



ALTERNATIVE AVIATION FUELS
PAVILION

Official Guide to
Alternative Aviation
Fuels Suppliers

Berlin Air Show 2012

OFFICIAL GUIDE

Supporting Organizations



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On behalf of CAAFI – the Commercial Aviation Alternative Fuels Initiative – I am pleased to welcome you to the Alternative Aviation Fuels Pavilion at the Berlin Air Show 2012.

We are delighted to be working alongside our partners aireg, the Aviation Initiative for Sustainable Energy in Germany, and Kallman Worldwide, Inc. to bring you a globally diverse group of international alternative aviation fuels suppliers and airline buyers, accompanied by multi-government and private institutions who seek to support the achievement of our collective goal of sustainable carbon neutral growth for our industry.

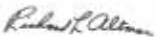
CAAFI, formed in 2006 by the U.S. Federal Aviation Administration (FAA), the Air Transport Association (ATA), the Aerospace Industries Association (AIA) and the Airports Operators Council North America (ACI-NA) and nearly 600 stakeholders has served catalyst over these past five years in the development, testing, environmental acceptance, qualification and deployment of sustainable alternative aviation fuels.

We are pleased that the alternative aviation fuels supply chain has achieved leadership status among transportation modes in the creation of a new sustainable fuel dynamic. Major developments and announcements are occurring with increasing frequency across the globe. The industry is now poised to move to the next level: Major global deployment of sustainable aviation biofuels with strong private / public partnerships in all regions.

The Alternative Aviation Fuels Pavilion features the leaders and products of the world's key producers, each of which has unique solutions for producing and distributing alternative aviation fuels. These producers are joined here at the show by representatives of Lufthansa, United and other commercial airlines. These airlines are leading the way to introducing new fuels employing equally imaginative and bold strategies. For the first time at an airshow, we have coupled a major airshow exhibition with a conference highlighting cooperating public and private interests from leading global partners in Germany and the U.S. Together we are turning the vision of sustainable fuel into a viable reality. Each of our exhibitors welcomes the opportunity to present their ideas, answer your inquires, and speak with you about potential paths forward.

I would like to again thank aireg, Kallman Worldwide, Inc., and our exhibitors and presenters, and indeed you, for your interest in this exciting new component of the global aerospace industry. We look forward to a productive week here in Berlin and to your working with CAAFI, aireg and our other global partners to celebrate commercial aviation's progress and to plan for an even better future.

Sincerely,



Richard Altman
Executive Director
Commercial Aviation Alternative Fuels Initiative (CAAFI)
www.caafi.org

Dear Ladies and Gentlemen,
Dear Visitors of the Alternative Aviation Fuels Pavilion,

We are pleased to welcome you to our international joint exhibit. For a first time at ILA Berlin Air Show, the leading global biofuel producers and technology providers for alternative aviation fuels are united under one roof. Together with our American partners CAAFI – Commercial Aviation Alternative Fuels Initiative and Kallman Worldwide we successfully convened the entire value chain of alternative aviation fuels and created most favorable conditions for new contacts, cooperations and industrial deployment.

The progress in our young business sector is stunning. Its development is certainly one of the most dynamic in the entire field of aviation. During ILA 2010, a light aircraft took to the skies on biofuel derived from algae. Since then numerous airlines worldwide have successfully flown commercial flights on alternative aviation fuel. As you will experience from the dialogue with our exhibitors, the technology has reached a level of maturity that allows to fully utilize the ecological advantages of biofuels and to use them in scheduled flights on a regular basis.

aireg was founded last year as an association of companies and organisations from the areas of science and research and acts as the centre of competence for alternative aviation fuels in Germany. With our all-encompassing multi-stakeholder approach it is our objective to push forward the development and deployment of alternative, regenerative liquid fuels for aviation thus supporting the achievement of the ambitious goals to reduce CO2 in aviation.

Look and see – alternative aviation fuels are fully employable today and can significantly contribute to mastering the ecological and economical challenges of aviation.

Yours sincerely,



Dr.-Ing. Klaus Nittinger
aireg President
Industry and Aviation



Prof. Dr.-Ing. Joachim Szodruch
aireg President
Science and Research



Kallman Worldwide is proud of its ongoing role in the global effort to bring alternative aviation fuels to the global marketplace.

We are pleased to be part of the great initiatives undertaken by our industry partners including ILA, CAAFI, aireg and others over the past several years to promote alternative aviation fuels. We remain committed to drawing attention to the tremendous strides that have been made, and the exciting developments that continue to be announced on a daily basis, as we bring the alternative aviation fuels message here to the Berlin Air Show 2012.

At the Farnborough Air Show 2010, and again at the Paris Air Show 2011, the conversations about the alternative aviation fuels focused on, "What might the future hold?" Now, here at the Berlin Air Show 2012, that message has evolved into, "the alternative aviation fuels industry has arrived!"

Within the Alternative Aviation Fuels Pavilion you can meet suppliers, buyers and facilitators from throughout the world. Collectively, via their displays, and their individual presentations, they will provide a comprehensive picture of where the industry stands today and where it is headed tomorrow. They are also here to provide you with first-hand information on how you may be able to get more involved in the alternative aviation fuels industry as it continues to grow and evolve.

We hope you enjoy your visit to the Alternative Aviation Fuels Pavilion at the Berlin Air Show 2012. We invite you to stay connected by visiting www.kallman.com and registering to receive regular industry updates.

Friendly Regards,



President and CEO
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Exhibitor	Booth #
Applied Research Associates, Inc. (ARA)	1202A
Airbus	1202L
aireg	1202H
Airlines for America (A4A)	1202E
AlgaeTec Limited	1202I
Amyris, Inc.	1202G
Beihang University	1202B
Carbon War Room	OFFICIAL SPONSOR
Chevron Lummus Global LLC	1202A
Elsevier Biofuel – TechSelect	OFFICIAL SPONSOR
Gevo, Inc.	1202F
Kallman Worldwide, Inc. / Exhibitor’s Meeting Point	1202D
Solena Fuels	1202K
Primus Green Energy	1202C
TOTAL	1202G
Verbio	1202J
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THANK YOU



Would like to thank



for their support of the Alternative Aviation Fuels Pavilion at the Berlin Air Show 2012

ILA Berlin Air Show 2012 Site Plan



Alternative Aviation Fuels Pavilion

The Future of Alternative Aviation Fuels Conference

Wednesday 12, September 2012
 ILA Berlin Air Show Conference Center

Hosted By



Alternative Aviation Fuels Pavilion Floor Plan

ARA / Chevron Lummus Global 1202A	Beihang University 1202B	Primus Green Energy 1202C
Presentation Area / Exhibitor's Meeting Point 1202D		Airlines for America (A4A) 1202E
		Gevo, Inc. 1202F

TOTAL / Amyris, Inc. 1202G	aireg 1202H	AlgaeTec 1202I
Verbio 1202J	Solena Fuels 1202K	Airbus 1202L

Applied Research Associates, Inc. (ARA)**Booth# 1202A**

430 W 5th Street, Suite 700
Panama City, FL 32401 USA
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**CONTACTS**

Chuck Red, Biofuels Program Manager | email: cred@ara.com

COMPANY DESCRIPTION

ARA's CH process converts oils from plants and algae into Renewable, Aromatic, 100% Drop-in Jet Fuel - REDIJET. The low-cost process uses water as a catalyst to produce high-density aromatic, cycloparaffin, and isoparaffin hydrocarbons.

Airbus**Booth# 1202L**

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**CONTACTS**

Frederic Eychenne, Airbus New Energies Programme Manager
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COMPANY DESCRIPTION

Airbus is the leading aircraft manufacturer offering a complete range of aircraft families, from 100 to well over 500 passenger seats, as well as the most modern, comprehensive and eco-efficient product line on the market. As a leading aircraft manufacturer Airbus is in pursuit of the Perfect Flight to shrink the environmental footprint of an aircraft's flight to a minimum. The Perfect Flight is a commercial flight which combines all best practices currently available: operating eco-efficient aircraft, using sustainable alternative fuels and implementing a truly streamlined Air Traffic Management (ATM) system. Airbus' alternative fuels strategy is to be the catalyst to speed up the commercialisation of sustainable alternative aviation fuel. Airbus is an EADS company.

aireg**Booth# 1202H**

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**CONTACTS**

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COMPANY DESCRIPTION

Aviation Initiative for Renewable Energy in Germany e.V. has been founded in 2011 as a network of enterprises and R&D organizations along the entire value chain of alternative aviation fuels. With 31 members to date, aireg has become the national center of competence for our up-and-coming Wsector. The initiative's primary goal is to advance the development and deployment of alternative fuels in order to utilize their significant ecologic and economic potential.

Airlines for America (A4A)**Booth# 1202E**

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Airlines for America
 We Connect the World

CONTACTS

Steve Barker | email: sbarker@airlines.org

COMPANY DESCRIPTION

Airlines for America (A4A), formerly known as the Air Transport Association of America, Inc. (ATA), was the first and remains the only trade organization of the principal U.S. airlines. In its 75-plus year history, A4A has supported America's airlines as they've evolved. Today, A4A members and their affiliates transport more than 90 percent of all U.S. airline passenger and cargo traffic.

A4A is a founding member of the Commercial Aviation Alternative Fuels Initiative® (CAAFI). CAAFI was founded in 2006 to promote the development and deployment of alternative fuels that offer equivalent levels of safety and compare favorably with petroleum-based jet fuel on cost and environmental bases, with the specific goal of enhancing the security of North American energy supply. CAAFI is a sector-wide coalition of government agencies, fuel and aviation industry representatives, trade associations, academic researchers, and supply chain contributors, all working together to facilitate the use of sustainable, drop-in alternative aviation fuels.

With its international outreach, CAAFI has become a driver of alternative aviation fuel development across the globe. CAAFI and the global aviation industry that it supports, seek the attainment of carbon-neutral growth from 2020.

Algae.Tec Limited

Booth# 1202I

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CONTACTS

Peter Hatfull | tel: +61 (08) 9380 6790 | fax: +61 (08) 9381 9161

COMPANY DESCRIPTION

Algae crude to transport fuel technology.

Algae.Tec is a globally focused advanced algae-to-biofuels company.

Algae.Tec is commercialising an enclosed modular high-yield (non-GMO) algae-to-biofuels growth system to produce fuel for transport. The fuel is designed to be a complete drop-in replacement solution that is cost competitive, and contributes to energy security.

The Algae.Tec photo bio-reactors produce high-value sustainable fuels such as biodiesel and jet fuel.

Algae.Tec has relationships with Lufthansa and Holcim, a JV in China, a showcase facility in Australia and a manufacturing centre in the USA. The Company is publicly listed on the Australian Stock Exchange, the Frankfurt Stock Exchange and, in the USA, its ADRs are traded on the OTCQX®.

Beihang University

Booth# 1202B

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CONTACTS

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COMPANY DESCRIPTION

Beijing University is a multidisciplinary University of Aeronautics and Astronautics characteristics. Research and applications in advanced aircraft design and manufacturing, aeronautic and power engineering, reliability engineering, computer software and network technology, intelligent robots and virtual reality technology, advanced navigation and flight control technology rank first for over 40 times. It contributes greatly to key technological breakthrough for the development of weapons and equipment for the national economy, and it is an important basic research and application base for the national defense science and technology, aerospace high-tech and information technology in various fields on behalf of the leading domestic level and international advanced level. Beihang University has 89 laboratories including 1 National Lab and 2 State Key Laboratory. For years, the funding for scientific research at BUAA has been increasing at an annual rate of over 20%, which ranks among the best in all the universities in China in terms of its achievements, funding and academic standard.

Chevron Lummus Global LLC

Booth# 1202A

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 2596 JJ, The Hague, The Netherlands



Chevron Lummus Global

CONTACTS

Bas van Heeswijk, Technology Marketing Manager | tel: +31 70 373 3514
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COMPANY DESCRIPTION

CLG licenses refining hydroprocessing technologies and catalyst systems worldwide, and is a 50-50 joint venture between Chevron Products Company, a wholly owned subsidiary of Chevron Corporation, and Lummus Technology Inc., a CBI Company.

website: http://www.chevron.com/products/sitelets/refiningtechnology/about_che_tech.aspx

Carbon War Room

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1150 Connecticut Avenue, #620
Washington, DC 20036 USA
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CONTACTS

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COMPANY DESCRIPTION

Carbon War Room's Renewable Jet Fuels Operation aims to accelerate investment in and adoption of sustainable renewable fuels. RenewableJetfuels.org - maintained by Carbon War Room and powered by the Elsevier Biofuel TechSelect - provides the world's first online market-information tool that analyses and ranks companies in the advanced renewable fuel supply chain, and explains the background and current situation of this complex new industry.

Elsevier Biofuel – TechSelect

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360 Park Avenue South, 7th Floor
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website: <http://techselect.elsevier-biofuel.com/AboutTechselect.aspx>

CONTACTS

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COMPANY DESCRIPTION

Elsevier Biofuel TechSelect is a new advanced database which contains key information on companies working across the biofuel value chain, their products and their technologies. Our aim is to accelerate the use of sustainable biofuel in aviation by making it clear which companies have viable technologies and the way these technologies can be applied.

TechSelect provides information to finance providers, fuel purchasers, supply chain managers and technology developers involved in technology and production relating to renewable jet fuel.

Gevo, Inc.**Booth# 1202F**

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**CONTACTS**

Jeff Scheib, Vice President of Business Development — Fuels
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COMPANY DESCRIPTION

Advanced biofuel for aviation isn't just a far-out laboratory concept. For Gevo®, it's a reality. Gevo is now developing biobased kerosene jet fuel (bio-jet) derived from renewable isobutanol to help the military and airlines meet their low-carbon objectives and diversify their fuel supply.

Kallman Worldwide Inc. / Exhibitor's Meeting Point**Booth# 1202D**

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**CONTACTS**

Mr. Tom Kallman, President and CEO
 Mr. Peter McKenna, VP of Strategic Planning | tel: +1-201-251-2600 xt. 124

COMPANY DESCRIPTION

Kallman Worldwide, organizer of the Alternative Aviation Fuels Pavilion at the Berlin Airshow 2012 is recognized as one of the world's largest, oldest, and most respected firms specializing in the marketing and management of exhibition space and services. Representing the leading international aerospace shows in the world, Kallman Worldwide has been able to introduce thousands of U.S. companies to export opportunities on five continents and in more than 25 countries since 1963.

See us in Berlin to discuss our upcoming opportunities for the global alternative aviation fuels industry!

Primus Green Energy

Booth # 1202C

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COMPANY DESCRIPTION

Primus Green Energy, headquartered in Hillsborough, New Jersey, has innovated a proprietary version of proven commercial technologies to convert biomass and/or natural gas to jet-fuel that can be used directly in engines as a component in standard fuel formulas without costly engine modifications or changes to the fuel delivery infrastructure. Primus Green Energy's technology has recorded the highest cellulose-to-gasoline conversion efficiency rate in the industry; is feedstock flexible through the use of natural gas as a supplement or replacement for biomass; and has low production and operational costs. Primus Green Energy is funded by IC Green Energy, the renewable energy arm of publicly traded Israel Corp. For more information, visit www.primusge.com.

Solena Fuels

Booth # 1202K

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CONTACTS

Brian Miloski, Chief Financial Officer | email: milsoki@solenafuels.com

COMPANY DESCRIPTION

Solena Fuels is a sustainable fuels company that can turn municipal solid waste and any other type of waste biomass into jet and/or diesel fuel on a subsidy free, market competitive basis. Solena uses proprietary technology to convert any type of biomass, including waste, into a renewable synthetic gas ("BioSynGas") which is subsequently upgraded into a synthetic, certified drop-in liquid fuel that replaces fossil fuel-based energy.

TOTAL / Amyris, Inc.**Booth# 1202G**

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**CONTACTS**

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CONTACTS

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COMPANY DESCRIPTION

International oil and gas group Total and integrated renewable products company Amyris have partnered to develop and commercialize a renewable aviation jet fuel. This fuel uses a sustainably-sourced feedstock, which is converted into pure hydrocarbons, chemically similar to current jet fuel, using Amyris's proprietary biotechnology platform. Therefore it is a drop-in, renewable jet fuel, compliant with jet A/A-1 fuel specifications and outperforms conventional petroleum-derived fuel in a range of performance metrics, including fit for purpose and greenhouse gas emission reduction potential, without compromising on performance quality. Amyris has begun testing of its renewable jet fuel with major engine and aircraft manufacturers along with other industry participants. Total and Amyris are working together to acquire OEM acceptance and achieve regulatory validation in key markets.

VERBIO Vereinigte BioEnergie AG

Booth # 1202J

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Biofuel and Technology

CONTACTS

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COMPANY DESCRIPTION

VERBIO AG is a leading manufacturer and supplier of biofuels to Germany and Europe producing biodiesel, bioethanol and biomethane on an industrial scale at three sites with about 750 employees. Thanks to internally developed energy-saving production processes and ground-breaking technologies, VERBIO's products significantly exceed the statutory demand to cut CO2 emissions by at least 35% compared to fossil fuels. And VERBIO's patent-pending bio-refinery has raised the bar all over the world.

Westar Trade Resources

OFFICIAL SPONSOR

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CONTACTS

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COMPANY DESCRIPTION

Westar Trade Resources is an international financial consulting company headquartered in Dallas, Texas. Known for the development, marketing, consulting and funding of start-up & expansion of new businesses, both domestically and internationally, the depth of projects has extended to all forms of renewable energy and bioproducts, food and fiber manufacturing, green building products and import-export manufacturing and commodity trading. Westar has assisted companies with obtaining over \$900 million in USDA, DOE, and Ex-Im Bank grants and government loan guarantees, and provides a host of other non-traditional financing options.



See You at the
Paris Airshow 2013!



50th INTERNATIONAL
PARIS AIR SHOW
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JUNE 17-23, 2013

**For more information,
please contact:**

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aireg 

Aviation Initiative for
Renewable Energy in Germany e.V.

aireg – Aviation Initiative for Renewable Energy in Germany e.V. has been founded in 2011 as a network of enterprises and R&D organizations along the entire value chain of alternative aviation fuels. aireg's goal is to advance the development and deployment of alternative fuels in order to utilize their significant ecologic and economic potential.

Our top three goals for 2025 to achieve the CO₂ reduction targets set by policymakers and the aviation industry:

- Add a blend of ten per cent biofuel to the German aviation fuel consumption.
- Build at least one large-scale industrial biorefinery in Germany.
- Reach government agreements to secure the supply of feedstock.



Powered by Gevo™



Near Term • Scalable • Cost Competitive • Drop-in BIO-JET

Advanced biofuel for aviation isn't just a far-out laboratory concept. For Gevo®, it's a reality. Gevo is now developing biobased kerosene jet (bio-jet) derived from renewable isobutanol to help the military and airlines meet their low-carbon objectives and diversify their fuel supply.

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