NEWSLETTER/WINTER 2003

JEPPESEN
Corporate Flight Services
One Source

Corporate Flyer

Jeppesen Launches New Fuel Card

To further enhance its recently established fuel program, Jeppesen, together with its partnering company, World Fuel Services, has created the ***Jeppesen World Fuel Services Platinum Card***. This carnet card, which is available to operators of turbine aircraft, can be used to purchase jet fuel at over 1,500 locations worldwide. Issued by aircraft registration number, the card allows for easy identification and verification of the customer when presented to the fuel-into-plane provider. Invoicing for activity on the card, as with all purchases made through the program, is managed by World Fuel Services.

In just the first three months of the program, more than one million gallons of jet fuel were uplifted through Jeppesen World Fuel Services. Comprising this remarkable number are nearly 900 fuelings at over 200 locations across the globe. Corporate aircraft operators of all shapes and sizes are discovering the extremely competitive pricing and excellent service available through the program.

To apply for the new Jeppesen Fuel Services Platinum Card, receive a price quote or simply learn more about the program, please contact our 24-hour fuel representatives at the following numbers:

Western Hemisphere:

866.JET.FUEL (toll-free in the US)
408.866.5315 (Direct)

Eastern Hemisphere:

+44 (0) 1293 842435

New Weather Maps

Presenting A Clearer Picture

In order to provide more localized coverage, new regions and graphical weather maps have been recently made available on **JetPlan.com** and **JetPlanner**. By focusing on key geographic areas from within larger, existing zones of coverage, additional regions have been created for users of those applications. These include the **Hawaii, South Pacific, Eastern Pacific, Middle East and Indian Ocean areas**. Within each of those sections, customers can chose to view and print numerous weather maps. These include High-Level Significant Weather, Surface Weather Analysis & Forecast, Infrared & Visible Satellite, Wind & Temperature and Weather Depiction charts. For the Hawaii and Guam areas, Radar maps are also offered and can be animated to show direction and speed of progression. Lastly, Hurricane, Typhoon and Tropical Cyclone tracking maps are now available on a global basis and can be retrieved by geographic region. These enhancements to Jeppesen's graphical weather offering will provide customers with an improved insight into the weather and allow them to better assess the impact that it may have on their flight operations.

TRAVEL & HEALTH ADVISORIES

The U.S. State Department's current list of Travel Warnings includes: Afghanistan, Algeria, Angola, Bosnia-Herzogovina, Burundi, Central African Republic, Colombia, Democratic Republic of Congo (Zaire), Indonesia, Iran, Iraq, Israel, the West Bank and Gaza, Ivory Coast, Jordan, Kuwait, Lebanon, Liberia, Libya, Macedonia, Nigeria, Pakistan, Saudi Arabia, Somalia, Sudan, Tajikistan, Yemen and Zimbabwe.

Regional Updates

MUMBAI, INDIA (VABB)

The main runway 09/27 at VABB will be closed as follows: 15 Feb - 31 May 2003: between 03:30Z-11:30Z daily except Sundays. On Sundays, the closure is between 04:30Z-11:30Z. The Airport Authority of India and ATC expect heavy delays at Mumbai Airport for arrivals and departures during the period above.

CANPASS UPDATE

CANPASS has recently begun to enforce a regulation that has been published since 1966, whereby the Pilot-In-Command (PIC) of all corporate aircraft operating into Canada needs to call the regional Telephone Reporting Center in order to validate the arrival information already provided by Jeppesen International Trip Planning. The PIC can call up to 48 hours prior to entering Canada.

OUTBOUND APIS REQUIREMENT UPDATE

A new INS requirement for electronic transmission of crew and passenger manifests for commercial aircraft on both outbound and inbound flights was supposed to go into effect on January 1, 2003. It has been put on hold to give the INS and U.S. Customs additional time to develop guidelines for the new data requirements. Jeppesen encourages operators to begin submitting APIS data for outbound flights, even though it is not yet mandatory. This will help INS and U.S. Customs officials get used to seeing non-airline APIS data, as well as prepare operators for the new requirement. Jeppesen can submit the APIS data on your behalf, or it can be done free of charge via the NBAA website: www.nbaa.org/ops/intl/APIs.

Polly Vacher - Voyage to the Ice

Jeppesen is proud to be assisting pilot Polly Vacher MBE on her next charity flight, titled Voyage to the Ice. Departing in May 2003, the trip will be undertaken in her single-engine Piper PA-28 Dakota (G-FRGN). It will set world records by being not only the first flight in a single-engine aircraft around the world via both the North and South Poles, but also the first attempt to do the journey solo. The flight will visit over 20 countries and cover a distance of 30,000 nautical miles. Similar to her previous around-the-world flight in 2001, which included a 16-hour Pacific sector from Hilo, Hawaii to Santa Barbara, California, this trip will also aid the Royal International Air Tattoo Flying Scholarships for the Disabled.

Jeppesen is one of Polly's primary sponsors and, headed by the International Trip Planning Services team in our UK office, is arranging overfly and landing permits, ground handling and flight watch. FliteStar, one of Jeppesen's flight planning applications, will complete the package, aided by the tailored Airway Manual trip kits that Polly will use on her flight around the world.

Polly's route takes her from the UK via Norway to the North Pole before heading to Resolute in Canada. From there, she will fly south through North, Central and South America until she reaches Punta Arenas in Chile. She then has to wait for weather suitable to fly across the Antarctic. These sectors will provide research to study the behavior of a single-engine piston aircraft in extreme and demanding operational conditions. Throughout the entire trip, meteorologists from Jeppesen's Weather Services group in Los Gatos, California, will be identifying favorable windows of weather to ensure Polly's safety.

Once over the South Pole, her journey continues through New Zealand, Australia, the islands of the Far East, India, Saudi Arabia, Jordan and southern Europe before returning to the UK in February 2004. In 2001, many of the Jeppesen Ground Handler Network members, airports and Civil Aviation Authorities in the countries visited were so impressed with Polly's efforts on behalf of the charity, that they provided their services for free. Her contribution to the charity also earned Polly the recognition of the Royal Family, specifically, HRH The Prince of Wales, who awarded her an MBE (Member of the British Empire).

Like Polly's first flight around the world, members of the public are being invited to have their names featured on the wings of the aircraft in return for a £25 donation to the Flying Scholarships for the Disabled charity. On the last trip, the aircraft carried 1,400 names - but Polly and her team aim to double that number for the new flight. The first name to appear on the aircraft is that of Her Majesty Queen Noor of the Hashemite Kingdom of Jordan, the patron of Flying Scholarships for the Disabled.

You can learn more about the flight by visiting www.worldwings.org.

Jeppesen Digital Briefing

By James E. Terpstra, Sr. Corporate Vice President, Jeppesen

Now let's see . . . we have categories. Category I, II, and III for how close you can get to the runway without seeing it. Category A, B, C, D, and E for defining the different stall speeds of airplanes with respect to landing minimums. And we also have classes. Class A, B, C, D, E, and G for airspace definitions. And now we have yet another group of classes. As you now begin to use electronic charts in your airplane, the requirements are broken down into Classes 1, 2, and 3.

The FAA has issued Advisory Circular 120-76, which specifies the different classes of Electronic Flight Bags (EFB). Electronic charts are but part of the larger group of digital information comprising any EFB.

What is an Electronic Flight Bag?

An EFB is an electronic display system consisting of the display, software, and data which were initially meant to replace all the paper carried around in those 30+ pound flight bags, but EFBs actually do much more. We, as pilots, have long recognized the benefits of adapting portable computing devices, such as laptop computers and personal digital assistants (PDAs), to perform a variety of functions traditionally served by paper. These portable electronic devices (PEDs) are now being used to replace the hard copy chart information contained in our flight bags. Thus, the term Electronic Flight Bag has entered into our vernacular.

EFB applications being deployed today do even more than the paper they are replacing. Not only do they deliver more information, they do so in a robust, integrated fashion that further enhances situational awareness and safety in all phases of flight, both in the air and on the ground.

Each of the three classes defined by the Advisory Circular allows for different functions; however, it should be noted that, with the exception of Subpart F—which applies to operators of large and turbine-powered, multi-engine airplanes—the Advisory Circular does not apply to FAR Part 91 operators.

The "lowest" of the three classes might be considered Class 1 since it covers electronic equipment that is completely portable. The next higher class, which allows more capability, is Class 2. It covers PEDs that are mounted to the aircraft in a docking station or cradle that has received a supplemental type certificate (STC). The highest class, with the most capability, is Class 3. It covers EFBs that are installed avionics systems that may have ***all*** EFB functions.

Class 1 Requirements

Class 1 consists of laptops, PDAs, or any electronic computing device that generally includes commercial-off-the-shelf (COTS) computer operating systems. They can be used for a number of "things", including non-interactive performance calculations, the hosting of Flight Operations Manuals or Airplane Flight Manuals, flight logs, FARs, weight and balance calculations, etc. Class 1 EFB systems are not attached to an aircraft-mounting device and do not require an administrative control process (a logbook entry) for use in your aircraft.

You may replace many documents with a Class 1 device, but the device cannot be used for takeoff or landing and cannot be connected to a GPS. Also, it cannot be "hardwired" to your aircraft's power, but it may be connected to recharge the battery.

In summary, the requirements for Class 1 EFB systems are:

- May be used on the ground and during flight as a source of *supplemental information*.
- Must be battery powered and must not be connected to your aircraft's power during normal use.
- Batteries may be recharged onboard the aircraft when not in use.
- May not provide a data link connectivity to other aircraft systems during flight.
- May not use a GPS source.
- The EFB, including the charger, must be stowed for takeoff and landing.

The most common question is, "Do I still need paper?" The AC says the Class 1 EFB is for "supplemental use only" and goes on to say, "the operator must have paper onboard at all times." These statements apply to FAR Part 91, Subpart F operators, and may not apply to other Part 91 operations.

For use under FAR Parts 121, 125, and 135, the principal operations inspector (POI) needs to evaluate and accept the data as presented. Additionally, for operators under FAR Part 121 and 135, training is required as appropriate.

Class 2 Requirements

Class 2 consists of PEDs that are connected to an aircraft mounting device during normal operation and require an administrative control process for use in the aircraft. A Class 2 EFB may use the aircraft's power and have data link connectivity. The mounting devices for the EFB require aircraft evaluation group (AEG) evaluation and certification approval from the FAA certification branch.

One of the big advantages of Class 2 over Class 1 is that the EFB can read (but not send) data from the aircraft busses, that includes the GPS, as long as it can be proven that there is no interference. In Class 2, the mounting device for the EFB must be a structural cradle that can be proven crashworthy.

Class 2 devices can do everything that Class 1 devices can. Additionally they can also be used for reference materials and checklists using pre-composed information, approach charts, navigation charts, and performance calculations. One of the best features of Class 2 is the ability to have dynamic interactive electronic aeronautical charts (e.g., enroute, area, and airport surface maps) using a moving map display that includes centering and rotating the chart; although Class 2 does not allow the display of your own aircraft's position on the chart. The FAA believes that placing your airplane on the display of a moving electronic chart would be so compelling that it would be very tempting to use it for primary navigation. In order to provide a system that includes navigation, a higher level of integrity for the software is required.

In summary, the requirements for Class 2 EFB systems are:

- When a POI is involved, the POI should document the EFB Class 2 compliance for performing its intended function. This is primarily related to COTS electronic equipment such as pen tablet computers.
- Mounting in a crashworthy cradle.
- EFB data link ports require FAA certification approval to ensure non-interference and isolation from aircraft systems.
- Operators must determine non-interference with existing flight systems for all phases of flight.
- Class 2 EFB systems are portable equipment and may be removed from the aircraft through an administrative control process (logbook entry).
- For a Class 2 paperless cockpit, each flight crew member must have an independent EFB system.
- A Class 2 “reduced paper” cockpit requires a single reliable EFB system and one complete paper set of all applicable data.
- Paper can be removed from the flight deck for a Class 2 system by FAA approval after proving the reliability of the system for a 6-month period and filing a report. For air carriers, the authorization must be granted via issuance of OpsSpec A025. For the six-month operational evaluation period, both the EFB and paper copies are required.
- The FAA Certification Branch evaluation and design approval for class 2 devices is limited to airworthiness approval of the cradle (crashworthiness), data link connectivity, and the EFB power connection.
- Reference material, checklists, performance calculations, and navigation charts, such as approach charts, need to be pre-composed. This means they cannot be generated “on the fly” from a database and cannot use software to compute aircraft performance. The pages of information have to be created on the ground and then loaded in the EFB in the airplane.

Class 3 Requirements

Class 3 EFB systems are considered installed equipment and require a Supplemental Type Certificate (STC) or certification design approval that includes, but is not limited to, conducting a functional hazard assessment and compliance with RTCA document DO-178B. DO-178B is the document used by the FAA to certify software in aircraft systems such as autopilots, FMSs, and many other computer-based systems in modern aircraft.

The Class 3 EFB system certification requirements may enable additional functionality (e.g., GPS, or Automatic Dependent Surveillance-Broadcast (ADS-B), that can provide moving maps suitable for situational awareness or navigation).

Class 3 systems are the most sophisticated of the three, because they are the systems which are installed in the aircraft panel and integrated with the other avionics in the airplane. Because of this level of sophistication and integration, the FAA will be involved in the certification of the system.

What about Currently Installed Systems?

There are EFB systems in the field which have obtained Operational Approval. They are still OK. *Since the Advisory Circular describes just one means of certification and is not new rulemaking, any currently operational systems are valid.*

After reading through the Advisory Circular, it becomes apparent that the FAA wants to facilitate the move to a paperless cockpit. They are, however, reluctant to approve everything that comes to them just because it will relieve a lot of effort and provide many new safety features (situational awareness, as an example). The FAA wants to walk before they run to ensure the new systems provide all the reliability necessary to keep the aeronautical information in front of us at all times. This is obviously important when operating in IMC.

Jeppesen Preferred Ground Handler Spotlight

Ali Trasporti Aerei S.p.A
Milan, Italy

JEPPESEN. Handler Network

The Northern Italian city of Milan lies to the south of the Italian Alps. Milan has a well-earned reputation as the financial heart of Italy. With its beautiful architecture and abundance of boutiques, restaurants and cafes, it is no wonder the cosmopolitan and fashion conscious citizens of Milan are proud of their historic city.

Milan Linate airport (LIML) is situated to the east of Milan and, when the city traffic allows, is just fifteen minutes drive from the financial centre of the City. This makes Linate the most frequented of the two Milan airports by the corporate traveller.

The airport deals with commercial and corporate aircraft and, with an 8,000-foot runway, the airfield is suitable for most aircraft types. A member of the Jeppesen Handler Network for Milan Linate is Ali Trasporti Aerei S.p.A (A.T.A.), situated in the General Aviation, or West Apron area, of the airfield. The West Apron is capable of accommodating all traditional corporate aircraft and many commercial wide body aircraft (up to MTOW 143,000 kgs). The aircraft parking area is large and suitable for mass aircraft parking.

A.T.A. is a dedicated corporate aircraft handler at Milan Linate. Service is the key to their success, with well-trained and enthusiastic staff and the resources and equipment available to them, they are able to put the customer first – always. The Jeppesen supervisory agent, Airconsult, along with staff from A.T.A., meet all aircraft, and no detail is left untouched. Whatever the customer requires, fuel, de-icing, additional security, hotels or catering, all are provided with expert service and that all-important smile!

If a passenger requires Immigration, Customs or Police services, that's not a problem. All have a fixed presence within the A.T.A. building. As you can imagine, having these authorities onsite makes the area secure and safe, an ever-increasing consideration in today's temperamental world, and one Jeppesen is keen to encourage. For jet fuel at Milan and elsewhere, Jeppesen World Fuel Services is able to offer extremely competitive rates, something aircraft operators are embracing enthusiastically.

With its newly refurbished facility, A.T.A. is equipped to meet the demands of Jeppesen clients. A separate crew and passenger lounge, well-staffed operations department and an onsite restaurant make this an FBO equipped to fly into the 21st Century. The restaurant embraces fully the Italian love of good food and wine and is a real hit with crews and passengers alike. A.T.A agrees and uses the restaurant for the majority of corporate aircraft catering. From a simple cold buffet to fine dining, Margo Catering can fulfil all passenger catering needs while onboard the aircraft.

So, whether it's a quick turnaround or a long stay in Milan, A.T.A. is sure to make you feel at home and supply the level of service that is renowned from a Jeppesen Handler Network member.

UPCOMING EVENTS

LATIN AMERICA BUSINESS AVIATION CONFERENCE & EXHIBITION (LABACE)
March 13-15, 2003, Sao Paulo, Brazil
(Please note the revised dates.)
NBAA has teamed up with its partner association in Brazil, ABAG, to announce the first Latin American Business Aviation Conference. Approximately 300 vendor-sponsored exhibits are expected to fill the Transamerica Expo Center in Sao Paulo. www.labace.org

NBAA INTERNATIONAL OPERATORS CONFERENCE
March 16-20, 2003
Colorado Springs, Colorado
This four-day conference, held at the beautiful Broadmoor Hotel, offers valuable information on every issue that challenges a pilot on an international trip. Experts from around the world provide insight on topics ranging from flight planning to navigational systems to security and medical issues. www.nbaa.org/seminars/ioc

WOMEN IN AVIATION INTERNATIONAL 14TH ANNUAL CONFERENCE
March 20-22, 2003
Cincinnati, Ohio
Held at the Dr. Albert B. Sabin Cincinnati Conventional Center. www.wiai.org

AERO 2003
April 24-17, 2003
Friedrichshafen, Germany

EUROPEAN BUSINESS AVIATION CONFERENCE AND EXHIBITION (EBACE)
May 7-9, 2003
Geneva, Switzerland
Located at the Palexpo Convention Center
www.ebace.com

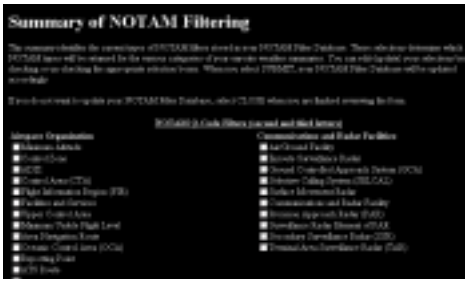
CANNES FILM FESTIVAL
May 15-26, 2003
Cannes, France
www.festival-cannes.fr

MONACO GRAND PRIX
June 1, 2003
Monaco

PARIS AIR SHOW - 45TH ANNUAL
June 15-22, 2003
Paris LeBourget International Airport
www.paris-air-show.com

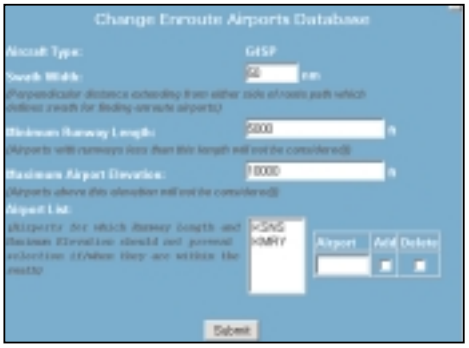
User-Friendly Enroute Weather Briefs Have Arrived

Say goodbye to pages and pages of weather and NOTAM information which doesn't apply to your flight or type of operation. Users of Jeppesen's computerized flight planning and weather system, **JetPlan®**, can now customize the output of the enroute weather and NOTAM brief they receive. By utilizing tools available at **JetPlan.com**, customers can select the type of weather reports that they want to receive, as well as the order in which they



are displayed. The ability to define the size of the enroute "corridor" and airports within that area is also available with just a few clicks of the mouse. Best of all, the enroute weather brief is aircraft-type specific, so users operating more than one type of aircraft can create a custom brief or briefs that best suit their fleet. NOTAMs, which tend to comprise the largest piece of the enroute brief, can also be filtered. By setting their preferences through JetPlan.com, operators can have NOTAMs filtered by airport, Flight Information Region (FIR) and Q-Code, thereby helping to eliminate any irrelevant or extraneous data.

For more information about these new tools, logon to JetPlan.com or contact your JetPlan account representative.



How To Reach Us

Flight Planning, Weather and International Trip Planning

Los Gatos, CA Toll Free: (800) 358-6468
Direct: (408) 866-7611
Fax: (408) 866-5648
email: ifs@jeppIg.com

London, UK Direct: +44 1293 842403
Fax: +44 1293 842440
email: ifs_eur@jeppesen.com

Airway Manuals, Charts, JeppView, NavData and Pilot Supplies

Denver, CO Toll Free: (800) 553-7750
Direct: (303) 328-4244
Fax: (303) 328-4116

Neu-Isenburg, Germany Direct: +49 6102 5070
Fax: +49 6102 507999

Website: www.jeppesen.com

121 ALBRIGHT WAY · LOS GATOS, CA 95030

WINTER 2003 NEWSLETTER

JEPPESEN
Corporate Flight Services
One Source

PRSRT STD
U.S. POSTAGE
PAID
DENVER, CO
PERMIT NO. 1736