

[Real Library] [旧着] 「レッドプラネット」 P・テラップ、「複雑系」 M・M ワールドロップ 新潮文庫

[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

[新着] 新聞、書籍、データ: Defense News 060724, Aerospace America 0607, AW&ST060731 他

文科省 NISTEP より下記寄贈、感謝:

科学技術動向 2006.7

0608 Futron from Eileen McGowan

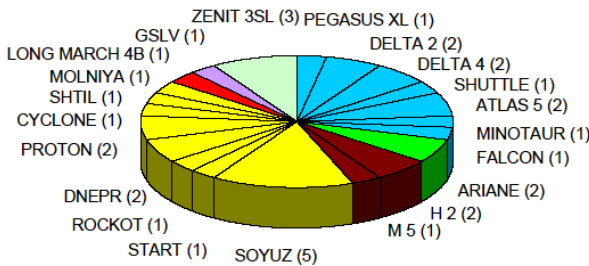
August 2006



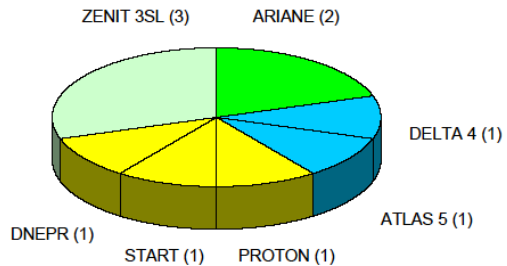
Futron Launch Report

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|--------|---------|-----------|----------|--|---|
| July 19 – August 30 | | | 19 | 20 | 21 Plesetsk Kosmos 22 (Military) Molniya | 22 |
| | | | 23 | 24 | 25 | 26 Baikonur BELKA and Smallsats (Dev.) Dnepr 1 |
| 30 | 31 | 1 | 2 | 3 | 4 | 5 Baikonur Hotbird 8 (Comm.) Proton |
| 6 | 7 | 8 | 9 | 10 | 11 Kourou JCSAT 10 and Syracuse 3B (Communications) Ariane 5G | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 Sea Launch Koreasat 5 (Comm.) Zenit 3SL | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 KSC STS 115 (ISS) Shuttle Atlantis | 28 | 29 | 30 | | | |

Legend: ■ USA ■ Russia ■ Japan ■ Europe
■ Multinational ■ China ■ India
✓ Success ✗ Failure P Partial Failure
C Commercial



Total: 34



Total: 11

Effective January 1, 2006, commercial launches include launches where at least one payload procured launch services commercially.

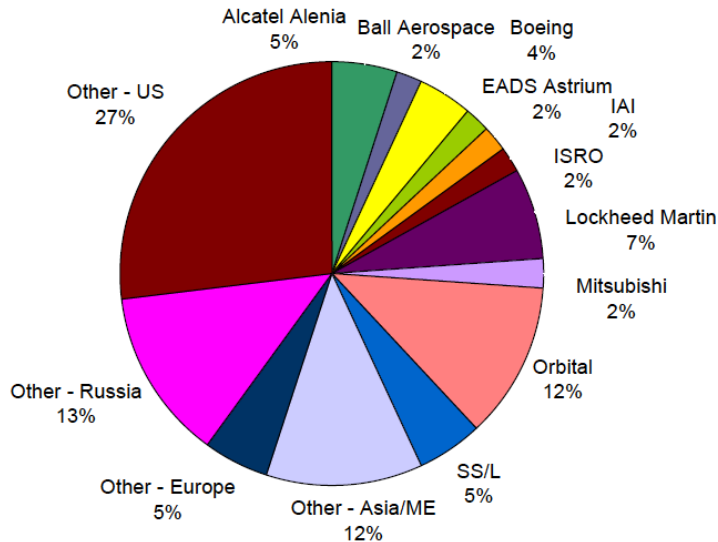
This definition differs from the standard used by the Federal Aviation Administration's Office of Commercial Space Transportation.

August 2006



Satellite Manufacturing Report

Manufacturer Market Share of Satellites Launched Through July 31, 2006



| Manufacturer | Number | Share |
|-----------------|-----------|-------------|
| Alcatel Alenia | 3 | 5% |
| Ball Aerospace | 1 | 2% |
| Boeing | 2 | 4% |
| EADS Astrium | 1 | 2% |
| IAI | 1 | 2% |
| ISRO | 1 | 2% |
| Lockheed Martin | 4 | 7% |
| Mitsubishi | 1 | 2% |
| Orbital | 7 | 12% |
| SS/L | 3 | 5% |
| Other - Asia/ME | 7 | 12% |
| Other - Europe | 3 | 5% |
| Other - Russia | 8 | 13% |
| Other - US | 16 | 27% |
| Total | 58 | 100% |

2006.7 科学技術動向 トピックス

国際災害チャーターへの陸域観測衛星「だいち」の貢献

2006年7月28日 22:37 DAILY NEDO[2006/07/28] [\[抜粋\]](#)

NEDO 成果報告書 97 冊を技術情報データベースに追加

http://www.nedo.go.jp/database/newlist/new_list20060728.html

| バーコード番号 | 開始年度 | 終了年度 | 報告書タイトル | ページ数 |
|---------------------------|------|------|---|------|
| 100007806 | 2005 | 2005 | 平成 17 年度成果報告書 基盤技術研究促進事業 (民間基盤技術研究支援制度) 高度製造技術と革新的設計の融合による汎用小型衛星の研究開発 | 384 |
| 100007807 | 2005 | 2005 | *平成 17 年度中年報 次世代輸送系システム設計基盤技術開発 ミッション対応設計高度化技術 | 5 |
| 100007808 | 2005 | 2005 | *平成 17 年度中間年報 次世代輸送系システム設計基盤技術開発 次世代LNG制御システム技術 | 4 |
| 100007809 | 2005 | 2005 | 平成 17 年度成果報告書 民生部品の衛星利用の標準化に係る調査 | 39 |

平成 17 年度成果報告書 基盤技術研究促進事業(民間基盤技術研究支援制度)

高度製造技術と革新的設計の融合による汎用小型衛星の研究開発

| | |
|--|---|
| PETSAT アーキテクチャ】情報システムについては、パネル間情報ネットワークに CAN バス採用を最終確定し、パネル内情報伝送には I2C バ | Concerning the architecture of the information system, we determined to adopt CAN bus between the panels and I2C bus as |
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|---|--|
| <p>スを第一候補として設計を行った。また、アイデア実験するハードのテストベンチ機能を向上させた。冗長系については、パネルコントローラを各パネルに2台搭載し、その間の情報マネジメントを行う統合器をFPGAで開発するというアーキテクチャを採用することとし、詳細設計開始。また、各系からアノマリーシートを集め、想定される不具合事象の洗出しと対策検討を実施。この情報系および冗長コンセプト妥当性に関しては2006年1月に実施したPDRで外部有識者から高く評価され、このまま進めてよいと指摘された。【構造系】パネル構体に関しては、有限要素法による設計と解析を進め、最初の試作品1枚あたり3kgを704gまで軽量化することに成功。リンクモジュールは従来のヒンジを使う方式をやめ、トーションばねを用いるアイデアを固め試作を始めた。また、バスパネル内の機器配置方針を決定し、いずれのパネルにおいても、30cm四方×厚さ5cmの空間に機器収納が可能であることを確認。【熱系】マグネティックヒートポンプ動作特性の把握を完了しパネル組込設計を始めた。【電力系】電力移送ネットワークをFETベースからリードリレに変更し、設計およびBBM製作を完了。また、バッテリー充放電実験を継続実施し、2000サイクルを超えた耐性を確認。太陽電池はパネル構体への取付け方、直並列化設計を完了し、アルミニウムパネルへの接着技術も獲得。【通信系】シミュレーションベースでミッションデータ用スペクトラム拡散通信系、およびコマンド・テレメトリ(TLM)データ用のBPSK/PM送受信モデムの設計を行った。TLM用アンテナ設計については、アンテナパターンシミュレーションによる解析と試作アンテナ実測を行い、基本設計完了。【制御系】太陽センサ、ホイール、磁気トルカを総合した制御系基本構想ができ、基礎実証モデルに搭載するリアクションホイール試験機の設計を完了し環境試験を実施した。【推進系】30% H₂O₂のモノプロペラントスラストのBBMを完成し、性能確認実験を行った。触媒粒度や保持法が重要技術であることが判明し、効率向上の試作検討を実施。【ミッションパネル】発展実証モデルに搭載すべき次世代型雷センサに関し、高利得増幅器、A/D変換器、およびVHF広帯域容量性アンテナの設計・試作を進めた。また、地上で発生する雷放電に伴い放射される電磁波パルスが、高度数100mの人工衛星に達するまでの電離層伝搬に関する数値シミュレーションを行い、受信される波形再現と位置標定手法検討を行った。基礎実証モデルに搭載予定のBMWについてはEMを完成させバス側との噛み合わせを実施。【基礎実証モデル】2005年12月に実施したCDRで妥当な設計であることが確認され、FM製作を実施。【地上局】移動局を固定局に設置しなおし性能向上を図った。また、東大との地上局ネットワーク構築も実施し、軌道上のCubeSatの電波受信実験を実施し各種パラメータのチューニングを行った。【データ処理技術】地上ベースの雷データ取得およびデータ処理システムの実験を継続した。発雷位置情報は、1時間以内にデータ転送、処理を済ませ公開するに至った。</p> | <p>the first candidate for internal connections. We improved the performance of the test bench which has been developed by last year. Concerning redundant design, we decided to load two sets of Panel Controller in each panel and develop Panel Controller Combiner which manages the two controllers with FPGA technology. Every subsystem has required preparing the anomaly-sheets. With the anomaly-sheets, some mock failures have been thrashed out and some of the measures to be taken have been discussed. The adequacy of the information and redundant design concept has been approved by the external knowledgeable persons in PDR held on January in 2006. The design and analysis of panel structure have been executed with finite element method and the target value of weight has been successfully achieved. Use of torsion springs has been adopted instead of conventional hinges for Link Module. We also determined the policy for internal allocation of bus panels and confirmed that every panel is able to accommodate all local components within W300mm*D300mm*H50mm, the cubic capacity of a panel. We figured out the operating characteristics of Magnetic Heat Pump and started to design of assembling with panel structures. Concerning Power Transfer Network, we decided to use reed relays instead of FET based switches and completed to build BBM. We also continued the experiment of battery charge-discharge behavior and confirmed it at more than 2,000 cycles. In addition, we learned skills to bond solar cells on aluminium plates. Simulation-based design for a spread spectrum communication system to transmit mission data and a BPSK/PM modem for T&C has been executed. The basic design of an antenna for T&C has been executed by simulated antenna pattern analysis with actual measurement of a test model. Basic concept to be integrated sun sensors, reaction wheels and magnetique torquers has been developed. The design of the test model of reaction wheel to be installed on SOHLA-1 has been completed and executed some environmental tests. A BBM with a 30% H₂O₂ mono-properant thuruster has been built and its performance has been confirmed by some experiments. We recognized that granularity and holding of the catalyst are the key issues and started to build a model to improve the efficiency. Concerning lightning sensing system to be installed on SOHLA-2, we developed to design and building prototypes of high-gain amplifier, A/D converter and VHF broadband antenna. We also executed numerical simulation of propagation of microwave pulses emitted from lightning through ionosphere to reach a satellite and we developed methodes to reproduct waveforms and determine its location. The basic design of SOHLA-1 has been conf</p> |
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http://www.tech.nedo.go.jp/servlet/TopPageServlet?KENSAKU=HOKOKUSYO&kensakuHoho=Barcode_Kensaku&db=n&SERCHBARCODE=100007806

平成17年度中間年報 **次世代輸送系システム設計基盤技術開発** ミッション対応設計高度化技術

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| <p>未入力 【編注】 なぜ？</p> | <p>Title : Sophisticated Mission Integration Design Technology Development for Next Generation Transportation System Basic Technologies Development Project (FY2004-FY2006) FY2005 Annual Performance Report All of the following development items that planned for JFY2005 Fiscal Year were accomplished as follows. 1. Development of Sophisticated Mission Integration Design Technology 1) Research and Development of Centralized Information Management Technology for the Mission Integration Design. Detailed design of the Centralized Information Management Technology for the Mission Integration Design: Concerning the mission integration database system, detailed design specifications of the functions to generate parameters used for mission integration design & analysis, was clarified and definitized, and detailed design of the database architecture was carried out. Furthermore, concerning the function to generate verification parameters used for the verification of electrical interfaces between launch vehicle and satellite, the technical specification was definitized. b. Determination of the engineering specification for in-plant test equipment of electrical interfaces: Above-mentioned data generation specification was reflected to the design specification definitization of "In-plant test equipment for electrical interfaces". 2) Development of the assumption technology of analytical information for mission integration using the risk evaluation technique. Specification determination and design of the assumption technology of analytical information for mission integration using the risk evaluation technique: The algorithm to evaluate risk and the optimized-search algorithm to minimize risks, were designed. 3) Verification test of Sophisticated Mission Integration Design Technology. Performance of</p> |
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| | <p>data acquisition test of the Sophisticated Mission Integration Design Technology: A data acquisition test was performed using the optimized-search algorithm, propriety and effectiveness of the algorithm design were confirmed. b. Verification test of the Sophisticated Mission Integration Design Technology: The detail implementation document for verification test was prepared.4) Construction of the software tool and etc. subordinated to the Sophisticated Mission Integration Design Technology a. Construction of the subordinate software tool: Requirement specifications for the subordinate software tool were made. Furthermore, the basic/detailed design for the software was carried out including its partial production.b. Manufacturing of the in-plant test equipment for electrical interfaces: The in-plant test equipment for electrical interfaces was manufactured and required functional performances were verified.2. Investigation and analysis for the development1) Performance of evaluation test for Sophisticated Mission Integration Design Technology: Contents of the evaluation test were studied and the implementation plan for the test was drawn up.3. Opinion or Guidance Gather</p> |
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http://www.tech.nedo.go.jp/servlet/TopPageServlet?KENSAKU=HOKOKUSYO&kensakuHoho=Barcode_Kensaku&db=n&SERCHBARCODE=100007807

平成 17 年度中間年報 **次世代輸送系システム設計基盤技術開発 次世代LNG制御システム技術**

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|-----------------------------|--|
| <p>未入力 [編注] なぜ?</p> | <p>Title : Next Generation LNG Control System Technology Development for Next Generation Transportation System Basic Technologies Development Project (FY2004-FY2006) FY2005 Annual Performance Report All of the following development items planned for JFY 2005 were accomplished as follows.1. Development of the Next Generation LNG Control System Technology1) Development of the software related to Self-Judgment and Autonomous type Launch Vehicle Automatic Check Out System Technologya. Verification of the software of Self-Judgment and Autonomous type Launch Vehicle Automatic Check Out System Technology: Computer software components for "Launch Vehicle Automatic Checkout Software", produced in last fiscal year, were integrated into two software groups, and CSCI (Computer Software Configuration Item) tests for them were executed. Furthermore, they were installed into two avionics control components - Inertial Guidance System (IGS), and Airborne Data Processing Unit (ADPU) - to check software/hardware interface compatibilities. Their compatibilities were verified successfully. 2) Development of the avionics componenta. Assembling and testing of the avionics components: The avionics components to validate the Launch Vehicle Automatic Check Out System have been manufactured through multi-fiscal years. In this fiscal year, manufacturing, assembling and verification tests of IGS, ADPU, and Power Supply & Distribution Box (PSDB) was accomplished except some verification tests to be done later. As for Data Acquisition Unit (DAU), assembling stage was accomplished. 3) Performance of the verification test of the Launch Vehicle Automatic Check Out Systema. Assembling and testing of the test support equipments for the verification test of the Launch Vehicle Automatic Check Out System: As a preparation of verification test, manufacturing of some pieces of test support equipment completed. The other remaining pieces of equipment went through detailed design only.b. Performance of the verification test of the Launch Vehicle Automatic Check Out System: The test implementation plan was prepared.4) Construction of the architecture for the engineering knowledge database on the securing of system safety: Concerning the engineering knowledge database on the securing of system safety, which can be applied to development activities for civil-purpose small scale LNG control systems and rocket control systems, the requirements for specifications were definitized and the database architecture was designed. Furthermore, a functional extension of the database was examined. 2. Study of the potential application to other large-scale systems etc.The feasibility study of potential application to civil-base LNG satellite stations on the ground, which is now increasing to supply NGV's (Natural Gas Vehicles) with evaporated and pressurized natural gas, was performed. Some verification methods by simulation were studied in order to evaluate applicability to LNG satellite stations.3. Opin</p> |
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平成 17 年度成果報告書 **民生部品の衛星利用の標準化に係る調査**

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| <p>平成 11 年度より、NEDO は宇宙産業の国際競争力強化を図るため、我が国が得意とする民生部品・民生技術の衛星適用によるコスト低減及び高機能化を目的とし、民生部品等の衛星適用技術の研究開発(SERVIS プロジェクト)に取組んでいる。既に、平成 15 年 10 月に SERVIS1号機を打上げ、2 年間の宇宙実証に成功。民生部品の衛星利用に関する主課題としては、我が国の民生部品を利用した衛星を内外の顧客に認知して貰うこと及び我が国民生部品メーカーの協力を維持することの2点が挙げられる。この解決には、民生部品の衛星利用に関する国際的な認知を得る仕組みとして国際標準化(ISO)を図り、民生部品適用対象衛星数を拡大し民生部品メーカーの協力も得やすくすることが求められる。本調査では、標準化に向けた本格的調査取組みを開始前に、その事前調査として以下に関する調査検討を行った。先ず宇宙用部品現状を把握するため、日(JAXA)、米(NASA)、欧の宇宙用部品仕様体系について調査。ここに米欧では、既に民生部品の利用に関する指針が発行されている。また、我が国の衛星関連企業の民生部品に関する取組み状況についてアン</p> | <p>Since 1999, to strengthen the Japanese satellite manufacturers' competitiveness in the international market, NEDO has been leading SERVIS project which develop the guidelines for applying commercial parts and technologies to gain cost reduction and higher functions of a satellite. SERVIS-1 satellite which carried several equipments using commercial parts has accomplished 2 years mission successfully. The main subjects in case of applying commercial parts to satellites are to get recognition of the usage by the customers, and to keep the support from domestic commercial parts manufacturers. For the solution, an international arrangement such as ISO standard for the commercial parts usage is required, which may increase the market volume so that the support from commercial parts manufacturers could be gotten easier. In this survey, before to start the study making the ISO standard, we examined the followings as the pre-study. Firstly to understand the situation of space-use-parts, the specifications system of Japan(JAXA), USA(NASA) and Europe has been investigated. Here in NASA and Europe, guidelines for usage of commercial parts have been issued already. And for knowing the condition of domestic satellite manufactures as the usage of commercial parts, a questionnaire survey has been done. As</p> |
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ケート調査を行った。既に各企業とも民生部品に取組んでおり、標準化には肯定的であった。次いで、民生部品衛星利用の標準化に必要とされる、民生部品の選定・評価・衛星適用に関する技術課題及び民生部品調達に関する課題について検討し、課題を明確化するとともに、それらの解決方策の方向性を明らかにした。

the result, each company has already experienced the usage and is affirmative on the ISO standardization. Then, the engineering subjects and solutions as to commercial parts usage in terms of selection, evaluation, and accommodation to satellite have been examined and clarified. So do the subjects and solutions in terms of procurement.

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2006年8月2日 8:12 【CNET Japan 2006年08月02日】

ヤフーとアルプス、「Yahoo!地図情報」の日次更新を開始--地図サイトで日本初

<http://japan.cnet.com/svc/nlt2?id=20187907>

ハレックス、緊急地震速報提供サービス「なまずきん」

<http://japan.cnet.com/svc/nlt2?id=20187188>

NEC フィールドインク、データを暗号化して記録する CD-R メディア

<http://japan.cnet.com/svc/nlt2?id=20187167>

2006年8月1日 7:51 【CNET Japan 2006年08月01日】

JavaScript を悪用した攻撃手法--セキュリティ研究者らが発見

<http://japan.cnet.com/svc/nlt2?id=20185667>

2006年7月31日 8:26 【CNET Japan 2006年07月31日】

警察庁、振り込め詐欺被害者が現金等を送付した住所の一覧表をサイト上で公表

<http://japan.cnet.com/svc/nlt2?id=20184288>

経産省、ネットオークションの不正表示について、違反出品者 ID を公表

<http://japan.cnet.com/svc/nlt2?id=20185007>

S・バルマー氏:「ソフトウェアはサービスへと変化する」

<http://japan.cnet.com/svc/nlt2?id=20183967>

2006年7月28日 7:44 【CNET Japan 2006年07月28日】

東芝とフラッシュメモリ発明者の元社員、8700万円で和解成立

<http://japan.cnet.com/svc/nlt2?id=20183467>

ソフォス、「スパム送信国ワースト12」を発表、ロシアからの送信増加を指摘

<http://japan.cnet.com/svc/nlt2?id=20182547>

JEITA、CATV インフラを活用する緊急地震速報の実証試験、先行運用を開始

<http://japan.cnet.com/svc/nlt2?id=20181767>

2006年7月26日 8:24 【CNET Japan 2006年07月26日】

アマゾン、映像配信事業に参入へ

<http://japan.cnet.com/svc/nlt2?id=20180007>

グーグル、「Google Maps for Mobile」をまもなく発表へ

<http://japan.cnet.com/svc/nlt2?id=20180527>

巨大グラフィックスチップメーカー誕生--AMD の ATI 買収、背景と影響

<http://japan.cnet.com/svc/nlt2?id=20179929>

モトローラとソフトバンク、東京都内における WiMAX の実証実験で協力

<http://japan.cnet.com/svc/nlt2?id=20180487>

つくばエクスプレス列車内無線 LAN インターネット接続トライアル終了、商用化へ

<http://japan.cnet.com/svc/nlt2?id=20180307>

2006 年 7 月 25 日 7:31 【CNET Japan 2006 年 07 月 25 日】

企業や官公庁サイトの半数が重要情報に不正アクセス可能な状態

<http://japan.cnet.com/svc/nlt2?id=20179367>

松下、東大などと共同で、頑健性を高めた顔認証技術を実証実験

<http://japan.cnet.com/svc/nlt2?id=20178847>

AT&T と MetroFi、カリフォルニア州リバーサイドの Wi-Fi 網構築に共同で入札

<http://japan.cnet.com/svc/nlt2?id=20179327>

アダルトサイトから子供たちを守る―米上院が Child Protection and Safety Act を可決

<http://japan.cnet.com/svc/nlt2?id=20178828>

Aerospace Daily & Defense Report Jul 31, 2006

NASA は新しい宇宙服の設計に助けになるデータを集める

NASA gathers data to aid in new spacesuit design

SPACESUITS: NASA has begun gathering test data to aid in the design of new spacesuits for planetary explorers, which will have

to be considerably more comfortable and . . .

スペース・フロンティア財団は Block 1 CEV をスクラップにすることを推奨

Space Frontier Foundation recommends scrapping Block 1 CEV

VISION PROBLEMS: In a sharply critical report on NASA's implementation of its vision for space exploration, the Space

Frontier Foundation recommends that the agency stop all work

イラクに非致死性の武器が使用され得る

Nonlethal weapons could be used in Iraq

NONLETHAL WEAPONS: With the emphasis on restoring order in Baghdad becoming a bigger priority for the Bush Administration

and the Defense Department, the Pentagon is looking for . . .

ESA は宇宙旅行助成金を与える

ESA to award space tourism grants

TOURISM TAKING OFF: European companies with an interest in space tourism may get a little boost from the European Space

Agency (ESA), which intends to award three . . .

上院軍事委員会はボーイングの和解をレビュー予定

Senate Armed Services panel to review Boeing settlement

SETTLEMENT REVIEW: Senate defense authorizers on Aug. 1 will examine the Boeing Co.'s \$615 million "global" settlement

with the government for the Darleen Druyun scandal and improper . . .

Markeys 民主党議員はパキスタンへの F-16 の売却阻止に動く

Markey moves to block F-16 sale to Pakistan

TAKING AIM: Rep. Ed Markey (D-Mass.), co-chairman of the so-called Bipartisan Taskforce on Nonproliferation, introduced a

bill July 27 that would block the Bush administration's proposed sale ...

空軍は士官の階級から 8,000 人を削減予定

Air Force to cut 8,000 from officer ranks

AF CUTS: The Air Force wants to outsource noncombat jobs to contractors in order to spend more on technology and less on

people. So it will cut ...

オーストラリアは潜水艦搭載用水雷と無人機に関して前向きに動く

Australia moves forward on sub torpedo, UAV

Australia is moving forward on two key modernization efforts in which it is cooperating with the U.S. military – the heavyweight

torpedo for the Collins Class submarine ...

SpaceX は Falcon 1 の失敗の教訓を Falcon 9 に生かす

SpaceX applying lessons of Falcon 1 failure to Falcon 9

Fledgling commercial launch provider Space Exploration Technologies (SpaceX) is applying the lessons learned from the

March failure of the first Falcon 1 rocket to the ongoing development ...

ロッキードマーチンはここ数週間内に2機の異なる型の戦闘機をロールアウトさせる計画

Combat aircraft set to be rolled out

ROLLOUTS: Lockheed Martin is scheduled to roll out two different types of combat aircraft in the coming weeks. Gen. Paul

Hester, commander of Pacific Air Forces and ...

ごたごたの末、iRobot は英の Packbots を提供することに

After dispute, iRobot to provide UK PackBots

DISPUTE RESOLUTION: iRobot Corp. said late July 27 that it signed an agreement with the United Kingdom's Defense

Procurement Agency to supply 30 PackBot explosives ordnance disposal ...

下院議員は SBInet(戦略国境構想)ネットの計画の詳細説明をせまる

House lawmakers press for SBInet planning, details

Homeland Security Department Secretary Michael Chertoff said July 27 that his department will finalize the Strategic Border

Initiative's strategic plan by Nov. 1. ...

モニタリング局の較正に成功

Monitoring stations successfully calibrated

U.S. defense officials on July 21 successfully calibrated 21 low-frequency monitoring stations scattered from Texas to

California and as far north as Winnipeg, Canada, designed to detect ...

国産の地理情報システム、外国製品によるシェア独占を打破

電子地図、GPS 全地球測位システム、ケイタイ地図、デジタル都市などで幅広く応用されている地理情報システム(GIS)に対する中国企業の自主開発が順調に進んでおり、現在、国産ソフトの国内市場におけるシェアがすでに 30%を上回り、日本、韓国、インド、アメリカ、フランス、イタリア、香港などの国・地域にも進出しており、この分野における外国製品シェア独占を打破することになった。

中国科学院地理学及び資源研究所の劉紀遠所長によると、前世紀 70 年代末から、中国科学院は率先して地理情報技術の研究と応用に取り組み、地理情報技術の自主革新と産業化の道筋を切開いた。

現在、中国科学院が地理情報技術ソフトの 100%国際化に力を入れている。

伝えられるところによると、中国では、大型プラットフォームとなるソフトからさまざまな応用ソフトまで、GIS ソフト製品トータルシリーズがすでに出来上がっており、GIS ソフト開発と応用に取り組んでいる企業は 1000 社以上に達し、国内 GIS 市場はすでに約 50 億元規模に達している。

2006 年 7 月 26 日 人民網日本語版

月探査機「嫦娥 1 号」、進展は順調 試作機が完成

国際月探査ワーキンググループ(ILEWG)の主催する「第 8 回国際月探査利用会議」が 25 日、初めて北京で開かれた。中国の宇宙開発部門である国家航天局の孫来燕局長(中国国防科学技術工業委員会副主任)は会議で、中国が進める月探査プロジェクト「嫦娥計画」について、第 1 段階に当たる月周回探査プロジェクトが順調に進んでいることを明らかにした。試作機の開発はすでに完了しており、打上げは来年の予定。北京の日刊紙「京華時報」が伝えた。

孫局長は「嫦娥計画」について、次のように説明:

月探査機「嫦娥 1 号」の各部品は、すでに試作機の製作と検査が完了し、システム系の構築やテストの段階に入っている。探査機には、CCD(電荷結合素子)カメラ、レーザ高度計、高エネルギー粒子探測

器など測定機器 7 種類が搭載される予定。月面探査に向けては、月表面を模した 4 種類の模擬地面をつくり、さまざまな条件における月面の明るさ、温度と土壌の厚さとの関係を研究。月面探査では、これらのデータを基に、月面の土壌の厚さと表面物質の電気学的特性を推定する。また、「模擬地面」は、「嫦娥 1 号」の負荷実験や模擬月面実験の試験場建設にも役立てられている。

国際協力について、月探査プロジェクト責任者によると、中国、日本などの国が、今後 2 年以内に 4 つの月探測機を打上げる予定。これらのプロジェクトの間で相互の情報交換を図り、探査内容の重複を避けたい。中国の月探査プロジェクトに関するデータも、適切なルートや提携を通じて、国際社会に公表されることになる。(編集 YS)

2006 年 7 月 24 日 人民網日本語版

月探査の初期投資は 14 億元 07 年打上げへ

中国科学院の院士(科学アカデミー会員)で、中国月探査プロジェクトの首席科学者を務める欧陽自遠氏は 21 日北京で、月探査事業の初期投資額 14 億元について、「決して天文学的数字ではない。北京で地下鉄を 2 キロ敷設する費用とほぼ同額だ」と述べた。新華社が報じた。

欧陽院士はこのほど開かれた第 36 回世界宇宙科学大会で、「月探査にかかる費用は中国の国内総生産(GDP)を考えれば微々たるものだ。それでも、綿密に計画して事業を成功させねばならない」と語っている。

中国の月探査研究は 1960 年に始まった。35 年間の追跡調査と 10 年にわたる総合的な検証を経て、2004 年 1 月、月探査機「嫦娥 1 号」の建造、打上げ、運行にかかる第 1 期投資を 14 億元とする事業計画が国に認可された。

欧陽院士によると、2004 年に衛星設計が終わり、05 年に初のサンプルが完成した。06 年には完成品が出来上がる予定で、07 年中の打上げを目標としている。

また、長期的に見ると、中国の月探査は 3 つの段階に分けられるという。第 1 段階は無人探査機による探査、次に有人宇宙船による探査、そして最後に月面基地の建設になる。中国は現在、第 1 段階を進めているところで、14 億元はその第 1 段階への投資であり、以降の段階にはより多くの資金がつぎ込まれることになる。月面探査事業は中国の「小康社会」(ややゆとりある社会)構築にとって、マイナスではなくプラスの要因だ。

2006年7月23日 人民網日本語版

「宇宙タネ」研究で衛星打ち上げへ 9月上旬

国防科学技術工業委員会は22日、国内初の宇宙育種衛星「実践8号」の完成時審査を行い、同衛星の打ち上げへの使用を承認した。同衛星は9月上旬、酒泉衛星打上げセンタからキャリアロケット「長征2号丙」で打上げられる。15日後に地上へ帰還する予定。「実践8号」による研究では、十分な実績を誇る中国の帰還型衛星技術と、遺伝子変異誘発技術とを駆使する。宇宙育種の研究を掘

下げるとともに、地上で行われたシミュレーション環境での実験とも照し合わせながら、宇宙育種技術のメカニズム、方法、理論を模索し、優良種の開発を目指す。(編集 UM)

Aerospace Daily & Defense Report Jul 27, 2006

SpaceXは次のFalcon 1の飛行のための変更を発表

SpaceX announces changes for next Falcon 1 flight

Space Exploration Technologies (SpaceX) is implementing a series of design and process changes intended not only to

prevent the corrosion problem that brought down the first Falcon ...

罰金によってボーイングは第2四半期の損失をあげる予定

Penalties cause Boeing to report second-quarter loss

One-time penalties related to its troubled Wedgetail Airborne Early Warning and Control (AEW&C) program helped plunge

Boeing to a \$160-million net loss for the second quarter, despite

ISR(情報収集監視偵察)の必要性が中近東で高まる

ISR demand grows in Middle East

Demand is growing in the Middle East for intelligence, surveillance and reconnaissance (ISR) platforms, especially

unmanned aerial vehicles (UAVs), to handle operations in Iraq, Lebanon and Israel.

ボーイングは税の和解の部分を削除はしない

Boeing won't write off part of tax settlement

The Boeing Co., which agreed to a \$615 million settlement with the federal government regarding the Darleen Druyun scandal

and possession of proprietary rocket data from competitor ...

ブッシュ大統領はHopkins氏を防衛長官のアシスタントに指名予定

President to name Hopkins for acting defense post

ACTING ASSISTANT: President Bush intends to designate Arthur T. Hopkins to be acting assistant to the secretary of

defense for nuclear, chemical and biological defense programs, the

イリジウム経営報告では加入者数、売上が増加

Iridium reports growth in subscribers, revenue

Iridium Satellite LLC reported July 24 that by the second quarter of 2006 its subscriber base had increased by 25.4 percent and its

revenues by 31.4 percent ...

NASA AmesとAirLaunch社は小型宇宙システムのパートナーになる

NASA Ames, AirLaunch partner on small space systems

NASA announced July 26 that it has signed a memorandum of understanding (MOU) with AirLaunch LLC of Kirkland, Wash., to

explore collaborations in space launch systems and ...

Aerospace Daily & Defense Report Jul 26, 2006

F-22 の複数年次購入計画は\$1.7B の費用になると GAO は発言

F-22A multiyear purchase plan could cost \$1.7 billion, GAO says

The Pentagon plan to save \$225 million by spreading the procurement of 60 F-22A Raptors over three years could

actually wind up costing taxpayers as much as ...

UAV は現在は国境のセキュリティの推進に含まれていない

UAVs not now included in border security push

The Bush administration's dramatic increase in border security does not include unmanned aerial vehicles (UAVs) for now and

may be able to call upon only one of ...

レイセオンはギリシャのF-16の電子戦のセットの契約を得る

Raytheon gets contract for Greek F-16 EW suite

Raytheon has won a \$96 million contract to provide additional advanced self-protection integrated electronic warfare (EW)

suites for F-16s in Greece, the Air Force announced July 21. ...

議会の電子戦のワーキンググループはEC-130の予算化と支援を推進

EW working group pushes for EC-130 funding, support

The Congressional Electronic Warfare (EW) Working Group is pushing hard to make sure Air Force EC-130 Compass Call

aircraft get the support and funding the service wants. ...

救難団の司令官はCSAR-X, CRT-Xの必要性を軽く見る

Rescue wing commander underscores need for CSAR-X, CRT-X

The commander of the 920th Rescue Wing at Patrick Air Force Base in Florida, which was involved in the Hurricane Katrina

rescue effort, underscored the need for ...

防空隊の長は海外販売と宇宙ミッションをもち上げる

Air Guard chief touts foreign sales, space missions

The Air National Guard (ANG) should expand its operations in foreign military sales training and space missions, Air Force Lt.

Gen. Craig R. McKinley, the new director ...

ロッキードマーチンは第2四半期の経常利益が26%増加

Second quarter net earnings up 26% at Lockheed Martin

Net earnings jumped 26 percent for Lockheed Martin Corp. in the second quarter of 2006 and 41 percent for the year to date, the

company said July ...

DARPA は代替ジェット燃料計画で企業に説明会

DARPA briefing industry on alternative jet fuel program

The Defense Advanced Research Projects Agency (DARPA) on July 25 plans to discuss its new effort to develop a "biofuel" for

military aviation that will help reduce . . .

国防総省はレバノンに供給品の輸送を開始

Pentagon begins airlift of supplies to Lebanon

The Pentagon is shifting its focus to airlifting supplies to Lebanon and relying on fast maritime ferries now that there's a

greater demand for providing humanitarian aid . . .

アトランティスは8月のケネディ・スペース・センタでの打上げに向けて進展

Atlantis advancing toward August Kennedy launch

The shuttle orbiter Atlantis is set for rollout to Launch Complex 39B as early as July 31, following its transfer from the Kennedy

Space Center Orbiter Processing . . .

アルジェリアと英国が2国間協定で合意

Algeria, U.K. sign bilateral accord

BILATERAL AGREEMENTS: After signing bilateral agreements with France, Russia and Argentina, Algeria has inked another

accord with the United Kingdom. A motivating factor on the British side . . .

オービタル、ロケットプレーン・キスラーは戦略パートナーシップを発表

Orbital, Rocketplane Kistler announce strategic partnership

COTS PARTNERS: Orbital Sciences Corp. and Rocketplane Kistler announced July 24 that they have entered into a strategic

relationship to pursue NASA's Commercial Orbital Transportation System (COTS) . . .

中国は種を搭載した衛星の打上げを計画中

China planning launch of seed-carrying satellite

China is planning a September launch of a recoverable satellite carrying seeds to see how their exposure to space radiation and

cosmic rays affect growth and productivity . . .

NASA とレイセオンは MPOESS のデータ転送試験を実施

NASA, Raytheon perform NPOESS data transfer test

NASA and Raytheon successfully completed a 12-day data transfer and system compatibility test for the National

Polar-orbiting Operational Environmental Satellite System (NPOESS) Preparatory Project (NPP), the company . . .

陸軍の予備軍航空隊は山火事の消火支援を行なう

Army National Guard air units help fight wild fires

FIREFIGHTING: The Nebraska Army National Guard has deployed 57 people, a UH-60 Black Hawk helicopter and a CH-47 Chinook

helicopter to help fight wildfires in Valentine, Neb., . . .

ロッキードマーチンは別の GPS 代替衛星の製造を完了

Lockheed Martin finishes another GPS replacement spacecraft

Lockheed Martin has completed the fifth of eight planned Global Positioning System IIR-M replacement spacecraft, with the

second in the series set for a Sept. 14 launch. . . .

英国空軍が ASTOR 監視用エアボーン長距離レーダを搭載

RAF aircraft fitted with airborne standoff radar

The British air force's airborne standoff radar (ASTOR) program passed its halfway mark recently when the third of five aircraft

was fitted with its surveillance radar. . . .

July 20, 2006 Space Observer p12 原文は <http://www.space-library.com/> の 5.1 航空宇宙関連 新聞、雑誌から該当紙をダウンロード可

[編注] 我が自衛隊はここに出てくる **67th Network Warfare Wing** みたいなのは当分計画にもないでしょうか？

空軍の新組織はサイバースペースでの優勢をもたらす

New wing brings Air Force dominance to cyberspace

By Staff Sgt. Shad Eidson Air Force Print News

The Air Force consolidated the responsibilities of its network operations security centers under one wing during a ceremony July 7 at Lackland Air Force Base, Texas.

The change is intended to give the Air Force an advantage over America's enemies and achieve tactical dominance on the newest battlefield ÷ **cyberspace**.

That took place when the 67th Information Operations Wing was redesignated the **67th Network Warfare Wing**.

The change will better support the Air Force mission to "deliver sovereign options for the defense of the United States of America and its global interests ÷ **to fly and fight in air, space and cyberspace**," said Lt. Gen. Robert Elder Jr., 8th Air Force and Air Force Network Operations commander.

"The Air Force established the **67th Network Warfare Wing** to have an organization solely focused on ensuring that our networks are able to operate in time of peace and war and to have the capability to deal with potential adversaries who may be trying to exploit our networks," the general said.

The wing falls under the newly-created Air Force Network Operations Command, which stood up July 5 at Barksdale Air Force Base, La.

The change is part of a larger reorganization of Air Force network operations structure designed to better support the warfighter by placing all Air Force units charged with network operations under a single commander.

Photo by Master Sgt. Jack Braden

Lt. Gen. Robert Elder presents Col. Kathryn Gauthier with the 67th Network Warfare Wing's guidon during the unit's redesignation ceremony July 7. General Elder is the 8th Air Force and Air Force Network Operations commander. The wing will oversee the change of the NOSC's at Langley AFB, Va., and Peterson Air Force Base. These two centers will centralize the Air Force's remaining eight centers into the network command.

"I-NOSC's consolidate Air Force (major command) network boundary control and defense," said Capt. Carlos Carrillo, deputy commander for the 561st Communications Squadron at Peterson. The 561st is the INOSC West.

Before the change, each MAJCOM was responsible for configuring and maintaining network firewalls, proxy servers, and defending their respective networks, Captain Carrillo said.

"Consolidating these activities makes perfect sense not only for fiscal reasons but for security reasons as well," he said.

"Previously, each MAJCOM was for the most part free to configure and allow any type of traffic to traverse their respective networks." The lack of standard configurations created an operational environment in which each MAJCOM could be more or less permissive and secure than the next MAJCOM, he said. "Non-standard network processes and configurations have the potential to impact Air Force network operations since we're only as strong as our weakest link," Captain Carrillo said. "Consolidating network processes and activities under a single commander provides us the golden

opportunity to strengthen our network borders, gain efficiencies, and ensure our warfighters have access to the right information

at the right time.”

Aug 12 2006 **Space News** <http://www.space.com/spaceneews/>

NASA は DSN 深宇宙ネットが壊れたことを補償するために緊急会合

NASA Scrambling to Compensate for Deep Space Network Breakdown

NASA project managers are meeting daily to figure out how to avoid losing mission data from the Mars Reconnaissance Orbiter (MRO) and the Cassini spacecraft as a result of a longer than

planned shutdown of one of the three antennas that comprise Deep Space Network (DSN), agency officials said today.

Telesat の株式上場計画は予定通りに進行

Telesat Stock Offering On Track

PARIS — Bell Canada Enterprises’ plans for an initial stock offering of up to 49 percent of satellite-fleet operator Telesat this year are on track and will not be slowed by the Canadian

government’s decision to license up to 29 satellite orbital positions for advanced telecommunications services, BCE officials said Aug. 2.

Finmeccanica は Avio 社の普通株を保有継続

Finmeccanica To Keep Its Equity in Avio

PARIS — Italy’s Finmeccanica will seek to maintain an ownership stake in aerospace-propulsion specialist Avio S.P.A. even if Avio’s majority owner, the Carlyle private-equity investment

company, succeeds in selling its Avio shares, Rome-based Finmeccanica said.

Rocket は韓国の高分解能画像衛星を打上げ

Rocket Launches High-Resolution Korean Imaging Satellite

PARIS — South Korea became the newest member of the club of nations with their own high-resolution optical reconnaissance satellite with the July 28 launch of its Kompsat-2 satellite

aboard a Rocket vehicle from northern Russia’s Plesetsk Cosmodrome.

ドニエプル打上げ失敗

Dnepr Launch Fails

MOSCOW — A Russian Dnepr rocket carrying multiple payloads crashed July 26 shortly after takeoff from the Baikonur

Cosmodrome in Kazakhstan.

EADS スペースは利益、売上げ増加を報告

EADS Space Reports Higher 2006 Profits, Revenues

PARIS — EADS’ Space division reported sharply higher revenues and pretax profit for the six months ending June 30, with the Astrium satellite division, Ariane 5 rocket work and the military

satellite services division all driving the increase, parent company EADS reported July 27.

ボーイングは和議のためお税控除を断る予定

Boeing To Decline Tax Deduction for Settlement

PARIS — Boeing will refuse to take a tax deduction for its \$615 million settlement with the U.S. Justice Department in hopes of sending a message to employees and customers that Boeing will

“accept accountability” for its actions, Boeing Chairman Jim McNerney said July 26.

Connexion の打切りはボーイングに\$350M の損金処理になろう

Closing Connexion Would Cost Boeing \$350 Million Write-off

PARIS — A Boeing decision to shut down its Connexion service, a satellite link provided to participating airlines who use it to give passengers Internet connections while in flight, could result in a charge of up to \$350 million for the second half of this year but

would add up to 15 U.S. cents to Boeing’s per-share profit starting in 2007, Boeing Chief Financial Officer James Bell said July 26.

France Telecom は Mobile Satcom 部門を売却する

France Telecom Sells Mobile Satcom Unit

PARIS — France Telecom is selling its mobile satellite communications division to private-equity investors led by Apax Partners for 60 million euros (\$76 million), a transaction that

could speed up consolidation among Inmarsat service distributors, France Telecom announced July 24.

Metop-A 打上げは9月にずれる

Metop-A Launch Delayed Until September

PARIS — The launch of Europe’s Metop-A polar-orbiting weather satellite likely will be delayed until early September to give Russian Soyuz rocket launch teams time to resolve the

issues that stopped a July 19 launch attempt three minutes before liftoff, the chief executive of the French-Russian joint venture that markets the Soyuz rocket said July 21.

July 31 – Aug. 6, 2006 [Sat News](http://www.satnews.com/) <http://www.satnews.com/>

ボーイングは重要な WGS 軍事通信衛星の地上互換性テストを完了

Boeing Completes Critical Wideband Gapfiller Satellite Ground Compatibility Tests

<http://www.satnews.com/stories2006/2960.htm>

Boeing Co. [NYSE: BA] announced on July 27 its Wideband Gapfiller Satellite (WGS) program has successfully completed two more key space-to-ground compatibility tests with partners Universal Space Network (USN) and ITT Industries. Boeing said the joint tests, conducted at the Boeing Satellite Development

Center in El Segundo, Calif., proved the interoperability between the satellite and two key ground control systems used during orbital operations. Boeing and USN demonstrated the compatibility between the satellite’s telemetry, command and ranging systems and USN’s ground network.

NASA は小型衛星開発に AirLaunch 社を選定

NASA Taps AirLaunch LLC for Small Satellite Development

<http://www.satnews.com/stories2006/2959.htm>

NASA announced on Wednesday it has signed a memorandum of understanding with AirLaunch LLC, Kirkland, Wash., to explore collaborations in space launch systems and payloads launched from aircraft. NASA Ames Research Center, Moffett Field, Calif., is seeking partnerships to promote the development of a robust

commercial space industry to benefit and support NASA’s exploration, science and aeronautics mission goals. Development of small spacecraft is a primary focus of NASA Ames and it is developing a ‘skunk works’ to build small satellites that cost less than \$250 million.



\$500M の NASA の COTS プログラムで Rocketplane Kistler 社と Orbital Sciences 社は連携する

Rocketplane Kistler Partners with Orbital Sciences for \$500-M NASA COTS Program

<http://www.satnews.com/stories2006/2957.htm>

Rocketplane Kistler (RpK) and Orbital Sciences Corporation (NYSE:ORB) announced on July 24 that they have entered into a strategic relationship to support the NASA's Commercial Orbital Transportation Services (COTS) program and other applications of RpK's innovative space transportation system. Orbital said it

will join the RpK industrial contractor team with supporting responsibility for program management, systems integration, launch operations, and safety & mission assurance. David Low, Orbital vice president, will lead Orbital's effort.

Apax Partners は France Telecom モバイル衛星通信社を\$76M で買収予定

Apax Partners to Acquire France Telecom Mobile Satellite Communications for \$76.32-M

<http://www.satnews.com/stories2006/2963.htm>

France Telecom announced on July 24 it has signed an agreement to sell its entire stake in France Telecom Mobile Satellite Communications SA to investment funds managed by Apax Partners SA for \$76.32 million (60 million Euros). No reason was provided why France Telecom was getting out of satellite communications business but many observers say FTMSC was

being sold for a bargain-basement price. FTMSC is one of the world's largest mobile satellite communications providers, marketing and distributing communications solutions for customers based in areas with limited access to terrestrial telecoms infrastructure.

ロシアのロケットが打上げ失敗で衛星 18 機が失われた

18 Satellites Lost as Russian Rocket Crashes

<http://www.satnews.com/stories2006/2962.htm>

A Russian Dnepr rocket carrying 18 satellites crashed on take-off from the Baikonur Cosmodrome in Kazakhstan on July 26. Reports say the rocket failed and crashed to the ground shortly after lift-off, in the process destroying a Russian satellite and 17 foreign satellites, including one from Belarus, and the rest

from other countries like US and Italy. Among the satellites destroyed were more than a dozen CubeSat microsattellites, which were created by ten universities around the world. These satellites were supposed to have been orbited at 500-600 kilometers above Earth, officials said.

ロッキードの宇宙システム部門は第2四半期に 29%の売上げ増加を報告

Lockheed's Space Systems Unit Reports 29% Rise in 2Q 2006 Sales

<http://www.satnews.com/stories2006/2958.htm>

Lockheed Martin Corporation (NYSE:LMT) Space Systems unit has reported an increase of 29 percent in net sales to \$2.101 billion for the second quarter 2006 compared to \$1.626 billion for the same period last year. The unit's Operating profit also rose

to \$189 million for the quarter compared to \$146 million last year. Net sales has now risen by 24 percent for the first six months of 2006 to \$4.07 billion compared to net sales of \$3.288 billion for the 2005 period. Operating profit rose to \$382 million for the first

half of the year compared to \$299 for the same period last year.

JCSAT-10、Syracuse 3B は8月 11 日の打上げに向けて最終チェック中

JCSAT-10, Syracuse 3B Undergo Final Checkout; Launch Set for August 11

<http://www.satnews.com/stories2006/2961.htm>

JSAT Corp.'s JCSAT-10 satellite has completed its fueling process marking another step in the spacecraft's pre-launch checkout for Ariespace's upcoming Ariane 5 dual payload heavy-lift mission. Liftoff of the Ariane 5 ECA with JSAT-10 and Syracuse 3B remains on schedule for August 11, according to Ariespace. JSAT-10's fueling occurred in the Ariespace's S5A hall of the Spaceport's large S5 payload preparation facility, which is designed to allow multiple satellites to be processed in parallel.



衛星市場による災害復興とビジネス継続が上向き、で 2010 年までに\$469M に達する見込み、NSR 社予測

Disaster Recovery and Business Continuity via Satellite Market Up, to Reach \$469-M by 2010 According to NSR

<http://www.satnews.com/stories2006/2964.htm>

The awareness of communication needs in times of disasters has reached perhaps an all-time high worldwide. This has resulted in a higher uptake of satellite products and services for business continuity, a market that is expected to reach \$469 million by 2010 according to new market survey report released by

research firm NSR. NSR said three major events in the last five years have resulted in public outcry focusing on the insufficient preparation of response agencies with respect to communications means.

Lockheed Martin Press Releases <http://www.lockheedmartin.com/wms/findPage.do?dsp=fnc&ti=111>

ロッキードマーチンは空軍の Angels ナノサット計画の契約を得る

August 02, 2006 Lockheed Martin Awarded Air Force Contract For Angels Nanosatellite Program

<http://www.lockheedmartin.com/wms/findPage.do?dsp=fec&ci=17812&rsbci=0&fti=111&ti=0&sc=400>

ANGELS = Autonomous Nanosatellite Guardian Evaluating Local Space

ロッキードマーチンはアドバンスト軍事通信計画の衛星構体 2 号機を納入

August 02, 2006 Lockheed Martin Delivers Second Spacecraft Structure For Advanced Military Communications Program

<http://www.lockheedmartin.com/wms/findPage.do?dsp=fec&ci=17810&rsbci=0&fti=111&ti=0&sc=400>

ロッキードマーチンは、ERAMSS 距離延伸化アドバンストマルチセンサ・システムの開発契約を得る

August 01, 2006 Lockheed Martin Receives Contract to Develop Extended Range Advanced Multi-Sensor System

<http://www.lockheedmartin.com/wms/findPage.do?dsp=fec&ci=17808&rsbci=0&fti=111&ti=0&sc=400>

ロッキードマーチンの ATLAS V は月偵察オービタの打上げに選定された

July 28, 2006 LOCKHEED MARTIN'S ATLAS V SELECTED TO LAUNCH LUNAR RECONNAISSANCE ORBITER

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

ボーイングが通信実証は TSAT ネットワークの重要要素の妥当性を証明

Aug. 1, 2006 Boeing Laser Communications Demonstration Validates a Critical Element of TSAT Network

http://www.boeing.com/news/releases/2006/q3/060801a_nr.html

ボーイングは重要な WGS 軍事通信衛星の地上互換性テストを終了

Jul. 27, 2006 Boeing Completes Critical Wideband Gapfiller Satellite Ground Compatibility Tests

http://www.boeing.com/news/releases/2006/q3/060727c_nr.html

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

AstroExpo.com <http://www.astroexpo.com/News/TopNews.asp>

7/22/2006 – 7/28/2006

Business News

NASA は小型衛星開発で Airlaunch 社とパートナーを組むことに

7/27/2006 – NASA to Partner with Airlaunch LLC on Small Satellite Development

<http://www.astroexpo.com/news/newsdetail.asp?ID=26825&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 26, 2006 – NASA announced today that it has signed a memorandum of understanding with AirLaunch LLC, Kirkland, Wash., to explore collaborations in space launch systems and

payloads launched from aircraft. NASA Ames Research Center, Moffett Field, Calif., is seeking partnerships to promote the development of a robust commercial space industr –

NASA はコンスタレーション・プログラムのスタディ契約を行なう

7/27/2006 – NASA Awards Contracts for Constellation Program Study

<http://www.astroexpo.com/news/newsdetail.asp?ID=26841&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 26, 2006 – NASA has awarded a 90-day study contract to four space-related companies to separately examine long-term ground processing and infrastructure planning for the agency's

Constellation Program. The contractor teams are expected to provide a wealth of knowledge and experience during the study phase to support ground systems and opera

西テキサスのスペースポートの計画は前進

7/26/2006 – West Texas Spaceport Plans Moving Forward

<http://www.astroexpo.com/news/newsdetail.asp?ID=26819&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

7/23/06 – /FSRI/ – An environmental study facing scrutiny this week offers a tantalizing glimpse into the secretive West Texas private spaceport project being bankrolled and developed by

Amazon.com founder Jeff Bezos. Under the banner of a Seattle-area company called Blue Origin, a spacecraft dubbed the New Shepard Reusable Launch Vehicle would

オービタルとロケットプレーン・キスラーは戦略的パートナーシップを結ぶことを発表

7/25/2006 – Orbital And Rocketplane Kistler Announce Strategic Relationship

<http://www.astroexpo.com/news/newsdetail.asp?ID=26782&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

Oklahoma City, OK, July 24, 2006 – Rocketplane Kistler (RpK) and Orbital Sciences Corporation (NYSE: ORB) announced today that they have entered into a strategic relationship to support

the NASA COTS program and other applications of RpK's innovative space transportation system. Orbital will join the RpK industrial contractor team with supportin

米国の企業が\$35M でスペースウォークを提供

7/25/2006 – US firm offers spacewalks for US \$35m

<http://www.astroexpo.com/news/newsdetail.asp?ID=26788&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 25, 2006 – /China Daily/ – You don't have to be an astronaut anymore to experience walking in space. All you need is US\$35 million and the willingness to risk your life. A private

Virginia firm that already has sent three super-rich men to the international space station for US\$20 million each announced last Friday it would offer an even r

International Space News

エンジンシャットダウンがロシアのロケットの事故の原因に

7/27/2006 – Engine shutdown caused Russian rocket crash

<http://www.astroexpo.com/news/newsdetail.asp?ID=26840&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

MOSCOW, July 27 (RIA Novosti) – The crash of a Russian carrier rocket in Kazakhstan shortly after a liftoff from the Baikonur space center occurred due to a first stage engine

shutdown, the space agency said Thursday. "During the launch of a Dnepr carrier rocket, which was to have orbited 18 Russian and foreign-made [mini-] satellites, the rock

中国の科学者は月ミッションに備える

7/26/2006 – Chinese scientists prepare for mission to the moon

<http://www.astroexpo.com/news/newsdetail.asp?ID=26804&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

BEIJING, July 26 –/China Daily/– Chinese scientists are assembling, integrating and testing to ensure that the mission of the nation's first lunar explorer, Chang'e-1, goes smoothly, a top

space official said yesterday. "Fundamental development has been achieved in all five related systems ranging from the satellite, the rocket, tracking an

CCLRC と PPARC は統合されて新しい委員会/協議会に

7/25/2006 – CCLRC and PPARC to form new Large Facilities Research Council

<http://www.astroexpo.com/news/newsdetail.asp?ID=26793&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

25 July 2006 – The Department of Trade and Industry has announced that the Government has decided to create a new Large Facilities Council merging the Council for the Central

Laboratory of the Research Councils [CCLRC] and the Particle Physics and Astronomy Research Council [PPARC] following the 'Next Steps' consultation exercise. The Government ai

中国は最初の育種衛星を9月に打上げ予定

7/25/2006 – China to Launch First Breeding Satellite in September

<http://www.astroexpo.com/news/newsdetail.asp?ID=26787&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 23, 2006 – China will launch its first satellite for breeding plant seeds in September at the Jiuquan Satellite Launch Center, said official sources on Saturday. The satellite will make a

15-day space flight, said officials with the Commission of Science, Technology and Industry for National Defense. A conference was held Saturday to

ロシアと中国は共同の月研究計画の話合いをもつ

7/24/2006 – Russia, China hold talks on joint lunar research programme

<http://www.astroexpo.com/news/newsdetail.asp?ID=26763&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

BEIJING, July 21 (Itar-Tass) – Inter-governmental commissions of Russia and China are holding talks on a joint programme of Moon exploration using probes, a senior official of the Russian

Federal Space Agency (Roskosmos), Nikolai Sanko, said. Sanko, the chief of Roskosmos' department of basic space research, attends the 36th congress of the Com

Launch News

EADS SPACE が製作した HOT BIRD 8 が Eutelsat 向けに打上げ準備完了

7/28/2006 – EADS SPACE-built HOT BIRD 8 ready for launch for Eutelsat

<http://www.astroexpo.com/news/newsdetail.asp?ID=26850&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

Baikonur, 28 July 2006 – Eutelsat's HOT BIRD 8 broadcast satellite is being prepared in Baikonur for an ILS Proton Breeze M launch scheduled for 4 August at 21:48 GMT (03:48 Aug 5 in

Baikonur). Based on EADS SPACE's Eurostar E3000, HOT BIRD 8 is the most powerful satellite ever ordered to serve Europe. The new satellite will join Eutelsat's HOT

韓国の衛星を搭載したロシアのロケットが打上げられた

7/28/2006 – Russian rocket with S.Korean satellite launched

<http://www.astroexpo.com/news/newsdetail.asp?ID=26853&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

MOSCOW, July 28 (RIA Novosti) – A Russian rocket carrier rocket with a South Korean satellite was launched from a site in northern Russia Friday, the space agency said. Russia's Federal

Space Agency said the Rokot carrier-rocket with a Briz-KM booster, carrying a **Kompsat-2** earth remote-sensing satellite built under Korean Aerospace Research Inst

Rockot は KOMPSAT-2 の打上げ成功

7/28/2006 – Rockot Successfully Launches KOMPSAT-2

<http://www.astroexpo.com/news/newsdetail.asp?ID=26856&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

Rockot Successfully Launches KOMPSAT-2 Bremen/Plesetsk, 28th July 2006: Eurokot Launch Services GmbH successfully launched the Korean KOMPSAT-2 satellite today at 07:05 hrs

am UTC (11:05 hrs am local time Plesetsk) from Plesetsk Cosmodrome in Northern Russia. The Russian launch vehicle Rockot deployed the earth observation satellite of the K

M-V ロケット 7 号機の打上げ

7/26/2006 – Launch of M-V Launch Vehicle No. 7

<http://www.astroexpo.com/news/newsdetail.asp?ID=26822&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 26, 2006 – The Japan Aerospace Exploration Agency (JAXA) would like to announce that we have reported the launch schedule of the 22nd scientific mission satellite "SOLAR-B" by

the M-V Launch Vehicle No. 7 to the Space Activities Commission (SAC) as follows. (Dates and time are Japan Standard Time.) Scheduled date of launch : September 2

ロシアの打上げロケットは衛星 18 機を軌道に投入予定

7/26/2006 – Russian space rocket to deploy 18 spacecraft into orbit

<http://www.astroexpo.com/news/newsdetail.asp?ID=26809&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

MOSCOW, July 26 (Itar-Tass) – A carrier rocket Dnepr (Dnieper), converted for civilian uses from a ballistic missile, is to be launched from Baikonur cosmodrome late on Wednesday to

deploy 18 spacecraft of various purpose into low-earth orbits. "The so-called cluster launch is scheduled for 23:43 Moscow time," a Roscosmos (Federal Space Agency) off

Program News

NASA の宇宙探査システムの進捗レポート

7/28/2006 – [NASA Exploration Systems Progress Report](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26852&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 27, 2006 – NASA engineers around the country recently completed tests associated with rocket engines, heat protection systems and spacesuits destined for use in the Constellation

Program of moon and Mars missions. Engineers at NASA's Marshall Space Flight Center, Huntsville, Ala., completed an early step in developing the upper-stage rocket

NOAA の研究者は月探査コンセプトを海面上でテストするため宇宙飛行士に加わる

7/25/2006 – [NOAA Researcher Joins with Astronauts to Test Moon Exploration Concepts on the Seafloor](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26798&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 21, 2006 – To pursue similarities in ocean and lunar exploration technologies, a NOAA ocean researcher will team with three astronauts from July 22 to 28, on a mission to

Aquarius, NOAA's undersea laboratory off the coast of Florida. Karen Kohanowich, NOAA program manager for Aquarius, will join mission leader Astronaut Koichi Wakata of th

JAXA は高価な M-5 ロケットを 2007 年度に置換え予定

7/24/2006 – [JAXA to replace expensive M-5 rockets in fiscal 2007](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26770&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 22, 2006 – The Japan Aerospace Exploration Agency will stop producing M-5 solid-fuel rockets and replace them with cheaper ones in the next fiscal year, JAXA officials said

Thursday. JAXA has determined the M-5 capabilities and price tag are excessive. The M-5 can put satellites of up to 1.8 tons into orbit at a height of 250 km and a cost

SOFIA プロジェクトは開始の承認を得る

7/24/2006 – [SOFIA Project Gets Green Light for Go-Ahead](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26760&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

Flying Astronomical Telescope Aces Key Test COLUMBIA, Md., July 21 /PRNewswire/ -- A major project of NASA and the German aerospace agency DLR to build an airborne astronomical

observatory received a go-ahead to complete the nearly finished effort. Meanwhile the project continues to pass crucial milestones in its development. Called t

SMART-1 は近月点を上げるマヌーバに成功

7/24/2006 – [Successful Perilune Raising Manoeuvres](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26776&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

SMART-1 Report for Period 19 June to 16 July 2006 24 Jul 2006 – The main activity during the reporting period has been the perilune raising manoeuvres using the attitude thrusters. The

manoeuvres started as planned on 19 June. Due to the spacecraft's good performance, the necessary delta-V to boost SMART-1's orbit was achieved earlier than plan

Science and Exploration News

氷の中の宇宙塵は地球の昔の気候の解明の鍵に

7/28/2006 – [Cosmic dust in ice cores sheds light on Earth's past climate](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26851&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

27-Jul-2006 - The Earth Institute at Columbia University--Each year nearly 40,000 tons of cosmic dust fall to Earth from outer space. Now, the first successful chronological

study of extraterrestrial dust in Antarctic ice has shown that this amount has remained largely constant over the past 30,000 years, a finding that could help refine efforts to - ...

どこに超質量をもったブラックホールが隠れているか？

7/27/2006 - [Where are the supermassive black holes hiding?](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26843&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

26 July 2006 - European and American scientists, on a quest to find super-massive black holes hiding in nearby galaxies, have found surprisingly few. Either the black holes are better hidden

than scientists realised or they are lurking only in the more distant universe. Scientists are convinced that some super-massive black holes must be hiding - ...

古いパルサー 新しいトリック: Max Planck 研の科学者はどのように中性子星が X 線放射を行なうかの洞察を得る

7/26/2006 - [Old Pulsars - New Tricks: Max Planck scientists gain insights into how neutron stars produce X-radiation](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26801&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 25th, 2006 - The super-sensitivity of ESA's XMM-Newton X-ray observatory has shown that the prevailing theory of how stellar corpses, known as pulsars, generate their X-rays needs

revising. In particular, the energy needed to generate the million-degree polar hotspots seen on cooling neutron stars may come predominately from inside the pulsar, - ...

タイタンの湖

7/26/2006 - [Lakes on Titan](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26814&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 24, 2006 - The Cassini spacecraft, using its radar system, has discovered very strong evidence for hydrocarbon lakes on Titan. Dark patches, which resemble terrestrial lakes, seem to be

sprinkled all over the high latitudes surrounding Titan's north pole. Scientists have speculated that liquid methane or ethane might form lakes on Titan, p - ...

NASA は CLIPSO 宇宙機からの初画像を公表

7/25/2006 - [NASA Releases Initial Images From CALIPSO](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26784&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

July 24, 2006 - The Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation spacecraft known as CALIPSO is returning never-before-seen images of clouds and aerosols, tiny particles

suspended in the air. These new images are revealing the secrets of how clouds and aerosols form, evolve and interact with the atmosphere. CALIPSO's first - ...

UCLA の科学者は 38 億年以上前の生命の証拠事例を報告

7/24/2006 - [UCLA scientists strengthen case for life more than 3.8 billion years ago](#)

<http://www.astroexpo.com/news/newsdetail.asp?ID=26759&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

21-Jul-2006 - Ten years ago, an international team of scientists reported evidence, in a controversial cover story in the journal Nature, that life on Earth began more than 3.8 billion years

ago--400 million years earlier than previously thought. A UCLA professor who was not part of that team and two of the original authors will report in late July - ...

Technology News

プラット&ホイットニーロケットダインは世界初のクローズドループ炭化水素燃料の超音速推進システムのマッハ 5 の試験を完了

7/28/2006 – Pratt & Whitney Rocketdyne Completes Mach 5 Testing of World's First Closed-Loop Hydrocarbon-Fueled Hypersonic Propulsion System

<http://www.astroexpo.com/news/newsdetail.asp?ID=26863&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

CANOGA PARK, Calif., July 27 /PRNewswire/ -- Pratt & Whitney Rocketdyne (PWR), a business unit of United Technologies Corp. (NYSE: UTX), has completed testing of its hypersonic Ground Demonstrator Engine No. 2 (GDE-2) at

NASA's Langley Research Center in Virginia. This is the first time that a closed-loop hydrocarbon-fueled scramjet propulsion - ...

ボーイングは重要な WGS 軍事通信衛星の地上互換性テストを終了

7/28/2006 – Boeing Completes Critical Wideband Gapfiller Satellite Ground Compatibility Tests

<http://www.astroexpo.com/news/newsdetail.asp?ID=26849&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

ST. LOUIS, July 27, 2006 -- The Boeing Company [NYSE: BA] today announced its Wideband Gapfiller Satellite (WGS) program has successfully completed two more key space-to-ground

compatibility tests with partners Universal Space Network (USN) and ITT Industries. The joint tests, conducted at the Boeing Satellite Development Center in El Segundo, Cali - ...

NASA は実験で電波伝播を壊す巨大な泡の可能性のある要因を見出す

7/26/2006 – NASA Experiment Finds Possible Trigger for Radio-Busting Bubbles

<http://www.astroexpo.com/news/newsdetail.asp?ID=26820&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

GREENBELT, Md., July 25 /PRNewswire/ -- NASA-funded researchers have identified a possible cause of giant bubbles that often form above the equator in the electrically charged

upper atmosphere. These bubbles, manifestations of a phenomenon called "Equatorial Spread-F," disrupt radio signals that must pass through the atmosphere, includi - ...

Science に報告されスペースシャトルで打上げられた Sandia 研の仕事は生きた細胞がナノ構造の成長に影響を与えるという

7/24/2006 – Sandia work reported in Science and launched on space shuttle shows live cells influence growth of nanostructures

<http://www.astroexpo.com/news/newsdetail.asp?ID=26778&ListType=TopNews&StartDate=7/22/2006&EndDate=7/28/2006>

Implications for sensors, tuberculosis modeling, cell preparation, surgical implant safety

July 20, 2006 – ALBUQUERQUE, N.M. – Far above the heads of Earthlings, arrays of single-cell creatures are circling Earth in nanostructures. The sample devices are riding on the

International Space Station (courtesy of Sandia National Laboratories and - ...

AstroExpo.com <http://www.astroexpo.com/News/TopNews.asp>

7/15/2006 – 7/21/2006

Business News

Space Adventures Announces Spacewalk Option for Orbital Spaceflight Clients

Globalstar Files Registration Statement for Initial Public Offering of Common Stock

FAA Inaugurates East Coast Satellite Communications Gateway for FAA Telecommunications Infrastructure Satellite Network

Raytheon Completes Demonstration of Space-Based Navigation System in India

Lockheed Martin Completes 5th Modernized GPS Satellite

Lockheed Martin Selects Northrop Grumman Inertial Unit for Mobile User Objective System Satellite

International Space News

ESA to Help Europe Prepare for Space Tourism
Russia, Europe Agree to Launch Space Exploration Project
UK to Co-operate with Algeria on Future Space Projects
China Plans Exploration of the Sun in 2012
ISRO Search and Rescue Network Saves 30 Lives
New Technology Helps Prevent Radiation Damage to Astronauts

Launch News

Space Shuttle Atlantis Set to Move to Vehicle Assembly Building
DARPA Approves Return to Flight for Falcon 1 Launch Vehicle
Japan to Launch Spy Satellite in September
European Satellite on Russian Rocket Faces Two Month Launch Delay
45th Space Wing Supports Successful Shuttle Mission
Discovery Lands in Florida

Program News

Cassini Reveals Titan's Xanadu Region To Be an Earth-like Land
Six Months after Launch, New Horizons Screaming its Way towards Jupiter
STS-121 MCC Status Report #26
Upper-composite Transferred to Launcher Integration Facility
STEREO Prepares for Launch!

Science and Exploration News

Scientists see Storm Before the Storm in Future Supernova
Scientists Conduct Life Support Research for Living on Mars
Towards a European Extremely Large Telescope
Team Envisions Exploring Mars with Mini Probes
Telescopes in the Stratosphere: Dartmouth Researcher Proposes the use of High-altitude Airships for Astronomy
Purdue Observatory Debuts Second Phase of Satellite Project

Technology News

Costa Rican Lab to Test Plasma Space Rocket
New 'Rocket Engine of the Future' goes to 'Mainstage'
Northrop Grumman/Ball Aerospace Team Completes Critical Vibro-Acoustic Tests on James Webb Space Telescope Primary Mirror
Aerojet-Assisted New Rocket Engine Combustion Cycle Technology Testing Reaches 100% Power Level
Bigelow Spacecraft Carries NASA 'Genebox' For Tests In Orbit

JDW, [Jane's Defence Weekly](http://jdw.janes.com/public/jdw/index.shtml) <http://jdw.janes.com/public/jdw/index.shtml>

ロシアの Su-24 が墜落、2 名死亡

02-Aug-2006 [Russian Su-24 crash kills two](#)

A Russian Sukhoi Su-24 attack aircraft has crashed at Chernyakhovsk airfield in the Kaliningrad region during take-off, killing the two pilots on board. The ...

曲技チームの MiG-29UB 失われた

02-Aug-2006 Display team MiG-29UB lost

A Russian Strizhi aerobatic team MiG-29UB multirole fighter aircraft crashed while travelling to an air display close to the city

of Perm in eastern Russia...

トルコは観測/偵察衛星の取得を求める

02-Aug-2006 Turkey seeks to acquire observation satellite

Turkey's Defence Industries Undersecretariat (SSM) has issued a request for proposals (RfP) for the acquisition of a 0.8

m-resolution reconnaissance and surveillance satellite system, which...

AEHF ダウンリンク・アンテナはレンジテストを完了

01-Aug-2006 AEHF downlink antenna completes range tests

The company said the test results demonstrated antenna gain and coverage performance "in excess of requirements".

Northrop Grumman is providing the AEHF downlink phased-array ...

タイフーン欧州戦闘機の地上攻撃用ソフトの作成の契約が行なわれた

28-Jul-2006 Contract signed for Typhoon ground attack

Eurofighter GmbH expects to provide by mid-2008 the software needed to provide UK Royal Air Force (RAF) Eurofighter

Typhoon fighter aircraft with an austere ground-attack...

2006年 8月 2日 時事通信社「世界週報」 8月 15-22日号 [目次抜粋]

特集・変貌する中朝韓関係

中国への依存深める北朝鮮経済 (小牧輝夫)

中国の対北朝鮮政策をめぐる2つの誤解 (平岩俊司)

深化する韓中経済関係の現在と未来 (韓 東訓)

活発化の局面迎えた中国と韓国の軍事交流 (武貞秀士)

拡大する中韓の人的交流と文化摩擦 (小針 進)

ゲストエッセー／国益と防衛をどう考えるか (富澤 暉)

座標／核ミサイル (山本卓真)

日本と世界の安全保障／北のミサイル発射は北東アジア危機の始まり (森本敏)

今週の軍事情報／イスラム勢力の首都制圧とソマリア沖の海賊 (江畑謙介)

躍動アジア／北朝鮮／テポドンと北朝鮮の思惑 (鈴木典幸)

的川教授の宇宙よもやま話／知的好奇心と宇宙活動の歴史 (的川泰宣)

2006年 7月 28日 時事通信社「世界週報」 8月 8日号 [目次抜粋]

今週の軍事情報／北朝鮮弾道ミサイル基地攻撃の現実性 (江畑謙介)

日本と世界の安全保障／ASEAN 地域フォーラムの機能を強化せよ (西原 正)

知られざる自衛隊／「省」昇格目指し改正法案を提出 (風間 實)

日本の国益委員会／北朝鮮のミサイル発射問題を考える (出口治明)

ワールド・ナウ／北ミサイル発射で日米に温度差 (富山 泰)

[平山ニュース 2006 年 月 日] <http://www.wikihouse.com/space/>

[NEWS]

8/2 空庵が CANSAT キット発売へ(読)

7/31 JAXA が将来の月探査構想を発表(共,毎,朝)

7/28 0705GMT 打上成功:(韓)地球観測衛星 KOMPSAT 2(アリラン 2 号),Rockot,Plesetsk

[予定]

8/4 2148GMT 打上:(欧)放送衛星 HotBird 8,Proton/Breeze M,Baikonur

[EVENT]

宇宙航空研究開発機構 特別展

・8/8-18 特別展 I(宇宙開発),未来科学技術情報館,新宿

・8/9-20 特別展 II(航空分野),科学体験館サイエンス・サテライト,大阪

7/22-8/31 JAXAi 夏休み特別企画展「月をしらべよう 月とセレーネ 展」

[学会]

8/25 IEICE 宇宙・航行エレクトロニクス研究会,機械振興会館,港区

8/9 JSME 宇宙工学講座,山口大学

8/7-9 第 39 回月・惑星シンポジウム,ISAS 相模原

[TV] ディスカバリチャンネル他

8/8 0100-0200,0700-0800,1100-1200 ディスカバリーチャンネル

宇宙 SF と現代テクノロジー1

8/4 1910-2100 NHK-BS1 BS 世界のドキュメンタリー(再) 検証チャレンジャー爆発事故

[etc.]

8/4 応募締切:第 57 回国際宇宙会議(IAC)学生派遣プログラム>JSF

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

- <JAXA>20年に日本人が月面着陸…30年ごろ基地建設(毎日新聞)(7月31日 21時20分)

- 2013年、月着陸目指す 宇宙機構が無人探査機(共同通信)(7月31日 21時17分)

- 宇宙旅行へ準備着々(時事通信)(7月28日 11時29分)

- 日大の衛星打ち上げ失敗 ロシアのロケットに搭載(共同通信)(7月28日 0時3分)

- M5後継機 射場は内之浦を優先/宇宙機構 - 南日本新聞(7月27日 17時54分)

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

- 韓米同盟調整しても国連軍司令部と在韓米軍は存続(YONHAP NEWS)(3日 9時3分)

- 硫黄島で慰霊する額賀防衛庁長官(時事通信)(2日 20時44分)

- <劣化ウラン>イラク専門家が現状訴え(毎日新聞)(2日 18時53分)

- <安倍官房長官>劣化ウラン弾「管理に万全期している」(毎日新聞)(2日 12時23分)

- 自分の土地で感謝の集い 象のオリ、知花さん(琉球新報)(2日 9時38分)

- 「象のオリ」の返還を三線で祝う(時事通信)(2日 9時5分)

- <沖縄・米空軍嘉手納基地>劣化ウラン弾40万発を保管(毎日新聞)(2日3時8分)
- 防衛白書 中国軍事費急増に懸念「2年後には日本抜く」(産経新聞)(1日16時20分)
- 北朝鮮のミサイル、長射程化の進展予想…防衛白書(読売新聞)(1日11時19分)
- 米軍再編「速やかに徹底実施」=北ミサイル長射程化に懸念-防衛白書(時事通信)(1日11時1分)
- <米民主党>イラク米軍年内撤退開始求め書簡 大統領に(毎日新聞)(1日10時46分)
- <防衛白書>日本周辺の安全保障環境厳しくなった(毎日新聞)(1日10時44分)
- 反戦の地返還 米軍「象のオリ」知花さんに「安保のため国は憲法捨てた」(西日本新聞)(1日10時7分)
- 象のオリ 地主に所有地すべて返還 沖縄・読谷(毎日新聞)(1日9時58分)
- 読谷補助飛行場が返還 村、180ヘクタールを取得(琉球新報)(1日9時44分)
- <象のオリ>地主に所有地すべて返還 沖縄・読谷(毎日新聞)(7月31日22時22分)
- 沖縄・米軍通信所の一部、知花昌一さんに返還(読売新聞)(7月31日21時41分)

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

- <ニクソン政権>ベトナム戦争核兵器使用、就任当初から検討(毎日新聞)(2日3時5分)
- 防衛白書 中国軍事費急増に懸念「2年後には日本抜く」(産経新聞)(1日16時20分)
- <イラン核問題>ブッシュ米大統領が安保理決議採択を歓迎(毎日新聞)(1日10時29分)
- 核開発停止求める安保理決議に法的根拠なし=イラン国連大使(ロイター)(1日7時0分)
- <イラン核問題>国連安保理が経済制裁の警告決議採択(毎日新聞)(7月31日20時2分)
- 68%が残留放射線被ばく 原爆症訴訟原告(共同通信)(7月30日23時54分)
- <イラン核問題>安保理、決議採択へ(毎日新聞)(7月30日17時24分)
- <ARF>議長声明を公表 北朝鮮への懸念盛り込む(毎日新聞)(7月28日22時39分)
- <米連邦捜査局>大量破壊兵器の攻撃防止担当部署新設も(毎日新聞)(7月27日19時46分)

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

7/31 「ニュース」更新

イラク復興支援 /// 陸自部隊の帰国完了 /// 「心から慰労」と小泉首相 /// イラク・ドキュメント(2006.7.18~7.24)

防大校長に五百旗頭氏 /// 大雨被害 1府5県で災派 /// 孤立住民など救出

米PAC3部隊を嘉手納に配備

次世代迎撃ミサイル /// 厳格な管理を規定 /// 米と技術供与覚書

作戦用模擬システムの運用開始 /// 空幹校

後方態勢の課題巡り全体会議 /// 海補本

「統合とリーダー教育」テーマ /// 防大で国際セミナー

7/28 「コラム」更新

・朝雲寸言 /// ・陸自支援群が帰国 /// ・イスラエルも過剰報復

[民間航空機関連 (ex-SJAC 三輪さん)]

人生という道程で求めているものを見つけるに最も適切な諺はこれである：「行き当たるすべての石をひっくりかえすのを忘れるな。」

英国小説家 政治家 エドワード プルワーリットン

“To find what you seek in the road of life, the best proverb of all is that which says: ‘Leave no stone unturned.’”

--Edward Bulwer-Lytton, English novelist, playwright and politician

2006年7月29日 0:27 AIA dailyLead July 28, 2006 -

「人には諦める権利があるなんて、よくも言えるわ！」

児童活動家 マリアン ライト エーデルマン

“Who ever said anybody has a right to give up?”

--Marian Wright Edelman, children's activist

2006年7月28日 0:40 AIA dailyLead July 27, 2006 -

「僕の父がいつも教えてくれた言葉：世話(care)と分かち合い(share)。 そのために 診療所(クリニック)があるのだ。出来るだけお返しをしたい。それが上手いけば、良かったということだ。」

アメリカ ゴルファー タイガー ウッズ

My dad has always taught me these words: care and share. That's why we put on clinics. The only thing I can do is try to give back. If it works, it works.”

--Tiger Woods, American golfer

2006年7月27日 1:38 AIA dailyLead July 26, 2006 -

「人は、自分がそうになって欲しい事を信じる傾向が強い。」

英国哲学者科学者 フランシス ベーコン

“Man prefers to believe what he prefers to be true.”

--Francis Bacon, English philosopher and scientist

2006年7月26日 0:50 AIA dailyLead July 25, 2006 -

「満月は周りの星をすっかり消してしまおう。」

米国メディア王 博愛主義者 テッド ターナー

“A full moon blanks out all the stars around it.”

--Ted Turner, American media mogul and philanthropist

2006年8月1日 1:33 AIA dailyLead July 31, 2006 -

ボーイング CEO 上院公聴会で 企業倫理問題につき尋問される予定

Boeing CEO to face ethics questions from McCain

Sen. John McCain, R-Ariz., is expected to question Boeing Chief Executive Jim McNerney this week about ethical reforms at the company during a Senate Armed Services Committee hearing. McNerney has said he wants to make ethics a competitive advantage for Boeing. The company recently paid a large settlement for misconduct related to a contract for military refueling planes. The Wall Street Journal (subscription required) (7/29)

コラム:A380 飛行機によるトラベルに与える変化

Column: A380 will change air travel

The Airbus A380 superjumbo jet will launch a new era of aviation when it starts flying late this year or early in 2007, writes Mary Ann Anderson in the San Jose Mercury News. The plane will carry more passengers than any airliner in the world, and its fuselage is the widest in the industry. San Jose Mercury News /McClatchy-Tribune News (free registration) (7/31)

レイシオン航空機部門の売却先は投資会社か

Equity firms are most likely buyer for Raytheon unit

Raytheon is likely to sell its aircraft unit to a private equity firm, aerospace experts say. They say other airplane manufacturers lack synergies with the business because they build planes that compete with Raytheon's aircraft. The Wichita Eagle (Kan.) (7/30)

ゼネラルアヴィエーション協会(GAMA) 最高の売上げを発表

General aviation reports strong billings

General aviation companies posted the highest recorded billings in the sector's history in the first six months of 2006, according to the General Aviation Manufacturers Association. Billings totaled \$8.8 billion in the first half of the year, up from \$6.5 billion a year ago. The Wichita Eagle (Kan.) (7/29)

衛星による新航法でエアラインの燃費代削減

Satellite navigation system could cut carriers' fuel bills

A new performance-based navigation system could save carriers millions each year in fuel expenses. Airlines are eager to have the satellite-based system in place, citing not only fuel savings but better use of runways and airspace and less noise impact on communities. Aviation Now (7/30)

2006年7月29日 0:27 AIA dailyLead July 28, 2006 -

NASA 予算不足でスペースステーション研究 中断

NASA may halt space station research for lack of funding

A projected budget shortfall of up to \$100 million may force NASA to shut down its research programs on the International Space Station for a year. The shuttle fleet is set to resume flying four or five missions a year until its retirement in 2010 to complete assembly of the half-built \$100 billion station. Los Angeles Times (free registration) (7/28)

エアライン 燃料確保に投資

Airlines invest in keeping fuel supply steady

Airlines are spending more on fuel storage, pipelines and energy infrastructures to avoid jet-fuel shortages. So far, it's worked. Still, Air Transport Association Chief Economist John Heimlich notes, the fuel market remains tight. Heimlich says it helps that carriers are in better communication with fuel suppliers and with other carriers. The Washington Post /Associated Press (free registration) (7/27)

US エア航空 CEO が 更なるエアライン会社の統合の可能性予測

US Airways CEO sees opportunity in more consolidation

US Airways Chief Executive Doug Parker expects bankrupt airlines to eventually consider combining with other carriers. Parker won't say whether US Airways has plans to acquire other airlines, but he says his company would be negligent if it wasn't looking at possible deals. The Arizona Republic (Phoenix) (7/28), The Street.com (7/27)

テキサス州選出下院議員 エアラインの年金法案にたいし反対表明

Texas congressmen call airline pension plan unfair

A pair of House Republicans from Texas say they plan to oppose a pension reform bill if it puts Texas-based American Airlines and Continental Airlines at a disadvantage. Reps. Sam Johnson and Kevin Brady note the bill would require American and Continental to make higher pension contributions than other carriers. The Wall Street Journal /Dow Jones Newswires (subscription required) (7/27)

2006年7月28日 0:40 AIA dailyLead July 27, 2006 -

米国土防衛安全保障省(DHS)の契約内容に、無駄や無管理状態

Waste, mismanagement plague DHS contracts, report finds

A bipartisan report has found widespread waste, abuse and mismanagement in many Department of Homeland Security contracts. The House Committee on Government Reform report says contracts were poorly planned and monitored and awarded without competition. It cites one case in which the Border Patrol paid \$20 million for camera systems that either malfunctioned or were never installed. Los Angeles Times (free registration) (7/26)

航空機内装備会社 B/E エアロスペースの Q2 期利益上昇

B/E Aerospace reports strong Q2 as carriers upgrade cabins

Airplane interior maker B/E Aerospace reports stronger second-quarter operating earnings, attributing the increase to moves by many major carriers to upgrade aircraft cabins. Sales rose 31% in the quarter, B/E says. Sun-Sentinel (Fort Lauderdale, Fla.) (7/27)

EADS エアバスの生産遅延により 2006年収益性を損なう

EADS expects Airbus delays to hurt 2006 profits

Charges related to the delays and redesign of Airbus jetliners will hurt 2006 profits at parent company EADS, the company says. EADS reports its operating profits rose 6% in the first half of 2006. However, profits for the full year will come in at the bottom end of its earlier forecast, the company estimates. The Boston Globe /Reuters (7/27)

デルタ航空 国内線料金 片道5ドル 一律値上げ

Delta raises domestic fares \$5 each way

In a move to offset soaring fuel prices, Delta Air Lines this week boosted most domestic fares \$5 each way. Other major carriers say they are considering matching the increase. Star Tribune (Minneapolis-St. Paul) /Associated Press (free registration) (7/26), Airwise /Reuters (7/26)

航空会社 記録的乗客率(ロードファクター)を計上

Airlines post record load factors

Strong demand for travel and limited capacity allowed airlines to increase fares for flights departing in the U.S. by 10.3% in the first quarter of 2006, according to Department of Transportation data. Travelers continue to fly despite the higher fares -- travel agencies report more bookings, and airlines are posting record load factors. The Arizona Republic (Phoenix) (7/27), USA TODAY (7/26), St. Paul Pioneer Press (Minn.) (free registration) (7/27), CNNmoney.com (7/27)

ロールスロイス 2006年エンジン需要 若干上昇と予想

Rolls-Royce sees slight uptick in engine demand in 2006

Rolls-Royce expects a slight increase in commercial aircraft engine deliveries in 2006 compared with 2005. The company reports higher

profits for the first half of 2006 but says it delivered fewer engines because of slower demand for engines for smaller planes. The Wall Street Journal /Dow Jones Newswires (subscription required) (7/27)

2006年7月27日 1:38 AIA dailyLead July 26, 2006 -

ロッキードマーチン社 Q2期 収益26%上昇

Lockheed Martin Q2 profit climbs 26%

Stronger satellite and information technology sales pushed up second-quarter profits at Lockheed Martin. The company posted earnings of \$580 million, up from \$461 million a year earlier. Houston Chronicle /Associated Press (7/25), The Washington Post (free registration) (7/25)

ボーイング社 和解金支払い Q2期 赤字計上

Boeing posts Q2 loss on charges, settlement

Boeing has posted a second-quarter loss of \$160 million. The results include more than \$1 billion in charges from a Justice Department settlement and delays on a military contract. Strong sales of commercial jets and lower pension costs helped offset the charges, Boeing says. Revenue rose 2% to \$15 billion. Bloomberg /ClipSyndicate (7/26), The Wall Street Journal (subscription required) (7/26), The New York Times /Reuters (free registration) (7/26)

JFK 空港で エンジントラブル機 あわや惨事

Jetliner with engine failure lands safely in NYC

A jetliner carrying more than 250 passengers landed safely today at John F. Kennedy International Airport less than a half hour after one of its two engines lost power, American Airlines spokesman Billy Sanez says. "It's not a common incident, but the pilots are trained to deal with these situations," he says. The Boeing 777 was en route from Los Angeles to London. Breitbart.com /Associated Press (7/26)

ホンダ 超軽ジェット機(VLJ) 市場へ参入開始

Honda to enter into VLJ market

Honda says it will start building Very Light Jets. Honda officials estimate the VLJ market will total about 200 planes a year, and they plan for HondaJet to capture a big share of those sales. The company will start taking orders in the fall. The New York Times (free registration) (7/25)

欧州 米国のあいだで 不公平助成問題の交渉に前進か

EU says U.S. tries to unfairly influence subsidy talks

EU officials say the U.S. is trying to tilt possible talks over aircraft subsidies too heavily in Boeing's favor. The U.S. and the EU brought the dispute to the World Trade Organization in 2005 but both say they would prefer a negotiated agreement. The New York Times /Reuters (free registration) (7/25)

熟練パイロット パイロットの新人減少に 心配

Veteran pilots concerned over lack of new pilots

Veteran pilots worry that not enough young people are learning to fly. The number of pilots in the U.S. has dropped 25% over the past 25 years, and the number of student pilots has fallen 56%. Industry observers predict a shortage of airline pilots in the near future unless more young people learn to fly. The Washington Post (free registration) (7/26)

航空機安全検査 古い小型機も対象とすべき事 NTSB が発表

Inspection mandate should cover older small planes, NTSB says

The Federal Aviation Administration should not exempt airplanes with fewer than 30 seats from rules requiring inspections of older planes, the National Transportation Safety Board says. The FAA exemption for some older planes ignores a congressional mandate, according to the NTSB. The FAA rules also exempt planes designed before 1958. The FAA says it will consider the NTSB's recommendations. USA TODAY (7/25)

2006年7月26日 0:50 AIA dailyLead July 25, 2006 -

陸軍武器関係プログラム 資金不足

Armored vehicle program runs out of funds, Army says

The Army says the manned armored ground vehicle portion of its largest weapons program is out of money, and Boeing and other companies may have to stop development work. Boeing, General Dynamics and BAE Systems may have to lay off workers unless Congress approves a transfer of \$295 million. Los Angeles Times /Bloomberg (free registration) (7/25)

A380 遅延以来 エアバスは客先対応を反省

After A380 delays, Airbus learns humility

Airbus executives are acknowledging the company is in "a serious crisis with its customers." At last week's Farnborough International Airshow, they spent much of their time explaining delays in production of the A380 superjumbo jet. "We are learning to be humble and change our bad habits," says Airbus Chief Executive Christian Streiff. CNNmoney.com /Fortune (7/25)

エアライン事業 需要の伸びで 5年振りの復調

Strong demand helps carriers post profits

Strong demand and fewer available seats are helping the airline industry return to profitability after five years of losses. The Air Transport Association says U.S. airlines in June showed record revenue improvement. Eight carriers are expected to report second-quarter results this week. The Street.com (7/24)

オヘア空港で旅客機・貨物機 ニアミス事故

Passenger jet, cargo plane nearly collide at O'Hare

A United Airlines passenger jet and a cargo plane came within 300 feet of colliding Sunday night at Chicago's O'Hare International Airport, the Federal Aviation Administration says. The FAA says an error by an O'Hare air traffic controller caused the incident, which ranks in the most serious category of runway incursions. Chicago Tribune (free registration) (7/24), Chicago Sun-Times /Associated Press (7/24), Chicago Sun-Times (7/25)

コラム:航空会社 機内エンターテインメント装置のアップグレード

Column: Carriers upgrade entertainment systems

Many carriers are improving entertainment options on long international flights, The New York Times' Joe Sharkey writes. Carriers hope seatback video monitors and digital on-demand movies and music will bolster customer loyalty and generate more revenue. The New York Times (free registration) (7/25)

¥ 57,750 (税込み) B5判・1,200頁 /// 出版社: 丸善; 第3版 (2005/12)

序文 http://pub.maruzen.co.jp/book_magazine/koukuuuchuu/index.html

100年ほど前に人類が初動力飛行に成功して以来、航空宇宙分野の技術は、常に時代の最先端技術として確実に進歩を続けてきた。昭和20年から7年ほどの空白があったわが国においても、航空宇宙分野技術のその後の発展には目を見張るものがある。産業界と表裏一体となって、日本のこのような航空宇宙分野発展に向けた学会活動の中心的役割を担う日本航空宇宙学会は、航空宇宙工学界、航空宇宙行政界、航空宇宙産業界、および関連する周辺諸分野で広く活用されることを目指して「航空宇宙工学便覧」を出版している。

「航空宇宙工学便覧」は、昭和49年に初版が、その後、航空宇宙工学分野の進歩発展にともない、昭和58年に増補版が出版された。さらに、平成4年には全面的な改訂がなされ、第2版が出版された。このように本便覧は、航空宇宙工学分野の急速な進歩を眺みながら10年弱の間隔で見直され、補充や改訂がなされてきた。今回、第2版の出版からすでに13年の歳月が経ち、日進月歩の分野における便覧の改訂としては、やや遅すぎた感もあるが、その後の発展や最新の知見を踏まえて内容を刷新した『第3版航空宇宙工学便覧』を出版できるにいたった。

第3版出版については、第34期日本航空宇宙学会理事会において改訂が決定され、平成15年6月に第一回編集委員会が開催された。その後2年余にわたり、編集委員長や編集幹事を中心とした編集委員会のもと、編集担当および執筆者の努力により、刊行計画は順

調に進行した。ここに無事発刊するに至ったことは、会員各位とともにご同慶に堪えない。長期にわたり本便覧のためにご尽力された関係者各位に心からお礼を申し上げる。また、第2版に引続き本便覧刊行を担当された丸善株式会社とその関係者にも、そのご協力に対し感謝の意を表す。

本便覧が航空宇宙分野で活躍される社団法人日本航空宇宙学会会員各位のみならず、広く関連分野の技術者、研究者、学生など各層のご活用に十分堪えるものと確信するとともに、今後、利用者各位のご叱正とご協力により、一層充実した使いやすいものに育っていくことを祈念してやまない。

2005年10月
社団法人 日本航空宇宙学会 第37期会長 小野田 淳次郎



A 編 基礎および共通

- 単位, 数表, 物理定数
- 地球および惑星間空間
- 空気力学
- 構造力学
- 材 料
- 制 御
- 工作, 生産技術
- 開発計画管理
- 信頼性およびシステム安全
- 航空宇宙医学, 人間工学
- 航空法, 宇宙法など

B 編 航空工学

- 一 般
- 飛行機
- 推進機関
- 装備, 機器
- ヘリコプタ
- その他の航空機
- ミサイル
- 試験法, 試験設備
- 航空機の運航, 整備

C 編 宇宙工学

- 一 般
- ロケットシステム
- 宇宙輸送用推進機関
- その他の宇宙輸送系
- 人工衛星
- 人工衛星のミッション
- 宇宙ステーション
- 宇宙環境利用
- 有人宇宙技術
- 将来型宇宙システム
- 月・惑星探査とその他の宇宙探査技術

内容(「MARC」データベースより)

日本の航空宇宙における工学界、行政界、産業界、および関連する周辺諸分野の研究・技術者必携の書。航空宇宙工学分野の進歩発展にともない、補充・改訂をおこなった第3版。