジン換装計画 燃費改善のため

American mulls replacing MD-80 engines to lower costs

American Airlines is considering replacing the engines on its MD-80 jetliners with more fuel-efficient models, a move that could eventually save millions in

fuel expenses. [Fort Worth Star-Telegram \(Texas\)](#) (5/10)

2006年5月11日 1:17 AIA dailyLead aia@dailylead.com May 10, 2006

ノースロップ ハリケーン被害補助として更に2億ドル要求

Northrop asks lawmakers for \$200M to cover storm losses

Northrop Grumman says it needs an additional \$200 million to cover losses from Hurricane Katrina. Some

lawmakers think additional aid could set a bad precedent. [The New York Times](#) (5/9)

WTO エアバスへの政府助成実態を調査する方向

WTO panel to investigate possible Airbus aid

A **World Trade Organization** panel will examine claims that jetmaker **Airbus** receives illegal support from European governments. The U.S. asked the WTO

to open the formal investigation. [Seattle Post-Intelligencer/Associated Press](#) (5/10)

デルタ航空 CEO 更なる企業統合を示唆

Delta CEO expects more consolidation

Delta Air Lines CEO Gerald Grinstein expects more consolidation in the airline industry. Grinstein, speaking to tourism professionals Monday, also said

the U.S. should reform airport security procedures. [Orlando Sentinel \(Fla.\)](#) (5/9)

エアライン 燃料費高騰に対応して運賃アップ

Airlines boost fares to offset fuel prices

Airlines are boosting fares ahead of the busy summer travel season. Companies hope higher ticket prices

help counteract the soaring cost of jet fuel. [Fort Worth Star-Telegram \(Texas\)](#) (5/9)

[和訳寄稿] 2006/05/02 軍事衛星通信システム工学 - 雑学の小部屋

[1] ロスアラモスが宇宙用スパコンを実験

Los Alamos to test space-Based Supercomputer

宇宙から核実験を探知するためのスパコン衛星

http://www.spacemart.com/reports/Los_Alamos_To_Test_Space_Based_Supercomputer.html

ロスアラモス国立研は、英サリー大学の衛星を利用し、1秒間に1兆回の演算(1,000,000MIPS=1GIPS)が可能なスパコン並みの演算処理能力をもつシボラ飛行実験衛星を今年9月に打上げる。かつてのスパコンであったなら、5万立方フィート、電力50kWを要していたのを、最新のVirtex-4プロセッサを利用し、重量40ポンド、電力80Wで実現できる。このパイロード技術は、宇宙核爆発監視計画に利用される予定。

因に、核実験に特有の二重閃光探知センサは、これまでDSP衛星(防衛支援計画衛星、核ミサイル発射探知の熱赤外線センサを主パイロードとする静止軌道衛星)と、GPS衛星に搭載していた。

ロスアラモス国立研の科学者は、彼らが劇的に衛星能力を増加させることができる新コンピューティング技術をテストする準備中と述べた。

プロジェクト(国防総省とNNSA国立核安全保障局の核拡散防止研究開発事務局が共同で資金提供)は、毎秒1兆回を越える処理を行なうことができる、実験パイロードをこの秋に打上げる予定。

その能力は、10年前の最速スパコン能力とほぼ一致するが、違うのは当時の機械が50,000立方フィートの体積と、電力50kW要したのに対し、(ザイリンクス社(加州サンホセ)の新技术によって開発された線幅90nmルールのマイクロプロセッサVirtex-4を採用)は、重さわずか40ポンドで、電力わずか80Wを要すのみ。

「GPS(全地球測位システム)およびDSP(防衛支援衛星)上に搭載されたセンサには、厳しいデータ・ダウンリンクの制約がある。」NNSA宇宙核爆発モニタリングのマーク・ホジソン課長はいう。「この新しいプログラマブルなスパコン・パイロー

ド技術により、これまでは地上メインフレーム・コンピュータによってのみ可能であったアルゴリズムや手法を、宇宙で使用でき、新たな科学的知識が得られた際は、より優れた性能を出すため、継続的に手法を改善できる。」

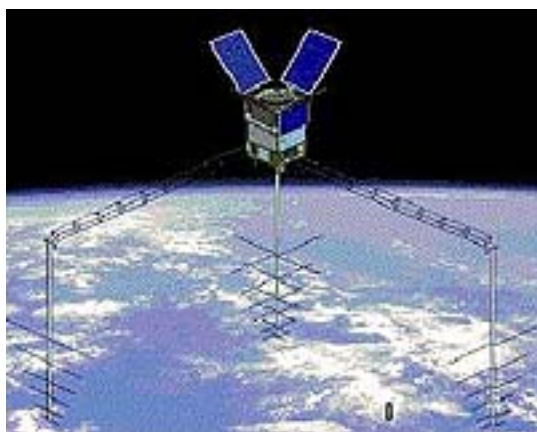
新しいパイロード・プロジェクトは、「宇宙核爆発監視プログラムの開拓者になるだろう。」別のNNSA W.ランディ・ベルマネージャは述べた、「より小さい重量および電力の厳格な新しい要求条件を満たすことができると、自然や人工の背景雑音から、核爆発に関する信号だけを抽出できるようになる。」

そのテストはシボラ飛行実験で実施される計画である。米空軍アトラスVロケットに搭載、9月にフロリダ州ケープカナベラル空軍基地から打上げ予定。英サリー大学(SSTL)によって開発されたシボラには、低軌道周回軌道を意図したプログラマブルなプロセッサ・パイロードがのっている。シボラは、無線周波スペクトルVHFとUHFを調べる。

実験は複雑背景中で発する閃光を検知測定を目的とし、電離層と稲妻研究の受信信号処理のため、FPGAフィールドプログラマブル・ゲート・アレイを多数使う。従来宇宙用コンピュータ・システムにはこの処理は過負荷であった。

研究パートナーは、軍用戦略通信にとり重要なソフト無線能力向上を目指すと述べた。これは民放テレビとラジオ放送にも大きな価値をもつ。

Virtex-4に加え、さらに、アトメル社(加州サンホセ)のAT697耐放射線強化SPARCプロセッサ、およびBAEシステムズ(旧英ブリティッシュ・エアロスペース(Farnborough))によるchalcogenideから成るC-RAMの技術も使っている。



The Cibola Flight Experiment satellite. Image credit: SSTL

[2] DSP 衛星に核爆発探知センサを搭載

(参考記事) 2004年2月13日の記事より

[http://www.nnsa.doe.gov/docs/newsreleases/2004/PR_NA-04-03_Satellite_Launch_With_NNSA_Detection_Sensors_\(2-04\).htm](http://www.nnsa.doe.gov/docs/newsreleases/2004/PR_NA-04-03_Satellite_Launch_With_NNSA_Detection_Sensors_(2-04).htm)

Saturday Launch of Defense Support Program Satellite to Include Nuclear Detection Payload

NNSA Sensors Deter Nuclear Testing

ケープカナベラル、FLORIDA—2004年2月14日(土)にフロリダのケープカナベラル射場から打上げ予定の防衛支援計画(DSP)衛星は、米国核安全保障局(NNSA)からの精巧な核実験検知センサを搭載。NNSAの高度な核爆発検知ペイロード(超高層大気と宇宙核爆発の主探知システム用途)は、衛星の副ペイロードである。

NNSAの拡散防止研究およびエンジニアリング・オフィスが開発した宇宙配備型センサは、1963年の部分的核実験禁止条約を監視し、かつ核保有国に核実験を行なうことを思いとどまらせるために使われる。NNSAは、大量破壊兵器の増殖拡散を抑止する種々様々センサ技術を開発し提供している。これら技術は40年以上の間、宇宙および大気圏内核爆発を監視しており、DSPおよびGPS衛星の両方の副ペイロードになっている。

米空軍は1970年11月6日DSP衛星初号機を打上げた。ミ

サイル発射や宇宙への打上げおよび核爆発の早期警告情報提供のため、衛星群は静止軌道上で作動している。

2005年に打上げ予定のDSP衛星最終号旗は、現核検知センサ・パッケージ・デザインの最終型であるが、NNSAが現在開発している高高度センサ(宇宙および大気圏内爆発を報告するシステム(SABRS))の次世代デモ実験も搭載予定。秘密の核実験を検知する能力の大幅増加と並行して、研究開発継続によりセンサとパッケージの両方をより小さく、より頑丈にした。

NNSAはエネルギー省の半独立機関である。その役割は核エネルギーの軍事適用を通じ米の安全保障を強め、米核兵器備蓄を維持し、国際的核拡散防止と安全性を促進し、大量破壊兵器からグローバルな危険を縮小し、米海軍に安全で有効な核開発推進を促し、科学技術分野で米のリーダーシップ維持のため関連する国立研を監督にある。

[3] イスラエルの防衛偵察衛星が画像を初取得

<http://www.imagesatintl.com/>

イスラエルの衛星がイランの核開発計画の偵察をすることができる最初の「高品質」絵を送ってきたと、イスラエルのラジオ放送が金曜日に報じた。

70cm(28インチ)解像度をもつD3 EROS B1衛星からの画像は、高度500km(310マイル)の軌道上で撮像され、IAI社の管制室へ送られて来た。

初画像は欧州の上で撮られたので、イランの設備はとってい

ない、とラジオは報道した。

イスラエルの衛星は火曜日に、露の軍事宇宙発射基地から打上げられ、地球を90分周期で周回する。

イスラエルはテヘランのイスラム教政権を主要な敵と認め、イランが行ったとされる核開発問題を理由に、イランに対し経済制裁を行うよう国際社会に訴えた。

イラン強硬派アハマディネジャド大統領の脅威的発言によ

り、イスラエルの危機意識は高まっている。ア大統領は、ホロコーストを「神話」として無視し、イスラエルを「地図上から

拭い去られるべきだ」と述べた。

【書籍紹介】 「モモ」 ミヒャエル・エンデ著、大島かおり訳

子供向けの本であるが、文明批評にもなっており、考えさせられる。つまり、効率化(時間の節約)で得られるものは何か、だれがその利益にあずかっているか、失われたものは何か、どうやってそれを取り戻せるのか?というふうに読むと有益である。

また、これとは別に、宇宙論にでてくる事象地平(Event Horizon)などを想起させる部分や、時間が唯一絶対のものではなく、それぞれに属するところにあることを(「なぜなら、時間とはすなわち生活だからです。そして人間の生きる生活は、その人の心の中にあるからです。」という記述が繰返されている。)これは、ある意味では、朝永振一郎の超多時間理論(くりこみ理論)が関係あるかと思った

ります。

