

Aviation Exploring Post 107

Personal and Aerospace
Career Development

Somerset Air Service, Inc.
SMQ



FLIGHT LOG JANUARY 2010

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Somerset Air Service, Inc.
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"A Field of Dreams"
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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.

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- ➔ AEP107 Flight Logs do not publish the last names of Aviation Explorers ages 17 and under.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=GXLGEMwnqSg>

WHAT IS AVIATION EXPLORING?

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

UP AND COMING EVENTS

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AEP107 - Business meeting - is Feb. 4, 7:00 p.m. at Somerset Airport.

Agenda Items -

- Air Venture 2010 Attending, Leadership and Parent Volunteers.
- **Edith & Alan MacDonald Scholarship** for the EAA Air Academy
If you'd like to attend the academy this summer please check out the website
<http://www.young eagles.org/programs/airacademy/> then
Bring with you (on 2/4) a one page essay on why you'd like to attend and what you'd like to get out of it.
- Proposed Field Trips:
- Continental Maintenance Base Tour
- Newark Tower Tour
- 26North Aviation Tour
- Any more???

[Patriots' Path Council, BSA](#)

SEE THE HARLEM GLOBETROTTERS!

Sat, Feb 13th 7:30PM

ALL TICKETS just \$18.50 and includes A PATCH!

For more info... click here-

http://main.ppbsa.org/new/pdf/harlem_globetrotters.pdf

Feb. 18 - Mr. Ray Smith about his work maintenance and running corporate flight departments. He has traveled extensively and has an interesting career to share with us.

AEP107 PROGRAM (under development)

- ➔ **AgustaWestland Helicopter Mfg.** Visit
- ➔ **Aviation Merit Badge Event 2010**, SAT, MAY 1

EAA CHAPTER CALANDER OF EVENTS:

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

FAA SAFETY / FAASafety.gov

"It Was a Dark and Stormy Night"

Topic: Pilot Decision Making for Night IFR

On Thu, Feb 11, 2010 at 7:00 PM

Flying W Airport, 60 Fostertown Road, Medford, NJ 08055

What can we learn from the mistakes of others?

Submitted by: Kurt Stofko, AEP898

42nd Annual WRAM Show, Feb 19-21, 2010

http://www.wram.org/show_details.html

Largest model airplane show in the area.

AEROSPACE PROGRAM COMPLETED ACTIVITIES

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FREEZE FLY – SOMERSET SIGNAL SENDERS

<http://somersetsignalsenders.org/dnn/Home/tabid/36/Default.aspx>



Thanks to everyone that braved the weather to appease the model airplane gods. The freeze fly was a great success. We had a dozen pilots show up January 1st to challenge the elements and all say one were successful. We had all

types of planes from electric gliders to full 3D fun fly gas planes. It was a bit of a challenge to get my plane off of

the snow but with a bit of engineering I created a short runway free of snow for my plane to get airborne. Thanks to Dave Rollino for holding the rudder until the engine hit full rpm. We also experienced the first crash of 2010. I won't say who but he was member of the year at one time.

AEP107 - AVIATION COMMUNITY FOOD DRIVE



We picked up the food on Thursday night and will be delivering it to the pantry tomorrow.

Thanks to all who contributed!

- Mrs. Linda Ricks

GulfStream Aerospace Recently Launches Third Annual Explorer Post Program

<http://savannahnow.com/node/910341/print>



SAVANNAH, GA - Gulfstream Aerospace, a wholly owned subsidiary of General Dynamics, recently launched its third annual Explorer Post program for high school students from throughout the district. A joint effort among Gulfstream

Aerospace, the Exploring program and the Savannah-Chatham County Public School System, the program gives students an opportunity to explore career options and learn about the skills and educational preparation necessary to achieve their professional goals. The yearlong program kicked off with an Orientation at Gulfstream on October 29th for 15 high school students from the Savannah-Chatham County Public School System.

SOMERSET SIGNAL SENDERS

New Year Day Fly 2010

SOMERSET SIGNAL SENDERS CHRISTMAS PARTY

www.somersetsignalsenders.org

I just want to thank everyone for making the Christmas Party another success. We had around fifty five people attend including Linda from Hobby Hut and Karren Newman of the Park commission. WOW!

Tony Rossi

President of Somerset Signal Senders

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. For additional information, please contact: Tom Teel, 908 581 6876, tfteel@optonline.net

HELP NEEDED: We are trying to find oversized training flight instruments for training classes. Should you know where to find them, please contact Tom Teel at tfteel@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 / tfteel@optonline.net.

PERSONAL & AEROSPACE CAREER DEVELOPMENT

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

PUBLICATIONS WORTH LOOKING AT:

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Coed 14 through 20 readers of this Flight Log please send me your aerospace 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 (new)

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

Schools offer training for lucrative aviation careers

<http://www.miamiherald.com/business/story/1405422.html>

BY INA PAIVA CORDLE

icordle@MiamiHerald.com

Matt Dillman found his calling in the ninth grade at Cooper City High School, when an aptitude test pointed him to a career as an air traffic controller.

A neighbor who worked at Miami International Airport arranged a tour of the control tower, and Dillman's fate was sealed. "I fell in love with it," said Dillman, 19, who graduated this month from Broward College's new Air Traffic Control program in Miramar, and hopes to work for the Federal Aviation Administration.

Placement Professionals Seeks Aerospace Engineer for NJ Location

01.05.2010 – [Learn more](#) about this Individual Resource Request published on [mySBX](#) - the professional network where businesses exchange opportunities, resources, and information, to win more business, expand capabilities, and increase profitability.

[University of North Dakota First to Offer a Four-Year Degree in UAV Piloting](#)

Jan 04, 2010, Clay Dillow, A dozen aspiring pilots at the University of North Dakota can't wait to never get off the ground. Following a shifting military strategy that calls for more and more unmanned aerial vehicles (UAVs) supporting troops on the ground, U. of ND is offering the first four-year degree for UAV pilots hoping to take the sticks in a field expected to swell to a \$20 billion industry over the next decade.

[Boeing Strengthens Engineering Function with New Structure, Key Appointments, Jan 06, 2010](#)

[Get ready for China's domination of science](#)

Jan 06, 2010, China will soon be the world's biggest producer of scientific knowledge. How will the west react to this new research superpower, asks **Jonathan Adams**

\$250 million initiative for science, math teachers planned

<http://www.washingtonpost.com/wp-dyn/content/article/2010/01/05/AR2010010503981.html>
 Nick Anderson, Washington Post Staff Writer, Jan 6, 10
 President Obama will announce a \$250 million public-private effort Wednesday to improve science and mathematics instruction, aiming to help the nation compete in key fields with global economic rivals.

SUBMITTED BY: Mary Lou Dordan, FAA

[Jobs coming with arrival of School of Aerospace Medicine](#)

WHIO Radio - Tom Michaels
 Wright State University entities, including the Boonshoft School of Medicine, Wright State Research Institute and Wright State School of **Aerospace Medicine**.

[Embry Riddle Initiates Aviation Ph.D.](#)

Jan 18, 2010, - Designed for working professionals and available as a mix of online courses and six-day on-campus residencies, Embry Riddle Aeronautical University's Ph.D. in Aviation, the "only one in the nation," has begun."

[NBAA Announces Recipients of 2010 Schedulers & Dispatchers Scholarship Awards](#)

Today, January 31, 2010, 24 minutes ago
 Two Separate But Related Programs Promote Professional And Career Development The NBAA and its Schedulers & Dispatchers (S&D) Committee Wednesday announced that \$40,000 in scholarship funds will be awarded to 12 individuals seeking to advance their aviation careers through continuing education.

AEROSPACE HUMOR

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THE AMA INSIDER

http://www.modelaircraft.org/insider/10_01/insider_Jan10.pdf

"Though I Fly Through the Valley of Death, I Shall Fear No Evil. For I am at 80,000 Feet and Climbing."

—*at the entrance to the old SR-71 operating base Kadena, Japan*

"You've never been lost until you've been lost at Mach 3."

—*Paul F. Crickmore, test pilot*

"The only time you have too much fuel is when you're on fire."

"Blue water Navy truism: There are more planes in the ocean than submarines in the sky."

"If the wings are traveling faster than the fuselage, it's probably a helicopter—and therefore, unsafe."

"When one engine fails on a twin-engine airplane you always have enough power left to get you to the scene of the crash."

"Without ammunition, the USAF would be just another expensive flying club."

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: 012901

For additional fund information please go to the funds

URL: <http://www.invescopowershares.com/products/overview.aspx?ticker=ppa>



UP IS GOOD

Call To Preserve Industrial Base: Boeing

http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=defense&id=news/asd/2010/01/12/02.xml&headline=Call%20To%20Preserve%20Industrial%20Base:%20Boeing

Amy Butler, Jan 12, 2010

The Pentagon and its aerospace contractors need to work more closely to form a plan to foster a healthy contractor industrial base amid flattening defense procurement budgets, according to Dennis Muilenburg, president of the recently renamed Boeing Defense, Space and Security.

Airbus snagged more orders in '09, but Boeing netted more cash

<http://www.postandcourier.com/news/2010/jan/17/airbus-snaggs-more-orders-09-boeing-netted-more>

DOMINIC GATES, *Seattle Times*, Jan 17, 2010

Airbus topped Boeing both in the number of planes produced and in the total of new orders last year, but the U.S. company prevailed in perhaps the most important tally: the actual money received for airplanes delivered to customers.

Whether calculated on list prices or on more realistic data using standard sales discounts, Boeing's deliveries were worth about \$4 billion more than Airbus's.

White House to Outsource NASA Work

Wall Street Journal - [Andy Pasztor](#) - 7 hours ago

The White House has decided to begin funding private companies to carry NASA astronauts into space.

AEROSPACE NEWS

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PUBLICATIONS WORTH LOOKING AT**SMITHSONIAN NATIONAL AIR AND SPACE MUSEUM:**

<http://www.nasm.si.edu>

AIR & SPACE MAGAZINE:

WWW.AirSpaceMag.com

ANN's Annual Review Of The Year That Was: Sport Aviation In 2009

[http://www.aero-](http://www.aero-news.net/index.cfm?contentBlockId=ec3522fd-d95e-45a0-b74c-d958f2d409b5)

[news.net/index.cfm?contentBlockId=ec3522fd-d95e-45a0-b74c-d958f2d409b5](http://www.aero-news.net/index.cfm?contentBlockId=ec3522fd-d95e-45a0-b74c-d958f2d409b5)

Sat, 02 Jan '10, Sport Aviation is about fun flying for the sheer joy of being in the air. From new designs to advanced technology, the sport aviation world made large strides this past year, but had it's share of sad news as well. Here's a look back at some of the stories we brought you through 2009.

Eclipse Aerospace Plans To Sell Jets In 2010

AVweb

By Glenn Pew, Contributing Editor, Video Editor Eclipse Aerospace expects to complete upgrades to 28 jets acquired as the assets of the former Eclipse Aircraft Company.

Airport Gets On-Site Wind Turbine

Jan 04, 10, Heritage Aviation, Burlington International Airport's new general aviation facility, has installed -- onsite -- a wind turbine, claiming "a first for renewables and aviation industries," according to Heritage. The Northwind 100 (100-kilowatt) turbine erected at the airport stands 121 feet tall, measuring from atop the 41-foot-diameter rotor's disc area. The airport hosts a number of instrument approaches, and Heritage pushed through heavy FAA scrutiny with the help of turbine supplier Alteris Renewables.

Boeing Shares Rise on Upgrades

ABC News - [Dallas January](#)

Jesup & Lamont upgraded the shares to "Buy" from "Hold," saying Boeing is its favorite company in commercial aerospace.

FAA blasts plane-makers seeking to delay flight-recorder changes

Seattle Post Intelligencer (blog), The Federal Aviation Administration Thursday lashed out at plane makers and airlines for dragging their feet on changes to flight recorders.

For Sale: Used Space Shuttles. Asking Price: \$42 Million Apiece.

Yesterday, January 08, 2010, 11:00:06 AM | gil

In the market for a used space shuttle? You're in luck. If, that is, you happen to have a spare \$42 million, and are a U.S. educational institution, federal agency, state or municipality.

FAA Controllers in Houston Begin Using Safer, More Efficient Satellite Based Tracking System.

Jan 12, 2010, gil, WASHINGTON: Federal Aviation Administration (FAA) Administrator Randy Babbitt announced today that Houston air traffic controllers are beginning to use an improved satellite-based system, Automatic Dependent Surveillance-Broadcast (ADS-B), to more efficiently and safely separate and manage aircraft flying over the Gulf of Mexico.

Had an Engine Overhaul? Aviation Consumer Wants to Hear About Your Experience

Jan 14, 2010, - Aviation Consumer is conducting a survey to hear your experiences with engine overhaul shops.

Whether the experience was propulsion bliss or aggravation of a new order, please take a couple minutes to let others know how it went. Your response will help inform an article on engine shops for Aviation Consumer magazine.

Aviation Consumer: <http://www.aviationconsumer.com/>

Boeing to Start Building India Plane Repair Center

http://online.wsj.com/article/SB10001424052748704541004575010423231905744.html?mod=googlenews_wsj

By NIKHIL GULATI, JAN 18, 2010, NEW DELHI --

[Boeing](#) Co. will start building a \$100 million aircraft maintenance, repair and overhaul center in a joint venture with state-run carrier, Air India, this year, the president of the U.S. aircraft maker's Indian operations said Monday.

Boeing to Bid on International Space Station Cargo Contract.

Jan 18, 2010, gil, HOUSTON: The Boeing Company [NYSE: BA] today announced it will draw on its human spaceflight experience, as well as its knowledge of International Space Station (ISS) operations and cargo processing, to bid on NASA's ISS Cargo Mission Contract.

[Agricultural Pilots Are Essential to The Farm Economy.](#)

Jan 18, 2010, gil - The sun hasn't quite crested the flat horizon, but agricultural pilot Dennie Stokes is already strapped into the cockpit preparing for a marathon workday that will keep him and his turbine-powered Thrush swooping over the Mississippi delta until well beyond sunset. The wettest spring in memory has saturated rice, soybean, and wheat fields that stretch [...]

DREAMLINER 101: ALL ABOUT THE BOEING 787

<http://www.seattlepi.com/boeing/787/787primer.asp>

Even before its initial rollout from Boeing's Everett factory in July 2007, the 787 Dreamliner was already the most successful new commercial airplane in the company's history. It brings the long ranges of much larger jets to midsize commercial airplanes, but also boasts improved fuel efficiency and a smoother ride for passengers and flight crew than the jets it will replace.

[Dreamliner Ready For Second Test Phase](#)

Jan 20, 2010, - Boeing's 787 Dreamliner has reached the end of its initial airworthiness test phase, the company said last week, which means more crew members and engineers now can fly in the cabin and additional aircraft will be added to the program. "This is an important step forward," said Scott Fancher, general manager of the 787 program at Boeing Commercial Airplanes. "We are very pleased ... The pilots have told me the results we are seeing in flight match their expectations and the simulations we've run." The 787 has flown 15 times and accumulated about 60 hours since the first launch in mid-December. Pilots took the airplane to 30,000 feet and speeds up to Mach 0.65. Initial stall tests and other dynamic maneuvers have been run, as well as an extensive check-out of the airplane's systems. In the next phase of testing, the team will expand the flight envelope to altitudes above 40,000 feet and up to Mach 0.85.

[Stop Paying The Airlines to Carry Your Bags.](#)

Jan 20, 2010, gil, Now that the airlines have raised, yet again, their fees for checked bags, it's time to take another look at the alternative: shipping your bags, or better yet (if you're staying in one place once you arrive) just the contents of your bag ahead of your arrival using economical ground shipping services.

Piper Unveils PiperSport LSA

http://www.avweb.com/avwebflash/news/PiperUnveilsPiperSportLSA_201878-1.html?CMP=OTC-RSS



By *Russ Niles*, Editor-in-Chief, January 21, 2010/Piper Aircraft says it's going back to its roots with a Czech-built light sport aircraft it's calling the PiperSport. In its first appearance at the U.S.

Sport Aviation Expo in Sebring, Fla. today, the company unveiled the aircraft, which was previously sold as a SportCruiser by Czech Sport Aircraft. There will be three

models; the basic PiperSport (\$119,900), training-oriented LT (\$129,900) and decked out LTD (\$139,900).

[A Faster Yacht, Trading Sails For a Wing](#)

Yesterday, January 21, 2010, 10:47:59 AM | Corey Binns



The BMW Oracle Racing team's boat--with an enormous wing for a sail--could win it all at the America's Cup race this month.

[Daredevil Space Diver To Leap Toward World's First Supersonic Free-Fall From 120,000 Feet](#)



Jan 22, 2010, Bjorn Carey - Here's Felix Baumgartner's plan: Float a balloon to 120,000 feet. Jump out. Break the sound barrier. Don't die. Simple, right?

Don't Cross That Line

<http://www.airspacemag.com/flight-today/Dont-Cross-That-Line.html>

By Craig Mellow, Air & Space Magazine, March 01, 2010
A general aviation airplane without a flight plan, chugging into restricted airspace, does not take long to stick out from the herd. If the Airvan continues to ignore the fighters in its face, EADS will pass an alert up a chain of command, where unspecified persons will have to decide what to do about it, perhaps within minutes, if the off-course pilot swings west toward the nation's capital.

Spirit Rover Shall Rove No More

Jan 26, 2010, Clay Dillow



After nearly ten months and countless efforts at twisting, turning and rocking for traction, NASA has [conceded defeat](#) in its effort to free the Mars rover Spirit from a sand trap near the Martian equator. But though the rover will likely never coast over the Martian landscape again, researchers do expect it to survive the upcoming winter and serve as a static science station going forward.

Light Sport Brute.

Jan 28, 2010, gil



When the air traffic controller requested that the Carbon Cub SS make an "immediate departure," the airplane didn't just comply: It redefined the term. The 180-horsepower light sport aircraft (LSA) leapt off the ground in about four airplane lengths carrying two people and more than 20 gallons of fuel skyward at 1,700 feet per minute and 60 MIAS.

CubCrafters: <http://planenews.com/rcr>

VIDEO: RUSSIA'S NEW T-50 PAK FA STEALTH FIGHTER TAKES FIRST FLIGHT

By Jeremy Hsu, 01.29.2010



Russia has finally taken the wraps off its next-gen stealth fighter, which will not only compete head-to-head with the U.S. F-22 Raptor, but may also represent a more affordable purchase for other nations on the world market.

Who to Watch in Private Space Taxi Field

<http://abcnews.go.com/Technology/wireStory?id=9710464>

By The Associated Press, Jan 31, 2010 (AP)

Here are some leading companies that are or could be developing a private space taxi system to take astronauts to the International Space Station. More firms may join in.

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/>

The Top 9 Airplane Tech Advances of the Last 10 Years

http://www.popularmechanics.com/science/air_space/4340775.html?page=3

The aughts capped 100 years of powered flight, pushing the technologies introduced in the 20th century to their limits. This past decade has seen the development of the biggest passenger airplanes, the fastest, most agile and stealthiest fighters, and the joy of flight brought to the amateur pilot as never before. **The coming decade promises breakthroughs such as combat-ready unmanned aerial vehicles, commercial rocket planes, hypersonic jets, and more.**

Cargo

In the Aughts: Cargo aircraft carries unprecedented cargo long distances with a minimal crew.

Next Step: Stepping up fuel efficiency via airship.

UAVs

In the Aughts: UAVs take over military skies, likely outflying pilots for man-hours.

Next Step: Carrier landings and a wider slate of missions.

Fighter Jets

In the Aughts: The fighter jet is perfected with the ultimate stealth and air-to-ground strike planes.

Next Step: Taking the pilot out of the fighter.

Fuel

In the Aughts: First steps with biofuels and batteries are made in the sky.

Next Step: Finding the affordable fuel source and fuel-efficient [technology](#).

Passenger Planes

In the Aughts: The next-gen passenger planes gets developed, focusing on efficiency and strength.

Next Step: Proving that composites represent the future of passenger aviation. Manufacturers hope that lighter, stronger and more fuel-efficient airplanes made with high percentages of composites will offset increased manufacturing costs and possible repair headaches.

Air-to-Air Weapons

In the Aughts: These weapons get high-tech, taking the guesswork out of targeting.

Next Step: Lasers

Private Flight

In the Aughts: Sports pilots get a boost.

Next Step: The birth of the backyard electric plane.

Rocket Planes

In the Aughts: Burt Rutan and private aerospace make way for the suborbital rocket plane.

Next Step: Working out the kinks in the suborbital business plan

Hypersonics

In the Aughts: Hypersonic [technology](#) comes of age with the success of the X-51A.

Next Step: Manned hypersonic flight

Forecasts 2010: Sonic boom

Today, January 04, 2010, 10 hours ago

Plans to move the aviation community back to flying faster than the speed of sound are likely to gather pace in 2010.

DIY Jet Almost Ready To Fly.

http://planenews.com/archives/11488?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+planenews+%28Planenews+Aviation+News%29

by gil | January 5th, 2010

Successful Engine Runs at [Sonex!](#) The Hornets' Nest R&D team is pleased to announce that, on Friday December 18, the SubSonex PBS TJ-100 engine was successfully started and run. A total of three runs were

made throughout the day, including one with power settings between 80-100 percent. The video at right tells the story... be sure to turn your computer's volume all-the-way up for the full experience!

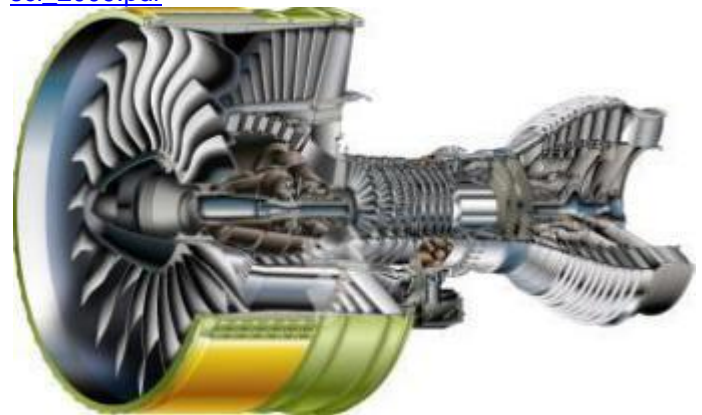
NASA To Test Spacesuit Designs

Jan 08, 10, - Johnson Space Center engineers plan four days of testing with three different versions of the new spacesuit.

Popular Science Magazine Picks Pratt & Whitney's PurePower PW1000G Engine Top Aviation Technology with Best of What's New Award

<http://www.pw.utc.com/vgn-ext-templating/v/index.jsp?vgnextoid=00d83d58af7e4210VgnVCM1000004f62529fRCRD&vgnextchannel=7dfc34890cb06110VgnVCM1000004601000aRCRD>

http://www.pw.utc.com/StaticFiles/Pratt%20&%20Whitney%20New/Products/Commercial/1%20Static%20Files/pop_sci_2009.pdf



EAST HARTFORD, Conn., Nov. 12, 2009 – Pratt & Whitney's PurePower® PW1000G engine has been recognized by Popular Science Magazine with a 2009 "Best of What's New Award."

Landspeeder UAV Completes First Lift Off

Jan 12, 2010, Stuart Fox,



For everyone looking to go to Tosche station to pick up some power converters, your ride may be here sooner than you think. The Israeli aerospace company Urban Aeronautics has posted pics of its curiously landspeeder-like UAV, as well as news of the craft's first successful lift off.

EXCLUSIVE VIDEO: Improving Your Cockpit Lighting Jan 18, 2010

FLYING CARS, JETPACKS AND ROCKET RACERS, OH MY!

Video from the EAA AirVenture airshow; including a plane that transforms into a road-ready vehicle, an intro to the Rocket Racing League and more

NASA Tests All-Composite Material Version of its Orion Space Module

Jan 26, 2010, Clay Dillow



It must be fun to be NASA. In an attempt to make a lighter, stronger and safer crew vehicle for future manned space missions, they've been [beating up](#) on an all-composite version of the Orion flight crew module, the manned portion of NASA's Constellation program. So far the vehicle has passed the structural stress tests with flying colors.

Toyota pedal Issue Highlights Auto Industry's Move to Electronics

http://online.wsj.com/article/SB10001424052748703762504575037313351103250.html?mod=googlenews_wsj

By SHARON TERLEP, JAN 31, 2010,

"The electronic system is far superior and far safer," said Jeffrey Liker, a University of Michigan industrial engineering professor who attended a recent Toyota briefing on the issue. "They have microchips that control things and send information. If any one of those computer chips failed, there would be a message and it would stop."

AEP107 NOTE: A couple of issues ago we ran an article about wireless aircraft controls.

AEROSPACE – THE FUTURE

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2009 **2015** **2020**
14 **20** **25**
 If you are 14 years old in **2009**, You will be 25 years old in **2020**. Aviation Exploring supports your plans to be a member of **AEROSPACE - THE FUTURE**. Fly Safe

- Terrafugia: <http://www.terrafugia.com/>
- USAF 2018 Bomber: <http://www.popsci.com/node/30794>
- SKYLON: <http://www.cosmosmagazine.com/news/2586/skylon-space-shuttle-just-ten-years-away>
- Paragon Space Development Corporation (Moon Garden): <http://www.paragonsdc.com>

RESEARCH ORGANIZATIONS

- DARPA <http://www.darpa.mil/index.html>
- Lockheed Martin – Skunk Works <http://www.lockheedmartin.com/aeronautics/skunkworks/index.html>
- Boeing Company-Phantom Works http://www.boeing.com/ids/phantom_works/index.html

PUBLICATIONS (NEW)

departure 2093: FIVE VISIONS OF FUTURE FLYING

http://www.finnairgroup.com/linked/en/konserni/Futuriikki_EN_LR.pdf

Can a solar-powered airplane be the future of aviation?

http://www.usatoday.com/travel/columnist/grossman/2009-12-29-solar-impulse-airplane_N.htm

While the world's attention was tuned to the recent global climate conference in [Copenhagen](#), in an old airplane hangar on a small Swiss airfield, a group of visionaries, dreamers and engineers was busily assembling a vehicle that is their solution to global climate change and the future of commercial aviation. This airplane uses no fossil or bio-fuels. It is a solar-powered airplane, collecting the sun's rays on 12,000 solar cells spread across its wings to charge the special lithium-polymer batteries that will continue to power the airplane from sunset till the next sunrise.

DARPA Wants a VTOL Transformer Flying Car.

http://planenews.com/archives/11464?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+planenews+%28Planenews+Aviation+News%29

by gil | Jan 4th, 2010, The objective of the Transformer (TX) program is to demonstrate a 1 to 4 person transportation vehicle that can drive and fly, thus enabling the warfighter to avoid water, difficult terrain, and road obstructions as well as IED and ambush threats. The vehicle will be capable of driving on prepared surface and light off-road conditions, while flight functionality will require Vertical Takeoff and Landing (VTOL).

[Russia Wants to Launch Armageddon-Style Mission to Deflect Asteroid](#)

Jan 04, 2010, Jeremy Hsu, The head of Russia's space agency says such a mission would save lives, but U.S. astronomers strongly differ. [make matters worse](#).

[AEROSPACE GIANT BUILDING A GRAVITY TRACTOR TO DEFLECT KILLER ASTEROIDS](#)

A company follows the vision of two NASA astronauts to protect Earth against space rocks
By [Jeremy Hsu](#), 08.31.2009, Gravity Tractor A gentle nudge to spare a world of hurt EADS Astrium NASA astronauts Edward Lu and Stanley Love first proposed using a robotic spacecraft to [nudge space rocks](#) away from Earth using the gentle force of gravity a few years ago. Now a European aerospace giant has begun seriously investigating the concept.

[Sped-Up Bacteria Could Transform Carbon Dioxide into Natural Gas](#)

Jan 06, 2010, Jeremy Hsu, Japanese researchers tell pokey bacteria to hurry up and make with the methane Bacteria naturally turn carbon dioxide into methane gas over billions of years. Now Japanese researchers want to give that process a speed boost, to help counter global warming and create some much-needed natural gas. [Agence France-Presse](#) reports that Japan

hopes to reduce the transformation period from billions to about 100 years.

[Private Space on Pace to Run NASA's Space Supply](#)

Jan 06, 2010, Over the weekend, engineers at the private launch company Space Exploration Technologies (SpaceX) ignited a rocket engine that sometime later this year will launch an unmanned capsule into space and rendezvous with the International Space Station.

How to make a liquid invisibility cloak

<http://www.newscientist.com/article/dn18359-how-to-make-a-liquid-invisibilitycloak.html?DCMP=OTC-rss&nsref=online-news>

Jan 2010, [Kate McAlpine](#)

When J. K. Rowling described Harry Potter's invisibility cloak as "fluid and silvery", she probably wasn't thinking specifically about silver-plated nanoparticles suspended in water. But a team of theorists believe that using such a set-up would make the first soft, tunable metamaterial – the "active ingredient" in an [invisibility device](#).

[Mind-Reading Systems Could Change Air Security.](#)

Jan 08, 10, gil - A would-be terrorist tries to board a plane, bent on mass murder. As he walks through a security checkpoint, fidgeting and glancing around, a network of high-tech machines analyzes his body language and reads his mind. Screeners pull him aside.

Artificial leaf could make green hydrogen

<http://www.newscientist.com/article/mg20527426.700-artificial-leaf-could-make-green-hydrogen.html?DCMP=OTC-rss&nsref=online-news>

10 January 2010 by [Mason Inman](#)

HIDDEN detail in the natural world could hold the key to future sources of clean energy. So say materials scientists who have created an artificial leaf that can harness light to split water and generate hydrogen. Plant leaves have evolved over millions of years to catch the energy in the sun's rays very efficiently. They use the energy to produce food, and the central step in the process involves splitting water molecules and creating hydrogen ions.

[Toyota Planning Full-Color Night Vision for Drivers Based on Insect Eyes](#)

Jan 13, 2010, Jeremy Hsu - Toyota engineers wanted better night vision systems that can help drivers navigate dark roads safely. Now they have developed camera software which takes inspiration from nocturnal dung beetles, bees and moths that can see across a remarkable range of color, brightness and shadow, [New Scientist](#) reports.

[A Cannon for Shooting Supplies into Space](#)

Jan 15, 2010, Amina Elahi

PICTURE(S) THE MONTH

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NASA claims its quiet one-person electric aircraft is real
<http://dvice.com/archives/2010/01/nasa-designs-qu.php>

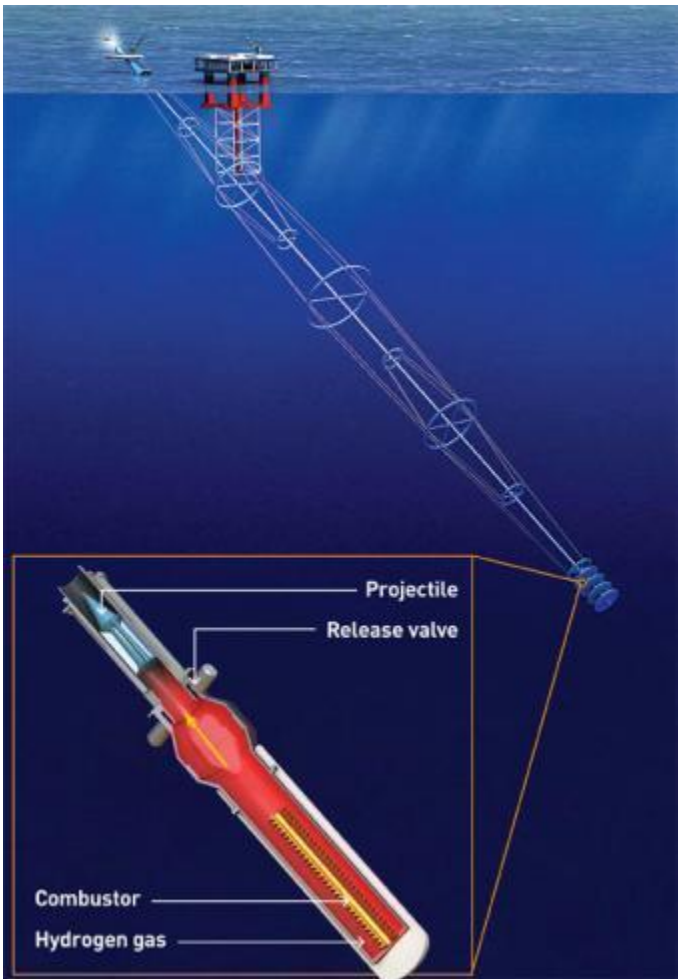


Is it possible for a one-person electric plane to take off vertically and fly 300 mph? NASA says yes, and shows us how it's done with Puffin, a single-passenger aircraft that's 10 times quieter than the most hushed helicopters. The design, accomplishing the same goal as [a jetpack](#) with a cockpit, could be the closest man has ever come to flying like a bird.

CLOSE ENOUGH?
SUBMITTED BY: Kurt Stofko AEP898



Cargo Plane Deck



A giant cannon designed to blast supplies into space on the cheap. Making deliveries to an orbital outpost on a rocket costs \$5,000 per pound, but using a space gun would cost just \$250 per pound.

[NASA Awards Contract for a Methane-Powered Balloon to Explore Saturn's Moon](#)

Jan 15, 2010, Jeremy Hsu, NASA's original concept for a balloon scout on [Saturn's moon Titan](#) called for using waste heat from a radioisotope power system. But such systems come with the major downside of not providing enough heat for sudden course changes -- a problem that one company plans to solve by using hot air balloon technology, [The Register](#) reports.