

	2003			2004	
1	IBM	3435		IBM	3259
2	HITACHI	2314	→	MATSUSHITA	2205
3	CANON	2084	→	HITACHI	2181
4	MATSUSHITA	2054	→	SAMSUNG	1935
5	HEWLETT PACKARD	1775	→	CANON	1885
6	SONY	1717	→	HEWLETT PACKARD	1830
7	MICRON TECHNOLOGY	1715		MICRON TECHNOLOGY	1770
8	NEC	1672	→	SONY	1725
9	INTEL	1602		INTEL	1607
10	SAMSUNG	1584	→	TOSHIBA	1523
11	PHILIPS	1564	→	FUJITSU	1500
12	TOSHIBA	1472	→	PHILIPS	1422
13	FUJITSU	1471	→	NEC	1334
14	MITSUBISHI ELECTRIC	1363	→	GENERAL ELECTRIC	992
15	GENERAL ELECTRIC	1148	→	MITSUBISHI ELECTRIC	908

[編注] 2004. 12. 15 朝日新聞に USA IFI クレームパテントサービズからのものとして 2003 年のランキングをあげているが、上記とは若干異なっている。

2005 年 5 月 5 日 読売



「イラン将来核兵器も」米研究所が衛星画像

[ワシントン= 笹沢教一] IAEA 国際原子力機関の元核査察官デビッド・オルブライト氏が代表を務める米の民間機関、科学国際安全保障研究所は3日、イラン中部ナタンツにあるウラン濃縮関連拠点の衛星画像=写真、同研究所、スペースイメージング社提供=を公表し、「イランが将来的に核兵器開発に転じる余地が残されている」と指摘。画像

は昨年2月29日に撮影されたもの。オルブライト氏によると、2002年9月、03年2月に撮影された画像との比較で、遠心分離器最大5万基が設置可能な地下施設の建設範囲や、建設時に使用した地下入口を隠すための建物を確認できるという。イランは、最近の核開発停止をめぐる英独仏との交渉で、平和利用目的の試験として、低濃

縮ウラン用遠心分離器 3000 基に制限した稼動を認めるよう主張、今年 3 月には、平和目的を内外に印象付けるため、ナタンツの施設を

内外の記者に公開。

2005 年 5 月 2 日 17:18 [JAXA PR:0068] JAXA Press Release Mail Service

JAXA 宇宙飛行士、野口聡一搭乗予定「STS114 ミッション」の打上げ

NASA が新たな打上げ予定期間 2005 年 7 月 13 日から 31 日(米時間)を設定

NASA のリリース URL http://www.nasa.gov/home/hqnews/2005/apr/HQ_05113_RTf_Change.html

2005 年 4 月 29 日 16:40 時事通信社「世界週報」

難航する米情報機構改革——信頼感回復が最重要課題に

辰巳 由紀 @ヘンリー・L・スティムソン・センタ・フェロー

たつみ・ゆき 1971 年生まれ。93 年国際基督教大学卒、96 年ジョンズ・ホプキンス大学高等国際問題研究大学院修了。在米日本大使館専門調査員、ヘンリー・L・スティムソン・センタ日本部研究員、米戦略国際問題研究所国際安全保障部研究員。現在も戦略国際問題研究所客員研究員を兼ねる。

4 月 12 日、初代の国家情報長官(DNI)に指名されているネグロポンテ前駐イラク大使の指名承認公聴会が上院特別情報委員会で開催された。昨年 12 月 18 日に情報機構改革・テロ防止法が成立してから

約 4 カ月。ここまでの道のりは、「1947 年国家安全保障法成立以来最大の米政府機構改革」と言われる米情報機構改革の難しさを如実に表すものとなった。

2005 年 4 月 29 日 16:40 時事通信社「世界週報」 特別寄稿

役に立つのか、日本のミサイル防衛網——予防的攻撃手段が必要に

アレクサンドル・サベリエフ 戦略研究部長 @ロシア世界経済国際関係研究所

Alexandre Saveliev 1950 年モスクワ生まれ。71 年、モスクワ国民経済大を卒業し、73 年から世界経済国際関係研究所(IMEMO)に勤務。89~91 年、ジュネーブでの米ソ核軍縮交渉にソ連代表団顧問として参画。2002 年から現職の IMEMO 戦略研究部長。

北朝鮮の弾道ミサイル脅威への対抗手段として日本政府が計画を進めるミサイル防衛(MD)システムは、本当に、日本の国民と国家の安全を確保できるのか？ 冷戦時代、現在の MD の原型ともいべき米国の戦略防衛構想(SDI)を巡る米ソ交渉に、ソ連代表団顧問とし

て携わったロシア「世界経済国際関係研究所」(IMEMO)のアレクサンドル・サベリエフ戦略研究部長の答えは、「ニエツ」でもあり、「ダー」でもある。米ソの体験を踏まえたサベリエフ氏の日本 MD 論を紹介する。(訳者)

*2005.04.25 AW&ST

イスラエルとフランスはマルチスペクトラル・イメージャを製作予定

Israel and France To Build Multispectral Imager

Israel and France are planning a joint multispectral imaging mission intended to expand Israeli know-how in **microsatellite** technologies while serving as a precursor for Europe's planned **Global Monitoring for Environment and Security** network. The mission – the first important space venture between two countries – will be carried out under an agreement on small satellites for environmental applications signed in 1994 by French space agency(CNES) and the Israeli Space Agency (ISA). Dubbed **Venus**, the mission will include a 5.3meter optical payload, operating in 12 bands in the visible and near-infrared spectrum. **Venus** is designed for imaging of surface water and terrain,

in particular vegetation.

Using hybrid propulsion package featuring ion thrusters for attitude control, **Venus** will observe 50 sites representative of the Earth's principal terrestrial and coastal ecosystems, revisiting the sites every two days. According to Sylvie Callari, the head of international affairs at CNES, Israel will fund two-thirds of the expense of the mission, which is expected to cost 41 million euros(\$53.3million), not including three years of operation. **Venus** will be orbited in 2008, using a launch vehicle that has not yet been announced. ISA will manage the project, integrate the payload and provide the

microsatellite bus, propulsion system and ground control center. A joint venture of **Israel Aircraft Industries** and **Rafael** will act as prime contractor and supply the bus and propulsion system. **El-Op/Elbit**

will furnish the camera. CNES will bear responsibility for the payload, mission control and payload data programming / processing facilities and the launch, Callari said. French contractors will be named later.

2005 年 5 月 4 日 9:56 SpaceWar Express - May 4, 2005 MILITARY LAUNCHES

<http://www.spacewar.com/news/launchers-05zm.html>

ボーイングとロッキードは米政府打上げにカルテルを形成

- Lockheed Martin And Boeing Form US Govt Launch Cartel

Bethesda MD (SPX) May 03, 2005 - Boeing and Lockheed Martin have initialed a deal to create a joint venture that will combine all of their US government launches of Boeing Delta and Lockheed Martin

Atlas rockets into one operating company. The deal remains subject to multiple regulatory approval requirements and court directions. And over the coming weeks will come under intense scrutiny.

2005 年 5 月 4 日 0:43 May 3, 2005 - AIA dailyLead

ボーイングとロッキードは政府の仕事に分け合うためジョイント・ロケット・ベンチャをつくる

Boeing, Lockheed form joint rocket venture to share government work

Boeing and Lockheed Martin agreed to form a joint venture that will launch military, spy and civilian research satellites for the government. The decision will end a legal dispute in which Lockheed accused Boeing of improper behavior to win rocket contracts. The companies

said the venture will generate up to \$2 billion in annual revenue. The Wall Street Journal (subscription required) (5/3), Denver Rocky Mountain News (5/3), The Washington Post (5/3)

2005 年 5 月 4 日 0:43 May 3, 2005 - AIA dailyLead

元ロッキード執行役員は理事会から降板

Former Lockheed chief executives step down from board

Two Lockheed Martin board members have stepped down, the Washington Post reports. Former chief executives **Vance D. Coffman** and **Norman R. Augustine** last week decided to leave the company's

board. Both say they are leaving for personal reasons. The company named chief executive **Robert J. Stevens** chairman last week. The Washington Post (5/2)

2005 年 5 月 4 日 0:43 May 3, 2005 - AIA dailyLead

科学者は太陽系の外に巨大な惑星を見つける

Scientists spot giant planet outside the solar system

An international team of astronomers have observed a giant planet orbiting a distant star, the Associated Press reports. The planet, which

is believed to have a mass five times that of Jupiter, was first spotted last year. The Washington Post/Associated Press (5/2)

2005 年 5 月 4 日 5:22 Space Systems FC

MRO 米偵察局のミッションは ATLAS ロケットに西海岸の打上げ計画を加える

NRO MISSION ADDED TO ATLAS WEST COAST LAUNCH MANIFEST

MCLEAN, Va. - International Launch Services (ILS), a Lockheed Martin joint venture, will launch a national security payload for the

U.S. Air Force on an Atlas V vehicle in 2007 from Vandenberg Air Force Base, Calif. Financial ...

<http://emarketalets.forecast1.com/mic/eabstract.cfm?recno=115011>

ボーイング、ロッキードマーチンは打上げアライアンスを形成

BOEING, LOCKHEED MARTIN TO FORM LAUNCH ALLIANCE

CHICAGO, and BETHESDA, Md. - The Boeing Company and

Lockheed Martin Corporation are creating a joint venture that will

combine the production, engineering, test and launch operations

associated with U.S. government launches of ...

<http://emarketalerts.forecast1.com/mic/eabstract.cfm?recno=114995>

SPACEX は米空軍から\$100M の契約を受ける

SPACEX RECEIVES \$100 MILLION CONTRACT FROM USAF

EL SEGUNDO, Calif. - Space Exploration Technologies Corporation (SpaceX) will provide launch services to the U.S. Air Force/Space and

Missile Systems Center (SMC Detachment 12) under a \$100 million IDIQ contract. The purpose of ...

<http://emarketalerts.forecast1.com/mic/eabstract.cfm?recno=115020>

アルカテルとフィンメカニカは欧州委員会から認可を得る

ALCATEL AND FINMECCANICA RECEIVE APPROVAL FROM THE EUROPEAN COMMISSION

PARIS/ROME - Alcatel and Finmeccanica are reportedly delighted with the decision of the European Commission to grant them approval

to create the two companies Alcatel Alenia Space and Telespazio. Obtaining this agreement is ...

<http://emarketalerts.forecast1.com/mic/eabstract.cfm?recno=115000>

NOAA は新しい極軌道の気象監視システムに準備を整える

NOAA READIES FOR NEW POLAR-ORBITING WEATHER MONITORING SYSTEM

WASHINGTON - A new U.S. National Oceanic and Atmospheric Administration (NOAA) polar-orbiting environmental satellite, set to

launch next month, will be critical in the continued development of a global Earth observation program, ...

<http://emarketalerts.forecast1.com/mic/eabstract.cfm?recno=114972>

May 3, 2005 NEWS AS OF 01:30 UTC - **HOT NUKES** SpaceWar Express May 3, 2005

<http://www.spacedaily.com/news/bmdo-05r.html>

米国は北朝鮮に対して大きな抑止力をもつ:ライス国務長官発言

- US Has 'Significant' Deterrent Capability Against North Korea: Rice

Washington (AFP) May 03, 2005 - The United States has "significant deterrent capability" to thwart North Korea's nuclear ambitions,

Secretary of State Condoleezza Rice warned Monday as the White House called a weekend missile test by Pyongyang "provocative."

ホワイトハウスは北朝鮮のミサイル打上げは挑発的と述べる

- White House says North Korea missile launch 'provocative'

<http://www.spacewar.com/2005/050502143435.5b7hobx5.html>

疑わしい失敗した北朝鮮のミサイル打上げが金曜日、観測された:メディア

- Suspected failed North Korean missile launch observed Friday: media

<http://www.spacewar.com/2005/050502133805.ieyx07gv.html>

日本は北朝鮮ミサイルを国内軍事訓練と呼ぶ

- Japan calls North Korean missile 'domestic military drill'

<http://www.spacewar.com/2005/050502054601.sk45nii0.html>

日本は北朝鮮の切迫したミサイルの脅威を軽視している

- Japan downplays imminent missile threat by North Korea

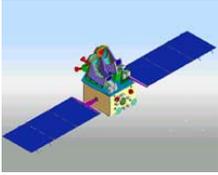
<http://www.spacewar.com/2005/050502012337.mdjexqr.html>

米国と日本の FMs は北朝鮮に協議の復帰するよう呼びかけている

- US, Japanese FMs call on to bring North Korea back to talks

<http://www.spacewar.com/2005/050502165930.y4y6cf4t.html>

May 02, 2005 Sriharikota, India (AFP)



Cartosat-1 (illustrated) will be India's 11th remote-sensing satellite and is expected to provide high-resolution pictures to make more accurate maps.

<http://www.spacedaily.com/news/india-05q.html>

インドの宇宙ロケットは衛星2機(Cartosat-1、HAMSAT)を打上げる準備完了

Indian Space Rocket Readies To Blast-Off With Two Satellites

An Indian space rocket is scheduled to blast off this week to put two satellites into orbit that will help the country's map makers and amateur radio operators, an official said Monday. The 44-metre (145-foot) **Polar Satellite Launch Vehicle** will lift-off Thursday and release a remote sensing satellite and one for home radio operators, project director N. Narayanamoorthy of the Indian Space Research Organization said. It would be the country's first effort to carry two satellites in a single launch, Narayanamoorthy said.

The 1.5-ton **Cartosat-1** will be released 18 minutes after the rocket takes off at 10:19 am (0449 GMT) Thursday, Narayanamoorthy said, adding that the smaller 42.5-kilogram (100-pound) **HAMSAT** will be put at a lower altitude. **Cartosat-1** will be India's 11th remote-sensing satellite and is expected to provide high-resolution pictures to make more accurate maps, Narayanamoorthy said. "The two cameras in the

satellite will have a swathe of 30 kilometres (miles) and are mounted in such a way that near simultaneous imaging of the same area from two angles is possible," he said. The communication satellite will provide ultra-high and very-high radio frequencies to broaden bandwidth which Indian home operators had been seeking for years, Narayanamoorthy said. Thursday's blast-off will be the second since last September when India launched a satellite to allow teachers to be broadcast to remote regions for primary and secondary education classes via television. Of the 135 transponders used for broadcasting India has in space, 11 are leased to the US-based firm Intelsat, bringing in 10 million dollars over a five-year period. Another 24 of the transponders are used by India's state-run television, with the rest mostly leased by private operators.

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May 02, 2005 TOKYO (AFP)

<http://www.spacedaily.com/2005/050502071825.qwcfwwsr.html>

ウォークマンのあとに、日本はモバイルで映画を観るための「テレグラス」をもつ

After Walkman, Japan gets 'Teleglass' to watch movies on the go

Two and a half decades after the Walkman personal stereo livened up commuting, the Japanese will get to watch full-length movies on the subway with a tiny screen hooked on top of eyeglasses. The "Teleglass," which goes on sale in June, comes with earphones and a box that connects to a portable DVD player. The wearer would see images as if watching a 14-inch television screen from a distance of one meter (yard), according to an official at **Scalar Corp.**, the Tokyo microscope maker that developed the **Teleglass**. People can slap the tiny screen with a 0.24-inch liquid crystal display and lens onto one side of their glasses or those with

normal vision can choose to use a pair of sunglasses.

The sunglasses could make them look cool -- or it could indicate they are being mischievous. People nearby have no way of knowing what film is being played on the **Teleglass**. **Scalar** developed the **Teleglass** jointly with **Arisawa Manufacturing Co. Ltd.**, a Tokyo display materials firm. The gadget is priced around 50,000 yendollars). The **Teleglass** is being introduced two months after Sony Corp.'s Walkman, first introduced in 1979, also got visual. The new Walkman launched in March includes a camera that can create custom album covers or create slideshows to accompany the music.

May 01, 2005 BEIJING (AFP)

<http://www.spacedaily.com/2005/050501114314.4o14w58i.html>

中国レノボは IBM のパーソナル・コンピューティング部門買収を完了

China's Lenovo completes acquisition of IBM's personal computing division

China's largest computer maker Lenovo and IBM of the United States said Sunday they had completed a deal to create **the third-largest computing company in the world.**

Under the 1.75-billion-dollar deal, which shocked the world when first announced late last year, Lenovo has acquired IBM's Personal Computing Division.

Observers have characterized it as the most dramatic example yet of Chinese companies' expansion abroad, a herald of what the world can expect from a revitalized China in the years and decades ahead.

"The closing of this transaction is a historic event for Lenovo and marks a new era for the global PC industry," Lenovo chairman Yang Yuanqing said in a statement.

4/27/2005 # 291 [France In Space](#), a weekly synthesis of French space activities based on French press.

It is provided by the CNES office in Washington D.C.. Contact: france-in-space@ambafrance-us.org

<http://www.france-science.org/home/page.asp?target=nfo-let&PUBLID=9&LNG=us>

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- 1:第4回 欧州 宇宙デブリ会議

- 1: **FOURTH EUROPEAN CONFERENCE ON SPACE DEBRIS**

More than 220 worldwide experts have gathered at ESA's Space Operations Centre (ESOC) in Darmstadt, Germany, for the fourth European Conference on Space Debris on April 18-20. This event was sponsored by the British, French, German and Italian Space agencies (respectively BNSC, CNES, DLR and ASI), the Committee on Space Research (COSPAR) and the International Academy of Astronautics (IAA). The conference helps to define future directions for research,

consolidate debris environment models, identify methods of debris control, mitigation and protection, as well as discuss policy issues, regulations and legal aspects. Moreover, the event aimed at promoting the ongoing work taking place in many organisations, including the Inter-Agency Space Debris Coordination Committee (IADC) and the UN Committee on the Peaceful Uses of Outer Space (UNCOPUOS). [ESA 04/18/2005]

- 2:仏は軍事宇宙分野の研究にしっかりと出費

- 2: **SOLID FRENCH SPENDING ON MILITARY SPACE RESEARCH**

According to officials of the French Defense Procurement Agency DGA, some 18 percent of the combined value of the research contracts signed by the agency with industrialists in 2004 were

dedicated to space-related technologies development. DGA's total research budget for 2004 was 1.3 billion euros, 10 percent up from 2003. This budget includes the payments to industry, to the French

aeronautical research institute ONERA and to the French Space

Agency CNES. [Space News 04/25/2005]

-- 3: NASA 宇宙計画に SPS スネクマ固体推進社 が参加するであろう

- 3: SPS WILL TAKE PART IN NASA SPACE PROGRAMME

Snecma Propulsion Solide, a subsidiary of SNECMA specialized in particular in high-performance composites, has been awarded a contract by NASA to develop extendable heat shields, capable to ensure a thermal protection of future space vehicles during atmospheric re-entry phase. The society based near Bordeaux, France

will work jointly with some NASA Research centres, as well as with the Italian Cira and the German Man industrialists. For this project the partners will share by 2008 a budget of 40 millions dollars. [Les Echos 04/27/2005]

- 4: 仏=タイのリモセン計画の協力

- 4: FRENCH-THAI COOPERATION ON REMOTE-SENSING PROGRAMME

Under an intergovernmental agreement signed between France and Thailand in 2000, a training programme for remote-sensing professionals has taken shape and has already trained over 230 Thai students. CNES plans to offer students grants for this project, which is partly funded by the French Ministry of Foreign Affairs. The full benefits of this initiative will be felt in 2006, when the Thailand Earth

Observation Satellite THEOS will be launched. EADS Astrium will provide the satellite and train about 20 engineers over a two-year period to operations and station keeping. Thailand has also been awarded a SPOT 5 receiving station which is operational since January 2005. [CNES Mag, March 2005]

- 5: 仏ツールーズで WISE(女性国際 “宇宙探査のためのシミュレーション”) キャンペーン進行中

- 5: WISE CAMPAIGN IS UNDERWAY IN TOULOUSE

Since March 19 the Women International Space Simulation for Exploration (WISE) has been fully underway at the clinical research facility in Toulouse, France and carried out by MEDES, the French Institute for Space Medicine and Physiology. The study is designed to prepare astronauts for long-duration flights of six months to one year onboard the International Space Station or, in the future, for missions to Mars. The first 12 participants of this campaign will be lying in bed during 60 days, tilted head down at an angle of 6° below horizontal, so that their heads are slightly lower than their feet. This position

simulates physiological changes that occur during space flight, and the study will assess the roles of nutrition and combined physical training in countering the adversity effects of prolonged gravitational unloading by bed-rest. The WISE study is a joint programme between the European Space Agency, the French Space Agency CNES, the National Aeronautics and Space Administration (NASA) and the Canadian Space Agency (CSA). [ESA 03/21/2005, CNES Mag March 2005]

- 6: ESA の伊ヴァットリ宇宙飛行士のミッション終了

- 6: MISSION COMPLETED FOR THE ESA ASTRONAUT R. VITTORI

The Eneide mission to the International Space Station (ISS) has come to a successful end with the landing on April 25 of ESA (European Space Agency) astronaut Roberto Vittori (Italy), accompanied by the ISS Expedition 10 crew, Leroy Chiao (USA) and Salizhan Sharipov (Russia). During this mission, which lasted 10 days including 8 days on the ISS, Roberto Vittori carried out a program of 22 on-orbit

experiments in the fields of biology, human physiology, technology and education. Scientists from Italy, Denmark, Germany, Russia, Switzerland, the USA and from ESA were involved in this program. Mission control for the Eneide mission was performed from the new Columbus Control Center on the premises of the German Aerospace Center DLR near Munich. [ESA 04/25/2005]

- 7: 要約

- 7: IN BRIEF

The French Defense Procurement Agency DGA plans the launch of the **Syracuse IIIA military communications satellite** in late May or early June onboard the new generic version Ariane 5GS launcher. The

flight, initially set for April, has been put off because of payloads delays. [Aviation Week & Space Technology 04/25/2005]

2005年5月3日 0:59 May 2, 2005 - AIA dailyLead

国防省の契約者にはネットワークの契約は高リスクであると、レポートは述べる。

Network contracts a high risk for Pentagon contractors, report says

Digital communications projects are expected to drive growth for large defense contractors, but the projects involve large risks, the Wall Street Journal reports. The Army last week said it may cancel a **Boeing** contract for **battlefield radios**, which is part of a larger plan

for a **new network system**, because of concerns about performance. Lockheed Martin and Raytheon are also participating in reshaping the Pentagon's **network operations**. The Wall Street Journal (5/2)

2005年5月3日 0:59 May 2, 2005 - AIA dailyLead

新しいボーイングのジェット機体の開発・組立について、日本は大きな役割を果たす

Japan plays large role in development, assembly of new Boeing jetliner

Three Japanese manufacturing conglomerates will design and build 35% of the Boeing 787, the Seattle Times reports. This marks the first time Boeing has outsourced the design and assembly of a new

jetliner's wings. Japan is expected to spend \$1.6 billion on development for the 787. The Seattle Times (free registration) (5/1)

2005年5月3日 0:59 May 2, 2005 - AIA dailyLead

ロッキードは \$500M の価値のある火星オービタの契約を獲得すると推測される

Lockheed expected to win Mars orbiter pact worth \$500M, report says

NASA in June is expected to award a \$500 million contract to build the Mars Telecommunications Orbiter to Lockheed Martin, the Denver Rocky Mountain News reports. NASA hopes to launch the

spacecraft on a 10-year mission in 2009. Denver Rocky Mountain News (5/2)

2005年5月3日 0:59 May 2, 2005 - AIA dailyLead

宇宙飛行士は打上げ日を遅らせる NASA の決定に同意

Astronauts back NASA's decision to push launch date back

Astronauts who will fly on the Discovery shuttle said they supported NASA's decision to postpone the launch date until July, Florida Today reports. Eileen Collins said the later launch date will give the

astronauts more time to prepare for the mission. Florida Today (Melbourne)

2005年5月3日 0:59 May 2, 2005 - AIA dailyLead

米 国防省は窃盗対策のためパスポート技術を再設計する

State Department will redesign passport technology to protect against theft

The State Department will redesign new passport technology to minimize the risk of identity theft, the Washington Post reports. Tests revealed that technology could leave the documents vulnerable.

Officials said the changes could delay plans to start issuing the passports later this year. The Washington Post (free registration) (4/30)

2005年4月30日 1:00 AIA dailyLead

レポート: NASA はディスカバリの飛行を7月まで延期

Reports: NASA will postpone Discovery launch until July

NASA will announce today that the space shuttle will not launch until July, the Orlando Sentinel and Florida Today report, quoting unnamed sources. Officials decided to push the launch back because they are concerned about the possibility of ice breaking off the shuttle's

external fuel tank during the launch. The launch was planned for May 22. Orlando Sentinel (Fla.) (free registration) (4/29), Florida Today (Melbourne) (4/29)

2005年4月30日 1:00 AIA dailyLead

Deep Impact は7月の衝突に標的とされる彗星の位置を定める

Deep Impact locates comet targeted for July 4 collision

The Deep Impact probe has photographed and located the comet with which it is to collide on July 4, the Associated Press reports. After it collides with Tempel 1, Deep Impact will gather information on the

comet's debris. Scientists think this material could shed light on the birth of the solar system. The Washington Post/Associated Press (4/28)

2005年4月29日 1:03 AIA dailyLead

科学者は NASA が地球観測プロジェクトを終了することに批判

Scientists criticize NASA for ending projects that observe the Earth

A group of experts criticized NASA for postponing and canceling space missions to observe Earth, the Houston Chronicle reports. The National Research Council panel wants NASA to reconsider some of

the projects. It believes the moon-Mars initiative is taking funds from an important satellite system that monitors the environment. Houston Chronicle (4/27)

2005年4月28日 0:55 AIA dailyLead

JSF ジョイント・ストライク・ファイタが高価格、計画遅延にあぐく

Joint Strike Fighter struggles with high costs, late schedule

The Lockheed Martin Joint Strike Fighter is the most ambitious and most expensive fighter jet program in history, the New York Times reports. Eight countries are collaborating with the U.S. to build the plane, which will be able to land on runways and on aircraft carriers. Aerospace Industries Association vice president for international

affairs Joel Johnson noted the JSF was among the most important trans-Atlantic programs. However, like many weapons programs, the JSF is running over cost and behind schedule. The New York Times (free registration) (4/27)

2005年4月28日 0:55 AIA dailyLead

宇宙機カッシーニはタイタンの雰囲気の中に有機物質の存在を見つける

Cassini spacecraft reveals organic material in Titan atmosphere

The Cassini spacecraft has revealed complex organic material in the atmosphere of Saturn's Titan moon. Scientists think Titan's atmosphere could resemble that of primordial Earth. The finding could

help them understand how life on Earth began. The New York Times/Associated Press (free registration) (4/26)

2005年5月2日 9:20 日機連 シカゴレポート

1. NASA が宇宙開発に必要な革新的技術のコンテストに賞金を提供

賞金はしばしば技術革新に拍車をかける。チャールズ リンドバーグがニューヨークーパリ間の無着陸飛行成功時、彼は賞金\$25,000 を手に入れた。これと同様に、民間人が操縦した初の宇宙弾道軌道飛行に対し昨年賞金\$10M が授与された。

NASA は現在「センテニアル・チャレンジ」プログラムを行っているが、これに関連する特定課題に対しコンテストを行い、最高の解決法を見出した人(大学、企業、研究グループ、個人の別を問わない)に対し賞金提供すると発表し、その最初のコンテスト課題が発表された。

このプログラム中に「2010 年宇宙エレベータ建設計画」があり、この建設計画に有用な次の2要素技術についてのコンテスト(本年は 9 月～10 月の間に行われる予定)である。

1.ロープ端末(tether)コンテスト

コンテストの焦点はロープ末端を作る強靱な軽量素材開発にある。宇宙エレベータの実現には軽くて非常に強靱なロープ(ワイヤ)が必要であるが、コンテストでは太さ200mm 未満のロープに力を加えただけの力に耐えられるかが競われる事になる。勝者には賞金 \$50,000 が与えられる。コンテストは技術水準が引上げられて翌年も再び開催される。二年目には勝者は賞金\$100,000 が与えられ、2 位には\$40,000、3 位には\$10,000 がそれぞれ与えられる。

2.ビームパワー・コンテスト

コンテストの焦点はある地点から別の地点へのワイヤレスでのパワー伝送方法である。コンテストではワイヤレスのパワー送受システム

(例えば、パワー伝送にレーザービームやマイクロ波を使用)が離れた所にあるクライミング・ロボットにワイヤレスでエネルギーを供給し、そのロボットに重りがある高さまで吊上げさせるというものである。前述のケースと同様に、コンテストは技術水準が引上げられて翌年も再び開催される。賞金についても同様。

NASA は\$400,000 を提供するがコンテスト運営は外部の非営利団体が行う。

この他に、NASA は毎年開催の幾つかのコンテスト(探査用ロボット、月面車、自立的な鉱山機械、等)に最高賞金\$3Mを提供する計画。

また、NASA は低コストの宇宙ミッション、有人軌道飛行と言った課題に賞金 最高\$25M 提供を希望している。

議会承認が得られれば、NASA は今後 5 年間に賞金約\$800,000 を使用することを希望している。

(NASA, Web ページ、および 3 月 27 日付、The New York Times, Web 版 より)

2005 年 5 月 2 日 9:19 ジェトロ

インド、特許法が国際標準に、物質特許を正式導入 ニューデリー発

WTO ルールに沿った特許法が、正式に導入された。政府は国内の事業環境が向上すると内外にアピールしている。今回の法改正には、

弊害をこうむると予想される地場企業や貧困層に対する消費者対策も盛り込まれており、政府は国際ルールとの整合性を図ろうとしている。

2005 年 5 月 4 日 0:43 May 3, 2005 - AIA dailyLead

SmartQuote

「どんな商売をやっているかが、ふさわしく(適所で)やれなければ、だれも素通りして(無視して)いく」

"No matter what business you're in, you can't run in place or someone will pass you by."

--Jim Valvano, バスケットボールコーチ basketball coach

2005 年 5 月 3 日 0:59 May 2, 2005 - AIA dailyLead

『私はいつも「問題や挑戦」と「うまくいかないこと」から成長した、そしてその機会にほんとうに学んだのです』

"I have always grown from my problems and challenges, from the things that don't work out, that's when I've really learned."

--Carol Burnett, 女優、歌手、コメディアン actress, singer, comedienne

2005 年 4 月 30 日 1:00 AIA dailyLead

「熟考した残酷というのは許すことができない、そして、私が罪に問われたことのない一つのことである」

"Deliberate cruelty is unforgivable, and the one thing I've never been guilty of."

--ビビアン・リー--Vivien Leigh

テネシー・ウィリアムズの「欲望という名の電車」 in Tennessee Williams' "A Streetcar Named Desire"

2005 年 4 月 29 日 1:03 AIA dailyLead

「チャンピオンは勝つまで試合を続けるのだ」

"Champions keep playing until they get it right."

[国際関係・一般]

[宇宙・航空・科学]

[宇宙利用・宇宙からの観測・宇宙環境利用・宇宙実験]

[防災・環境・資源・エネルギー]

[技術・産業]

[通信・放送・IT]

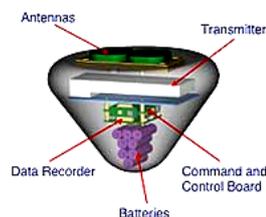
[産学連携, 産学官連携]

[経営・人]

[航空輸送・エアライン]

May 02, 2005 El Segundo CA (SPX) SpaceDaily

<http://www.spacedaily.com/news/spacetravel-05z.html>



A diagram of the Reentry Breakup Recorder, also known as the Black box.

Image courtesy: The Aerospace Corporation.

将来の宇宙探査の道筋を開くマイクロ宇宙機

Micro Spacecraft To Pave The Way For Future Space Exploration

Years ago, space visionaries dreamt that **swarms of small spacecraft** someday would travel to other worlds to explore them in preparation for future landings by human beings. Science fiction authors have written scripts and countless stories that outline how spaceship crews could send small 'probes' to alien worlds to scout conditions on those planets. These visions are about to advance one step closer to reality because of the efforts of NASA and a nonprofit partner, The Aerospace Corporation, that are preparing to launch a '**micro spacecraft**' to flight test it as early as 2006. NASA and its partner recently agreed to develop the first 'black box' for spacecraft and test a

prototype of this device that will be based on technology that Aerospace has been working on for several years. The 'black box' is actually a very small '**micro spacecraft**' that would be attached to larger space vehicles. A joint program between NASA and Aerospace will develop the black box **micro spacecraft**, among many other low-cost, miniature space systems, under the terms of a NASA-Aerospace agreement. Black boxes aboard aircraft record airplane data such as speed, altitude and crew conversations. After an accident, this information can be recovered to help investigators learn the cause of the mishap. The black box often includes a beacon that

helps investigators locate the downed aircraft. New, lightweight, low-cost devices the partners plan to develop would allow NASA and The Aerospace Corporation to flight test miniature sensor systems to gather temperature, pressure and other data, or to validate thermal protection systems for human missions. The **micro spacecraft** capabilities and supporting technologies, scientists say, will help enable the President's Vision to send human beings back to the moon and later venture on to Mars. These technologies and "foundation" research will make possible "sustained and affordable human and robotic missions," according to the researchers. NASA hopes to put human beings back on the moon by approximately 2015. The agency also believes that human missions to Mars may take place as early as 2025. "**Micro spacecraft** that can collect space flight data and return it to Earth will enhance space travel reliability through better designs," said G. Scott Hubbard, director of NASA Ames Research Center, who recently signed an agreement with William F. Ballhaus Jr., Aerospace president and chief executive officer, to develop the black box. **Micro spacecraft** can test heat shields designed to protect future spaceships and their astronaut passengers from the extreme temperatures that space vehicles experience during high-speed flight when entering a planet's atmosphere. As a **micro spacecraft** traveling at very high speed, enters a planet's atmosphere, friction causes intense heat to buildup on the shield. Part of the shield burns away, taking hot gases with it. If it is functioning correctly, the shield protects the spacecraft from incineration 火葬. Data that scientists gather from **micro spacecraft** during their descent into planets' atmospheres will help engineers validate existing heat shield designs. According to experts, these data also will assist engineers to develop new and more efficient designs. "People had not figured how to put black boxes on spacecraft before because the boxes would tend to burn up during re-entry," said Dan Rasky, a scientist at NASA Ames. Ames is contributing its expertise in spacecraft heat shield design to the development effort. "One of the first uses we see is using these space black boxes on the Crew Exploration Vehicle (**CEV**)," Rasky explained. The **CEV** is a future spaceship that NASA plans to use to fly people to the moon and beyond. **Small spacecraft** would ride piggyback on the **CEV** and other missions. When the **CEV** ventures to the moon, scientists foresee micro spacecraft serving as lunar landing scouts, sent ahead of a **CEV** lunar landing module. According to researchers, **micro spacecraft** also would aid human missions to the red planet by monitoring the martian atmosphere and ground conditions, and providing general reconnaissance and landing beacons. The tiny

spacecraft would also include chemical and biological sensors, useful in detection of substances related to potential past and present life on Mars. Scientists additionally envision using **micro spacecraft** to do systematic studies of Mars, and sample returns from the moon, Mercury and Venus. **Micro spacecraft** may also conduct "on location" studies of Venus. Because they can be less expensive than other, more complicated spacecraft, a great number of micro probes could be sent to many more places in the solar system to gather data, researchers suggest. The gas giant planets of Jupiter, Saturn, Uranus and Neptune offer countless opportunities for **micro spacecraft** to study 'volatiles' - water vapor, ammonia, various isotopes and winds.

The basis for the effort to develop low-cost spacecraft technologies is the Reentry Breakup Recorder (**REBR**), a one-foot (0.3-meter) diameter, 2.2-pound (one-kilogram) device that will have a heat shield, batteries, data recorder, sensors and a transmitter.

REBR has been under development at Aerospace for the past several years - with NASA Ames being responsible for design of the micro spacecraft's entry system.

During initial flight tests, a prototype REBR will separate from a rocket or larger spacecraft due to aerodynamic heating and forces.

Engineers designed REBR to collect data as the spacecraft to which REBR is attached re-enters the atmosphere and breaks apart.

During the low-speed portion of the re-entry, REBR would 'phone home' to relay data by satellite prior to impact. "Aerospace would use these devices to gather data during the re-entry and breakup of space hardware to validate and calibrate models, and NASA Ames would use them to test new heat shield materials and sensors," said Ethiraj Venkatapathy, planetary exploration technology manager at NASA Ames. The NASA-Aerospace team is using nanotechnology to develop very small, inexpensive sensors, he added. Nanotechnology is the creation of materials, devices and systems based on a nanometer scale. A nanometer is one-billionth of a meter, roughly 10,000 times smaller than the width of a human hair. "Nanotechnology could lead to changes in almost everything from computers and medicine to automobiles and spacecraft," said James Arnold, a scientist with the NASA Ames Center for Nanotechnology. Nanotechnology is already enabling engineers to make space science instruments smaller than before. An example is a miniature x-ray instrument within a device that scientists designed to measure the chemistry and crystallography of the surface of Mars during the upcoming Mars Smart Lander (MSL) mission. Scientists say nanotechnology has resulted in nanoelectronics more fault-tolerant to radiation damage than present

electronics. Nanoelectronics is electronics created on the nanometer scale. Spacecraft are susceptible to the effects of higher radiation levels because space vehicles fly beyond Earth's protective atmospheric layer. Another technology scientists and engineers are using to develop micro spacecraft is a NASA Ames artificial intelligence (AI) computer program that can automatically design small spacecraft antennas, among other components. The AI software - working on a network of personal computers - has already designed an antenna intended to orbit Earth while attached to a satellite. The antenna, able to fit into a one-inch space (2.5 by 2.5 centimeters), can receive commands and send data to Earth from the Space Technology 5 (ST5) satellites. The three satellites - each no bigger than an average TV set - will help scientists study magnetic fields in Earth's magnetosphere. NASA scientists have spent two years developing the evolutionary AI software that designed the antenna. "The AI software examined millions of potential antenna designs before settling on a final one," said project lead Jason Lohn, a scientist at NASA Ames.

"Through a process patterned after Darwin's 'survival of the fittest,' the strongest designs survive and the less capable do not." The software started with random antenna designs and through the evolutionary process, refined them. The computer system took about 10 hours to complete the initial antenna design process. "We told the computer program what performance the antenna should have, and the computer simulated evolution, keeping the best antenna designs that approached what we asked for. Eventually, it zeroed in on something that met the desired specifications for the mission," Lohn said. "Not only can the software work fast, but it can adapt existing designs quickly to meet changing mission requirements," he said. Following the first design of the ST5 satellite antenna, NASA Ames scientists used the software to 're-invent' the antenna design in less than a month to meet new specifications - a very quick turn-around in the space hardware redesign process. Evolved space antennas designed by Lohn's evolutionary software are 97 percent efficient as compared to conventional antennas that are only 38 percent efficient, according to scientists. Scientists also can use the evolutionary AI software to invent and create new structures, computer chips and even machines, according to Lohn. "We are now using the software to design tiny microscopic machines, including gyroscopes, for spaceflight navigation," he ventured. "The initial focus of the (**micro spacecraft**)

collaboration (between NASA Ames and Aerospace) will be on development of small re-entry probes," said William Ailor, director of the Center for Orbital and Re-entry Debris Studies at The Aerospace Corporation and Aerospace lead for the effort. "Similar technologies could be used on an Ames concept called Scout Probes for Exploration," Rasky said. This concept makes use of small entry probes to gather information and reconnaissance on atmospheric and surface conditions and hazards, according to Rasky. Development and flight-testing of very small entry probes that contain nanosensors also will help NASA considerably reduce the cost of its planetary robotic and human exploration missions, according to Venkatapathy. Researchers say that NASA has completed most of the "easy" missions to planets and moons. The completed remote observation orbiters and fly-by missions have whetted scientific interest for even more exotic exploration to gather extensive data on the surfaces of alien worlds. The ultimate goals of more ambitious deep space missions include 'on-the-scene' science and surface exploration.

Scientists hope to use micro spacecraft to scout alien worlds to reduce some of the risk to human beings and robots. This risk is related to a larger spacecraft's entry and descent into planetary atmospheres, and landings on moons and planets. NASA Ames has much experience in the development of small space probes. In 1971, Ames used a 137-pound (62.1-kilogram) spacecraft, the Planetary Atmospheric Experiment Test vehicle, to study spacecraft heating and entry into Earth's atmosphere. Ames also proposed the Mars Environmental Survey, a multi-lander network to study the fourth planet. This proposal evolved into the Mars Pathfinder mission. The Deep Space-II mission, which flew 'piggy back' on the Mars 98 Lander, contained critical entry systems technology from Ames. In the future, once they are tested on Earth, NASA will be able to send Trailblazer micro-probes, each weighing two - 22 pounds (one - 10 kilograms) to places like Mars, gas giant planets like Jupiter, Saturn and Neptune and to a moon of Saturn called Titan, according to Venkatapathy. The probes will measure atmospheric and surface conditions and help scientists evaluate potential dangers, he explained. "These probes also could serve as landing beacons for following piloted or robotic vehicles. Scout probes for exploration could be a critical, new capability for reducing risks encountered with remote exploration landings," Rasky predicted.

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ビジネス・ニュース Business News

4/29/2005 -推進者は宇宙旅行会社がブームになることを予測する

4/29/2005 - Promoters Foresee Booming Space Tourism Industry

Apr. 28, 2005 - /By Mike O'Sullivan/ - Promoters of space tourism say private space flights could be available to the public by the end of the decade. Plans are taking shape for a space tourism fleet, and investors

are expecting a booming industry within a few years. Space pioneer Burt Rutan won the \$10 million X Prize last year by putting the f -

4/29/2005 - Loral Skynet と Global Crossing Team は英国協議会向けに IP 通信ネットワークを提供する予定

4/29/2005 - Loral Skynet and Global Crossing Team to Provide IP Communications Network for the British Council

260 Sites Around the Globe to be Connected Through Loral's SkyReach(SM) IP Services and Global Crossing IP VPN Service(TM) BEDMINSTER, N.J., Apr. 28, 2005 - /PRNewswire-FirstCall/ - Loral

Skynet today announced that it has teamed with Global Crossing to provide a communications network to the British Council, a not-for-profit organization spo -

4/29/2005 -米国防省の契約サマリ (Apr 25 - Apr 29) 空軍

4/29/2005 - DoD Contract Award Summaries (Apr 25 - Apr 29) AIR FORCE

Mississippi Polymer Technologies Inc., St. Louis Mo., is being awarded a \$7,500,001 contract modification to develop a domestic supplier for melt-possible, isotropic, amorphous, rigid-rod

polyparaphenylene polymeric materials for military and commercial applications. Total funds have been obligated. This work will be complete August -

4/28/2005 - B-SAT はロッキードマーチンに A2100 小型クラス衛星で進めることを認める

4/28/2005 - B-SAT Awards Lockheed Martin Authorization to Proceed on A2100 Small-Class Satellite

NEWTOWN, Pa., Apr. 27, 2005 - Lockheed Martin [NYSE: LMT] has been granted an authorization to proceed (ATP) by the Broadcasting Satellite System Corporation (B-SAT) of Japan to build

its next geostationary telecommunications satellite. Designated BSAT-3a, the 1.8-kW satellite will provide direct broadcast services throughout Japan following its s -

4/27/2005 - DIRECTV's Spaceway F1 衛星は高品質放送の新時代を開く ;

次世代衛星は DIRECTV 放送の歴史的拡大を進める

4/27/2005 - DIRECTV's Spaceway F1 Satellite Launches New Era in High-Definition Programming;

Next Generation Satellite Will Initiate Historic Expansion of DIRECTV Programming

EL SEGUNDO, Calif. - Apr. 26, 2005 - DIRECTV advanced toward its goal of offering local digital and high-definition channels to every household in America with the successful launch this morning of

Spaceway F1, a DIRECTV satellite capable of delivering hundreds of HD signals to DIRECTV customers, and the first of four next-generation satellites tha - ...

レイセオンは米政府から UK 耐ジャミング GPS システムに対し新契約を獲得

4/27/2005 - New Contract from USG for UK Jam-Resistant GPS Systems

RAYTHEON SYSTEMS LIMITED RECEIVES \$11.1 MILLION CONTRACT FOR JAM-RESISTANT GPS SYSTEMS HARLOW - Apr. 26, 2005 - Raytheon Systems Limited (RSL) has

just received another contract from the United States Government for the company's GAS-1 jam resistant GPS antenna systems. This is the third annual contract in a four-year programme and is the larges -

4/27/2005 - ロラールは ICO 向けにアドバンスモバイル衛星を製造することに

4/27/2005 - Space Systems/Loral to Build Advanced Mobile Satellite for ICO Satellite Management, LLC

ICO's 2-GHz Mobile Communications Service to Provide Ubiquitous Coverage Through Geostationary MSS Satellite and ATC Technology
PALO ALTO, Calif. - Apr. 26, 2005 - Space Systems/Loral (SS/L)

today announced that it has recently signed a contract with ICO Satellite Management, LLC for the design and construction of a geostationary Mobile Satellit - ...

4/26/2005 - Globecomm Partners は EMS サテライトネットワークスと共に DVB-RCS を全世界に提供することに

4/26/2005 - Globecomm Partners With EMS Satellite Networks to Offer DVB-RCS Solutions Worldwide

MONTREAL – Apr. 20, 2005 – EMS Technologies, Inc. (NASDAQ: ELMG), announced today that it has signed an agreement with Globecomm Systems Inc. (NASDAQ: GCOM) for Globecomm to

resell EMS's DVB-RCS hubs and terminals worldwide. In addition, Globecomm will offer world-class managed network services on an EMS DVB-RCS hub from its award winning teleport - ...

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国際宇宙ニュース

International Space News

4/29/2005 - Qomolangma チョモランマに世界でもっとも高い位置に気象センタが設立された

4/29/2005 - World's Highest Meteorological Center Erected on Qomolangma

Apr. 29, 2005 - China has built an automatic meteorological observation station at an elevation of 6,500 meters on Mount Qomolangma (Mount Everest), the highest mountain in the world. The

station, located at a narrow pass of Dongrongbu Glacier, will be used mainly for observing the condition of energy and materials conversion at high elevation -

4/29/2005 - ドイツの宇宙飛行士が ISS クルーに加わる

4/29/2005 - German Astronaut to Join ISS Crew

PARIS, Apr. 28, 2005 - /RIA Novosti, Andrey Nizamutdinov/ - German astronaut Thomas Reiter will soon join the International Space Station crew to become the first European Space Agency's

envoy to work with a long-term mission on board the ISS, reports the ESA headquarters. Thomas Reiter is to be launched to the ISS this July so as to return to t -

4/28/2005 - ロシア宇宙庁と ESA は ISS のミッションに関し、協定を結ぶ

4/28/2005 - Roskosmos, ESA Sign Agreement on ISS Mission

MOSCOW, Apr. 27, 2005 - /RIA Novosti/ - The Russian Federal Space Agency (Roskosmos) and European Space Agency (ESA) signed an agreement on ESA's astronaut Thomas Reiter's flight to the

International Space Station (ISS) in July 2005. Roskosmos announced the deal in its Web-site news release on Wednesday. "The deal is part of a set of bilateral -

4/27/2005 - アルカテルはロシアの衛星を世界の市場にもたらず計画

4/27/2005 - Alcatel to Bring Russian Satellites to Global Market

MOSCOW, Apr. 26, 2005 - /RIA Novosti/ - The Reshetnev Research and Production Association of Applied Mechanics and Alcatel Space company intend to establish a joint venture to build satellites. The

Russian association will be given access to modern R&D work and the French company will have the opportunity to use cheap labor. In addition, the magazi - ...

4/26/2005 - ISS ステータスレポート : SS05-020a

4/26/2005 - International Space Station Status Report: SS05-020a

Apr. 24, 2005 - After six months in space aboard the International Space Station, the Expedition 10 crew is safely back on Earth. Expedition 10 Commander and NASA Station Science Officer Leroy

Chiao and Flight Engineer Salizhan Sharipov landed in central Asia this evening after traveling more than 78 million miles during their mission. Returnin -

4/25/2005 - ESA at 欧州地球科学ユニオン全体会議

4/25/2005 - ESA at the European Geosciences Union General Assembly

Apr. 22, 2005 - Taking place in Vienna from 24 to 29 April 2005, the European Geosciences Union General Assembly will bring together over 8000 scientists from the fields of Earth and Planetary sciences.

ESA will present recent space-based findings and results concerning the Earth, Mars, Titan and the Moon as well as its future missions. The Eur - ...

4/25/2005 - ISS の第 10 次遠征クルーは次の 2 つのハム (アマチュア無線士) チームにバトンタッチ

4/25/2005 - ISS Expedition 10 Crew Passes the Baton to New Two-Ham Team

NEWINGTON, CT, Apr. 22, 2005 - International Space Station Expedition 10 crew members Leroy Chiao, KE5BRW, and Salizhan Sharipov have formally handed over command of the station to the

Expedition 11 crew of Commander Sergei Krikalev, U5MIR, and US Astronaut and ISS Science Officer and Flight Engineer John Phillips, KE5DRY. A formal change-of-comman - ...

4/25/2005 -欧州の科学者は ESA の将来ミッションを召集

4/25/2005 - European Scientists Convene to Chart ESA's Future Missions

Apr. 22, 2005 - More than 150 scientists representing all of the member states in the European Space Agency (ESA) are convening in the Netherlands this week for a symposium to develop 'roadmaps' that

will chart the course for Europe's space exploration 15 to 20 years from now. The topics and projects under discussion this week include astronomic - ...

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打上げニュース Launch News

4/28/2005 -英スカイラーク・ロケットの最終号機 カウントダウン

4/28/2005 - Final Countdown for the Skylark Rocket

Apr. 27, 2005 - After 48 years in service, the British Skylark rocket motor will complete its final mission on April 30; the launch of the sounding rocket MASER 10 into space from Swedish Space

Corporation's (SSC) launching facility Esrange. The first launch of a Skylark was made in 1957 and until now, this type of rocket motor has been used 51 tim - ...

4/27/2005 -シーロンチで打上げた Spaceway F1 衛星が軌道にのる

4/27/2005 - Spaceway F1 Satellite Launched From Sea Launch Placed in Orbit

MOSCOW/WASHINGTON, Apr. 26, 2005 - /RIA Novosti/ - The Spaceway F1 satellite, launched from the Odysseus oceanic platform within the Sea Launch project, has been injected to the calculated

orbit," RIA Novosti was told in the Russian Mission Control Center (TsUP). "The space vehicle normally separated from the booster rocket and has been placed i - ...

4/27/2005 -シーロンチは SpacewayF1 衛星を軌道にのせることに成功。衛星は商用ではもっとも重いもの

4/27/2005 - Sea Launch Successfully Delivers Spaceway to Orbit - Heaviest Commercial Satellite Launched to Date

LONG BEACH, Calif., Apr. 26, 2005 — Sea Launch Company today successfully delivered DIRECTV's Spaceway F1 satellite to orbit, completing the launch of the heaviest commercial satellite to date.

Early data indicate the spacecraft is in excellent condition. The Sea Launch Zenit-3SL rocket lifted off at 12:31:30 am PDT (07:31:30 GMT), precisely on - ...

4/25/2005 -シャトル打上げウインドウ・アップデート

4/25/2005 - Launch Window Updated

Apr. 22, 2005 - Space Shuttle Discovery's STS-114 mission now has a

targeted launch date of May 22, with a launch window extending to

June 3. This will allow additional time to complete the required engineering analysis, validation and verification testing of the Shuttle

for a safe Return to Flight. The Shuttle sits on the launch pad at Kennedy - ...

4/25/2005 -カザクスタンとロシアは新しい衛星打上げシステムを開発することに

4/25/2005 - Kazakhstan and Russia to Develop New Satellite Launching System

ASTANA, Kazakhstan, Apr. 20, 2005 - /PRNewswire/ - Kazakhstan and Russia have agreed on the development of a new civil satellite launching system using the Mig-31s Fighter and the Ishim missile as a

platform from which to launch payloads of up to 200 kg into low earth orbits. According to the Prime Minister of Kazakhstan, Danial Akhmetov, Kazakh - ...

4/25/2005 - NASA のスペースシャトル・プロセッシング・ステータス・レポート : S05-015

4/25/2005 - NASA's Space Shuttle Processing Status Report: S05-015

NASA's Space Shuttle fleet is housed and processed at Kennedy Space Center (KSC), Fla. Discovery (OV-103) Mission: STS-114 - 17th ISS Flight (LF1) - Multi-Purpose Logistics Module Vehicle:

Discovery (OV-103) Location: Launch Pad 39B Launch Date: Launch Planning Window: May 15 - June 3, 2005 Launch Pad: 39B Crew: Collins, Kelly, Noguchi, - ...

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プログラムニュース

Program News

4/29/2005 -ハッブル宇宙望遠鏡の将来は今なお不確定

4/29/2005 - Hubble Space Telescope's Future Still Not Certain

Apr. 21, 2005 - /By Jim Bertel/ - The Hubble Space Telescope is considered one of astronomy's most important instruments. As Hubble marks its 15th anniversary in orbit, VOA's Jim Bertel reports its future

hangs in the balance. Fifteen years ago, the U.S. space agency, NASA, launched a new era in astronomy. After overcoming a few early problems, - ...

4/28/2005 - NASA のディープインパクト宇宙機アップデート

4/28/2005 - NASA'S Deep Impact Spacecraft Update

Apr. 27, 2005 - Sixty-nine days before it gets up-close-and-personal with a comet, NASA's Deep Impact spacecraft successfully photographed its quarry, comet Tempel 1, at a distance of 39.7 million

miles. The image, the first of many comet portraits it will take over the next 10 weeks, will aid Deep Impact's navigators, engineers and scientists a - ...

4/27/2005 -ワシントンに軌道上のミサイル迎撃機配備に準備完了

4/27/2005 - Washington Ready to Deploy Orbital Missile Interceptors

MOSCOW, Apr. 26, 2005 - /RIA Novosti political commentator Andrei Kislyakov/ - Miracles only happen in fairy tales, not in the high-tech world, which lives according to its own logic. In the middle

of April, Lieutenant General Henry Obering, the director of the U.S. Missile Defense Agency, addressed the 3rd Annual Missile Defense Conference in Wash - ...

4/27/2005 -グラビティ・プローブ B ミッション・アップデート

4/27/2005 - Gravity Probe B Mission Update

Apr. 22, 2005 - GP-B STATUS AT A GLANCE
===== Mission Elapsed Time: 367 days (52 weeks/12.00 months) Science Data Collection: 238 days (34

weeks/7.80 months) Current Orbit #: 5,419 as of 9:00PM PST Spacecraft General Health: Good Roll Rate: Normal at 0.7742 rpm (77.5 seconds per revolution) Gyro Suspens - ...

4/25/2005 - NASA は DART の事故調査委員会メンバを公表

4/25/2005 - NASA Announces Dart Mishap Investigation Board Members

Apr. 22, 2005 - NASA selected the mishap investigation board to determine why the Demonstration of Autonomous Rendezvous Technology (**DART**) spacecraft did not complete its mission on April

15. The board consists of seven voting members from NASA centers, the Defense Advanced Research Projects Agency (DARPA), and the U.S. Air Force Space Command, - ...

4/25/2005 - 中国の 'Chang'e 1' 計画は順調に進む

4/25/2005 - 'Chang'e 1' Program Goes on Smoothly

Apr. 23, 2005 - The development of "Chang'e 1", the third milestone of China's space flight program, is going smoothly, according to sources from a symposium marking the 35th anniversary of the

successful launch of "**Dongfanghong 1**". At the 35th anniversary of the successful launch of China's first man-made satellite, "**Dongfanghong 1**", pioneers - ...

4/25/2005 -長期間の宇宙ミッション

4/25/2005 - Long Duration Space Missions

Apr. 22, 2005 - The Shuttle's return to flight is fast approaching. On 6 April, Discovery arrived on its launch pad. The first mission since the catastrophe in February 2003 is now scheduled for mid-May. The

resumption of flights is of great importance for the International Space Station. It will allow more frequent service visits to pursue the - ...

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科学と宇宙探査ニュース

Science and Exploration News

4/28/2005 -カッシーニは土星の衛星のスイスチーズのように見える画像を捉えた

4/28/2005 - Cassini Captures Swiss-Cheese Look of Saturn Moon

Apr. 27, 2005 - An image of Saturn's small moon, Epimetheus (ep-ee-MEE-thee-uss), was captured by the Cassini spacecraft in the closest view ever taken of the pockmarked body. Epimetheus is

irregularly shaped and dotted with soft-edged craters. The many large, softened craters on Epimetheus indicate a surface that is several billion years old. - ...

4/27/2005 -タイタンの表面の上空に有機物質が見つかる

4/27/2005 - Organic Materials Spotted High Above Titan's Surface

Apr. 25, 2005 - During its closest flyby of Saturn's moon Titan on April 16, the Cassini spacecraft came within 1,027 kilometers (638 miles) of the moon's surface and found that the outer layer of the thick,

hazy atmosphere is brimming with complex hydrocarbons. Scientists believe that Titan's atmosphere may be a laboratory for studying the org - ...

4/26/2005 -宇宙のシェル-シーカは美を見つける

4/26/2005 - Cosmic Shell-Seekers Find a Beauty

Apr. 19, 2005 - Two scientists have discovered a distinctive shell of hot gas around the site of a distant supernova explosion by combining 150 hours of archived data collected by NASA's Chandra X-ray

Observatory. This discovery is a significant step forward in solving a decades-old puzzle as to why some stellar explosions display shells and others - ...

4/26/2005 -地球の重力の痕跡

4/26/2005 - Earth's Gravity Scar

Apr. 25, 2005 - A new ESA study predicts that the devastating Sumatran earthquake, which resulted in the tragic tsunami of 26 December 2004, will have left a 'scar' on Earth's gravity that could be

detected by a sensitive new satellite, due for launch next year. The Sumatran earthquake measured 9 on the Richter scale and caused widespread devas - ...

4/26/2005 - XMM- ニュートン宇宙機は中性子星にホットスポットを観測する

4/26/2005 - XMM-Newton Sees 'Hot Spots' on Neutron Stars

Apr. 25, 2005 - Thanks to data from ESA's XMM-Newton spacecraft, European astronomers have observed for the first time rotating 'hot spots' on the surfaces of three nearby neutron stars. This result

provides a breakthrough in understanding the 'thermal geography' of neutron stars, and provides the first measurement of very small-sized features - ...

4/26/2005 - レイセオンの計測器は火星の上の水を引続き探す

4/26/2005 - Raytheon Instruments Continue Search for Water on Mars

April 25, 2005, EL SEGUNDO, Calif., Apr. 25, 2005 - /PRNewswire/ - Two five-pound electronic instruments built by Raytheon Company's Space and Airborne Systems (SAS) remain thirsty on Mars. The

miniature Thermal Emission Spectrometers (mini-TES) reached the planet on the exploration rovers Spirit and Opportunity in January 2004 with an expected - ...

4/26/2005 - NASA は宇宙探査システム諮問委員会を設立

4/26/2005 - NASA Establishes Exploration Systems Advisory Committee

WASHINGTON, Apr. 25, 2005 - /PRNewswire/ - NASA has chartered the Exploration Systems Advisory Committee (ESAC). Committee members include leading experts from government, academia and

industry who will provide advice and recommendations to NASA's Associate Administrator for Exploration Systems. The committee's input will relate to plans, polici - ...

4/25/2005 - コロナの漏斗形状中の太陽風の起源

4/25/2005 - Solar Wind Origin in Coronal Funnels

Apr. 22, 2005 - A Chinese-German team of scientists have identified the magnetic structures in the solar corona where the fast solar wind originates. Using images and Doppler maps from the Solar Ultraviolet

Measurements of Emitted Radiation (SUMER) spectrometer and magnetograms delivered by the Michelson Doppler Imager (MDI) on the space-based Sola - ...

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技術ニュース

Technology News

クロスボオウ・テクノロジー社は二つの革新的一人乗り航空機を推進

4/29/2005 - Crossbow Technology Powers Two Revolutionary One-Man Aircraft

Inertial Products Essential to the Success of the Virgin Atlantic Global Flyer and Springtail Personal Air Vehicle GRAPEVINE, Texas - April 28, 2005 - Crossbow Technology, Inc. (www.xbow.com),

the leading manufacturer of MEMS-based sensor systems for both the inertial guidance and wireless mesh networking markets, is playing a key role in two - ...

4/29/2005 - NASA はサウンディングロケットで飛行させる学生の実験を選定

4/29/2005 - NASA Selects Student Experiments to Fly on Sounding Rocket

WASHINGTON, Apr. 28, 2005 - /PRNewswire/ - NASA has selected students from nine schools around the country to prepare and fly their experiments on a NASA sounding rocket. During the next four weeks

students and their teachers will work with engineers and technicians from NASA's Goddard Space Flight Center, Wallops Flight Facility, Wallops Island - ...

4/29/2005 - IR 社の利益は独自製品の競争力で前年の四半期に対し 40%上昇

4/29/2005 - International Rectifier Earnings Rise 40% Over Prior-Year Quarter on Strength of Proprietary Products

EL SEGUNDO, Calif., Apr. 28, 2005 - International Rectifier

Corporation (NYSE: IRF) today reported adjusted earnings of \$41.7

million (or \$0.56 per share) for the March quarter -- a 40 percent increase over the prior-year quarter. This compares to \$44.8 million

(or \$0.62 per share) for the December quarter. For the March, December, and prior-year q - ...

4/28/2005 - NASA センタはハイテク・センサ、ワイヤレス・セキュリティを含め最新の技術センタの研究開発を推進

4/28/2005 - NASA Center Develops 'Hot' New Technology Center's Research Developments Include High-Tech Sensor, Wireless Security

Apr. 27, 2005 - /By Tom Howell Jr./ - Sending a human to Mars, waging a successful war and securing wireless communication have something in common — each is an application of technology created

at the university's NASA-supported research center. The Center for Satellite and Hybrid Communication Networks, founded in November 1991, is bringing th - ...

4/28/2005 - 科学小説を越えて - NASA はユタの砂漠で人間とロボットの協力作業を試験する

4/28/2005 - Beyond Science Fiction -- NASA Tests Human-Robot Cooperation in Utah Desert

Apr. 27, 2005 - Designing, then teaching robots to converse and to work in teams with human beings seems like the stuff of science fiction. Yet, NASA already has been taking steps in a Utah desert that

may lead the space agency even beyond the creative imagination of science fiction writers. "One of our biggest problems is to break out of preco - ...

4/28/2005 - NASA は JAVA コンピュータプログラム中の虫を検出する新しいソフトを開発

4/28/2005 - NASA Develops New Software to Detect 'Bugs' in JAVA Computer Code

Apr. 26, 2005 - NASA scientists today announced they are releasing free software that will find 'bugs,' or defects, in Java computer code. The new software, Java Pathfinder, is classified as 'open source

software.' Open source software is computer code that scientists make publicly available, often at no cost, so users can freely utilize and mo - ...

4/28/2005 - スペースマイクロ社は宇宙 RF 通信チップの開発契約を獲得 - 超高速の宇宙通信を可能に

4/28/2005 - Space Micro Awarded Space RF Communication Chip R&D - Enables Very High Data Rate Space Communications

SAN DIEGO, CA -Apr. 26, 2005 - Space Micro Inc. has been selected for research and development of innovative modulation and Forward Error Correction (FEC) coding technology that will enable

very high data rate, bandwidth, and power efficient RF communications. This effort is being partially supported by NASA under a Phase I SBIR contract. This work - ...

4/27/2005 - LiftPort グループ、スペース・エレベータ・カンパニーズは最初のカーボン・ナノチューブ製造設備を設立

4/27/2005 - LiftPort Group, the Space Elevator Companies, to Open Its First Carbon Nanotube Manufacturing Facility

SEATTLE - Apr. 25, 2005 - LiftPort Group, the space elevator companies, today announced plans for a carbon nanotube manufacturing plant, the company's first formal facility for production

of the material on a commercial scale. Called LiftPort Nanotech, the new facility will also serve as the regional headquarters for the company, and represents the - ...

4/25/2005 - NASA は\$11M の量子ワイヤの契約をライス大学と結ぶ

4/25/2005 - NASA Awards \$11 Million Quantum Wire Contract to Rice

Apr. 22, 2005 - NASA has awarded Rice University's Carbon Nanotechnology Laboratory a four-year, \$11 million contract to produce a prototype power cable made entirely of carbon nanotubes.

The new project will be discussed with media in a briefing at the Johnson Space Center at 2 p.m. CDT April 26. Available to media in that session will be: - - ...

[編注 前ミルススペース 050502MS で既報] <http://hotwired.goo.ne.jp/news/20050428301.html>

NASA、量子ワイヤ研究を援助 - 宇宙エレベータも射程

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一般宇宙ニュース General Space News

4/27/2005 - フロリダは宇宙関係のキャリアに関し学生を教えるのに最高でもっとも魅力のあるというには不十分

4/27/2005 - Not Enough Best and Brightest

Apr. 18, 2005 - /FSRI/ - Florida is getting a failing grade in educating students for space-related careers. The first person to step on Martian soil could be a child now attending elementary school in the Sunshine

State. Many more Florida students could be among the engineers and scientists who design the spacecraft that will make the historic jou - ...

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イベントニュース Event News

4/29/2005 - ボーイングは RoboBusiness ロボビジネス 会議&展示会を後援

4/29/2005 - Boeing Sponsors RoboBusiness Conference & Expo

Future Combat Systems' Lead Systems Integrator Sponsors 2nd Year Business Development Event Focusing On Mobile Robotics and Intelligent Systems NORTHBORO, Mass. & FRAMINGHAM, Mass.

- Apr. 28, 2005 - Robotics Trends and IDG World Expo today announced that Boeing, the Lead Systems Integrator for the U.S. government's Future Combat Systems (FCS) - ...

4/28/2005 - シャトル飛行再開タスクグループは最終の公開ミーティングとブリーフィングを計画

4/28/2005 - Return to Flight Task Group Plans Final Public Meeting and Briefing

Apr. 26, 2005 - The Stafford-Covey Return to Flight Task Group final public meeting is at 8:30 a.m. EDT, Friday, May 6. It will be followed by an afternoon news conference. The meeting is in the Webster Civic

Center, 311 Pennsylvania Avenue, Webster, Texas. The Group plans to complete its assessment of NASA's implementation of the Columbia Acci - ...

4/28/2005 - 宇宙における重力と経年変化が NASA の講義で議論される予定

4/28/2005 - Gravity and Aging In Space To Be Discussed At NASA Lecture

Apr. 27, 2005 - "Space Exploration: Can Gravity Reverse Aging?" will be the title of a free public lecture at NASA Ames Research Center on May 4, 2005. Dr. Joan Vernikos, author and former director

of life sciences at NASA Ames, will be the featured speaker. The lecture will take place from 7 p.m. to 9 p.m. PDT in Bldg. 943's Eagle Room, just o - ...

4/28/2005 - 民事、商業、及び国家安全保障宇宙計画におけるホットジョブ(求人) At Shomex Career Expo

エアロスペース・コーポレーション、ノースロップグラマン、レイセオンなど 40 社が人材募集

4/28/2005 - Hot Jobs In Civil, Commercial And National Security Space Programs To Be Featured At Shomex Career Expo;

Aerospace Corp., Northrop Grumman And Raytheon Among 40 Employers Looking For New Talent

LOS ANGELES - Apr. 26, 2005 - Professionals in Southern California will have the opportunity to meet face-to-face with recruiters from several of the world's leading aerospace companies at Shomex'

Diversity Career Fair, a one-day talent acquisition event being staged at the LAX Radisson Hotel on May 3, 2005 by Shomex, a national event producer and - ...

4/27/2005 - 宇宙パイオニアのマイケルメルビルの基調講演 at TSMC 技術シンポジウム

4/27/2005 - Space Pioneer Michael Melvill Keynotes at Annual TSMC Technology Symposium

Melvill Presentation Exemplifies Breakthrough Innovation at Bellwether IC Industry Event SAN JOSE, Calif. - Apr. 26, 2005 - Space pioneer Michael Melvill today presents the keynote address at

the 2005 Technology Symposium organized by Taiwan Semiconductor Manufacturing Company (TSMC) (TSE:2330; NYSE:TSM), the world's leading semiconductor fou - ...

4/25/2005 - 5月5日宇宙の日、米国航空宇宙博物館 駐車時間延長と無料駐車

4/25/2005 - Extended Hours and Free Parking for Space Day, May 5, at the Steven F. Udvar-Hazy Center

Apr. 20, 2005 - The public is invited for a cosmic adventure as the National Air and Space Museum again hosts the Space Day global launch celebration, to be held Thursday, May 5, at the Steven F.

Udvar-Hazy Center. To encourage families to attend, the Smithsonian facility in Chantilly, Va., will have extended hours for the day, 10 a.m. until 9 p - ...

4/25/2005 - ハノーバフェア ISCe2005 の宇宙エンタープライズフォーラムに於いて NASA 技術と探査に焦点になる予定

4/25/2005 - NASA Technologies and Exploration to be Focus of Space Enterprise Forum at Hannover Fairs's ISCe 2005

LOS ANGELES - Apr. 21, 2005 - Hannover Fairs USA, Inc., today announced that, as part of ISCe 2005, the Space Enterprise Forum will focus on the future of NASA technologies and exploration, and how

NASA intends to accomplish its goals. Through partnerships with private U.S. industries, it is anticipated that the joint efforts will create a synergy - ...

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人事ニュース

Personnel News

4/29/2005 - Lockheed Martin Board of Directors Elects Robert J. Stevens as Chairman of the Board

BETHESDA, MD, Apr. 28, 2005 - The Lockheed Martin Corporation [NYSE: LMT] board of directors has elected Robert J. Stevens as Chairman of the Board, effective today. This action follows an

announcement on Nov. 23, 2004 regarding Vance Coffman's intent to retire as Chairman of the Board after 37 years with the company, including seven years as CE - ...

4/27/2005 - SETI Pioneer, MIT Professor Philip Morrison Dies at 89

Apr. 25, 2005 - Philip Morrison passed away on Friday, April 22, at his home in Cambridge, Massachusetts. He was 89. The renowned and beloved Massachusetts Institute of Technology (MIT) theoretical

astrophysicist established himself in the front ranks of science during his 20s while serving as a group leader building the first atomic bomb on the - ...

4/27/2005 - Faith Vilas to Direct MMT Observatory

Apr. 25, 2005 - /By Lori Stiles/ - Faith Vilas is the new director of the MMT Observatory at Mt. Hopkins, Ariz. She will replace interim director J.T. Williams in December. Vilas was appointed to the post by

The University of Arizona and the Smithsonian Astrophysical Observatory. The new job at MMTO will bring Vilas back to Southern Arizona - ...

4/27/2005 - STS-114: Space Shuttle Return to Flight - As Shuttle Launch Nears, Duty Calls for Safety Guru Angelia Walker

Apr. 26, 2005 - There's rarely a quiet moment in Angelia Walker's office at NASA's Marshall Space Flight Center in Huntsville, Ala. Propulsion engineers stop by to verify data. Supervisors drop in to

check on a report. Managers at NASA Headquarters in Washington call for updates. "Everyone's asking questions, keeping up a constant flow of infor - ...

4/27/2005 - Larry J. Crawford Heads Space Department at the Johns Hopkins Applied Physics Laboratory

Apr. 25, 2005 - Dr. Larry J. Crawford is the new head of the Space Department at the Johns Hopkins University Applied Physics Laboratory, Laurel, Md. He succeeds Dr. Michael D. Griffin, who

was appointed as NASA administrator earlier this month. Crawford now oversees the second-largest department at the Laboratory, with more than 600 specia - ...

4/26/2005 - Orbital Names Gregory A. Jones Vice President of Corporate Strategy and Business Development; Mr. Jones to Fill Newly-Created Position to Focus on New Areas of Growth for the Company

DULLES, Va. - Apr. 20, 2005 - Orbital Sciences Corporation (NYSE:ORB) today announced that Mr. Gregory A. Jones has recently joined the company in the newly-created position of Vice

President of Corporate Strategy and Business Development, reporting directly to Chairman and Chief Executive Officer David W. Thompson. In this new role, Mr. Jones is r - ...

企業の広告

Featured Company

MRC

ATK - Mission Research Microelectronics Division

MRC Microelectronics, a division of Mission Research Corporation, is an industry- leader in microelectronics research, engineering services, and product development of semiconductor devices for space, weapons, and harsh environments. With roots firmly entrenched in

radiation effects research, the Albuquerque-based Division has diverse expertise extending from analysis and test to developing next generation, radiation hardened FPGAs, ASICs, MCMs and SOCs.

BAE システム

BAE Systems - IEWS / Advanced Digital Systems

The Advanced Digital Systems (ADS) group in Manassas, Virginia, is a center of excellence in Space Electronics prime contract and subcontract management, systems integration and test, software and hardware development, and complete integrated product support. ADS

has developed advanced space based applications for missions such as the Mars Pathfinder and ROVER programs, the Cassini mission to Saturn, the **Globalstar communications constellation** and the **Asia Cellular System (ACeS) Program**.

Aeroflex

Aeroflex - Colorado Springs

Aeroflex Colorado Springs is a supplier of integrated circuits and custom circuit card assemblies. We supply a broad range of standard products for space applications including RadHard microcontrollers logic programmable logic FPGAs 4M and 16M RadHard-by-Design memory 4M 8M and 16M QCOTSTM memory serial communication interfaces for MIL-STD-1553 1773 RadClockTM and an LVDS family of products. Our RadHard ASICs handle design complexities

up to 3000000 usable gates. Strategic RadHardTM technique offers advanced technologies down to 0.6 μm and are RadHard to 1 Mega rad while our Commercial RadHardTM offers a 0.25 μm process guaranteed to 300Krad(Si). We also offer Circuit Card Assembly capabilities which consists of full assembly test and coat in a high mix/low to medium volume operation.

Maxwell Technologies, Inc

Maxwell Technologies, Inc.

Maxwell Technologies is a leading developer and manufacturer of innovative, cost-effective energy storage and power delivery solutions. Our radiation-mitigated microelectronic products include power modules, memory modules and single board computers for

applications in aerospace. Our proprietary RAD-PAK μ shielding technology allows for powerful, low-cost off-the-shelf components to be combined with the level of radiation shielding required for the orbit or environment in which satellites or spacecraft are to be deployed.

[余談] 2005年4月28日 9:23 ジェトロ

コロッケの現地生産を開始ーコロちゃん、オープンから1年ー(ケニア)ナイロビ発

コロちゃん株式会社(本社:岐阜県恵那市)がナイロビ郊外にコロッケ販売店を開店して1年が経過した。当初は日本からの冷凍ものを輸

入して販売していたが、現在は原材料を現地調達し現地生産を始めている。今後、販路拡大に向けて取組み、コロッケ定着を目指す。

[編注] コロッケ屋: 信州松本、松本城から 10 分のところにコロッケ屋を営んでいる木藤守さんという方がおられる。機械物理を勉強して結局、地球環境蘇生に関心を持ちながら料理をやることになったとの弁。 松食 0263-32-2164 (平日 10:00-18:00) (出典: チャンネル X, KuramaeJournal 2005.01, No.984)
