

Aviation Exploring Post 107

Personal and Aerospace
Career Development

Somerset Air Service, Inc.
SMQ



FLIGHT LOG JUNE 2009

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Aviation Exploring is “Learning for Life sponsored by:
Somerset Air Service, Inc.
Somerset Airport @ George Walker Field
“A Field of Dreams”

P.O. Pox 1007, Bedminster, NJ 07921
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<http://www.somersetairport.com/>

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 to our membership, alumni, recruits, partners and friends of AEP107, on a monthly basis. The AEP107 Flight Logs are also posted on our website: www.aep107.org.

Please send all FLIGHT LOG information / updates to the Editor: tfteel@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YOUTH PROTECTION NOTES: AEP107 Flight Logs do not publish the last names of Aviation Explorers ages 17 and under.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 [Return to Contents](#)

EAA CHAPTER CALANDER OF EVENTS: <http://www.eaa.org/calendar/Default.aspx>

This calendar is a service of New Jersey Aviation Education Council (NJAECE) www.njaviation.com
The information is not guaranteed. It is wise to confirm dates as some events are canceled without notice.
Please send all event information by the 14th of each month to either of the two addresses listed below.
If you would like to receive this calendar by e-mail, please e-mail Aeromary@gmail.com

Thank you. **Diana Dade** and **Mary Sullivan**
1430 Maple Ave. 11 Steele Place
Hillside, NJ 07205 Hillsborough, NJ 08844
(973) 923-1795 (908) 428-4841

Mercer Aviation Picnic (Mercer County Community College Flight Technology program)

Saturday, July 11th - @ Mercer County Park (More Information coming)

[Ocean City Air Show To Host NASA Exploration Exhibit](#)

June 08, 2009, Air show Runs June 13-14 America's plans for opening the space frontier - including new human exploration of Earth's moon and future voyages into the solar system beyond - are featured in an interactive exhibit scheduled to visit the Ocean City (Md.) Air Show June 13-14.



August 12-13-14, 2009

North Branch Park, Milltown Road, Bridgewater, N.J.

Free Family Fun! The 2009 Somerset County 4-H Fair

is Wednesday, Thursday and Friday, August 12, 13 and 14. It is open from 10 a.m. to 10 p.m. at North Branch Park, 355 Milltown Road, Bridgewater, located between Routes 22 and 202. For more information about the Fair call the 4-H Office at: **908-526-6644**.

1st Annual NJAA “EXCELLENCE IN AVIATION” AWARDS LUNCHEON

<http://www.njaviation.org>, Wed, Sep 23, 2009

Recipient of the coveted award and the keynote speaker is: VERN RABURN

Renowned founder of Eclipse Aviation Corporation and creator of the **ECLIPSE 500 VLJ**

Seating is limited so please SAVE THE DATE! This awards luncheon is a wonderful opportunity for you and your business to network while listening to a true industry leader who is always on the cutting edge of global aviation. For Sponsorship Information, please contact Arlene Feldman at 856.234.2552 or njaviationassn@gmail.com

CLASSIFIEDS [Return to Contents](#)

** HELP NEEDED TO SUPPORT OUR AEP 107 PROGRAM **

This is a perfect opportunity for a person who would like to support young people (ages 14 through 20) meet their "Personal and Aerospace Career Development" objectives. We need a volunteer to work with the AEP107 Advisor to run meetings, drive to events and share the excitement. AEP107 is sponsored by the Somerset Air Service @ the Somerset Airport, Bedminster, NJ.

Please contact Tom Teel, Chairman, AEP107, 908 581 6876, tfeel@optonline.net to sign up for a very rewarding volunteer position. <http://www.aep107.org>

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, tfeel@optonline.net

SOMERSET SOARING VENTURES, INC. <http://www.somersetsoaring.com>, AEP107 Members, if you wish to be a volunteer Wing Walker for FFF, Inc. please contact Jay Hahola at the glider line on **SAT, 11:00 AM** weather permitting. Jay would like to meet you personally.

Hello,



I have a few items I'd like to move out of the hanger. See Pics.

1) Hanger 9 Sundowner w/ OS 46AX. Futaba 3004 servos. No receiver or battery.

Excellent cond. Very lower air time on engine. \$250.00

2) Model tech Mach Racer w/ Tower 46, Futaba 3004 servos. No receiver or battery. This plane and engine are new. Tri landing gear can be installed and is included. Flown twice. Not for the faint of heart. \$150.00

3) Lanier Shrike 10. w/ OS 32SX, Futaba 3004 servos. No receiver or battery.

Very good cond. flown many times. Have a need for speed?? \$75.00



Any interest let me know. Dave Rollino. djrmr@comcast.net

AEP 107 MEMBER AND ALUMNI NEWS [Return to Contents](#)

Notes from our Business Planning Meeting 06-04-09:

- Two of our member graduating from high school next Thurs! Both are going to RVCC in the fall.
- Our Post registration paperwork was dropped off at Council this morning. Hopefully the charter will be in our hands shortly.
- Steve Pronko is working on getting an RC guy out to talk to the members. Ian & Keith are working on getting what we have back in the air for the least expense.
- Justin is working on Jared Issacman either coming back or us visiting him at his Charter Company.
- We also have an invite to MMU to see the airport ops side with Darren.

- Ray Smith is going to see if we can get around Somerset's DEP requirement for reclaiming wash water and therefore banning plane washes.

AEROSPACE PROGRAM – COMPLETED ACTIVITIES [Return to Contents](#)

AEP107 Members & Alumni, please keep in touch with the AEP107 Flight Log. We would love to share your **program activities**. Please send program reports and pictures for our news letter to Tom Teel / tfteel@optonline.net.

EAA, INTERNATIONAL YOUNG EAGLES DAY, June 13, 2009

EAA Chapter 643 hosted the EAA IYD Event at the Sky Manor Airport. A total of sixty (60) young people, ages 8 through 17 received a free flight. We would like to thank the volunteer pilots and ground crew. AEP107 members provided a lot of the ground crew support.

We are very proud of Keith Pronko (on the left) a former Young Eagle, current AEP107 member, and college student became a Young Eagle Pilot and flew a number of new Young Eagles. Keith is currently attending Rutgers University and is planning a career within the aerospace community.



Justin, current AEP107 member, was an active ground crew member.

Somerset Airport (SMQ) Operations

<http://www.somersetairport.com>



Ian Ricks (left) and Keith Pronko (right), current AEP 107 members, are working this summer for the Somerset Airport. They are responsible for airport operations. This is a very responsible position for these college students who are fast becoming established members of the aerospace community.



Keith & Ian started their "Personal and Aerospace Career Development" about 5 years ago as volunteer "wing runners" for **Somerset Soaring Ventures, Inc.**, gliders @ Somerset Airport. <http://www.somersetsoaring.com>

PERSONAL & AEROSPACE CAREER DEVELOPMENT

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AEP107 "PERSONAL AND AEROSPACE CAREER DEVELOPMENT"

PERSONAL DEVELOPMENT / CAREER ASSESSMENT / CAREER IDENTIFICATION / CAREER DEVELOPMENT / CAREER DEVELOPMENT SUPPORT

FOR ADITIONAL INFORMATION CONTACT: TOM TEEL tfteel@optonline.net

PUBLICATIONS WORTH LOOKING AT [Return to Contents](#)

Coed 14 through 20 readers of this Flight Log please send me your aerospace publications worth looking at:

SMITHSONIAN NATONAL AIR AND SPACE MUSEUM <http://www.nasm.si.edu>

AIR & SPACE MAGAZINE WWW.AirSpaceMag.com

AvSCHOLARS™ – Student Gateway to Aviation™ <http://www.avscholars.com>

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

NASA TV <http://www.nasa.gov/multimedia/nasatv/index.html>

New Jersey Astronomical Association <http://www.njaa.org/index.html>

The Aero-News Network <http://www.aero-tv.net/index.cfm>

[Defense research agency woos graduates to design drones](#)

Hindu - Chennai, India

Bangalore (IANS): In a bid to lure graduate engineers for a bright career in **aerospace** technologies, the state-run remier Defense Research and Development

[See all stories on this topic](#)

[Lockheed Martin Awards Scholarships To Seven Bay Area Students Who Are National Merit Finalists](#)

SUNNYVALE, Calif., June 9th, 2009 -- Lockheed Martin (NYSE: LMT) announced today that seven Bay Area students have been selected for National Merit Lockheed Martin Academic Scholarships.

The students receiving the scholarships are:

US spaceport to create exciting new construction and aerospace jobs

22/06/2009 14:24:12

<http://news.careerstructure.com/article/view/international/19229473/us-spaceport-to-create-exciting-new-construction-and-aerospace-jobs/>

According to New Mexico state officials, work on the historic project will create as many as 500 construction jobs over the next four years, **while a number of aerospace engineering jobs are also likely to be made available over the longer-term future.**

AEROSPACE BUSINESS NEWS [Return to Contents](#)

Boeing – Orders: <http://active.boeing.com/commercial/orders/index.cfm>

This chart includes both gross and net total orders for the current year. The net total includes order changes such as conversions or cancellations subtracted from the gross total orders (net year of cancel). This chart is updated weekly. The totals displayed in the reporting database are 'net year of order' totals. The data for the reports is updated once a month.

Boeing – Deliveries

<http://active.boeing.com/commercial/orders/index.cfm?content=displaystandardreport.cfm&RequestTimeout=20000&opReportType=CurYrDelv&pageid=m15520>

[Aerospace Manufacturer Reduces Inventory Costs by 30 to 40 Percent ...](#)

ZDNet Blogs

Kreisler Industrial supplies the aerospace industry with specialized tubing, primarily for jet engines. The company works with exotic alloys and expensive ...

[Aerospace Aluminum Demand Set to Ease Through 2010](#)

MetalMiner

Nevertheless, before aluminum aerospace distributors start closing up shop in despair they should note that from the 2009 trough even these growth rates.

Object flying by plane may have been model rocket

http://www.usatoday.com/news/nation/2009-06-06-airplane-object_N.htm?csp=34

LIBERTY, Texas (AP) — Investigators in Texas say a flying object that narrowly missed a Continental Express plane last month may have been a large model rocket.

The jet's pilot and co-pilot spotted the object and a long white vapor trail shortly after they took off from Houston's George Bush Intercontinental Airport on May 29. The plane was bound for Greenville, SC.

Pilots spotted the object at roughly 16,000 feet. It was about 5 feet to 7 feet long.

Liberty County Sheriff's Chief Deputy Ken DeFoor told the *Houston Chronicle* that no model rocket clubs reported having launches that day, and that a permit would be needed to launch a rocket that high.

Another Continental plane narrowly missed a probable model rocket after leaving the airport last year, also around Memorial Day. That plane was flying about 4,750 feet.

[AOPA And EAA Collaborating On GA Issues](#)

June 07, 2009, Major Talks Planned For Early 2010 Two of the nation's self-described 'largest aviation associations' are apparently going to try and make nice with each other... after years of sniping and other less positive 'competitive' behavior. EAA and AOPA claim that they will be collaborating on issues and programs that protect, support and grow general aviation as the result of a June 3 working session at the EAA Aviation Center in Oshkosh, Wis.



"Somerset Signal Senders Model Expo 2009":

<http://www.photoshow.com/watch/mx2wY3KN>

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

[Old Rhinebeck Aerodrome Celebrating 50th Season](#)



Old Rhinebeck Aerodrome: <http://www.olderhinebeck.org>

June 08, 2009, Amazing Show Season Begins On June 13th Old Rhinebeck Aerodrome is prepping for the beginning of a celebration of its Golden Anniversary, and the start of 2009 show season. A barnstorming air show on Saturday, June 13, featuring pioneering antique airplanes will open the season.

AEP107 NOTE: **Lorrain Holtaway** (2nd from left) AEP107 ALUMNI was a member of the Old Rhinebeck Aerodrome aircraft restoration team and a weekend aershow participant.

This picture was taken a few years ago when AEP107 trekked up to the Old Rhinebeck Aerodrome to visit Lorraine

[Mythbusters Episode Features Blue Angels, June 10th](#)

June 08, 2009, Popular Program Gives Marines/Blue Angels the chance to Strut Their Stuff The results of an experiment filmed on a Yuma training range to test whether a sonic boom from a jet would shatter glass is scheduled to air June 10, 2009, at 9 p.m. EST on The Discovery Channel. In February 2009, popular television show "Mythbusters" teamed up with the Blue Angels and the air station to conduct the test in a section of the Barry M. Goldwater Range used for supersonic flights.

[Tata to manufacture Sikorsky S-92 cabins in India](#)

June 14, 2009, Indian conglomerate Tata took another step towards establishing itself as a major player in the country's aerospace industry after signing an agreement with...

Monday, June 15, 2009

[Applied Aerospace Structures lands cargo spacecraft deal](#)

<http://www.bizjournals.com/sanfrancisco/stories/2009/06/15/daily5.html>

Francisco Business Times, Steven E.F. Brown

Applied Aerospace Structures Corp. will build part of a spacecraft designed to resupply the International Space Station. Stockton-based Applied will do the work for **Orbital Sciences Corp.** (NYSE: ORB) of Dulles, Va., which got the original contract from NASA earlier this year. Orbital is spending \$150 million on the demonstration project, and NASA is putting in \$170 million.

[40 Years Later: Ten Things You Didn't Know About the Apollo II Moon Landing, June 10, 2009](#)

1. The Apollo's Saturn rockets were packed with enough fuel to throw 100-pound shrapnel three miles, and NASA couldn't rule out the possibility that they might explode on takeoff. NASA seated its VIP spectators three and a half miles from the launchpad.

2. The Apollo computers had less processing power than a cellphone.

[read more](#)

[777 Replacement May Be All New Model](#)

http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=comm&id=news/NEW7706189.xml



Jun 18, Jens Flottau

Boeing will make a decision on how to improve its 777 in the next one or two years and may opt to go straight for an all-new aircraft, according to Chairman and CEO Jim McNerney.

"Eventually, we will have an all-composite replacement for the 777," he said on the sidelines of the Paris Air Show. "The question is how long will it take us to get there."

[Construction Begins on Spaceport America](#)



June 18, 2009

Spaceport America: In spaceport, no one can hear you buying the latest John Grisham book Spaceport America Conceptual Images URS/Foster + Partners For everyone looking to hop the next commercial flight to space, your departure gate has finally been announced. Almost two years [after the first plans were announced](#), construction has finally begun on Spaceport America. The spaceport, which will serve as the launch and landing pad for Virgin Galactic flights, is the first of its kind anywhere in the world, and represents the first serious commitment of infrastructure to manned commercial spaceflight. <http://www.spaceportamerica.com>

General Aviation Pilots Come Under New TSA Rule

http://www.sfvbj.com/industry_article_pay.asp?aID=97787178.2060642.1797679.4476455.3395396.251&aID2=138274

FAA Funding Bill Still Working Way in D.C.

Mark Madler, 6/22/2009

SAN FERNANDO VALLEY BUSINESS JOURNAL STAFF

A Transportation Security Agency regulation going into effect this month will put new restrictions on general aviation pilots using airports with a mixture of commercial and private aircraft flights.

[Aerospace milestone: First Chinese-made Airbus jet](#)

Seattle Post Intelligencer - 9 hours ago

Such an event is a coup for China, whose **aerospace** industry is on the up and up. China serves as both an important customer and emerging competitor.

[Semi-synthetic aerospace coolant](#)

American Machinist - 17 hours ago

Valenite LLC has added Aerotech VP, a semi-synthetic fluid developed for the **aerospace** industry and difficult-to-machine titanium alloys to its line of products.

[Exclusive Video: SeaRey LSX Light Sport Amphibian Flight Trial](#)

June 23, 2009, Aviation Consumer's Jeff Van West takes a SeaRey LSX for a spin on the water. Testing this light sport amphibian turned out to be more fun than we were expecting — what a blast!

[FAA's New York Region Airspace Redesign Wins In Court](#)

June 24, 2009, The FAA's plan to redesign the New York/New Jersey/Philadelphia region airspace cleared a key legal barrier last week when a court struck down a group of legal challenges, the FAA said on Monday. A federal appeals court ruled on June 10 that the FAA can continue to move ahead as planned.

AEROSPACE TECHNOLOGY NEWS [Return to Contents](#)

Diamond D-Jet – Executive Very Light Jet, Austria

<http://www.aerospace-technology.com/projects/diamond-djet/>



Diamond Aircraft Industries, based in Austria and Canada, has developed the D-Jet five-seat executive and owner-pilot jet. The aircraft was first revealed in 2002 and the first flight of the D-Jet took place on 18 April 2006 from the London International Airport, Ontario, home of Diamond's North American operations.

Deliveries are scheduled to begin in the first quarter of 2010. Other orders include six for YourJet of Louisville, Kentucky and ten for Chartright Air Group of Mississauga, Canada.

[Therm-X De-icing Now Available For Van's RV-10](#)

June 03, 2009, Modern De-Ice Equipment Adapted To The RV-10 Therm-X capability for Van's Aircraft RV-10 has just become available. With this addition, RDD has successfully added yet another aircraft model to its growing list of available Therm-X installations.

UK's first future strategic tanker takes flight

<http://www.flightglobal.com/articles/2009/06/05/327461/picture-uks-first-future-strategic-tanker-takes-flight.html>, By Craig Hoyle

Airbus has performed the maiden flight of the first **Trent 700**-powered **A330-200** being built to deliver the UK's **Future Strategic Tanker Aircraft** capability from 2011.



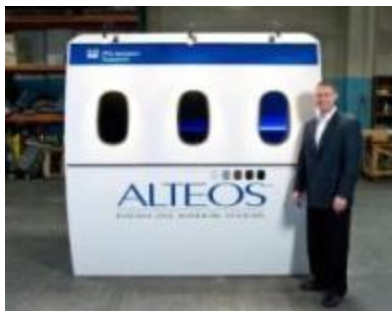
PPG Aerospace Launches ALTEOS Interactive Window Systems Brand

http://www.businesswire.com/portal/site/google/?ndmViewId=news_view&newsId=20090613005008&newsLang=en, June 13, 2009

Paris Air Show Visitors See Working Demonstration of ALTEOS Window Systems Paris Air Show 2009

Alteos interactive window systems are designed to replace pull-down, mechanical and other types of shades for enhanced passenger comfort, interior aesthetics and aircraft operating efficiency, Clark said. They use electrochromic technology developed by Gentex Corp. PPG is supplying *Alteos* interactive window systems for the Boeing 787 Dreamliner jet and 2010 Hawker Beechcraft King Air 350i airplane, he said.

<http://finance.yahoo.com/news/PPG-Aerospace-Launches-ALTEOS-bw-15517817.html>



PARIS AIR SHOW: Skunk Works nears flight for new breed of all-composite aircraft

<http://www.flightglobal.com/articles/2009/06/12/327179/paris-air-show-skunk-works-nears-flight-for-new-breed-of-all-composite-aircraft.html> , Stephen Trimble



When the latest X-plane crafted by [Lockheed Martin](#)'s Skunk Works team soon takes flight over Palmdale, California, observers will be watching a throwback to a previous era of experimental flight technology, but also a potential harbinger of things still to come.

Satellite-based air traffic control system slow to get off ground

June 14, 2009, ERIC TORBENSON / The Dallas Morning News

etorbenson@dallasnews.com

After years of fits and starts, the ingredients needed to get the nation's near-fossil-aged air traffic control system upgraded appear ready. The Federal Aviation Administration has fresh blood, eager airlines have invested heavily in new gear, and Congress has finally allocated a few billion dollars to kick-start the series of programs broadly labeled NextGen. But will that be enough to get the oft-delayed project off the ground?

Video of the week - aerogels

Aerogels are incredibly lightweight (nearly lighter than air) and strong materials, and one of this blog's most popular posts is a [video](#) demonstrating some amazing aerogel properties.

BUILDING WITH BUCKYPAPER

<http://peakenergy.blogspot.com/2008/10/building-with-buckypaper.html>

The Independent has an article on efforts to commercialize production of "buckpaper" - a thin material made of carbon nanotubes - which could dramatically reduce the weight of objects manufactured using the material - Cars, planes, computers could be made of nanotech 'buckpaper'. Bucky Fuller termed this type of advance in materials "ephemeralisation" and viewed it as one of the keys to a clean (and efficient) energy future.

Product Innovation: X2 TECHNOLOGY™ demonstrator

<http://www.sikorsky.com/vgn-ext-templating-SIK/v/index.jsp?vgnextoid=40c96eb78fa78110VgnVCM1000001382000aRCRD&vgnnextchannel=162f45d57ef68110VgnVCM1000001382000aRCRD&vgnextfmt=default>



Historically, vertical flight has required a compromise between hover performance and forward speed. If you look at efficiency vs. speed image on the right; the desired helicopter attributes (good hover efficiency, low speed controllability, low downwash, hover endurance) fall to the left of the plot. High disk loading aircraft such as Harriers and JSF, fall on the right of the plot: while fast, their hovering capabilities are limited, and their operational costs tend to increase due to the required power loading.

Italian Electric Airplane Reaches 155 MPH

http://www.avweb.com/avwebflash/news/ItalianElectricAirplaneReaches155mph_200577-1.html?CMP=OTC-RSS



By *Mary Grady*, Contributing editor, June 17, 2009

Experimenters have made great strides in recent years with electric power for small aircraft, and a step forward took place last week in Italy when a new battery-powered airplane flew for the first time, then two days later reached 155 mph, which is expected to be a new world record for the category.

ZAP! Advanced Tactical Laser Aircraft Fires High-Power Laser In Flight

June 21, 2009, Members of the 413th Flight Test Squadron, Hurlburt Field, Fla., and contractor Boeing recently successfully fired the high-power laser aboard the Advanced Tactical Laser aircraft for the first time in flight.

Boeing and Canadian researchers make engine icing research breakthrough

<http://www.flightglobal.com/articles/2009/06/23/328694/boeing-and-canadian-researchers-make-engine-icing-research.html>

By David Learmount

[Boeing](#) and the [National Research Council of Canada](#) believe they may have cracked the mystery of how ice can form in jet engine compressors despite internal temperatures being well above freezing, causing engine failure.

PICTURE: Prototype hybrid airship flies



June 24, 2009, A 15.2m (50ft)-long prototype for a 95m airship has now been flown 22 times and its developer Hybrid Air Vehicles has submitted bids for US military contracts, including the Long Endurance Multi-INT Vehicle (LEMV) program for the US Army

DARPA's Hypersonic Vulcan Engine Meld

<http://www.defenseindustrydaily.com/DARPA's-Hypersonic-Vulcan-Engine-Meld-05466/>

01-Jun-2009 20:01 EDT

The Vulcan engine will integrate a traditional jet turbine engine that performs well at low speeds, with a constant volume combustion (CVC) engine that performs well at higher speeds. The combination will help the vehicles go from standing starts to Mach 4 or so, where hypersonic engines can take over. DARPA's ultimate goal is to design, build, and fly Mach 6+ re-usable, air-breathing, turbine-based hypersonic vehicles.

Question of the Week: Is This the Dawning of the Age of Electric Engines?

June 25, 2009, Positive announcements from SkySpark and the Yuneec E430 have a lot of people wondering if electric-powered airplanes are ready to make the leap from high-tech concept to everyday reality. This week, we'd like to know where you think the technology is headed. Plus: Last week, we asked AVweb readers if they would still recommend a job in the airline industry to young people shopping around for a career; click through to see how they responded.

Biofuel Could Lighten Jet Fuel's Carbon Footprint Over 80 Percent

<http://www.sciencedaily.com/releases/2009/06/090619202611.htm>

ScienceDaily (June 22, 2009) David Shonnard, Robbins Chair Professor of Chemical Engineering, analyzed the carbon dioxide emissions of jet fuel made from camelina oil over the course of its life cycle, from planting to tailpipe. "Camelina jet fuel exhibits one of the largest greenhouse gas emission reductions of any agricultural feedstock-derived biofuel I've ever seen," he said. "This is the result of the unique attributes of the crop--its low fertilizer requirements, high oil yield, and the availability of its coproducts, such as meal and biomass, for other uses."

Solar Impulse Unveiling Set For Friday



June 25, 2009, Solar Impulse, an airplane designed to fly around the world on solar power, will be unveiled tomorrow, Friday, June 26, at Dubendorf airfield near Zurich, Switzerland. The aircraft has a wingspan of 210 feet and weighs about 3,500 pounds. It's powered by four 10-hp electric motors and carries more than 11,000 solar cells on the wing and the horizontal stabilizer.

WORLD'S FASTEST R/C PLANE HITS 392MPH--WITH NO ENGINE

<http://www.popsci.com/military-aviation-amp-space/article/2009-06/worlds-fastest-rc-plane-hits-392mph-no-engine>



GE and NASA plan to test a number of open-rotor fan blade systems for jet aircraft engines Image via GE Aviation

<http://www.gizmag.com/ge-nasa-open-rotor-jet-engine-systems/11962/>

GE Aviation and NASA will run a wind tunnel test program over the northern summer to evaluate and test counter-rotating fan-blade systems for open-rotor jet engine designs. The newly improved rig for testing was originally used by GE and NASA in the 1980s on scale models of counter-rotating fan systems, which led to the development of the GE36 engine.

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Spaceport America



USAF 2018 BOMBER



SKYLON (HYPERSONIC)



Terraflugia Roadable Airplane



MOON GARDEN 2012

TODAY

2009

14

YOUR FUTURE →

2015

20

2020

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

Spaceport America: <http://www.spaceportamerica.com/>
Terrafugia: <http://www.terraflugia.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>

[DARPA's Hypersonic Vulcan Engine Meld](#)

June 01, 2009, Fred Donovan, It might not be a Vulcan mind-meld, but it's pretty close. The Department of Defense's technology brain trust, the Defense Advanced Research Projects Agency (DARPA), has given 4 contractors the go-ahead to develop the advanced Vulcan combination engine system for hypersonic flight. The 8-month first phase features awards to: Alliant TechSystems, General Electric, Rolls Royce, and United Technologies.

[NASA Selects Four Proposals to Study Space Radiation Risks](#)

June 02, 2009, NASA has selected four proposals for research to help understand space radiation's affects on human living in space.

[Water Rolls Uphill On Metal Blasted By Powerful Femtosecond Laser](#)

June 02, 2009 Using an unbelievably powerful laser over an unbelievably short period of time, scientists have been able to alter the surface of metals to control the flow of water across their surfaces down to the individual molecule.

[HP's Flexible eSkin Displays Make Every Gadget Surface a Screen](#)

June 02, 2009, E-ink displays are already common in devices like the Kindle, but HP has taken the tech a step further with thin, printable color displays called eSkins. Printed in massive rolls, eSkins can then be cut and used as a thin coating on, say, your laptop's lid, turning the surface into an active, color display.

NOTE: Coming to a future instrument panel.

[New Metamaterials Could Produce Sonar Cloaking Device](#)

June 02, 2009, A new material created by researchers can refocus sound around certain objects and effectively render them sonically invisible to sonar. No natural material can do this, so man-made "metamaterials" must be created in order to toy with the laws of physics to essentially bend sound back on itself.

[DARPA's "Programmable Matter" Project Creating Shape-Shifting Materials](#)

June 08, 2009, "Programmable matter" is such a far-out concept that it's difficult to imagine it even existing outside the movies. But, thanks to some creative work done by scientists funded by DARPA (who else?), it might actually become a reality, creating materials that can be programmed to alter themselves at the molecular level into various shapes and then disassemble to form entirely new ones.

SIX TOP-SECRET AIRCRAFT MISTAKEN FOR UFOS

<http://www.foxnews.com/story/0,2933,524997,00.html?sPage=fnc/scitech/innovation>

June 04, 2009 **Popular Mechanics**

1. RQ-3 Darkstar, 2. U-2, 3. SR-71 Blackbird, 4. P-791, 5; F-117A Nighthawk; 6. B-2 Spirit

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This Picture & Story was submitted to us by Mary Teel

Look carefully at the B-17 below and note how shot up it is - one engine dead, tail, horizontal stabilizer and nose shot up. It was ready to fall out of the sky

Then realize that there is a German ME-109 fighter flying next to it.



Now read the story below. I think you'll be surprised.....

(This is a painting done by an artist from the description of both pilots many years later.)

Charlie Brown was a B-17 Flying Fortress pilot with the 379th Bomber Group at Kimbolton, England. His B-17 was called 'Ye Old Pub' and was in a terrible state, having been hit by flak and fighters. The compass was damaged and they were flying deeper over enemy territory instead of heading home to Kimbolton.

After flying the B-17 over an enemy airfield, a German pilot named Franz Steigler was ordered to take off and shoot down the B-17. When he got near the B-17, he could not believe his eyes. In his words, he 'had never seen a plane in such a bad state'. The tail

and rear section was severely damaged, and the tail gunner wounded. The top gunner was all over the top of the fuselage. The nose was smashed and there were holes everywhere.

Despite having ammunition, Franz flew to the side of the B-17 and looked at Charlie Brown, the pilot. Brown was scared and struggling to control his damaged and blood-stained plane.

BF-109 pilot Franz Stigler



B-17 pilot Charlie Brown.



Aware that they had no idea where they were going, Franz waved at Charlie to turn 180 degrees. Franz escorted and guided the stricken plane to, and slightly over, the North Sea towards England. He then saluted Charlie Brown and turned away, back to Europe.

When Franz landed he told the CO that the plane had been shot down over the sea, and never told the truth to anybody. Charlie Brown and the remains of his crew told all at their briefing, but were ordered never to talk about it.

More than 40 years later, Charlie Brown wanted to find the Luftwaffe pilot who saved the crew. After years of research, Franz was found. He had never talked about the incident, not even at post-war reunions.

They met in the USA at a 379th Bomber Group reunion, together with 25 people who are alive now - all because Franz never fired his guns that day.



(L-R) German Ace Franz Stigler, artist Ernie Boyett, and B-17 pilot Charlie Brown.

When asked why he didn't shoot them down, Stigler later said, I didn't have the heart to finish those brave men. I flew beside them for a long time. They were trying desperately to get home and I was going to let them do that. I could not have shot at them. It would have been the same as shooting at a man in a parachute.

Both men died in 2008.