

## GE On Wing Support: Seen on Tarmacs Around the World

On call 24/7, On Wing Support\* provides full-service repair solutions for all GE and CFM\* engines—at the flight line and in strategically located quick-turn engine maintenance shops.



“GE Aviation’s On Wing Support provides more than 3,000 rapid repair solutions yearly to more than 250 customers worldwide,” says Abby Posner, president and general manager, On Wing Support. “Understanding our customers, forecasting their needs and providing responsive capabilities for them is what our service is all about. We focus on listening to the customer and creating solutions that keep them flying.”

To that end, On Wing Support (OWS) has recently introduced a number of new customer initiatives designed to drive productivity for airline customers and make working with GE even easier. Expanded engine change capabilities and service innovations, simplified

commercial processes and one-hour AOG (aircraft on the ground) response time, new regulatory certifications at OWS sites and the organization’s recently obtained approval to serve the Brazilian market are new OWS offerings developed to meet customers’ global needs.

### Expanding Capabilities

On Wing Support operates a worldwide network of dispatch and repair facilities, with a menu of services available as either a supplemental OnPoint\* service product or as part

of a comprehensive OnPoint solution for flight line engine maintenance needs. OWS programs continually improve, including these recent enhancements:

**Engine change:** OWS has significantly broadened its capability to perform engine changes around the world and has also added more aircraft types for which this service is provided, including the Airbus A320\* and A330\* and the EMBRAER 190\*. “Expanding these capabilities across our network saves our customers time, money and business travel costs. We’re now able to execute engine changes in Europe and Asia with local resources, versus sending teams halfway around the world to provide that support,” says Posner.

“During China Southern’s GE90\* outstation UER [Unplanned Engine Removal] event incurred in Osaka, we were very pleased with On Wing Support’s GE90 engine replacement service, which quickly returned our B777-200\* aircraft to service, minimizing further revenue loss,” says Xin Li, engineering manager, GAMECO, supporting China Southern Airlines. “We were especially pleased with the on-site team’s diligence in performing this task amid the challenges of the outstation location.”

**New service areas:** “Where we see market gaps in product support services that offer productivity for our customers, we work to add capabilities, such as our new engine water wash solution and Tool Lease Program,” says Posner.

“We offer engine core wash services via a vendor affiliated with our network, AeroWash, to provide an environmentally sensitive option—effluent capture and processing in a single, fully enclosed system,” she explains. “We also understand that not all customers have the tooling they need. Through our new Tool Lease Program, OWS can provide that service on a long- or short-term lease basis. We own the tooling, store it, maintain it and ship it to our customers when and where they need it.”

**Ease of doing business:** “We simplified our commercial processes, offering fixed-price solutions and accepting credit cards for payment,” says Posner. “And we are committed to responding to AOG queries within one hour,

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confirming our ability to deploy and the timelines for arrival at the aircraft.”

“Asiana experienced an AOG situation with no spare engine,” says K.P. Nah, general manager, Maintenance Administration, Asiana Airlines. “During this period, the excellent assistance of the OWS team was a great help for us to resolve the difficult situation. I hope that we keep working more closely in the future and to further enhance our business relationship.”

**New regulatory certifications:** The U.S. Federal Aviation Administration (FAA) has acknowledged the quality of OWS service with the presentation of its 2007 Diamond Award to OWS’ U.S. operations. “As OWS grows its services, our goal is to achieve the broadest possible regulatory approval at all of our maintenance shops,” says Posner. “Recent news on this front: The Xiamen, China, shop now has FAA approval; the Seoul, South Korea, shop has received Civil Aviation Administration of China [CAAC] approval; and the Warsaw, Poland, shop, a joint venture with LOT Polish Airlines, now has FAA approval.”

**Going to the customer:** OWS has shops and technicians globally located, reaching out to customers in a variety of ways. GE has recently received regulatory approval by the

Brazilian National Civil Aviation Agency for technicians out of its Celma engine overhaul and repair operation in Petropolis, Brazil, to perform on wing engine services at customers’ Brazilian sites.

“TAM is very pleased with the support provided by GE Celma on the CF6-80E1 control alternator drive retrofit,” says Fabio Wallner, Powerplant Engineering team leader, TAM Linhas Aereas S/A. “Every detail, from manpower to material, is being managed by them. Basically the only concern we have is to inform the aircraft schedule. We really appreciate having this type of on wing support available here in Brazil. Better than that would be only if they could do the work while the aircraft is flying.”

“On Wing Support is a link to the broader GE organization, with which we have a shared goal to constantly improve the customer service experience,” says Posner. “For example, when in-flight diagnostic data indicate an engine issue, OWS can repair those issues—we work in tandem to provide comprehensive, customer-centric support. Our objective is to bring our Original Equipment Manufacturer engine expertise to the customer to help them drive reliability and productivity, save money and increase efficiencies.”

Visit the On Wing Support website at [www.geaviation.com/ows](http://www.geaviation.com/ows) for further information on services and locations.

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## Flexible Tool Lease Program Saves Time, Money

Need a tool? Have a large or small GE or CFM\* engine maintenance task?

On Wing Support’s\* Tool Lease Program makes it possible for customers to get the tools they need when they need them, without long lead times. Long- and short-term leases are available from a diverse tooling inventory, including: complete engine change, low-pressure turbine and top case kits; engine stands; and blade tools.

### Program Benefits

- The program enables customers to perform work on their own engines that they were previously unable to do because of lack of tooling
- Short-term leasing provides customers the tooling resources they need, while waiting for shipments of new tools they may have purchased
- The flexibility of leasing versus purchasing has the potential to lower overall costs
- Leasing doesn’t require storage space
- After use, tools are shipped back to OWS, which manages the maintenance, calibration and tracking of all leased items

“Airlines of all sizes are tapping into the tool lease opportunity,” says Joe Breeze, On Wing Support global logistics leader. “This program enables customers to have access to tools that will increase the level of maintenance they can now perform. Most tools can be shipped the same day, straight to the customer.”

## The On Wing Support Network

On Wing Support performs off-the-wing, quick-turn and modular repairs in six engine maintenance shops worldwide. On Wing Support can keep engines on wing longer and extend the time before an unscheduled overhaul shop visit.

Site	Customer Service	Engine Repairs	Engine Change & Other Scope	Agency
Cincinnati (CVG)	1.859.334.4020	All GE/CFM, JT9*, NDT Inspections	B737®, B767®, B777®, A320®, A330®, RJs	FAA, EASA, CAAC
Dallas (DFW)	1.817.410.4980	All GE/CFM	B737, B777, A320, A330, RJs	FAA, EASA
Seoul (ICN)	82.32.744.5971	All GE/CFM, V2500**, PW4000*	B737, B767, B777, E-190®, APUs	FAA, KCASA, CAAC
London (LHR)	44.208.893.7107	All GE/CFM, RB211*		FAA, EASA, CAA
Warsaw**(WAW)	48.22.606.8871	CFM56-3, CF34-8E, CF6-80C2, AE3007**, PW120*	B737 Classic, B767, ERJ, ATR, APUs, Reversers	FAA, EASA, PAA
Xiamen (XMN)	86.592.573.1603	CF34-3, CFM		FAA, CAAC

\*Engine models not manufactured by GE or GE affiliates  
 \*\*Joint Venture/Affiliated Shop

24/7 AOG Hotline: +1.513.552.3272  
 On Wing Support® [www.geaviation.com/ows](http://www.geaviation.com/ows)

# Dubai Airshow 2007 Wrap-up

## Customers, GE Sign OnPoint, Services Agreements at International Event

GE Aviation announced a number of OnPoint\* solutions and Services agreements at the 10th anniversary Dubai Airshow, held in November at the Airport Expo Dubai, United Arab Emirates.

“The Middle East aviation market is extremely important to us,” says Scott Donnelly, president and CEO, GE Aviation. “We look forward to providing a wide range of solutions to meet these customers’ MRO needs.”

Signed agreements at the Dubai Airshow include:

- **Sama**, a new low-fare carrier in Saudi Arabia, has signed a 10-year OnPoint solution agreement for the maintenance, repair and overhaul of its CFM56-3 fleet. This agreement will ensure the airline receives the highest quality service offerings as well as Original Equipment Manufacturer (OEM) material to help keep engines on wing longer with the best fuel efficiency.
- **Emirates**, one of the world’s fastest growing international airlines, has signed a 12-year OnPoint solution service agreement for the maintenance and overhaul of its GE90-115B engines.
- **Royal Jordanian** has signed a 12-year OnPoint solution service agreement for the maintenance, overhaul and repair of 12 Boeing 787 Dreamliner\* aircraft powered by GEnx\* engines. The airline currently covers a network of 54 destinations on four continents.
- **Cathay Pacific Airways** signed a 15-year OnPoint solution engine maintenance agreement for the 40 GEnx-2B67 engines plus spares that will power the 10 GEnx-powered Boeing 747-8\* Freighters recently selected by the airline.
- **Qatar Airways** has also opted for a 15-year OnPoint solution agreement for the maintenance and overhaul of the recently selected GEnx and GE90-115B engines for Boeing 787 Dreamliner aircraft and Boeing 777\* aircraft, respectively.



- **Saudi Arabian Airlines**, the national carrier of Saudi Arabia, and GE have reached a cooperative agreement to support the airline’s plan to launch overhaul services on GE90\*, CF6\* and CF34\* engines. Under the agreement, GE will support the airline’s new state-of-the-art facility to be built in King Abdul Aziz Airport in the Kingdom of Saudi Arabia. The facility will serve the Saudi Arabian and the regional market. Additionally, Saudi Arabian Airlines and GE have signed a memorandum of understanding (MOU) for GE to supply material to the airline for 14 years from when the new overhaul facility begins operation.
- **Dubai Aerospace Enterprise** (DAE), the global aerospace manufacturing and services corporation, and GE have reached an MOU for a global cooperation understanding. GE and DAE will collaborate in several areas related to the commercial aerospace and aviation industries based on their respective competencies and capabilities:
  - Aircraft finance/leasing opportunities
  - GE Aviation support synergies
  - GE Aviation services support
  - Aviation security/airport synergies

### OnPoint Solutions

OnPoint solutions—including overhaul, on wing support, new and used serviceable parts, component repair, technology upgrades, engine leasing and diagnostics—are flexible, long-term, cost-effective commitments designed to meet customers’ individualized engine services needs.

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### Did You Know?

An OnPoint\* engine overhaul includes tailored, detailed workscoping services by specialized GE powerplant engineers—all at no additional charge.

## A Year in Service

# China Operations Center Serving Growing Market

GE Aviation is celebrating the first anniversary of the China Operations Center (CHOC), which opened in Shanghai in 2006 to provide dedicated customer and product support for China's growing aviation market.

The CHOC complements the GE Aviation Customer Support Center based in Cincinnati, Ohio, and supports all GE and CFM56\* engine models. The operation provides a full menu of services—from technical line and shop maintenance support, to expanded services such as in-country technical and spare part AOG (aircraft on the ground) support, lease engine dispatch, fleet data management and enhanced support for smaller operators.

## Customer Focus

After visiting the CHOC, China Eastern Engineering and Technic's leadership team recently noted that GE Aviation's China Operations Center has established a new support model in China and has brought value to the customer, more convenience and better engagement with the airlines.

The center also integrates 24-hour/seven-day-a-week OnPoint\* Diagnostics (engine health



*Through the China Operations Center, customers tap into the benefits of GE's OnPoint Diagnostics tools that proactively trend data to deliver real-time operational support and increase engines' time on wing.*

monitoring) coverage with worksopes to develop proactive solutions to fleet issues. By June 2008, GE anticipates that the CHOC will support more than 80% of the China fleet with Diagnostics service, covering 11 GE/CFM International (CFM\*) product lines.

"In its first year of operation, the CHOC has been a huge benefit to our customers in the region," says Mike Wilking, president, China Region, for GE Aviation. "With the Spare Parts Service Center in Beijing, the Aero Engine

Maintenance Training Center in Guanghan City and the On Wing Support operations in Xiamen, GE is providing a comprehensive package that is helping our customers continue to succeed in an increasingly competitive and dynamic industry."

## Customizable Service Levels

The OnPoint Diagnostics program offers information-based technology at two service levels: Standard Diagnostics, which is available without charge to all revenue service operators of GE and CFM engines, and customizable Comprehensive Diagnostics, which includes engine trend reports to assist an operator with its regulatory reporting and engine exceedance and fault troubleshooting.

Each of the center's Technical Support Engineers (TSEs) has extensive aviation experience within China and has completed an intensive 15-week training program at the Customer Support Center, including immersion training and hands-on support experience. Their service provides seamless linkage from the GE global support network to every remote branch location in China.

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