TRANSPORTATION APPLICATIONS

An unmanned hydrogen fuel cell powered jet, named the Hyfish, took to the skies over the hills of Bern, Switzerland and flawlessly performed vertical climbs, loops and other aerial acrobatics at speeds reaching 200 km/h. The Hyfish is the result of a cooperative development between the German Air & Space Center (Deutsches Zentrum fuer Luft-und Raumfahrt or DLR) and a number of international partners, including Horizon Fuel Cell Technologies Pte Ltd. Scientists at the DLR Institute for Technical Thermodynamics integrated Horizon's ultra-light and compact 1-kW fuel cell system into an aircraft with a total weight of just 6 kg. The HyFish has a fuselage length of just 1.2m and a short 1m wingspan. http://www.horizonfuelcell.com/hyfish.htm

New England's first zero-emission fuel cell-powered hybrid bus recently made its debut onto the streets of Hartford. The 40-foot hybrid bus will immediately enter CTTRANSIT service and operate first on the free downtown Hartford Star Shuttle route, and then in a few months on other routes that serve Hartford and surrounding towns. http://www.utcpower.com/fs/com/bin/fs_com_Page/0,5672,0212,00.html

Vancouver Announces Funding for Hydrogen Bus Fleet.
Vancouver, British Columbia Premier Gordon Campbell announced that the province will provide CAN$45 million (US$40 million) towards the production of 20 hydrogen-fueled buses and development of hydrogen fueling stations in Whistler and Victoria. Campbell said the goal is to have the fuel-cell buses on the road by the end of 2009. http://www.fuelcellsworks.com/Supppage7274.html

Ballard and Daimler Extend Contract.
Ballard Power Systems has secured contract extensions with DaimlerChrysler to provide field service to Mercedes-Benz fuel cell bus fleets in Hamburg and Amsterdam in 2007 and 2008. This is the second extension for these two city-partners of the HyFLEET:CUTE fuel cell bus demonstration program, a continuation of the successful Clean Urban Transport for Europe (CUTE) program established in 2003. http://www.ballard.com/be_informed/about_ballard/news/2007/04/02/BUS_Service

Boeing Preparing for Fuel Cell Flight.
Boeing’s Fuel Cell Demonstrator Airplane research project began in 2003, and now researchers and partners in Europe are preparing to conduct experimental flight tests of a manned airplane powered only by a fuel cell and lightweight batteries. The Boeing demonstrator drives its prop with an electric motor, which is powered by the combination of a hydrogen fuel cell and a lithium-ion battery pack. The fuel cell can power the prop while cruising, but the extra power of the battery pack is needed for takeoff and climbing. http://www.boeing.com/news/releases/2007/q1/070327e_nr.html

Nuvera Supplying Toro with Fuel Cell for Utility Vehicle.
Nuvera Fuel Cells will supply The Toro Company with a PowerFlow™ PFV-5 fuel cell system for integration into a Toro® Workman® utility vehicle. The Nuvera-powered Workman is being developed under a contract between Toro and the New York State Energy Research and Development Authority (NYSERDA) to create the next generation of turf maintenance equipment powered by hydrogen fuel cells. The vehicle is part of the New York State Office of Parks, Recreation and Historic Preservation’s (NYS OPRHP) award winning “Green Parks Program” and will operate at the world renowned Niagara Falls State Park and Beaver Island State Park and Golf Course.

STATIONARY APPLICATIONS

FuelCell Energy, Inc. (FCE) and Versa Power Systems, Inc. have successfully completed performance and endurance tests on a prototype 3 to 10 kilowatt (kW) fuel cell commissioned by the U.S. Department of Energy (DOE) six months ahead of schedule. FCE and Versa Power were selected by DOE through a competitive process to participate in the Solid State Energy Conversion Alliance (SECA) program to apply this SOFC technology in developing large-scale, multi-megawatt power plant systems that run efficiently on clean coal.
http://www.fce.com

Toyota to Provide 1-kW Fuel Cells to Toho Gas.
Toyota Motor Corporation plans to continue providing its city-gas-powered 1-kW residential fuel cell cogeneration system to Toho Gas Co., Ltd. (Toho). The residential fuel cell cogeneration system combines a stationary fuel cell – jointly developed with Aisin Seiki Co., Ltd. (Aisin) – and a hot water storage tank. Toyota will manufacture 28 units of the system for Toho, which plans to install them in homes in three prefectures (Aichi, Gifu and Mie) of Japan’s Tokai District to collect data for a two-year period ending in March 2010.

Acumentrics Demonstrates Residential Fuel Cell in Hannover.
Acumentrics Corporation demonstrated a new, fuel cell-powered, home energy appliance at the Hannover Fair this April in Hannover, Germany. The micro-CHP (combined heat and power) device generates heat and electricity directly from municipal gas or propane. The Acumentrics AHEAD micro-CHP provides enough electricity to power the average home, with peaks being handled by the grid or batteries.

EnrG Wins NYSERDA Award.
ENrG Inc. has been awarded up to $500,000 from the New York State Energy Research and Development Authority (NYSERDA) on a $1.4M contract to further advance the development of a high power, compact energy source.

PORTABLE/BACKUP POWER

Plug Power Joins with TCIL to Market GenCores in India.
Plug Power Inc. has entered into a non-exclusive agreement with Telecommunications Consultants India Ltd. (TCIL) to market, distribute and service Plug Power's GenCore product line to government-owned telecommunications providers in India and specific TCIL projects outside of India.

MICRO FUEL CELLS

FUELS/REFORMERS/STORAGE
Hydrogen Station Opens in Illinois.
The first hydrogen fuelling station in Illinois was opened at the Gas Technology Institute in Des Plaines, Illinois. The station will supply prototype hydrogen fuel cell vehicles operating in the local area and is capable of producing its own supply of hydrogen, either from natural gas or ethanol, or through the electrolysis of water. GTI also has hydrogen infrastructure projects underway in California and Texas. http://www.hydrogencarsnow.com/blog/2007/04/illinois-opens-first-hydrogen-fueling.html

Millennium Cell Awarded Subcontract by Protonex, Forms Relationship with Kuchera.
Millennium Cell Inc. has been awarded a subcontract by Protonex Technology Corporation, a licensee of Millennium’s Hydrogen on Demand® technology, to jointly develop a fuel system for long-endurance unmanned aerial vehicle (UAV) missions. Millennium Cell has also formed a strategic relationship with Kuchera Defense Systems (KDS) focused on the commercialization of products developed by KDS, Millennium Cell and Gecko Energy Technologies. Initial KDS products are planned to include Millennium’s Hydrogen on Demand® technology, Gecko’s PowerSkin™ fuel cells that provide a thin, low cost source of power up to 30 watts and Jadoo Power fuel cells for applications up to 500 watts. http://www.millenniumcell.com/fw/main/default.asp?DocID=92&reqid=982898 http://www.millenniumcell.com/fw/main/default.asp?DocID=92&reqid=986662

DoE to Fund Hydrogen Storage Research Projects
The US Department of Energy (DOE) will provide $8.2 million for six projects researching methods of hydrogen storage. The organizations selected for research include DOE’s Argonne National Laboratory in Argonne, Illinois; DOE’s Sandia National Laboratories in Livermore, California; Miami University in Oxford, Ohio; United Technologies Research Center in East Hartford, Connecticut; and the University of Hawaii in Honolulu. Four of the projects will research new high-capacity materials that could be used for hydrogen storage, particularly in fuel cell-powered vehicles. The other two will focus on the safety issues surrounding the use of such materials in order to aid the development of real-world hydrogen storage solutions. http://www.energy.gov/news/4944.htm

MATERIALS/COMPONENTS

PolyFuel Receives Two Patents.

Argonne Researchers Achieve Nanoscale Engineering Breakthrough.
Researchers at Argonne National Laboratory (ANL) have developed an advanced concept in nanoscale catalyst engineering – a combination of experiments and simulations that will bring polymer electrolyte membrane fuel cells for hydrogen-powered vehicles closer to massive commercialization. The researchers have identified a cathode surface capable of potentially exceeding the target for catalytic activity, while improving stability. http://www.anl.gov/Media_Center/News/2007/MSD070302.html

New Nanotech Research Center to Open at University of Rochester.
Nanotechnologies Initiative, a new nanotechnology research center located at the University of Rochester, will open after receiving $1.8 million in federal funding. The center will be available to researchers from a variety of disciplines across the University’s campuses, and will focus primarily on greatly expanding the current research on fuel cells and biosensors. http://nanotechwire.com/news.asp?nid=4554

REQUESTS FOR PROPOSALS
Pennsylvania’s Department of Environmental Protection is offering $31.4 million in grants to finance projects in the state that promote and build markets for advanced or renewable energy technologies. Fuel cells are among the eligible technologies.

REPORTS/MARKET STUDIES

Have you ordered your Fuel Cell Directory yet? The Ninth edition of Fuel Cell 2000's Fuel Cell Directory is now available, with listings from roughly 1,035 companies submitted by the companies themselves. Since the last edition, Fuel Cells 2000 added more than 300 new companies, and updated current listings with new contacts and information. The 296-page directory includes the name, address, phone number, URL, stock symbols, investor, sales, media and human resource contacts and emails, and the name of the President or CEO for each company. You can order the Directory at http://www.fuelcells.org/directoryorderform.pdf.

MISCELLANEOUS

Hydrogenics Receives Orders From New Customers.
Hydrogenics Corporation has received approximately $1.0 million in HyPM® Fuel Cell Power Module orders to date in 2007 from eight new customers and one repeat customer, for deployment in a range of pre-commercial markets. The orders include both power module and light mobility customers.
http://www.hydrogenics.com/ir_newsdetail.asp?RELEASEID=238677

CMR Joins Xaar and Solvay on Stack Development.
CMR Fuel Cells has entered into a non-exclusive collaboration agreement with Xaar and Solvay to develop a single-step production process for the mass-manufacture of entire fuel cell stacks based around CMR’s fuel cell architecture. The collaboration will develop printing techniques with a view to creating a single-step production process for the manufacture of fuel cell stacks, which would yield significant gains in cost reduction, size reduction and increased reliability.
http://www.cmrfuelcells.com/

Rolls-Royce Acquires SOFCo-EFS Holdings.
Rolls-Royce Fuel Cell Systems (US) Inc. has acquired the assets of Ohio-based SOFCo-EFS Holdings LLC from McDermott International Inc.
http://www.rolls-royce.com/media/showPR.jsp?PR_ID=40452

Horizon Releases New System for Remote Control Car.
Horizon Fuel Cell Technologies has released a "drop in" hydrogen fuel system for remote control car enthusiasts called the H-cell, the first high-performance hydrogen solution for the R/C market. The system carries 30 liters of solid state hydrogen, comes with an adaptable, futuristic body shell, and can power a car at speeds of 22 mph and for up to four times longer than conventional rechargeable battery solutions.
http://www.horizonfuelcell.com

CONFERENCES

For a complete list of conferences, please go to http://www.fuelcells.org/news/conf.html

2007 USFCC Congressional Fuel Cell EXPO.
The 2007 USFCC Congressional Fuel Cell EXPO will be held Tuesday, May 15, 2007, at the Cannon Caucus Room, Cannon House Office Building, Washington, DC. The event is FREE to the public.
http://www.usfcc.com

Battery/Fuel Cell Asia Markets.
The Battery/Fuel Cell Asia Markets Conference will be held May 29-30, 2007, at the Swissôtel Merchant Court in Singapore.  

**Fuel Cell Early Markets 2007.**
Fuel Cell Early Markets 2007: Policy, Finance, & Applications will be held June 11-12, 2007, at the Brussels Marriott Hotel in Brussels, Belgium. For more information, please contact Magda Dziembowski at mdziembowski@intertechusa.com or visit http://www.intertechusa.com/fuelcells.html.

**Fuel Cells 2007.**

**Hydrail Conference.**
The Third International Hydrail Conference will be held at the Centro Congressi Giovanni XXIII in Bergamo, Italy on June 25-26, 2007. For conference information, please visit http://www.hydrail.org/.

**Grove Fuel Cell Symposium.**

**Hannover Messe 2008.**
The 14th Group Exhibit Hydrogen and Fuel Cells at Hannover Messe 2008, will be held April 21-25, 2008, in Hannover, Germany. More information can be found at http://www.fair-pr.com.

*Fuel cells generate electricity without combustion by harnessing the energy created when hydrogen and oxygen are chemically combined. Fuel Cells 2000 is an independent, nonprofit activity dedicated to the commercialization of fuel cell technologies.*