

AIR TRANSPORT

Boeing signs first 787 GoldCare partners

Mark Pilling

Boeing says it will announce its first European maintenance partner for the 787 support programme, called GoldCare, here at the show.

"We have established certain criteria for any potential partner for line and heavy maintenance and send requirements out to those who match up," says Bob Avery, vice-president 787 services and support.

Boeing has completed the evaluation of its European partner, of which there will only be one for all line and heavy maintenance. The initial contract will be for 10 or 15 years, he says. Only a few large service organisations, such as Lufthansa Technik, SR Technics and ST Aero, have the capability to handle contracts of this size.

This partner will be contracted by Boeing to

provide support in Europe for all carriers that sign up for the manufacturer's GoldCare package. Avery says Boeing is going through the request for proposals stage in North America at present, with a partner to be selected sometime in September.

An Asian partner will be chosen by year-end or soon after. Boeing has long studied offering a more

comprehensive life-cycle support package for carriers, especially as the trend of maintenance outsourcing grows. The introduction of the 787 has allowed it to design a services programme from scratch.

The aim is to reduce the lifetime ownership and operating cost of the aircraft. For instance, it is aiming to lower mainte-

nance costs on the 787 over a 15-year timeframe by 30% compared to those for the 767-300.

A carrier that chooses GoldCare essentially hands over the servicing and material support of the aircraft to the manufacturer.

Boeing believes it can leverage the large economies of scale of being responsible for a major 787 fleet to reduce



Golden opportunity: Boeing set to announce first European maintenance partner for 787 support programme.

costs at many points. For example, with GoldCare, suppliers rather than airlines will hold spares inventory on their books. And they will be "held at cost rather than price", further helping control costs, says Avery. "We will do anything we can to make their product reliable."

Support

The concept will be rolled out to other types as the manufacturer gains experience. Boeing is already working out what kind of support package to create for the 747-8. Vice-president 747-8 marketing Randy Tinseth says the aircraft will be bought by carriers with established

747 fleets and maintenance operations.

"We are trying to figure out what the business case is for the service package," he says. This could be a full version of the GoldCare service programme as being developed for the 787, or if carriers prefer, a "low calorie version". It will have its service offering completed around September.

With the first 787s scheduled for delivery from 2008, Boeing is not expecting the first operators to commit to GoldCare until 18 months prior to delivery, says Avery. However, since the type's launch in July 2005, the manufacturer has presented the service to every 787 customer.

BOEING CLOSES ON STRETCHED 787 LAUNCH

Carriers will soon be able to order a stretched version of the 787, the 787-10, although the manufacturer has not decided when it will officially launch this latest Dreamliner model. "It's going to happen, it's just a matter of exactly when," says Mike Bair, vice-president and general manager of the 787 programme.

Boeing has been pressed by several carriers, most vocally Emirates, to produce a 300-seater 787. The largest current version, the 787-9, seats 250-290 passen-

gers. The 787-10 will be a "simple stretch" of the -9, with no change to the gross take-off weight of the aircraft. This means its range will suffer a little, making it similar to the 777-200ER in terms of range of payload, says Bair. This aircraft carries 301 passengers in a three-class layout some 7,700nm (14,300km).

The earliest delivery of the 787-10 would be in the "back half of 2012", he says. The operating economics of the aircraft look "almost too good to be true".

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AIR TRANSPORT

Embraer kicks off E-190 world tour

Colin Baker

Farnborough marks the start of a world tour for Embraer's E-190 twin-jet – a pre-production version shown here will visit some 80 airlines after the Brazilian manufacturer received type certification from the European Aviation Safety Agency (EASA).

Embraer, which received E-190 type certification from Brazilian, US and Canadian authorities last year, also aspects to achieve EASA approval for the larger E-195 "soon".

Fred Curado, executive vice-president, airline market at Embraer, says the company also expects to achieve 120min ETOPS certification for the E-190 before the end of 2007. "We are carrying out extensive safety and reliability analysis, developing some system changes, as required, and gathering field

reliability data to support certification."

There are plans to take the E-190 into London City airport for a demo flight, although there is no firm date for this yet. Steep approach certification for the E-170 at London City is expected by year-end.

Other improvements planned for the E-190 include CAT 3 via head-up display and CAT 3 via EPIC system. "Similarly, we also have further developments with the other models in the Embraer 170/190 family," says Curado.

As of the end of March this year, Embraer's E-190 order book showed 253 firm orders and 286 options, with customers including AeroRepublica, Air Canada, Copa, Finnair, GECAS, JetBlue, Regional, TAME and US Airways. The E-195 has accumulated 36 firm orders and 40 options from Flybe, GECAS, Royal Jordanian and Swiss.

Curado is keen to emphasise that

the ongoing activities with the E-Jets does not mean the manufacturer has taken its eye off the ball when it comes to the ERJ-145. "We manage both programmes independently and are fully committed to continuing improving the ERJ-145's reliability and lowering its maintenance costs."

Improvements

He adds that improvements to the design weight of the ERJ-145 are proceeding as planned and the manufacturer expects to achieve certification within a few months.

"The airlines that decide to acquire the associated service bulletins will enjoy an increase of 2-6 passengers in their payload, depending on whether the aircraft is an ERJ-135, ERJ-145 and if it is of the ER or LR variety."

Embraer is still evaluating possible cargo conversion programmes. "We are



trying to identify opportunities, mainly based on the ERJ-145 platform," says Curado. "Such aircraft would be able to carry up to 13,000lb (6,000kg) of cargo and we hope it may become a good alternative to – and replacement for – some of the older turboprop that are flying those missions today."

Farnborough is the start of a whistle-stop world tour for the E-190.



Cargo loading tests for the Fokker 50 in Denver.

Fokker 50 freighter loads up

The first pictures of a Fokker 50 freighter undergoing cargo loading tests have been released. The twin-turboprop, modified by Amsterdam-based Aircraft Conversions, recently completed a series of test flights at Denver's Centennial Airport.

The aircraft made its first flight with an "E Class" cargo interior and forward large cargo door on 22 June. The door measures 2.34m x 1.75m and the freighter has 60m³ of cabin volume. The Fokker 50 freighter is expected to obtain certification by August.

So far Aircraft Conversions has received two orders from an undisclosed European operator to convert passenger Fokker 50s into freighters. The conversion is carried out at Centennial Airport in the USA. The first aircraft are scheduled to enter service early next year.

IAE engine customers take CARE

IAE International Aero Engines will announce at Farnborough today that more than 600 of its V2500 engines are now covered by the Hamilton Sundstrand CARE programme – introduced for operators just over 12 months ago.

The CARE – Comprehensive Accessory Repair and Exchange – programme offers total repair and inventory support services and is fully supported by

the key OEM accessory suppliers.

Customers such as LAN Airlines, Jetstar, IndiGo, SIA Engineering company and Mexicana have signed up for CARE since launch.

Phil Harris, IAE's Senior Vice-President, after-market and commercial, says: "The doubling in the number of engines now covered by the CARE programme pays testimony to the winning combination we have."

New-generation Jumbo will avoid A380 vortex problems, says Boeing

Boeing is confident that its new 747-8 family will not be dramatically affected by the wake vortex issues that have dogged the Airbus A380 and resulted in greatly increased separation distances between the ultra-large aircraft and other traffic during approach, cruise and for take-offs.

Boeing Commercial Airplanes vice-president marketing Randy Baseler says that the 747-8 is smaller and lighter than the A380, and its wake vortices are expected only to be "a little bit more" than today's 747-400.

Until the introduction of the A380, the 747-400 was the largest passenger aircraft in the International Civil Aviation Organisation's "heavy" separation category, and Airbus had hoped that the A380 would be given the same classification.

Limits

However, after initial vortex results from A380 flight testing, ICAO last year implemented conservative limits that Airbus expects will be relaxed before service entry. But ICAO is expected to apply a

new category or special conditions for the A380 above the 747-400, at least in the short term.

"ICAO was concerned about separation distances involving the A380 because of its size and its weight being in excess of 1,000,000lb (454 tonnes)," says Baseler. "The 747-8 will, at 980,000lb, be below that. It will also not have the wingspan or the body diameter of the A380, so its vortices are unlikely to be as great. We don't expect it will be classified the same as the A380."

Precious Jade for Lufthansa Technik

Lufthansa Technik, the Hamburg-based maintenance, repair and overhaul (MRO) specialist, has concluded two contracts worth more than \$100 million with new Chinese cargo airline Jade Cargo International.

The German company is to provide component and engine support for Shenzhen-based Jade's new fleet of six Boeing 747-400ERs, to be delivered between this August and January 2008.

The freighters' General Electric CF6-80C2 engines



Jade Cargo International plans to begin operations in August.

will be supported on a power-by-the-hour basis for the next 12 years.

Lufthansa Technik will also back up the airline's own stock of spare engines.

Component support is covered by a 10-year

contract which also includes warehousing, provisioning and repair of pallets and containers by Lufthansa Technik Shenzhen (LTS) at the city's Bao'an airport.

Jade Cargo International is a joint venture by

Club Med

Club328, the UK and Germany-based executive jet company, is expanding into Southern Europe with the opening of an office on the Balearic Island of Mallorca. Club328 Mediterranean will market a Raytheon Beechcraft Premier 1A which is to be positioned at Palma de Mallorca (Sant Joan) airport from September, together with other aircraft in the Club328 fleet that regularly fly in to the region.

Shenzhen Airlines (51%), Lufthansa Cargo (25%) and German investment body DEG (24%).

It plans to begin operations in August, serving intra-Asian, European and American destinations.

AIR TRANSPORT

GE rides wave of technology benefits

Engine giant General Electric expects 2006 revenues to grow to a record \$12.8 billion – thanks largely to what it describes as aggressive technology development.

This involves the investment of more than \$1.8 billion annually in R&D for new engines as well as upgrades for current production powerplants.

The anticipated 2006 growth follows a strong 2005 financial performance, when revenues grew to \$11.9 billion, up from \$11.1 billion in 2004.

Servicing the fast-growing installed base of GE and CFM engines – the product of CFM International, a joint venture between GE and French engine maker Snecma – is driving revenue growth.

Order

Around 20,000 GE and CFM engines are now in commercial airline service, a figure forecast to reach 30,000 by 2015.

Robust sales for GE's large, high-thrust engines are fuelling the growth of the installed base.

The order book for the new GENx engine under development for new widebody aircraft has swelled to almost 600 engines.

Also, in the past 18 months, GE has sold more than 300 GE90 engines, driven by worldwide demand for Boeing 777-300ER and -200LR aircraft.

GE90 deliveries will more than double between 2005 and 2007.

Sales of the best-selling CFM56 engine for the Airbus A320 and Boeing 737 continue unabated.

More than 1,600 CFM56 engines were ordered in 2005, and CFM International is on track to return similar sales figures this year.

Airbus fires first broadside in the narrowbody war

Mike Martin

The coming narrowbody war between Boeing and Airbus centred on their respective 737 and A320 families is not expected for some years, but the skirmishing is underway.

On the Airbus side, the company could be forgiven for feeling content with its product, having sold more than 900 A320s last year. The type has been particularly successful in the low-cost airline sector, with its demanding operational profiles.

"I could just sit back and enjoy this success," says Mario Heinen, Airbus senior vice president, A320 family programme. "But we are not resting on our laurels. On the contrary, we are further investing and innovating in this product."



The A320: successful in the low-cost airline sector.

The A320 Enhanced programme covers a new cabin, drag reduction work, winglet research and engine improvements. In the new cabin, a revamped ceiling panel offers better lighting, increased aisle height and reduced noise. It is complemented by a new sculpted window/sidewall panel which provides more space for passengers.

Improvements to the overhead stowage means about 10% more volume and improved loading. The four-frame compartment can now take five Travel Pro Type 22 bags

installed transversally by modification of the support inside the bin.

There is a redesigned Passenger Service Unit (PSU) adapted from the A380 and a new continuous grip rail with integrated seat row numbering and coloured LED grip rail illumination as an option. Airbus will also be offering a range of lighting options including ambience lighting to enhance the longer-trip environment.

The first of two winglet designs has been extensively tested, with the second winglet type due to be

tested in a programme starting this month. Heinen says he expects to have all the data necessary from the winglet research programme available by the end of the year. "This is our contribution to reducing the costs of our customers when we see the price of fuel going up to unprecedented levels," he says.

In the drag reduction area, Airbus is looking at a number of areas, including a redesign of the upper wing-to-fuselage fairing and new shaped engine pylons. Heinen said that Airbus is also working with both engine manufacturers – International Aero Engines and CFM – to be able to offer "significant" engine maintenance cost reduction through a range of initiatives. He promises that once the research has been completed, he will "come back in terms of hard facts and figures".

Comtran kits extend life of MD80 series

Comtran has arrived at Farnborough with a suite of after-market modifications, which it says will successfully extend the life of the Boeing MD80 series of aircraft.

The company, along with Jet Engineering, has brought a Super Q MD80 modified to be Stage/Chapter 4 compliant and with blended-type winglets to the show static park (right).

Comtran's new cone mixer provides several new noise attenuation benefits for the entire MD80 series, including the heavyweight MD83, when installed in conjunction with the Super Q Jet Nozzle.

"The addition of the cone mixer to our basic Jet Nozzle configuration is indicative of our commitment to maximise the benefits of



this modification for operators of the MD80 series," says Comtran chief executive Douglas Jaffe.

Jaffe is also using the show to announce that Comtran and Jet Engineering are pursuing a development programme to retrofit MD80s with winglets designed to

provide fuel savings of around 4-5% or \$300,000 per year. Comtran says it can fit the entire worldwide MD80 fleet with the complete set of retrofits within two years.

"With the oldest of the MD80s being approximately only halfway

through their life-cycle, this aircraft still has decades of life left in it and they will also appreciate in value once the work is carried out," says Jack Anderson, CEO of Jet Engineering. "I strongly believe this aircraft still gives operators best bang for their buck."

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