

Aviation Exploring Post 107

Personal and Aerospace
Career Development

Somerset Air Service, Inc.
SMQ



FLIGHT LOG MARCH 2010



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Please send all **FLIGHT LOG** information / comments / updates to the Editor: ftfeel@optonline.net.

YOUTH PROTECTION NOTES:

- ➔ AEP107 Flight Logs do not publish the last names of Aviation Explorers ages 17 and under.
- ➔ AEP107 Flight Logs are distributed individually via Bcc:

WHAT IS EXPLORING?

<http://www.youtube.com/watch?v=GXLGEMwngSg>

WHAT IS AVIATION EXPLORING?

<http://www.youtube.com/watch?v=xZHUI-ZhI8w>

UP AND COMING EVENTS

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AEP107 PROGRAM (under development)

- ➔ Aviation Merit Badge Event 2010, SAT, MAY 1

EAA CHAPTER CALANDER OF EVENTS:

<http://www.eaa.org/calendar/Default.aspx>

Red Bull Air Race coming to Jersey City waterfront

http://www.nj.com/hudson/index.ssf/2010/01/red_bull_air_race_coming_to_je.html

By *Melissa Hayes/The Jersey Journal, Jan 15, 2010*



Kirby Chambliss/The Red Bull Air Show The Red Bull Air

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[Flight Simulator News](#)
[Aerospace Technology News](#)
[Aerospace: The Future News](#)
[Picture\(s\) of the Month](#)

Aviation Exploring Post 107 has taken off and is on an exciting journey in aerospace. Our journey is documented in our AEP107 FLIGHT LOGS. Our experiences, activities, member information are recorded and published monthly to our membership, alumni, recruits, partners and friends of AEP107.

Race is coming to Jersey City in June. Last year the race stopped in Barcelona (shown) in October. The event is expected to generate millions in revenue for the local economy. **Jun 19 & 20**

TICKET INFORMATION:

<http://redbullairrace.showare.ch/Performance/ShowWareFrontEndPerEventWithImage.aspx?ACTION=CATEGORY&CATEGORYID=81>

http://www.cityofjerseycity.com/uploadedFiles/Public_Notices/Press_Releases/Red%20Bull%20Air%20Race.pdf

AEROSPACE PROGRAM COMPLETED ACTIVITIES

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CLASSIFIEDS

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AEP107 INVITES NEW MEMBERS TO JOIN,

www.aep107.org, Aviation Exploring Post 107 always welcomes new members! We are coed, ages 14 through 20 and focused on "Personal and Aerospace Career Development". We have a very active aerospace program that networks our members within the aerospace community. Please contact: Tom Teel, 908 581 6876, ftfeel@optonline.net

AEP107 MEMBER AND ALUMNI NEWS

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AEP107 Members & Alumni, please keep in touch with the AEP107 Flight Log. We would love to share your career development.

Tom Teel / ftfeel@optonline.net.

Keith Pronko, Pilot, AEP107 Alumni

Keith has earned his Instrument Rating. Keith also provides operational and presentation support for the AMB 2010 EVENT

James Alaggio, Pilot, AEP107 Alumni

<http://www.vanwagner.com/aerial>

James is currently a pilot for Van Wagner Aerial Media, LLC and lives in Hollywood, FL.

PERSONAL & AEROSPACE CAREER DEVELOPMENT

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PERSONAL DEVELOPMENT / CAREER ASSESSMENT / CAREER IDENTIFICATION / CAREER DEVELOPMENT / CAREER DEVELOPMENT SUPPORT
 FOR ADITIONAL INFORMATION CONTACT: TOM TEEL, tfteel@optonline.net

PUBLICATIONS WORTH LOOKING AT:

AvSCHOLARS™ – Student Gateway to Aviation™:

<http://www.avscholars.com>

- **NOTE:** This is an excellent Aerospace Career Development Website.

FLIGHTGLOBAL / Flight Jobs

<http://www.flightglobal.com/jobs/default.aspx>

BLACK HISTORY IN AVIATION

<http://www.blackhistoryinaviation.com>

[Purdue University Training Aircraft Fleet To Get GA-FDM Flight Data Monitoring](#)

Mar 17, 2010, - Provides First-Ever Internet-Enabled FDM Systems For US Collegiate Flight Program GA-FDM announced at the National Training Aircraft Symposium Monday that Purdue University's Department of Aviation Technology is factory-equipping its fleet of new Cirrus training aircraft with GA-FDM's predictive Flight Data Monitoring (FDM) and recording systems.

[MoneyDo you have space experience? Bigelow Aerospace is hiring astronauts](#)

New York Daily News

Bigelow Aerospace us hiring, but you must have real space experience. Bigelow Aerospace is hiring astronauts. But before you break out your phasers and...

[Question of the Week: Is Flight Training Due for a Refresher?](#)

Mar 25, 2010, - In light of the closure of programs like Daniel Webster College's flight training program and the growing acceptance of Web-based training, is flight training due for an overhaul? Plus: Last week, we asked about ADS-B preparedness; click through to see how many AVweb readers are ready for NextGen.

[Daniel Webster College Closing Flight Program](#)

Mar 25, 2010, - New Hampshire's private Daniel Webster College, known to some pilots only for its flight operations program, announced Wednesday that **the program will come to an end.**

[Bigelow Aerospace: professional astronauts sought by American space firm](#)

Telegraph.co.uk, An American space holiday firm, Bigelow **Aerospace**, has become the first commercial company to advertise for professional astronauts...

AEROSPACE HUMOR

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ATTA BOY Marty!!!

AEROSPACE BUSINESS

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As a leading indicator of aerospace business health the Flight Log is using an Exchange Traded Fund (ETF) which currently contains fifty eight Aerospace – Defence company stocks. We are not trying to represent or sell this fund. This chart will appear monthly as a leading indicator of the business health of the Aerospace Sector.

Please help. If you have another aerospace business leading indicator, please let me know.

PowerShares Aerospace & Defense Portfolio ETF
 (NYSE: PPA) 6 month view: 033101



UP IS GOOD

For additional fund information please go to the funds URL: <http://www.invescopowershares.com/products/overview.aspx?ticker=ppa>

[Boeing forecasts 10 percent growth in Indian aviation](#)

Sify - Boeing, a leading aircraft maker, Thursday predicted 10 percent growth in India's civil **aviation** market in 2010 based on signs of recovery from the slump in ...

[See all stories on this topic](#)

EAA Launches Webinar Program

http://www.eaa.org/news/2010/2010-02-25_webinar.asp
February 25, 2010 — Beginning March 3, EAA will offer a regular series of “webinars” (short for “web-based seminars”) as a new service to members. A webinar is a multimedia presentation transmitted live over the internet, viewed on a computer. The presenter can use slides, audio, and video as part of their presentation, while audience members can ask questions, chat, or be polled for their opinion.

The World's 18 Strangest Airports

<http://www.popularmechanics.com/technology/transportation/4346192.html?page=1>
Engineers tasked with building an airport are faced with countless challenges: The ideal location needs ample space, endless flat ground, favorable winds and great visibility. But spots in the real world are rarely ideal, and engineers are forced to work with what they have, making sure that the end product is the safest possible structure for pilots. A survey of airports around the world turns up a mixed bag, ranging from dangerous and rugged landing strips to mega-size facilities that operate like small cities. Here, PM explores the world's most remarkable airports and why they stand out.

Women-owned aerospace business opens in Mesa

Arizona Republic
8, 2010 12:00 AM Not only is it owned by women, somewhat of a rarity in the **aerospace** business, but it's also the first company to set up in the...

NY Air National Guard's 174th Fighter Wing waves goodbye to piloted flights

Dave Tobin / The Post-Standard, Mar 05, 2010
http://www.syracuse.com/news/index.ssf/2010/03/ny_air_national_guards_174th_f.html

F-16's flown by Lt. Col. Scott Brenton, Col. Kevin Bradley and Lt. Col. Sean McQuaid pass over Hancock Field Tuesday after returning from one of the last F-16 missions overall from the 174th Air National Guard base at Hancock Field

SUBMITTED BY: Steve Pronko, AEP107

Women in Aviation, International 2010 Conference Wrap-Up

http://www.eaa.org/news/2010/2010-03-04_wai_wrapup.asp



Aerobatic pilot Julie Clark was among the many women who visited the EAA exhibit and autographed the WomenVenture photo taken at AirVenture 2009 that featured more than 500 female pilots.

March 4, 2010 — Nearly 3,000 women and men, including more than double the number of past international participants, attended the 21st Annual International Women in Aviation (WAI) Conference held last week in Orlando, Florida. The annual conference, themed this year “Aviation: It's a Small World,” included sessions on the military, airlines, corporate aviation, history, maintenance, research, academics, engineering, and more. There were also 125 exhibitors representing the diverse aviation community.

Digging Deeper on Homebuilt Safety.

Mar 09, 2010, gil
Extracting accurate statistics for amateur-built accidents can be an exhausting exercise in numbers, especially since the FAA and NTSB often use different statistics to report the homebuilt aircraft fleet size and the accidents that occur each year.

NTSB: Glass Cockpits Do Not Improve Safety

Mar 09, 2010, - An NTSB study shows glass cockpit technology has not significantly improved the safety of small light planes, the NTSB said Tuesday, and the Board recommended changes, from training to maintenance reporting, to improve the statistics. While data collected between 2002 and 2008 showed fewer total accidents for those aircraft equipped with glass panels, that total came with a higher fatal accident rate and higher total fatal accidents. For the period from 2002-2008, conventionally equipped aircraft suffered 141 total accidents with 23 having a fatal outcome. Glass-equipped aircraft suffered 125 total accidents with 39 having a fatal outcome

Paragliding the Himalayas With iPhones, So You Can Go Too

Mar 11, 2010, Keith Barry
From jagged, snow-capped mountain peaks to peaceful villages adorned with colorful prayer flags, there are perhaps no more breathtaking views on earth than from high above the Himalayas. Five paraglider are right now flying and hiking the length of the Himalayas all the way through Nepal, and they're sharing the once-in-a-lifetime experience with anyone who has a computer.

<http://www.himalayanodyssey.org>

PAPER CERTIFICATES EXPIRE MARCH 31

Here's one last reminder to exchange your old paper airman certificate for the new plastic one before it expires at the end of the month. Time is running out! [Read more](#)

The Future Now: Jetpacks to Go on Sale Late This Year

<http://www.foxnews.com/scitech/2010/03/13/future-jetpacks-sale-late-year>

By Jeremy A. Kaplan, - FOXNews.com

Flying cars and robot maids may still be far from reality, but one Jetsons-era vision of the future is very real: Later



this year, you'll be able to buy your own jetpack. Flying cars and robot maids may still be far from reality, but one Jetsons-era vision of the future is very real: the jetpack. After nearly 30 years in development, New Zealand's [Martin Aircraft Company](#) is finally gearing up to sell its jetpack: two rockets driven by a 2-liter, 200-horsepower engine that can theoretically take you as high as 8,000 feet.

Chinese Bizjet Market Clearing New Hurdle

http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=busav&id=news/CLEAR101609.xml&headline=Chinese%20Bizjet%20Market%20Clearing%20New%20Hurdle

Oct 16, 2009, Bradley Perrett/Beijing
perrett@aviationweek.com, Joseph C.

Anselmo/Washington janselmo@aviationweek.com
The dam holding back Chinese business aviation is breaking, giving manufacturers the hope of selling large volumes of aircraft in a market that has always had great potential but frustratingly little immediate value.

Charter Company Gets FAA Approval For Eclipse 500 Single Pilot Operation

Mar 16, 2010, - North American Jet Charters Operates 10 Eclipse 500 Jets North American Jet Charter Group (NAJet) announced Monday that it has received FAA Part 135 charter approval for operation of its fleet of Eclipse 500 Very Light Jets in a single-pilot charter configuration, the first company to do so.

Spotlight Will Shine On Electric Aircraft At AirVenture This Year

Mar 16, 2010, - Flight Demos, Technology Forums Part Of Planned Oshkosh Activities The innovation and technology of the emerging era of electric-powered aircraft will be a major part of EAA AirVenture Oshkosh 2010, the organization said Monday.

NASA and U.S. Navy Pledge to Save Silicon Valley's Massive Airship Hangar



Mar 17, 2010, Jeremy Hsu
The landmark Hangar One needs a giant new Teflon skin to replace its toxic siding, but funding is an issue
Hangar One's behemoth

structure once housed airships such as the doomed U.S.S. Macon, and is so large that clouds can supposedly form and rain inside it. Now NASA and the U.S. Navy have promised to replace the hangar's toxic siding with a new Teflon-covered fiberglass fabric skin, [The Register](#) reports.

Barriers Lowered for LSA Flying in Canada.

Mar 18, 2010, | gil - A recent revision by Transport Canada (TC) makes it more affordable and less cumbersome for light-sport aircraft from the United States to be flown into Canada.

British Crimefighting Drone Collars Its First Perp

Mar 19, 2010, Stuart Fox, *Law and Order: UAV*
Members of the British law enforcement community who think [UAVs should be used to help stop crimes](#) just got some new evidence to back up their argument, courtesy of the Merseyside PD. Yesterday, the Merseyside Police announced [the first ever arrest assisted by a UAV](#), in this case a quad-rotor chopper-bot that helped track down a car thief.

Virgin flight of Virgin Galactic's VSS Enterprise: Photo Gallery

<http://www.boingboing.net/2010/03/22/virgin-flight-of-vir.html>

Xeni Jardin, Mar 22, 2010



The [VSS Enterprise was unveiled last December](#), and today [flew for the first time out of Mojave Spaceport in California](#), as captured in the image above. "VSS Enterprise remained attached to its unique [WhiteKnightTwo](#) carrier aircraft, [VMS Eve](#), for the duration of the 2 hours 54 minutes flight, achieving an altitude of 45,000ft (13716 metres)." Both crafts are developed for [Sir Richard Branson's Virgin Galactic](#) by [Burt Rutan](#) and team at Mojave-based [Scaled Composites](#).

Video: SpaceShipTwo First Captive Flight

Mar 23, 2010, Jason Paur, Virgin Galactic has released video from yesterday's first captive flight of SpaceShipTwo, also known as the VSS Enterprise. [Yesterday's flight lasted 2 hours and 54 minutes](#) and flew to 45,000 feet. It was the 25th flight for WhiteKnightTwo since the aircraft first flew back in December of 2008.

[Swiss Team Breaks Record for Around-the-World Flight, Despite Encountering Volcanic Eruption](#)

Yesterday, March 22, 2010, 12:28:41 PM | Clay Dillow



First time the record has been set with refueling stops. Piloting a plane older than two of the three crew on board, a Swiss team shattered Steve Fossett's around-the-world flight record by almost ten hours over the weekend, the first time the record has been set in this weight class with refueling stops.

[FAA Cites Safety Concerns For Certain Homebuilts](#)

Mar 30, 2010 - Pilots who fly high-performance amateur-built aircraft need to be aware of their slow-flight and stall characteristics, the FAA said last week

FLIGHT SIMULATOR NEWS

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PUBLICATIONS WORTH LOOKING AT

AVSIM ONLINE: <http://www.avsim.com>

FLIGHTSIM.COM: <http://www.flightsim.com/home.htm>

SPORTY'S PILOT SHOP – FLIGHT SIMM

<http://sportys.com/PilotShop/category/989?gclid=ClezolqktgACFRBM5Qodb0cJUw>

[Brief Information on Flight Simulators](#)

Fly Away Simulation

If you haven't experienced it, **flight simulator** can be of great help. A **flight simulator** is the system which tries to simulate or copy the actual experience ...

[See all stories on this topic](#)

[The Joy Of Flight Simulation](#)

Fly Away Simulation

For now, I am relegated to my computer and **Flight Simulator 2004**. **Flight Simulator X** and **X-Plane 9** I don't have sufficient room to install in my current ...

[See all stories on this topic](#)

[Microsoft Flight Simulator 2004 Still Going Strong](#)

Fly Away Simulation

It is very surprising that **Flight Simulator 2004** is still a strong entity in the **Flight Simulation** world! I have recently dived back in to this program, ...

[See all stories on this topic](#)

[Sky's the limit for Lincoln Park entrepreneur](#)

NorthJersey.com

Her flight school has five airplanes and 10 instructors, and last year moved into a new facility equipped with a state-of-the-art **flight simulator**...

[See all stories on this topic](#)

[Will flight simulators get an upgrade in the near future?](#)

Fly Away Simulation

Is this however, a step in the right direction for **flight simulators** and **aviation** in general, well it most definitely is as this will most likely mean safer ...

[See all stories on this topic](#)

[USA Today: Better Simulator Training Could Save Lives](#)

AVweb, By Mary Grady, Contributing editor More training for pilots on advanced **simulators** could help prevent crashes and save hundreds of lives, according to an ...

[See all stories on this topic](#)

[WARPLANES: The Flying Squadron That Never Leaves The Ground](#)

Strategy Page, March 24, 2010: Israel is forming a training squadron that will consist solely of **flight simulators**. The eight Israeli made simulators, each with an F-16...

[How can I make my Flight Simulator more realistic?](#)

Fly Away Simulation, Many people want **flight simulator** to be as close as possible to real life, this is why PC Pilots are searching for moving seats, vibrating joysticks and...

AEROSPACE TECHNOLOGY NEWS

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Websites worth visiting:

NASA - TechGate Wire:

http://technologygateway.nasa.gov/TechGate_Wire.html

C-5 Galaxy

<http://www.lockheedmartin.com/products/c5/>

[Lockheed Martin Orion Team Fabricates World's Largest Heat Shield Structure](#)

DENVER, Mar 02, 2010 - **Innovative high-temperature material system to provide better crew protection**

The Lockheed Martin [NYSE: LMT]-led team developing the Orion crew exploration vehicle achieved a major technology milestone by completing fabrication of the world's largest heat shield structure. The shield is five meters (16.4 feet) in diameter and is critical to the protection of the spacecraft and its crew from the extreme temperatures experienced during re-entry.

[Satelloons and lunar lasers: communicating in space](#)

Feb 28, 2010, - NASA is revamping how it transmits signals to spacecraft both near and far – *New Scientist* takes a look at the history and future of its space-communication projects

[VTOL Drone Would Land, Refuel and Take Off By Itself](#)

Mar 01, 2010, Jeremy Hsu - Drones can do [just about everything autonomously](#) these days, but most systems still require human assistance to land, refuel and take off again. Now, an aerospace startup, AeroVee, hopes to change that with its hover-capable Flexrotor drone that will come with its own automated docking station. No human ground support is needed, [The Register](#) reports.

GALLERY: THE COMPLETE UAV FIELD GUIDE

Know your Reapers from your Global Hawks

<http://www.popsci.com/technology/gallery/2010-02/gallery-future-drones>

Northrop: Design chosen to fix stealth bomber deck

<http://blog.seattlepi.com/aerospace/archives/196280.asp?source=rss>



Northrop Grumman and the U.S. Air Force are close to resolving a problem that has plagued the B-2 stealth bomber for more than two decades, Northrop announced Tuesday.

The issue is cracking in the B-2's aft deck -- a metallic panel that shields its composite airframe from the heat of engine exhaust. Extreme temperatures and sound-induced vibrations make the deck vulnerable to fatigue and cracking.

Boeing Bullish On Phantom Ray

http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=aerospacedaily&id=news/asd/2010/03/02/01.xml

Mar 2, 2010, By Amy Butler



Boeing officials plan to begin taxi tests on the company's Phantom Ray demonstrator in July, a slight delay from earlier plans, but first flight is still targeted for December 2010, according to Darryl Davis, Boeing Phantom Works president.

NASA turned on by blow-up space stations

<http://www.newscientist.com/article/dn18607-nasa-turned-on-by-blowup-space-stations.html?DCMP=OTC-rss&nsref=online-news>

16:06 03 March 2010 by [Paul Marks](#)

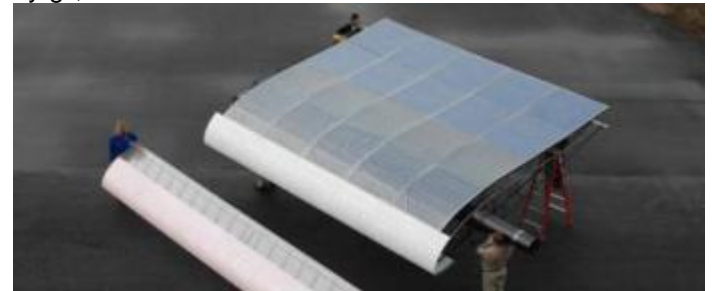
NASA is planning to investigate making inflatable space-station modules to make roomier, lighter, cheaper-to-launch spacecraft, it reveals in its budget proposal released on 22 February. We look into the technologies involved.

What are the attractions of inflatable spacecraft?

The weight of material that must be boosted to orbit is the major contributor to a space mission's cost, due to the expense of sending anything into Earth orbit. Folded fabric packages that inflate, concertina style, to full size once in orbit offer more spacecraft volume for a given launch mass than a traditional metal-based unit.

[Aurora Unveils Test Wing for Solar Aircraft.](#)

By gil, **Published:** March 4



MANASSAS, VA (Released by [Aurora Flight Sciences](#)): [Aurora Flight Sciences](#) has completed the fabrication and initial tests of an advanced wing design that could revolutionize solar-powered aircraft.

The test wing has a span of 22 feet and a chord of 15 feet. It is built entirely of advanced composite materials and lightweight plastics. Its upper surface is covered with advanced solar cells, which convert sunlight into electricity that would be used to power the aircraft and its payloads.

Shuttle Will Carry Small Commercial ISS Rack

http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=awst&id=news/awst/2010/03/08/AW_03_08_2010_p37-209151.xml

Inside the NanoRack will be a few pathfinder experiments designed to characterize its working environment for future paying customers. If all goes as planned, the privately funded device eventually could generate payouts of more than \$800,000, four or five times a year, for NanoRacks LLC, the company that developed it and set up the Space Act agreement with NASA that allows the payloads to fly on the station.

NANORACKS LLC: <http://www.nanorackslc.com>

Boeing 'Phantom Eye' Hydrogen Powered Vehicle Takes Shape.

By gil, **Published:** March 8, 2010 **Posted in:** Business,



Electric Planes, Engineering, Military, Originals, Photo, UAVs
ST. LOUIS: The [Boeing Company](#) [NYSE: [\(BA\)](#)] has begun to build Phantom Eye, its first unmanned, liquid-hydrogen powered, high altitude long endurance

(HALE) demonstrator aircraft.

Chopper Crash Test a Smash Hit.

Mar 13, 2010, gil - The second crash test of a small lightweight helicopter at NASA's Langley Research Center in Hampton, Va., was a smashing success, literally, just as engineers had predicted.

THE WORLD'S FIRST COMMERCIAL BRAIN-COMPUTER INTERFACE

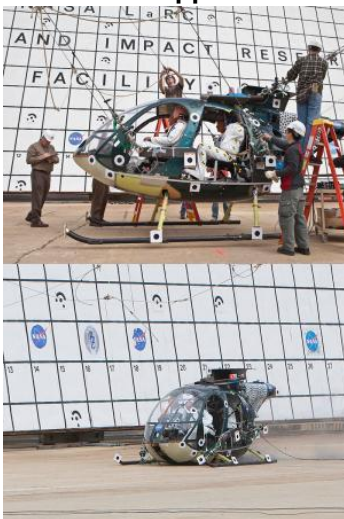
By Clay Dillow Posted 03.08.2010



Intendix Just focus on the letter you want to type; Intendix does the rest. Intendix The world's [first commercial effort](#) at a patient-ready brain computer interface is on

display over at CeBIT 2010, but don't go throwing out your keyboard and mouse just yet. Intended for patients suffering from locked-in syndrome and other communication-impairing conditions, the [Intendix](#) from Guger Technologies allows users to input text using only their brains.

NASA's Chopper Crash Test a Smash Hit



ScienceDaily (Mar. 17, 2010) — The second crash test of a small lightweight helicopter at NASA's Langley Research Center in Hampton, Va., was a smashing success, literally - just as engineers had predicted.

The MD-500 before and after the drop test. (Credit: NASA/Sean Smith)

Tough Coatings for Airplanes

<http://www.technologyreview.com/computing/24828/?a=f>

A strong material inspired by abalone shells could be applied over large areas.

By [Katherine Bourzac](#), Thursday, March 18, 2010
Now researchers in Helsinki, Finland, have developed a simple method for making large-area, nacre-like papers and coatings that could be painted on building walls and airplane skins for lightweight reinforcement. The researchers will work with the Finnish paper company [UPM](#) to commercialize the material.

Naked Engine For Cleaner Flights

Mar 19, 2010, Eric Adams



A jet engine shelved in the '80s could improve airplane fuel economy today

In 1983, engineers at General Electric experimented with an "unducted fan" engine. Without the external casing, airflow through the blades increased, delivering more power for the same amount of fuel. The thing was loud, but the company pressed on

because the trick could reduce fuel consumption by as much as 26 percent. Then fuel prices dropped, gas guzzling became acceptable, and GE mothballed the project. Now that airlines are again conscious of fuel costs and carbon, the idea is back, and new tech is making it feasible.

Blended wing body is NASA's green focus

<http://www.flightglobal.com/articles/2010/03/16/339194/blended-wing-body-is-nasas-green-focus.html>

By Rob Coppinger, 16/03/10, Flight International



As rising fuel costs and pressure to cut emissions drive most of the aviation industry to seek even small improvements in aircraft efficiency, [NASA](#) is pushing to mature technologies that may [realise in the 2020s](#) an aircraft

concept that could slash fuel consumption by up to a third.

Made easy with light: How lasers can make manufacturing structures out of fiber-reinforced thermoplastics efficient

Mar 24, 2010, - Lightweight, sturdy and non-corrosive: fiber-reinforced thermoplastics are an ideal material for making boats and cars, and for aerospace engineering. But up to now, processing the raw materials was considered laborious and costly.

China to Launch Module for Future Space Station in 2011.



Mar 03, 2010, gil - China is planning to launch in 2011 a spacecraft equipped with two docking ports to serve as a basis for the country's future space station, the

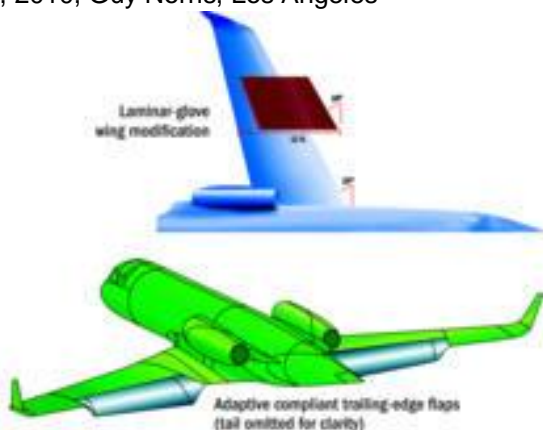
Xinhua news agency said on Wednesday.

Graphic Representation:

NASA To Conduct Adaptive-Wing Trials

http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=awst&id=news/awst/2010/03/08/AW_03_08_2010_p51-207505.xml

Mar 5, 2010, Guy Norris, Los Angeles



Radical aerodynamic and structural design technologies offering potential fuel-saving and noise-reduction breakthroughs will be tested in back-to-back experiments by NASA in partnership with the U.S. Air Force.

New Rocket Engine Could Reach Mars in 40 Days.

Mar 06, 2010, gil

Future Mars outposts or colonies may seem more distant than ever with NASA's exploration plans in flux, but the rocket technology that could someday propel a human mission to the red planet in as little as 40 days may already exist.

Heat-Channelling Carbon Nanotubes Produce 100 Times More Energy than Li-ion Batteries

Mar 08, 2010, Jeremy Hsu

"Thermopower waves" could be a brand-new way to produce electricity

Johnny Cash can't have known about carbon nanotubes when he sang about that burning ring of fire, but MIT scientists have shown how the tiny tubes can channel a ring of heat that creates electrical current -- about 100 times as much energy per unit of weight when compared with a lithium-ion (Li-ion) battery.

Space Station Experiment Tests How Biofuel Crop Grows in Zero G

Mar 08, 2010, Jeremy Hsu

Can space farms provide biofuels for a greener Earth?

Future biofuels from space could be go for launch, if a space station experiment shows that microgravity can favorably affect the growth of *Jatropha curcas* plant cells.

U.S. Air Force Set To Begin X-51 Hypersonic Flight Tests.

Mar 09, 2010, gil, WASHINGTON: The U.S. Air Force is gearing up for the first of four planned test flights of a hypersonic aircraft designed to operate for much longer durations and cover far greater distances than previous platforms of its type.

Secret Military Space Plane Primed For Test Launch

<http://www.space.com/news/air-force-secret-space-plane-sfn-100313.html>

By Stephen Clark, **SPACEFLIGHT NOW**, 13 Mar 2010



A secretive military spacecraft resembling a small space shuttle orbiter is undergoing final processing in Florida for launch on April 19.

The 29-foot-long, 15-foot-wide [Orbital Test Vehicle](#) arrived in Cape Canaveral, Fla., last month according to the Air Force. The OTV spaceplane was built at a Boeing Phantom Works facility in Southern California.

Electronics 'missing link' brings neural computing closer

Today, March 15, 2010, 5 hours ago

Memristors, the "missing link of electronics", behave uncannily like the junctions between neurons in the brain

Not Content With Mere Hovering, This Homemade Hybrid Hover-Plane Lifts Off

Mar 16, 2010, Clay Dillow



And you can buy it for \$13K soon, it seems. If there were an award for best DIY hybrid hovercraft-airplane, Rudy Heeman would likely

take home the prize. Heeman, who has been building hovercraft in his garage as a hobby for years, commandeered a few items from around the house -- a propane bottle from the backyard grill, some electronic implements from his daughter's toys, the odd part from his wife's car -- to create this [hovercraft](#) that actually

takes to the skies when he pushes it to speeds over 45 miles per hour.

[Video: Helicopter with Rocket-Powered Rotors Could Go on Sale This Year](#)

Today, March 16, 2010, 7 hours ago | Jeremy Hsu



Two forms of flight come together for a glorious moment in the sun

Mating a rocket with a helicopter sounds improbable, but only until you watch the Dragonfly DF1 take to the skies.

DVICE reports that the rocket-powered copter received airworthiness certificates last November, and may go on sale as early as this year.

[Invisibility Cloak Goes 3D](#)

The magical cloak featured in the Harry Potter series just took one step closer to reality.

<http://news.discovery.com/tech/invisibility-cloak-3d.html>

Thu Mar 18, 2010 | content provided by AFP

THE GIST:

- A functional invisibility cloak has been created by European scientists.
- The invisibility cloak was minute, measuring 100 microns by 30 microns.
- Recreating the invisibility cloak on a larger scale could prove challenging technically.

[Self-Insulating Ceramics Could Replace Metal in Car Engines](#)

Mar 22, 2010, Jeremy Hsu

Sudden temperature changes, the classic weakness of ceramics, are no problem for these high-strength materials

[New Scientist](#).

PICTURE(S) THE MONTH

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[Boeing 787 Passes Incredible Wing Flex Test](#)

Mar 29, 2010, Jason Paur



Boeing has completed one of the more spectacular tests of the 787 Dreamliner program. The airplane maker completed the “ultimate-load wing-up bending test” on Sunday using airframe ZY997, the test aircraft that is basically built to be tortured on the ground and never fly.