

Spring 2005

ISTAT

# Jetrader

INTERNATIONAL SOCIETY OF TRANSPORT AIRCRAFT TRADING

**ISTAT 22nd  
ANNUAL  
MEETING**  
Scottsdale

**ISTAT  
Foundation  
Defined**

**What's ahead  
at the Paris  
Air Show**

**Launching  
a Rolls-Royce  
Powerplant**

**Obstacles to  
growth in the  
MRO business**





# 23rd Annual Conference

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26 -28 .

2006

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## ISTAT President's Letter



Tom Heimsoth  
ISTAT President

Dear Members:

I would like to begin by thanking Mike Metcalf and all of the ISTAT Board of Directors for their dedication and commitment to serving the ISTAT membership. After all, individual's willingness to serve the membership is what has fueled the growth of this organization. I look forward to the next two years as we continue to move the Society forward in its growth strategy. When I use the word "growth" I am not referring to simply an increase in the size of the membership, for that is NOT the goal. It is the Board's intention to continue to seek:

€ Growth in the continued improvement of our existing programs and services currently offered to the members as exhibited by the outstanding 22nd Annual Conference in Scottsdale, the recently distributed 2005 Membership Directory, the new venue for our Paris Airshow Reception on June 13, 2005, the terrific program and site we are planning for the upcoming 12th Annual European Conference in Hamburg this September 11-13, 2005, the scholarships and programs being developed and offered by the ISTAT Foundation and the reformatting and upgrading of this member publication, the *Jetrader*.

€ Growth in new programs and services to the members to continue to improve the value-added proposition of being a member of ISTAT. We look forward to introducing new initiatives to the membership over the next two years and we certainly welcome input from the membership with any new ideas for the Board to collaborate on and evaluate.

€ Growth in the existing membership's appreciation and recognition of the value of belonging to and being associated with ISTAT through the execution of the two growth strategies defined above. We are a MEMBERSHIP organization and importantly, we are an international membership organization. Let's work together and communicate our ideas for the betterment of our membership.

In this edition of the *Jetrader* please look to our Calendar of Events and note the new and exciting venue for the ISTAT Paris Airshow Reception on June 13, 2005 at Le Pré Catelan, the dates and program for our outstanding 12th Annual European Conference in Hamburg, Germany on September 11-13, 2005, and lastly, the selection of the Omni ChampionsGate in Orlando, FL for our 23rd Annual Conference on March 26-28, 2006.

I would like to once again, thank the ISTAT Board for volunteering their time and resources to provide guidance and leadership to our organization. I would like to especially thank all of the sponsors of our conferences, receptions and programs for their significant financial support. I have spoken directly to many of you over the last several years and it is important for us to acknowledge our appreciation for your generosity which has provided ISTAT and the ISTAT Foundation the financial stability to pursue its growth.

Lastly, thank you for the opportunity to serve as President of your membership Society. If you have any questions, comments or ideas you wish to share, please don't hesitate to contact me at the email address recently established at [istatpres@aol.com](mailto:istatpres@aol.com) or Dawn Foster, our Executive Director, at [istat@istat.org](mailto:istat@istat.org).

**Paris Air Show Reception**  
Le Pré Catelan, by invitation . June 13, 2005

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## CALENDAR

June 13 . Paris Air Show Reception . Le Pré Catelan, by invitation

September 11 - 13 . The ISTAT European Conference will be held at the Kempinski Atlantic Hotel, Hamburg.

March 26 - 28 . 2006 . Annual Conference to be held at the Omni Orlando at ChampionsGate, Orlando Florida



# Jetrader<sup>opEDs</sup>

Jetrader Editorial Board

Jetrader is a bi-monthly publication of ISTAT, the International Society of Transport Aircraft Trading. ISTAT was founded in 1983 to act as a forum and to promote improved communications among those involved in aviation and supporting industries, who operate, manufacture, maintain, sell, purchase, finance, lease, appraise, insure or otherwise engage in activities related to transport category aircraft.

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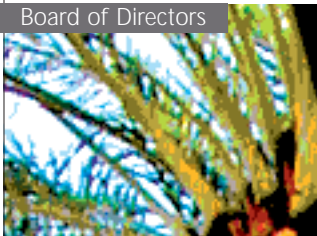
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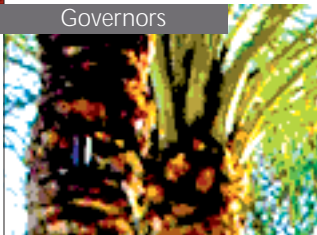
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**A**N IMPRESSIVE NUMBER OF OVER EIGHT HUNDRED delegates attended the 22nd Annual Conference of ISTAT, held in Scottsdale AZ, in the first week of March '05. The general atmosphere and outlook emanating from delegates was upbeat, both on the continued improvement in all our aviation related business activities and in regard to the 'new look' *Jetrader* magazine.

Many of you commented on the changes in *Jetrader* Magazine and how it has been successfully transformed and revamped to provide a truly useful and insightful magazine to the ever-growing membership list of ISTAT. As all but a few of you know, *Jetrader* is the bi-monthly magazine of the International Society of Transport Aircraft Trading (ISTAT).

The magazine, under the watchful eye of Ajax Newservice, (the new editor and publisher) together with the editorial board of Mike Platt (Senior Vice President and Assistant Secretary ILFC), Nick Popovich (Sage-Popovich) Bert Van Leeuwen, (Head of Aviation Industry Research at DVB) and myself, has been converted from a newsletter to what you now receive and acknowledge as a great addition to your business journal collection of what's going on in our industry.

The magazine is always seeking to identify topics that are of interest or concern to our members and welcome your suggestions or articles. To ensure the magazine remains of genuine interest to its members and is used as a reference library in your office for its useful articles and advertisements, we need new article contributors.

## TARGET AUDIENCE

For all of us involved in this industry, ISTAT is a truly unique society that brings together the entire spectrum of services and people under one roof. When one considers the advertising budgets and efforts expended trying to highlight our company's services to our customers, it struck me in Scottsdale that many of my company's customers and partners were present, and if unable to attend, will be receiving this magazine. The membership of ISTAT has grown, and now has approximately 1,500 members from over 40 Countries divided between Leasing (400), Brokers/Traders/Consultants (300), Finance Houses & Banks (300), Airlines & Airline Servicing Companies (225), Manufacturers (150), Maintenance Facilities (150) and Lawyers (75). *Jetrader* is a most effective medium of reaching your target audience either with advertising or penning an article with your views.

We urge you to make the most of your ISTAT membership and all it awards you and hope you enjoy this edition of the magazine and will at least consider how you would like to contribute over the coming months.

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If you would like to join the Editorial Board, here are your contacts.





# What's Ahead at the Paris Air Show?

by Scott Hamilton

**T**HIS YEAR'S PARIS AIR SHOW will likely be the most anticipated since the arrival of the Boeing 747 or the Concorde and TU-144 supersonic jets. It's widely expected that Airbus will display its new super-jumbo, the A380.

Airbus is cryptic: "It's far too early to tell. The A380 will fly [by then] - other than that, the schedule is not confirmed and distributed until a couple of weeks before the show," a spokesperson says.

But the *Seattle Post-Intelligencer*, citing Boeing sources, says Airbus has reserved a parking place for the A380 next to Boeing's 777-200LR.

If so, this will clearly overshadow Boeing's plan to have the 777-200LR on display and mock-ups for the new 787. The sheer size of the A380 and the trans-Atlantic sniping between Airbus and Boeing over the merits of the A380 vs. the 787 serve to heighten interest in the two products. Airbus also will undoubtedly have a major A350 display to show off against the 787.

"Our plans for the Paris Air Show are still being finalized," a Boeing spokesman tells *JeTrader*, equally cryptic compared with Airbus. "From the Boeing Commercial Airplanes perspective, it's safe to say the 787 Dreamliner and the 777-200LR will prominently feature in our activities during the show."

Bombardier's March 16 announcement that it will produce the new C-Series 110-135 seat jetliner will certainly be the highlight of Canada's manufacturer. The freshly designed C110 and C130, although disappointingly with only 5-across seating, are similarly sized to the commercial flops, the 737-600 and the A318. The Boeing and Airbus offerings are "shrinks" (double shrink in the case of the A318), and have always been the ugly stepchildren.

Embraer, on the other hand, should have the real thing on display, its new EMB-190. This 100-seat airplane,

a failure compared with Boeing's 777. And that's why show-goers will likely see a push on this aircraft. At the ISTAT annual USA convention in March, Airbus' top airplane salesman, the aggressive John Leahy, admitted Airbus has a public relations problem with the A330/A340 line. While the A330 has been widely acknowledged as a success (it knocked the socks off the Boeing 767 and eventually killed this product line), the four-engine A340 has a reputation for struggling against twin-engine 777. Leahy tried to recast the competition not as an A340 vs. 777, but rather a 300 seat category competition. This enables Airbus to redefine the match up as the A330/A340 against the 777, and this allows Airbus the bragging right of out-selling the 777. The four engine A340's virtue over the twin 777 allows smaller international airlines to engage in long over water routes without having to qualify their own infrastructure for ETOPS. Watch for Airbus to make a new marketing push to overcome its own admitted shortcomings in the public relations arena.

**A350:** This is Airbus' answer to the 787, so the A350 will have a prominent display at the Airbus pavilion. Boeing dismisses the airplane as nothing more than a derivative of 1980s technology. Leahy defends it as having a common cockpit and commonality with other Airbus products, which he says is the result of meetings with airlines. Boeing, Leahy says, built an airplane (the 787) and then

Airbus A380



Boeing 787

whose launch customer is the prestigious US low cost carrier JetBlue, is flying. The manufacturers will promote their entire product lines, of course.

**Airbus | A330-A340:** One might wonder why these aircraft are likely to get some top attention; they've been around a while and the perception is that the A340, at least, is a bit of

went out to tell airlines why they should buy it. Airbus went to the airlines, he says, to ask what they wanted in an airplane and the A350 is the result.

**A380:** So much has been written about this aircraft, there's little to say here. At this writing, Airbus is coy about whether the plane will make an appearance at the show, but how can it not? If Leahy thinks Airbus has public relations shortcomings, it would be a missed PR opportunity of monstrous proportions (in keeping with the size of the A380 itself) to not have the plane here.

**Boeing | 777-200LR:** This is a tough promotion for Boeing. There are only five orders for this sub-type, super-long range aircraft, all from Pakistan's national airline. Boeing admits that the dismal state of the North American airlines has suppressed sales. But is the -200LR little more than a niche air-

PARIS | continued

plane in the shadow of the limited sales 747SP? Probably not. Boeing is basing the 777 freighter on the -200LR, and Air France has already said it wants the 777F to replace its 747-200Fs. The 747SP, 40 feet shorter than the basic 747 series, never was a freighter candidate and therefore couldn't be anything but a niche plane. Even if the -200LR has limited sales potential as a passenger aircraft, the eventual freighter market will make



Bombardier C Series



Embraer 195

this sub-type a success over the life of the aircraft. Look for Boeing to tout both versions of this airplane.

**787:** Boeing thinks this is a game-changing airplane. Airbus' Leahy thinks it's too small. As it turns out, so does the highly influential Emirates Airlines. In March, the prestigious carrier complained that the 787 was simply too small for its needs. Press reports say Boeing is reluctant to enlarge the 787 to 300 seats because it will encroach upon the 777-200 – the same problem Boeing had when the 737-900 was developed, helping to kill the similarly-sized 757. Setting this little issue aside, Boeing is betting the future on the 787 and the Air Show will be graced accordingly.

#### Bombardier

The world's third largest aircraft manufacturer considered a 100+ seat jetliner years ago but passed. Now the concept is

back in the C-Series 110-135 seat airliner. It's obvious this will be a big part of the Paris Air Show. Aimed at replacing the Douglas DC-9, Fokker 100, Boeing 737 Classic and similarly sized aircraft, the go-ahead was given this spring for the program. The C-Series will have a trans-continental range.

The C-Series puts Bombardier in competition with the A318 and the 737-600, although it certainly may be argued that this isn't much in the way of competition. Neither the A318 nor 737-600 has

sold well and are widely considered to be uncompetitive economically. The C-Series brings Bombardier into the big leagues in a way the CRJs never will, and potentially makes Bombardier a threat to Boeing in the next 15-20 years – but that's a discussion for another time. The C-Series will certainly be center stage for this manufacturer.

#### Embraer

The Brazilian company ventured into the 110 seat category before Bombardier, with the EMB 190-195. The main difference is a 2x2 seating rather than the 2x3 of the C-Series and 2,200nm range – not quite US trans-continental. JetBlue launched the program with an order for 100; Air Canada ordered 45 and Copa of Panama ordered 10. JetBlue's first EMB 190 will be delivered this year, so look for a flying example at the Air Show.





# UN Dealing with risks from unscheduled Events (2)



by Peter Huijbers, Director, Key Account Lessors and Banks, and Thomas Orłowski, Product Manager, Component services, Lufthansa Technik



IT OFTEN only becomes clear during the actual transition check that an even larger number of components has to be unexpectedly repaired or even replaced. In the last issue of *Jetrader*, we explained the MORE solution (Management of Component Overhaul and Repair) of Lufthansa Technik for securing the availability of components during layovers. Describing several actual examples of a lay-over with MORE, this second part of the article demonstrates potential savings in time and cost.

An Airbus A310 owned by an aircraft leasing company was to be prepared for a new lessee. By a quick and easy work order the task from the aircraft owner to safeguard the component supply for all non-routine work was taken over.

According to the aircraft's repair assessment, findings appeared in numerous components, such as in the avionics, the landing gear and the cabin seating. Additionally, a number of hard-time components were found that had not maintained their periodic maintenance intervals. As with almost every aircraft transition there were also a large number of discrepancies between the configuration of the aircraft and the aircraft documentation. According to the documentation, the Inertial Reference System (IRS), one of the most expensive avionics components, was not certified for long flights over uninhabited areas (Extended Range Twin Operations).

Functioning in the role of an interface between the in-house engineering department and the various parts manufacturers, the necessary certification of the affected components with the respective sources was performed. This item alone

paid off with a saving of around 250,000 US dollars for the leasing company.

Every day counts in a layover, as an aircraft only earns money when it is in the air. When a complete set of wheels was needed for the A310 at short notice, a shipset of wheels was taken from the pool in Frankfurt and transported by pick-up truck to the layover location in the shortest possible time, such avoiding a potentially time-consuming procurement phase. Another challenge was the acquisition of 120 oxygen generators from the surplus market because they had already exceeded their hard-time and had to be replaced.

In the frame of another aircraft transition, a high frequency (HF) communications system had to be installed during the transition layover of an Airbus A319 from a European lessee to a Central American operator. However, the particular installation kit was not available on short notice through conventional supply channels. Using established world-wide sourcing capabilities the parts were acquired and made available in a kit to the customer in the contracted time frame.

Cost savings can not only be achieved for commercial aircraft. A recent layover of a Boeing BBJ would have had a 15% cost saving if the customer would have chosen to go for the MORE service.

In today's world of 'time being money', sometimes simply safeguarding deadlines is already sufficient, the cost benefit is then 'just' nice to have too. Having the capability to source material fast or go via exchange helped various times to keep the final delivery date to the lessor's customer. An aircraft in transition after a long time stor-



Unscheduled<sup>1</sup> continued

age in the US desert had a slide raft problem the day before the final test flight. Via MORE the test flight did take place as envisaged, rescuing the final delivery. Normally this would have been a two week delay and in this particular case worth half a million USD.

A similar case, this time at another MRO facility, the lessor also used MORE to ensure the delivery date as some components 'popped' and that facility was unable to fix the problem in time.

#### Long-term Cost Predictability

Still, the security of component supply is not the only aspect lessors and banks are looking for. A reliable cost forecast for this level of support is as important. A designated software tool makes possible accurate forecasts as to when which components will need an overhaul. Combined with the fixed prices, which are calculated in relation to the manufacturers' original parts prices, the tool produces accurate statements of the costs that can be expected in the foreseeable future.

To this end all hard-time and life-limited equipment in a given aircraft is listed in a database. For all the relevant equipment - some 250 part numbers for a narrowbody aircraft like the Boeing 737 or Airbus A320 - current operating time or service life is entered and compared with the times specified by the manufacturers or aviation authorities. The program takes into account the expected number of flying hours or flight cycles over a defined period following the end of the layover.

This approach provides lessors with highly reliable information on the current and future structural condition hence on future costs, which is obviously extremely helpful when financially sound decisions about performance guarantees in leasing contracts are needed during negotiations with potential lessees. This very much supports the rapid remarketing and service reentry of aircraft which is so essential in today's dynamic leasing market.

ISTAT member Dave Wilson, GECAS, jams with band. The cocktail hours served more than libations.



## conference setup photos

shot by Fred Klein







# Launching a Power plant

## Rolls-Royce Trent 1000

by Charles Cuddington

**T**HE ROLLS-ROYCE TRENT 1000 is established as the launch engine on the 787 Dreamliner following its selection by All Nippon Airways of Japan, and as such, will take the lead throughout the 787's development. It will be the first of the 787 powerplants to fly, the first to be certified by the airworthiness authorities, and the first to enter commercial service.

The Trent 1000, according to Charles Cuddington, Managing Director of Airlines business at Rolls-Royce, is the company's response to "a complex exam question" set by Boeing.

Technically, the engine will match the 787's focus on "more electric" systems, designed to replace the use of bleed air to provide power and pressurised cabin air, and move away from aircraft hydraulic systems. Power will be generated using the engine's intermediate pressure shaft - a unique solution which is forecast to produce some significant spin-off benefits including improved compressor stability, a 30 per cent lower idle setting, and fuel savings of around six per cent on short range routes.

This latest Trent will feature latest generation, light titanium fan blades with a scimitar-shaped leading edge first introduced on the Trent 900 for the A380. Benefits include a lower noise profile, as well as better aerodynamics and increased resistance to foreign object damage.

Additional efficiency is also gained by contra-rotating the high pressure system, which has the effect of straightening air flow through the engine's core.

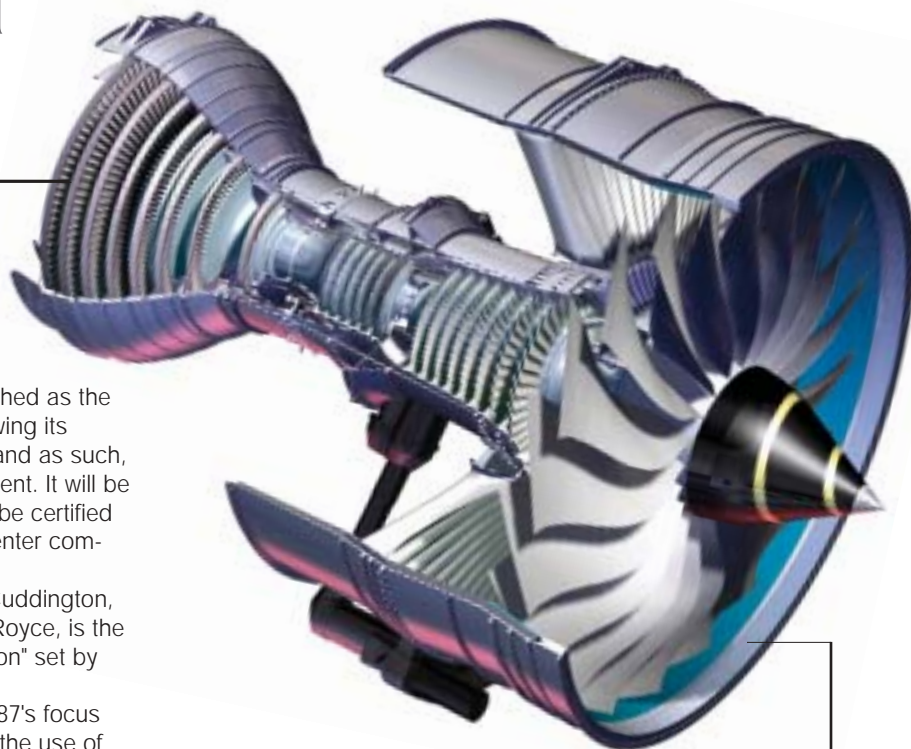
A "one size fits all" approach means a single, common Trent 1000 will power all versions of the 787, offering a range of thrusts from 53,200 to 70,000lb. This fifth variant of the Trent series will also be the lightest and most environmentally friendly engine on the 787.

"What Rolls-Royce plans to deliver," says Cuddington, "is an engine which balances the best levels of appropriate new technology with a derivative, low-risk approach to development - a familiar route adopted by all previous engines in the Trent family."

"By the time the Trent 1000 enters service, it will be drawing on 35 million hours of experience accumulated by its close relations over the previous decade."

The Trent 1000 will benefit operators through lower and more predictable costs, providing optimum economics over the spread of 500 to 8,000 nautical mile operations for the entire life of the 787.

Part of that predictability comes via comprehensive and fully portable TotalCare services packages, administered by Rolls-Royce, which are a central feature of the company's business model. Over 60 per cent of the Trent fleet is main-



**Charles Cuddington**  
*Managing Director, Airline Business*  
Rolls-Royce

"What Rolls-Royce plans to deliver is an engine which balances the best levels of appropriate new technology with a derivative, low-risk approach to development - a familiar route adopted by all previous engines in the Trent family."

tained in this way. Airlines hand over the risk of maintenance to the original equipment manufacturer in exchange for an agreed dollar rate per flying hour. In the case of the 787, TotalCare matches and supports Boeing's Integrated Service Solutions concept.

Supported by highly sophisticated, real-time engine health monitoring, and the invaluable knowledge provided through the world-fleet database, Trent-powered 787s will have high residual values in the case of re-sale.

The Trent 1000 is in the process of establishing a global network of risk and revenue sharing partners, with Japan's Kawasaki and Mitsubishi currently confirmed alongside Hamilton Sundstrand and Goodrich Corporation of the United States.

With concept definition frozen, the first Trent 1000 goes to test next year, with certification in 2007 followed by service entry in 2008. ANA and Air New Zealand are the first two names on the customer list.



John Keitz (r) and friends; below, Al & Mickie Jones, Khawer Ali and John Todd



David Veal and Bill Cumberlidge



Mark Kreisel and Bill Gray

Steve Hazy  
ILFC

Mark Tierney  
Mark Tierney

Ian Unsworth  
Boeing

Peter Swift  
Quiet Wing

Peter Huijbers  
Lufthansa Technik

Randy Martinez  
World Airways

Joseph Drobnich  
Q Aviation







AVITAS ice sculpture at their martini bar



Reception Sponsor John Vitale,  
*President AVITAS;*  
*below Alex Hsu, Thomas Hoang*  
*and Boris Bjelicic*



# Meeting in the desert



Enjoying the Embraer sponsored reception

Adam Pilarski  
AVITAS

John Keitz  
BK Associates

Bert Van Leeuwen  
DVB Bank

Bill Cumberlidge  
ALLCO Finance

Borislav Bjelicic  
DVB Bank

Bud Calloway  
Northstar Aviation

Ken Zick  
American Airlines



Bill Gardner, Kristin Brown, Brian Postel, Steve Manley



According to outgoing ISTAT president, Mike Metcalf at the conference's opening session, the attendance of over 800 members set a record for any western conference. No doubt an important draw was the exquisite setting at the Westin Kierland in Scottsdale, and the impressive lineup of speakers at this four-day event.

As one of 15 charter members of ISTAT, Metcalf's seen more than most. Stating that ISTAT counts over 1500 members worldwide, he mentioned the progress of the appraiser's program, and the phenomenal success of the ISTAT Foundation's endowments that make this Foundation a leading supplier of educational scholarships, four of which were presented at the President's Gala Dinner on the final evening of the conference.

Incoming President Tom Heimsoth (2005-2007) introduced four outgoing Board members, Alan Coe, Colin Davis, Tom Hiniker and Bill Cumberlidge; Cumberlidge also made a presentation to Mike Metcalf as outgoing President. Conference Chairman Fred Klein opened the first morning's program. Mike Metcalf thanked Fred Klein saying the 800 members attending were a tribute to his hard work.

Boeing was represented on Sunday by John Morgan's discussion of freighter conversion marketing, and said Boeing was committed to growth in the freighter market.

Monday's program included Ed Greenslet's (ESG Aviation Services) discussion of the state of the aviation industry and new generation aircraft. He said, "The Aviation Industry is not ready to fix the revenue side of the equation and has addressed the cost side only haphazardly." Charles Cuddington of Rolls-Royce said the Trent 1000 benefits were really the Total Care Rotable Inventory program. Michael Wilking of GE Engines talked of the GENx's use of composites materials and low emissions and noise levels..

Frank Bernardino's (GRA Incorporated) spoke of the factors affecting slot valuation. Steve Ridolfi (Bombardier) addressed the changes in the Scope clause and the impact on the regional markets in the US, Europe and Asia. The Appraiser's Panel was comprised of William Gardner (Meridian Aerospace); Robert Agnew (Morten, Beyer and Agnew); Fred Bearden

# Meeting in

## ISTAT 22nd Annual Conference

*Speakers at the 3-day event  
included*

✓  
✓

*Jerry Atkin  
SkyWest*

*Adam Pilarski  
AVITAS*

*Thomas Hoang  
The Boeing Company*





(Aircraft Information Services); Jack Feir (Jack Feir & Assoc.) John Keitz (BK Associates); Fred Klein (Aviation Specialists Group), and John Vitale (Avitas).

The Tuesday speaker's lineup began with Douglas Parker (America West) who spoke on its re-focusing as the second largest LCC by cutting costs and rationalizing its fare structure. Steve Manley's (Universal Asset Management) talked about the factors affecting the cost of spare parts from the disappearance of disassembly candidate aircraft to the raising need for spares. Jerry Akin (SkyWest) talked about SkyWest's added value of high quality service, low costs and superior financial strength. The morning ended with the Cargo Panel moderated by Stephen Fortune (Ventura Aviation). Rick Hatton (Cargo Conversions) talked about Aircraft Utilization as the key component when considering Capital Costs versus Operating Costs. David Sutton (FedEx Express) discussed the advantages the A380 brings to FedEx. While Thomas Hoang (Cargo Marketing for Boeing) talked about the resiliency of the Air Freight market and the opportunities for both new and conversion freighters.

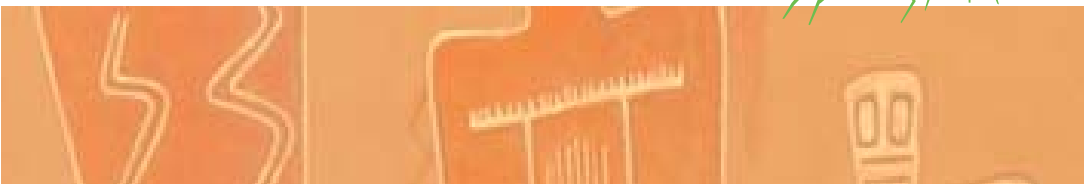
Robert Crandall (POGO) presented a whole new way of looking at the air passenger industry using air taxis and warned of the costs of delaying development of a national transportation plan. John Leahy (Airbus) spoke of the joy of being number one and the future models of Airbus. Globalization and the cargo industry were covered by Avitas' Dr. Adam Pilarski who stated categorically the everyone benefits from trade. The final event of the day was the Lessors Panel was moderated by Alan Coe (GATX Air) and supported by Peter Barrett (RBS Aviation), Klaus Heinemann (debis AirFinance), C. Jeffrey Knittel (CIT Aerospace), Mike Platt (ILFC).

The President's Gala Dinner following a reception and silent auction featured a presentation of the ISTAT Award to Fred Smith, Chairman, President & CEO, FedEx Express by Steven Udvar-Hazy

For more detailed information, please refer to the ISTAT 22<sup>nd</sup> Annual Conference CD. Watch for details on the upcoming 12th European Conference in Hamburg, September 11-13 and the 23<sup>rd</sup> Annual Conference in Orlando, March '06.

# the desert

Scottsdale March 05



*Charles Cuddington*  
Rolls-Royce

*Ed Greenslet*  
ESG Aviation

*Michael Wilking*  
GE Transportation





Speakers and Sponsors Adam Pilarski, Fred Klein and John Vitale

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Peter Huijbers, Charles Cuddington and Ian Anderson



Sage-Popovich's Kelly Rentschler, LaVonne Scott & Jennifer Barlow



The Hinikers and the Kincaids



Bill Cumberlidge and friends





by Doug Kelly  
Vice President - Asset Valuation  
AVITAS, Inc.

**So** far, 154 A380s have been sold to 15 customers and the first delivery is still a year away. It is an impressive start for Airbus's superjumbo jet that is big enough to seat more than 550 passengers on two decks. But at what price is the aircraft selling?

Rumors have the launch price in the year 2000 at about 40% off list, which would have been close to Boeing's 747, a 400-seat aircraft selling for approximately \$140 million at the time. Airbus's 2004 list price is approximately \$280 million so a 40% discount implies a launch price of \$168 million in 2004 dollars. And what, then, is the Current Market Value under the ISTAT definition that specifies a single-unit sale, not a launch price to early buyers of multiple units?

As appraisers, we are often asked to value new and existing aircraft types that have little or no comparable transaction evidence. At AVITAS, we tackle these challenges

by using a blend of techniques and tools. We use several analytical tools because we do not believe that there is any one technique which always results in the "right" number. One of these tools is an econometric approach. Through our statistical analysis of historical transactions, we have developed a quantitative modeling technique that allows us to predict aircraft values by forecasting certain independent variables related to aircraft characteristics and the economy. Examples of these variables include aircraft size, range, operating costs, operator base, aircraft concentration, traffic growth, aircraft availability and fuel price.

A380 | continued page 16

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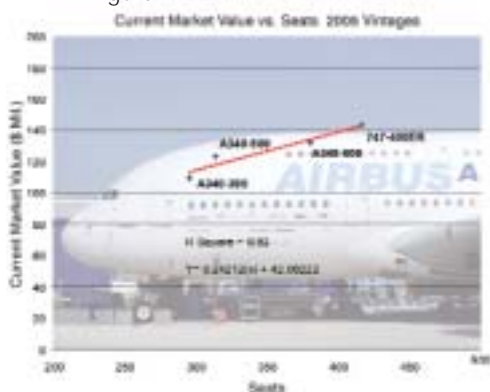
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Value in use or income analysis is another technique in which an aircraft's earning capacity over time is determined and the present value of those earnings is calculated. Because different operators have different costs, yields and hurdle rates of return, this technique can yield a range of values. Therefore, the appraiser must use his or her judgment to determine what value in that range represents a Market Value representative of the overall marketplace.

Another powerful tool which we use is should-cost analysis. This technique is used when there is little or no market data on a particular airplane type but there is on similar or competing types. By analyzing the economic and operational profiles of competing aircraft, the appraiser is able to impute what the aircraft in question should cost to position it competitively.

A derivative of the should-cost approach is a technique that we often use for analyzing new aircraft types. This approach involves plotting our Current Market Value for competitive aircraft versus seats and computing a simple regression line (see Figure 1). The competitive aircraft include the A340-300, A340-500, A340-600 and 747-400ER. Only four-engine aircraft capable of transpacific range were included.

Figure 1



The derived regression equation then allows us to input the number of A380 seats (555 in a three-class configuration) to calculate the expected Current Market Value. Using this approach yields a Current Market Value of \$176.5 million for a single-unit transaction in 2005 dollars. We can then draw the regression line up to the A380 value (see Figure 2). Since no airline orders only a single unit, we would expect more typical transactions to be closer to \$170 million.

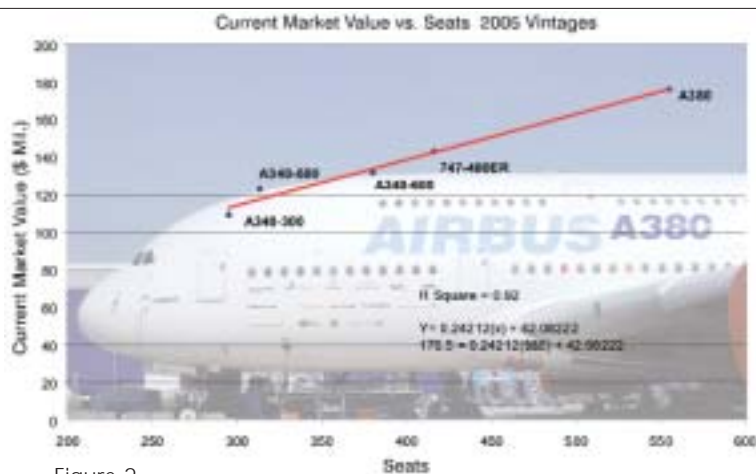


Figure 2

The next step is to see if there are any technological or performance characteristics that may warrant a premium or discount over the predicted value for the A380. One could try to quantify any additional benefits such as an improvement in range, speed or fuel burn by calculating the present value of the cash flow benefit over the aircraft's expected economic life.

As you can see from Figure 2 above, the A340-500 sits above the regression line due to the additional range of the aircraft. Not only does the A340-500 give operators 18 additional seats over the A340-300, but it also has a greater range of 1,200 nautical miles. According to Airbus, the A380 range is expected to be 7,700 nautical miles at full passenger payload compared to the 747-400ER's range of 7,670 nautical miles. Because the A380's range is virtually the same as the 747-400ER and cost benefits are primarily due to its size, we chose not to add any additional premium to the A380. In addition, the unique characteristics of the aircraft (555 seats!) will limit the customer base to only the top airlines that have the most market power to negotiate, thus, keeping downward pressure on values. Though many other variables should be considered, this simple approach yields remarkably accurate results and identifies the ballpark value quickly.

#### Forecasting Base Value

Now that we have determined the Current Market Value of the A380, how

will values perform over time? To determine Future Base Values of an aircraft, we utilize a transaction-based computer forecasting model developed by AVITAS and refined over the years. Based on thousands of actual market transactions, the model sets forth a series of value curves which describe the value behaviors of aircraft under different circumstances. In addition, we use our own research, judgment and perceptions of each aircraft type's long-term competitive strengths and weaknesses vis-a-vis both competing aircraft types and the marketplace as a whole.

Assuming a 25-year economic life and average value performance, we expect the A380 Future Values to

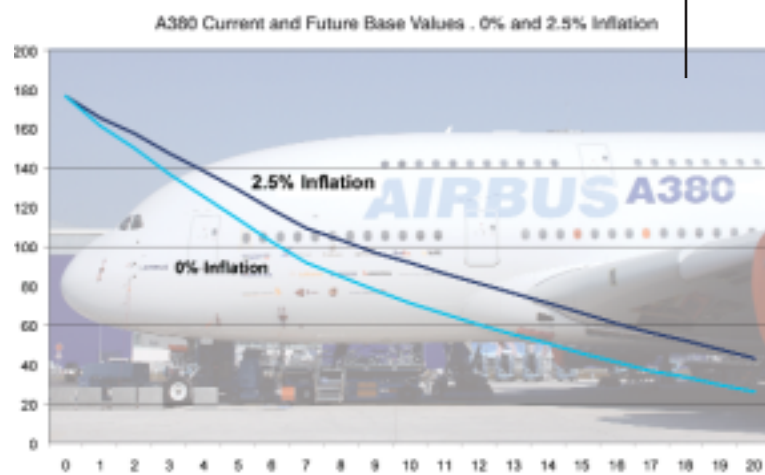


Figure 3

behave similar to the curve shown above in Figure 3.

#### Future Outlook

The A380 is no doubt an exciting new aircraft for commercial aviation. The current order backlog with a strong operator base is encouraging. However, Airbus has some formidable challenges ahead to ensure the aircraft's success in the marketplace. The





# ISTAT Foundation



ISTAT Scholarship winners Ryan Wilson, Kate Zaranek, Kristin Brown and Kelly Rentschler with Fred Smith



Heidi Bengert and Wolfgang Driese, *above left*, check out the Mini; Silent Auction bidders, *right*, made lots of good buys.



## Defining the mission of the ISTAT Foundation

by Bob Brown

*ISTAT is comprised of people who have prospered in the aviation industry. Our companies have benefited from our expertise as we helped them generate profits. For some of us, that's been enough. For the rest, we feel a need to contribute to the community that has benefited us so much. Whether we define our community locally or globally, there are lots of places where we aviation types have something unique to offer. That's where the ISTAT Foundation comes in...*

Like ISTAT itself, the ISTAT Foundation provides a vehicle for our members to work together for a common goal. The grants, scholarships and internships that we provide serve to make our society and industry more accessible to young people trying to establish a career in aviation. Bringing in these young people strengthens us.

Humanitarian aid that is delivered using aviation assets is another

area where ISTAT members can offer something unique. This type of aid can take many forms. By reaching out to help those in need, we demonstrate for the world that we are an organization that cares.

Our advantages as a charitable organization include a diverse, active board and a good track record over ten years. Recently, entrepreneurs such as George Batchelor, Steve Hazy and Fred Smith have supported our cause and literally "put us on the map". (See ISTAT Conference Roundup - 2005).

Above all, we have ISTAT; an organization whose members are becoming aware of all the possibilities where they may be of service.

What am I talking about? Beyond the simple and valuable contribution of money could be a new internship program within one's firm, for example.

## ISTAT Conference Roundup

by Bob Brown *VX Capital Partners*  
ISTAT Foundation Chairman

This year's gathering in Scottsdale was especially active for the Foundation with four of our scholarship recipients in attendance. The recipients had a chance to mingle with ISTAT members and to receive

recognition at the Gala Dinner. I'm proud to announce that three of the four scholarship recipients received internship offers as a result of attending the conference. Now that's networking!

Presenting the "big" checks to each scholarship



Bob Brown

recipient were representatives of Automatic, Universal Asset Management and DVB. These firms each contributed \$10,000 to fund the purchase of a Mini Cooper. Another \$35,300 was raised in raffle ticket sales for a total of \$65,300. Thank you very much!

I'd like to congratulate Dave Sutton who won the Mini Cooper. When Fred Smith realized that one of his own had received the prize, he graciously donated \$50,000 to the Foundation. Thanks Fred!

With the Fed Ex donation, the raffle raised \$ 115,300. In addition, the silent auction raised a total of \$16,000 for a grand total of \$131,300 during the conference. Our heartfelt thanks go to Mike Metcalf who was the man behind the raffle and to Dave Sutton who organized the silent auction.

As if that wasn't enough of a bang for the Foundation, Chairman Tom Hiniker announced that Steve Hazy had agreed to fund a permanent scholarship in his name to be awarded by the Foundation each year. This magnificent gift will benefit young people trying to break into the aviation business for time immemorial.

Tom also announced the donation of a Starship by Evergreen




## A380 | continued

air transport industry is strongly cyclical and one has to think about how the values of this aircraft will behave in a deep recession.

Other concerns are financing, the potential primary market and the limited secondary market for this aircraft. While it is unclear how these issues will play out in the future, it is clear that the A380 will be a game changer for those airlines that can take advantage of the opportunities it will bring.

"We use several analytical tools [to value new and existing aircraft types] because we do not believe that there is any one technique which always results in the "right" number."

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## ROUNDUP | continued

International Aviation which was sold (on Ebay!) prior to the conference for \$50,000. Thanks to Evergreen!

Last, I'd like to thank our outgoing chairman, Tom Hiniker, for the outstanding job he did in leading the Foundation for the past two years. Under Tom's leadership, new levels of fundraising were achieved, the board was renewed with dynamic members and the standards of governance were raised to a higher level. As past Chair, Tom will remain on the board and we will continue to rely on his experience and enthusiasm for our cause.



Mike Metcalf + the MINI

## MISSION | continued

We also look to our members might spot deserving individuals in their community who need financial help to complete their aviation-related education.

Alternatively, some of us may prefer to make a contribution by helping to coordinate the use of aviation assets to provide disaster relief. In these cases, the most valuable contribution may be one's time or other non-financial resources such as airline miles or unused freighter capacity.

Our job at the ISTAT Foundation is to coordinate our members' desire to contribute to our community. I assure you that during the coming years, we will bring many ideas to you. We hope they will inspire you to take action. In the meantime, I urge each of you to pick up the phone and share your ideas with a Foundation board member today.



Purdue's Denver Lopp, David Stanley and Jerry Alberts



# Obstacles to growth in the MRO business

Authors: Professor David L. Stanley, Professor Michael W. Suckow, Professor Denver W. Lopp. *All are faculty in Aviation Technology at Purdue University and have been involved in MRO and airline maintenance research and study.*

The airline and mass transportation industry in general have suffered greatly since September 11 as a result of security issues, economic hard times, and the rising cost of fuel. Generally speaking, the profit margins of the airlines are in inverse proportion to fuel prices, and the current trend has been up for fuel and down for profits. The cost of fuel, generally computed as approximately 15% of the direct operating expense of the airlines, has skyrocketed past \$50 a barrel over the past year and continues to reside close to that same neighborhood. While some analysts predict that it may eventually fall back to the lower thirty dollar region, nothing now points to this happening in the near future. Given the oft-stated assumption that long term profits are possible only with oil prices 50% lower than they are now, there is cause for concern (Michaels, 2004).

Legacy airlines, saddled with the additional burden of high labor costs, are attempting to compensate by streamlining operations and adjusting wages to meet the new economic model. Low cost airlines, suffering as well during these times, nonetheless enjoy the benefits of lower labor costs. It should be pointed out that a day of reckoning for these fortunate few may lie in the future when the bill for heavy maintenance on new airline equipment comes due, and the favorable margin for labor cost begins to erode.

In the meantime, however, the low cost airlines as a group are riding high in comparison with the older airline companies, partly due to the fact that they have managed to control costs. From the outset, they have generally utilized external maintenance, repair and overhaul organizations (MROs) to perform heavy maintenance, gaining a competitive advantage over their legacy rivals as a result of the lower maintenance costs.

For the low cost or start up airlines, outsourced maintenance made obvious sense. Shifting the responsibility for heavy maintenance to a third party eliminated the initial investment in equipment, facilities and training, and also enabled immediate operations once airplanes were acquired and the paperwork completed. For the legacy airlines, the shift to outsourced maintenance was motivated more by the fact that maintenance is the largest single expense for the airlines - 40% or more of the direct expense of airline operations (Levin, 2004).

Significant savings in this area, it was reasoned, could have a large impact on the bottom line. Consequently, older airlines began the shift to MRO maintenance in the decade of the 1990s, as well. Outsourcing of airframe maintenance in the United States increased from 33% in 1990 to

50% in the year 2000. Predictions are that MROs will handle 65% of airframe maintenance by 2010 (Casley, 2004). Clearly, outsourcing is on the upswing.

While many of the airlines are shrinking in order to remain competitive, MROs are enjoying this opportunity to expand. As noted earlier, MROs have a competitive edge in that the wages and salaries they pay are considerably less than those paid by the legacy airlines. One projection suggests that even if the airline maintenance labor rates decrease by 13 - 17%, as is expected, MROs will continue to enjoy a 28 - 38% wage and salary advantage (Casley, 2004). If such a wage gap persists in the future, MRO business should be expected to continuously expand to meet demand. In a competitive environment, growth of this kind is healthy to the extent that safety and quality remain the first priority of business. These are the issues of concern and must be a focus of priority for any organizations experiencing significant growth.

Given the importance of quality in this particular industry, now is the time to consider the effects of rapid growth and change, and to consider how and where adjustments might be of benefit to all concerned.

Aviation students and faculty at Purdue University have been involved in studies of the MRO business and airline maintenance operations for some time as a part of discovery and engagement missions. Faculty involved with these projects do so with the philosophy that learning occurs best when combined with discovery. In technology education, engagement with industry provides the vehicle by which to accomplish discovery while building a mutually beneficial partnership between the university and the industry. Students participating in the research initiatives with aviation companies benefit immensely from the experience, while the companies enjoy a substantial return on investment. These research activities have been largely supported by airline and MRO companies, and some general findings follow.

Under the traditional model of in-house maintenance, communication channels are clearly delineated and understood among the three parties involved: the original equipment manufacturer (OEM), the airline, and the FAA. For those involved with maintenance on the floor, the procedures followed are particular to their airline. With the shift to MRO maintenance an additional party is added to the chain of communication and additional complexity occurs as a result of the number of airlines served by MRO. This complexity



For the low cost or start up airlines, outsourced maintenance made obvious sense. Shifting the responsibility for heavy maintenance to a third party eliminated the initial investment in equipment, facilities and training, and also enabled immediate operations once airplanes were acquired and the paperwork completed.





Bob Crandall with Mike Metcalf

## A few minutes with Bob Crandall in Scottsdale

The *Jetrader* had a few questions for Bob Crandall, former CEO, American Airlines. He had just completed a presentation of POGO, which addresses the frequency, costs and reliability today's passenger aviation market. Using very light jets, POGO is set to move the air taxi model to a nationwide alternative air transportation system using the over 5000 local and regional airports that are now seriously under utilized.

**Jetrader:** What value does ISTAT represent for the aviation industry?

**Crandall:** ISTAT offers a greater opportunity to meet the important players in the aviation industry. This is an ideal forum and ISTAT is the right organization to create and communicate a common point of view for this industry. ISTAT needs to focus its members energy to maximize the collective impact of that point of view.

**Jetrader:** What is most important issue facing the Aviation Industry today?

**Crandall:** We need to have a coherent, consistent and comprehensive aviation policy in the United States today. And it specifically needs to address the financing and regulation of the FAA.

**Jetrader:** Are there issues that ISTAT should address?

**Crandall:** 1. ISTAT membership needs to agitate for the creation and implementation of a national transportation plan; 2. ISTAT needs to support a long term plan for the proper funding and reorganization of the FAA; 3. ISTAT members need to support educational institutions that are going to provide the future managers and innovators needed by the aviation industry.

"Jobs flow to those countries where cost effective distribution is the lowest."

Bob Crandall *Chairman*  
POGO "and you're there"

becomes the burden of those supervising and performing maintenance. A typical MRO, for instance, may perform maintenance services for five airlines and twelve different aircraft. Each of the airlines often has different procedures and processes for the same equipment, which leads to problems resulting from a lack of task standardization.

Complicating the matter further is the fact that training and oversight are geared in accordance with these task procedures. The number of task, process, and training iterations created is a function of the number of airlines served by the MRO. Combined with problems caused by growth, these are daunting issues and obstacles for MROs to overcome.

It is the position of the researchers involved in these studies that standardization of processes is of critical importance for the MRO industry in the future. Later installments will address recommendations for such standardization efforts in more specific terms.

Purdue University students and faculty have spent considerable time on the floor of MRO operations in both domestic and foreign stations studying these processes and problems. In addition to the above observations relative to MRO complexities, Purdue University researchers identified the following as key issues that deserve study and consideration in the near future (Suckow, et al, 2005).

- > Communication channels
- > Operator oversight and responsibility
- > Task standardization
- > Supervisor key roles and education
- > Language translation and understanding

While all of these also have significance for airline maintenance operations, they are even more important for the MRO industry where they can be serious impediments to growth and efficiency as the industry expands. Given the importance of expanded MRO capacity for airline operations in the future, it is critical that barriers to success be identified and removed wherever possible. In future installments, each of these factors will be described in more detail, and recommendations will be offered to address the potential problems.

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# aviationHistory

## did you know about George Schairer?

by Bill Bath

IN THE SEPTEMBER 7, 2004 ISSUE OF SPEEDNEWS there was an obituary on George Schairer, who died at the age of 91.

From 1959 to 1973 he had been Boeing's vice president for research and development, and had been hired away from Consolidated Aircraft by Boeing in 1939 to replace Ralph Cram, Boeing's sole aerodynamicist, who had been killed in the crash of the first pressurized airliner, the Boeing B307 Stratoliner.

George Schairer was one of the handful of aeronautical engineers who propelled America into the jet age, and world leadership, with their development of the swept wing after the defeat of Germany in 1945. But first let us go back to the 1935 fifth Volta conference in Rome, where a 34 year old German professor in aerodynamics, Dr Adolph Busemann, presented a complex mathematical paper on the effects of sweepback on supersonic airflow. It was based on a very simple right-angle vector diagram of airflow velocity across a swept wing.

Increasing the angle of sweep relative to a fixed free-stream velocity, (airspeed) across a wing, reduces the normal component of air flow velocity perpendicular to the wing's leading edge (B). The effect is to increase the critical speed Mach number where compressibility gives rise to a large increase in drag and flow separation across the wing. When this occurs, the resultant turbulent wake can blanket the horizontal stabilizer; causing the aircraft to tuck under into an uncontrollable dive. This was happening with fighters towards the end of World War II.

As the war in Europe terminated with the allies occupying Germany; the Russians, British and Americans sent scientific teams to the German research laboratories to sweep up the scientists and their work. With the Messerschmitt Me-262 jet fighter and the V2 rocket in 1944, the Germans were clearly ahead of the allies in aeronautic developments. Dr. von Karman from Cal. Tech. led the American team; which included George Schairer, then Boeing's head of aerodynamics. Von Karman had been associated closely with Schairer during the design of Boeing's high-speed wind tunnel, one of only three in the USA at that time; (the other two were at NASA's fore-runner, the National Advisory Committee for Aeronautics).

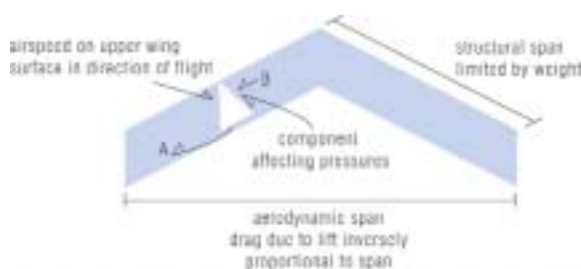
Before departing for Germany, Schairer got a briefing from Robert Jones, a self-educated aerodynamicist at NACA's Langley Field wind tunnel. Jones had written a report on his independent discovery of the swept-wing's advantage at near-sonic speeds, some ten years after the Volta conference. However, his boss, Theodore Theodorsen, considered it "hocus-pocus", and the editorial committee rejected it. Time showed Jones's theoretical analysis to be right on.

Dr von Karman was educated in Germany and knew where to go for aerodynamic data; it



was at the manufactures that the applications of sweepback data were found. Namely at Junkers with its experimental JU-287 four engine jet bomber, and at Messerschmitt, where a design of a follow-on fighter to the ME-262, with a 45 degree swept-wing, was found to be close to its flight test. Adolph Buseman was brought to the United States and joined the NACA Langley laboratory to continue his research. He eventually became chairman of the advanced-study committee at Langley.

Upon his return to the USA, Schairer wrote a letter to Boeing on May 10, 1945 of the team's findings, with instructions that copies be sent to six aerodynamics leaders in the country. Only Boeing, with its B-47, and The North American Company with its F-86 fighter took advantage of the information contained in Schairer's letter. The Russians found similar material, and promptly produced the MIG 15; which reigned supreme during the Korean war, until the F-86 finally arrived.



Messerschmitt 262 Jet Fighter

*George Swift Schairer - Scientist whose discovery of Nazi wind tunnel research played a crucial role in development of swept-wing jets; was Boeing's VP for research and development (1959-73) and for research until he retired in 1978; his awards included the Daniel Guggenheim Medal for great achievements in aeronautics, and the Spirit of St. Louis Medal; went to Boeing in 1939 after completing studies in aeronautical engineering at MIT; worked with the US Army Air Corps in WWII; used the wind tunnel discovery in designing such landmark aircraft as the B-47 and B-52 bombers and the 707 passenger jet; died of Alzheimer's disease in Kirkland WA Oct. 28, 2004*



## A few minutes with Steven Udvar-Hazy

in Scottsdale

**S**teven Udvar-Hazy started International Lease Finance from his bedroom in his parent's home in Los Angeles after graduating from UCLA. From that modest beginning, ILFC has grown to the giant in the Aircraft Leasing Industry.

With a portfolio of over 670 aircraft, the company rivals the largest airlines in the world. A well-known philanthropist, Udvar-Hazy recently was at the unveiling of the Aviation Wing of the Smithsonian Museum which he contributed to. Steven very kindly took a few minutes to answer questions from the *Jetrader*.



**Jetrader:** *What value does ISTAT represent for the aircraft Industry?*

**Udvar-Hazy:** Two Specifically. One, ISTAT conferences are a wonderful forum for people who deal in aircraft industry to interact with one another. The Society offers a better appraisal of trends by increased visibility and an integrated approach to the quality of information. Two, ISTAT is an aviation industry organization where professionals can meet and create relationships that benefit our inductor. It is an important bridge building venue that creates opportunity for its members.

**Jetrader:** *What is the attraction of the ISTAT Annual Conference?*

**Udvar-Hazy:** ISTAT is the best single gathering of professionals in the Buying/Selling and leasing of Aircraft. It is the one organization that brings together the movers and shakers in the Aviation Industry. The impressive turnout reflects the variety and importance of the speakers and their topics.

**Jetrader:** *What could we do to make the conference better?*

**Udvar-Hazy:** Add humor and variety. Two days is hard to enjoy because there is so much to do.

**Jetrader:** *What are the challenges that face the Aviation Industry?*

**Udvar-Hazy:** People. It is imperative that we start recruiting and training the next generation of ISTAT and Aviation Industry leaders. Creating the next layer of traders is vital to the health and profitability of the Industry

"We need to recruit and mentor the next generation of Aviation Industry professionals."

Steven Udvar-Hazy *Chairman and CEO*  
International Lease Finance Corporation

## people TRACKER

**The Aircraft Group** announces that **Wade Walker** has joined the company as Director of Technical Services on a full time basis. Wade has over fifteen years of airline experience in heavy maintenance planning and scheduling with operators such as Continental Airlines. Wade's duties will initially focus on the management and oversight of lease and bankruptcy returns. He will also head The Aircraft Group's records specialists team.

**Don Bruce** has joined **The Aircraft Group** as Director of Technical Services on a full time basis. Don has over thirty-six years experience in the aviation industry, focusing primarily on the heavy maintenance and freighter conversions of large transport aircraft world wide. During the past ten years Don has contracted with TAG on major airframe modification and inspection projects and post lease return maintenance programs.

**Ed Reese** has joined **The Aircraft Group** as Vice President will oversee TAGs asset management business and the growth of TAG Fleet Online, its proprietary, Internet based Aircraft Records and Portfolio Management Service. Ed comes to The Aircraft Group from Boeing Capital Corporation in Long Beach, CA.

**Bertrand Grabowski** has been appointed a Member of the Board of Managing Directors of **DVB Bank AG**. In his function he will assume responsibility for DVB's Aviation Finance Division.

**Larry Kancius** has joined **Willow Aviation Services** as Managing Director.







# Agenda

## 12<sup>th</sup> European Conference

### >> Hamburg <<

## 11-13 September 2005

### Sunday, 11 September

For Golfers "Gut Wulfsmuehle" Golf Course; Breakfast served  
Alternative Exclusive Program (*weather permitting*)  
Flights with Messerschmidt Me-108 B-1 Typhoon  
*Lunch at Lufthansa Technik*  
Cocktail reception at Kempinski Atlantic Hotel  
Boat tour through canals and locks to harbor; Walk from boat-  
pier to Miniatur Wunderland for dinner;

### Monday, 12 September

#### Conference Opening

O. Von Beust, First Mayor of Hamburg  
A.W. Henningsen, Chairman of the Executive Board, Lufthansa  
Technik  
P. Rieck - Member of the Executive Board, HSH Nordbank  
M. Shinnick - Senior Vice President, HSH Nordbank

#### Coffeebreak

Philip Lobkowicz, Babcock & Brown Aircraft Management  
Michael Kramer, MD Head of Lease & Transportation,  
Asia/Pacific, West LB *The JOL is gone, what is next?*  
Mr. Filov, Director General, Sibiria Airlines

#### Lunch

Keith McMullan, Aviation Economics  
*What is going on with Europe's Airlines?*  
Adam Pilarski, AVITAS

#### Coffeebreak

Rich Poutier, Sr. VP technical operations, ILFC EASA  
Mr. J. Varadi, CEO, Wizz Air Group Ltd.  
*The Eastern Europe low cost carrier market*  
Dinner at Kempinski Atlantic hotel  
*Surprise Event*

### Tuesday, 13 September

Summary of day one  
Tim Clark, CEO, Emirates  
Wolfgang Prock-Schauer, CEO, Jet Airways  
*Indian Aviation Boom*  
*Coffeebreak*  
M. Radunz, Managing Director, GOAL  
Ministry of Economics, State of Hamburg  
*Aerospace Business perspectives - a governmental view (tbc)*  
*Lunch*

Transfer by bus to harbor  
Transfer by boat to Airbus, including brief harbour tour  
Visit of A380 Line  
Reception at Cityhall - Mayor's Room and Clocktower room  
*Welcome by Senator Gunnar Uldall, Ministry of Economics*



## PEOPLE | going PLACES

# SHANGHAI

Pearl of the Orient *by Alex Hsu*

**A** GROWING NUMBER OF ISTAT MEMBERS will no doubt find themselves soon in Shanghai, China's commercial hub. In anticipation of that visit, I hope to provide you with some suggestions that might make your stay a more memorable one.

Shanghai, a relatively new city by Chinese standards, is of great historical interest for its ascent as the "Pearl of the Orient" in the 1850s through the 1920s and 30s. For those with an interest in living history, there is really no reason to stay at any of the large chain hotels; Shanghai has a range of facilities with creature comforts as well as a unique and important past.

For Americans, I would recommend the turn-of-the-century Jin Jiang Hotel or the 1930s-style Grosvenor House (both sharing the same garden compound); this was where President Nixon and Secretary Kissinger signed the Shanghai Communique that started the whole capitalist revolution.

For Japanese, I would recommend the Garden Hotel across the street; managed by The Okura. The hotel building includes the 1890s-built French Club. Its business center is among the most beautiful in town (having been the original library) and its staff among the most courteous (and they all appear to be fluent in about five languages).

For Europeans, I would recommend the Donghu Hotel, located nearby off of Huaihai Road (Shanghai's 57th and Fifth). Formerly the mansion of Shanghai's most notorious 1930s gangster and home to Mao's wife (the leader of the Cultural Revolution from 1966 to 1976), the hotel's new building has on the rooftop addition rooms elegantly furnished in minimalist design, hardwood floors, picture windows opening upon the expansive garden below and a shower for four.

Finally, for everybody, I would recommend the Peace Hotel located right at The Bund, Shanghai's waterfront. The ten national suites have different countries as themes and many rooms have open views of the river and the 21st century city of Pudong just across. The South Building offers something most of us never see: duplex suites where you have to climb twenty stairs to the bedroom (and a second bathroom). In either building, you must not miss the view from the rooftop bars - you will see the best of Shanghai-both old and new.

Each of these historical hotels has dining facilities suitable for entertaining local clients; indeed, senior government officials are likely to have accounts there. The Jin Jiang has a Shanghai-style restaurant open twenty-four hours and it features the seasonal specialties so enjoyed by Shanghainese, gangsters or not. The Garden has excellent (and reasonably priced) sushi and teppanyaki. My favorite is the French restaurant located on the eighth floor of the Peace Hotel. Your Shanghainese friends seldom have an opportunity to dine in such a calm and secluded spot and they are certain to savor the food and company your first visit to Shanghai will provide. Enjoy!

*Alex Hsu first visited China in 1985 and continues to enjoy this travel.*

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Monday,  
June 13

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