April 2006

ISTAT

Jetrader

International Society of Transport Aircraft Trading

ISTAT 23rd Annual Conference

Interview **Girma Wake CEO, Ethiopian Airlines**

Embraer's Right Size. Right Time.

Asset-Based Financing

Meet the **Villain du jour** High Oil Prices

Jetrader

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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ISTAT President **Thomas Heimsoth**

It has been a very busy first quarter of 2006 for your ISTAT organization. The ISTAT and ISTAT Foundation Board members met in Orlando in early January and set the stage for an exciting year of events for the ISTAT membership.

The Asian Aerospace Exhibition reception in February was a great opportunity to "bring ISTAT to Singapore and our Asia/Pacific region members." Because of the participation of our sponsors and the overwhelming turnout of our members and guests, we had an event that lived up to all of our expectations. We are planning further events in this region to support the current ISTAT membership and to seek new members.

I hope you were there and if you weren't you should have been! The 23rd Annual Conference, "Around the World with ISTAT" was the best one yet. Almost 900 attendees representing over 40 countries, a world wide panel of speakers covering the latest topics affecting the aviation industry, airline CEOs from Germany, Turkey, India, Ethiopia and Vietnam and a Lessor's Panel that electrified the audience and got the press ink flowing. Congratulations to Mauricio Botelho, our 2006 ISTAT Award winner, and a *thank you* to AerCap Aviation Solutions for their generous sponsorship of the Gala Dinner.

Club ISTAT rocked and the continued commitment of our Foundation was on display with our scholarship recipients and our Round Table Contributors. Please see the photos on the following pages. I would also like to personally thank all of our conference sponsors, exhibitors, table and golf hole sponsors, Foundation Round Table members and all of you who purchased a ticket for the raffle. Your support is received with sincere gratitude and appreciation.

We owe a special thank you to Michael Platt for having worked so hard to make this a great event. And to Dawn Foster and her crew for all of the planning, organizing and execution to make it all happen.

And don't forget to join us at the Science Museum in London during the Farnborough Air Show for our annual Reception July 17, 2006. The 15th Annual European Conference will be held at Le Meridian Hotel in Monaco from October 5-7, 2006. These are magnificent venues, so please look for further information soon.

I am really pleased to introduce our newly elected members to the ISTAT Board of Directors. Please join me in welcoming Daniel Pietrzak, Director Aircraft Transactions, Northwest Airlines, Inc., Anthony Diaz, EVP, CIT Aerospace and Mark Pearmann Wright, Head of Sales and Marketing- Leasing Markets Division, Airbus Industrie.

The Appraiser's International Board of Governors has a new Chairman in Fred Bearden. We owe a special thanks to John Keitz for all of his time and effort in his service to ISTAT. New members of the Board of Governors include Neil Whitehouse, President, Ariel Aviation; Sigurdur Kristinsson, SVP Marketing, PK AirFinance; Jay Hancock, Managing Director Fleet Transactions, American Airlines and Al Nigro, Aviation Finance, Deutsche Bank Structured Products, Inc.

The new officers elect for ISTAT whose term will begin after the 2007 Annual Conference are: Mike Platt, President-elect; Greg May, VP-Treasurer-elect; Connie Laudenschlager, VP-Secretary-Elect and John Vitale, VP-Elect.

I want to thank all of the board members from the Foundation, the Appraisers and ISTAT for volunteering to help advance ISTAT and give back to the members and the aviation industry. Without their talent, hard work and dedication we would not be able to stage the events that we have. And finally a thank you to all of our members who support the organization, its mission and give so generously of their time and money to help make this all happen. It is my privilege to be able to work with such a dedicated group of people.

Thomas Heimsoth

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Thank you!

Conference Sponsor and Raffle Chairman, Nick Popovich sent his incredible staff to make the ISTAT Foundation Dig Deep Raffle an all-time success by selling $100 tickets to raise $80,000. Pictured l/r **Kelly Rentschler, Karen Keaton, Stephanie Rogers and LaVonne Scott. Jennifer Barlow**, not pictured, was out on the floor selling tickets. LaVonne Scott represented Nick at the Gala Dinner Scholarship Awards Presentation.

Pegie Crowley, Frauke Oberdieck, Jennifer Earyes, Patrice Deza-Castillo, Dawn O'Day Foster, Valerie Wheeler and Amy Buyea

As those of you know who attend the conference, we have events from early morning to late at night and staff always is there to make sure the events run perfectly. Many of them arrive on site at the hotel days in advance of the conference and work additional 15 or 16 hour days to ensure when the conference begins everything is in place and ready to go. I'd like to thank these women for their tireless efforts to help produce one successful event after another, and most of all for their friendship and camaraderie. This truly is a "dream team".
Dawn O'Day Foster

this issue

Farnborough Air Show

ISTAT **Reception**
Science Museum, London
6:30 to 8:30 (by invitation)
17 July 2006

calendar

24th Annual ISTAT **Conference**

March 2007
Marriott Desert Ridge Resort & Spa . Phoenix

Watch for more information in the next Jetrader!

13th Annual European ISTAT **Conference**

5 -7 October 2006
Le Meridian . Monaco

Q+A

Girma Wake
CEO
Ethiopian Airlines
Addis Ababa

"...Africa is our back porch. Our mission, and we have always done this, is to connect Africa to the rest of the world. And to do that our basic income is from Africa."

Jetrader *Could we start with your forecast of aviation fuel prices and their impact on Ethiopian Airlines?*
Mr. Wake It is my personal belief that we will see fuel prices (Crude oil) stabilize between $64 and $72 dollars per barrel on the international market. This will mean that fuel prices will be much higher in Africa than today. Generally the fuel prices we see in Africa are much higher than what we see in the International Market.

Jetrader *In the event of a fuel crisis will Africa suffer greater or less difficulty than the rest of the world?*
Mr. Wake The impact of a fuel crisis will be more severe in Africa. Many of the African countries do not produce oil. And those who have oil do not control its production and have little control over prices. Africa is a land locked continent and not well served with oil distribution pipelines. The oil has to come in from the coast and be driven by tanker truck to the interior which makes it a very expensive proposition. Since many countries are poor they don't have the means to have distribution companies compete for their business and are not in the position to have any oil in reserve. With any spike in the price of oil some may not be able to buy enough oil and this will cause airlines to temporarily abandon some locations. Or with more limited availability, they may have to buy oil from other locations and that might not always be practical.

Jetrader *Airline executives in the US and Europe that we have talked to are retiring older, less fuel efficient models of aircraft on an accelerated basis in response to the escalating fuel costs. How is Ethiopian airlines equipment planning been impacted by fuel costs?*
Mr. Wake This is very true at Ethiopian Airlines and we have been changing aircraft since 2003. In the last two years we have taken delivery of 11 aircraft, 5 737-700 and 6 767-300ERs. We will also be receiving 10 787 Dreamliners starting in 2008 and we will be one of the first Airlines to be using these aircraft. So renewal of our fleet is a very important strategy for Ethiopian Airlines. As for the rest of Africa there are airlines that are pursuing the same strategy, Kenya Airlines, South African Airlines, Royal Air Maroc as well as several North African carriers. Other carriers such as the Sub Saharan Airlines are in a more problematic situation. One, they don't have the funds; two, they don't have the management capacity or the traffic to be able to afford the transition. It will be very difficult for them. But for the stronger airlines this is an active strategy.

Jetrader *In your address to the ISTAT Conference attendees you referred to a lack of roads as being a strong growth factor for African aviation. Will the new aircraft be used mainly in Africa or will Ethiopian Airlines grow outside of the continent?*
Mr. Wake The biggest growth will be in Africa because we believe that Africa is our back porch. Our mission, and we have always done this, is to connect Africa to the rest of the world. And to do that our basic income is from Africa. Will build our traffic base and our frequency and we will do that by making sure that any of our flights will not have more than one intermediate stop between Addis Ababa and the end terminal. Most of the flights will be non-stops such as to Lagos, Nairobi or Cape Town. We want to have no more than one stop to connect to the rest of the world.

Jetrader *How does Ethiopian airlines look at the regional market in Africa.*
Mr. Wake At Ethiopian Airlines we use the 737-700 as the aircraft of choice for the regional market. In the domestic market we need airplanes in the region of 70-80 seat aircraft. We are in the process of studying this size aircraft for local flights within Ethiopia.

Jetrader *What is the availability of capital for the financing of aircraft in Africa?*
Mr. Wake Yes, it is available. Many carriers are not profitable and whether it is lessors or bankers they shy away from the African market. A few of the carriers, including Ethiopian Airlines, have not had difficulty raising capital for modernization. We have access to the ExIm Bank and have very good relations with our international bankers. For instance, when we made the decision to buy the 10 Boeing 787, our intention was to buy 5 of the aircraft and the other 5 we would buy and lease back. Right now we have enough lessors to be able to accomplish this. We are even now considering purchasing more wide body aircraft because of the very favorable reaction we are receiving form the banking and leasing community. Those strong African carriers are not having trouble finding financing for their acquisition but many others are not able to do so.

Jetrader *What is the future of the weaker carriers and how will their continued existence or disappearance affect the aviation market?*
Mr. Wake In Africa everyone wants to see his flag on the airplane. Many countries are poor and do not have the capacity to properly support these flag carriers. These countries do not have sufficient capital to allow their carriers to grow and compete, just enough to stay alive. Eventually they will disappear but they will be in trouble until they do.

Jetrader *What role do you see ISTAT playing in African aviation and what can ISTAT do to increase that role?*
Mr. Wake What ISTAT does is give airlines the opportunity to meet aircraft manufacturers, bankers, lessors and those interested in the aviation industry in Africa. It allows us to talk about and understand the market and needs of the industry and the special requirements of Africa. ISTAT facilitates the open discussion with those who are able to financing the industry. It also allows us to present the opportunities in Africa to the lessors and to help them frame their opinions which will benefit us and the continent in the long run.

Jetrader *Over the next few years what are the most important challenges facing African Aviation?*
Mr. Wake The industry faces many challenges. Foremost are that many carriers are surviving only because of political protectionism and support. This will be a long struggle. If the markets are liberalized, the weak carriers will fail but those with the management and financing will expand and the industry itself will be much stronger. The other challenge is the price of fuel. If the price remains high it will severely impact the survival of the weaker carriers. Not just to pay for it but to even be able to acquire it. The third challenge is that the good carriers are losing manpower to the major airlines. If this continues, qualified manpower shortages could have a sever effect on the prospects of even the strongest carriers. This brain drain is really our biggest challenge as I look to the future.

Asset Based Financing - Outlook 2006

by Bert van Leeuwen, Senior Vice President, DVB Bank AG

DVB Bank offers a broad spectrum of financial products and advisory services to the aviation market. The Bank is mainly active in the asset-based segment of the commercial jet finance market. Traditionally most banks have been more comfortable with the credit side of transactions. This seems to be changing now as many banks were disappointed by the bankruptcies of several once famous and seemingly "solid" names in the industry. Being an asset-based lender requires skills and expertise closely resembling those of an operating lessor as "getting it right" with respect to equipment analysis and valuation is essential.

Transport Market Cycle

DVB is active in both the new and the used equipment markets. The analysis of these markets are largely determined by three related but still separate business cycles. The first cycle is that of the general airline business, largely determined by the global economic and political climate. This cycle essentially determines demand for commercial jets, both used and new. Clearly after the crisis years 2001-2004 during 2005 many airlines outside of North America recovered and despite the strong increase in fuel prices transport volume is growing and demand for additional capacity is strong.

This all suggests that from the demand side the market is rapidly moving to a phase of over overheating and probably will continue to do so during 2006. Big question of course is when the industry will be hit by the next downturn. Based on a recent poll during the Dublin Airfinance Conference, 2008 seems to be considered the most likely start of the next recession.

Financial Cycle

The second "cycle" that influences the aircraft market is the financial cycle. In general, this cycle indicated how much funding is available for equipment purchasing and what are the cost and other conditions of this funding. Abundant availability of money to airlines, lessors, traders etc. will exercise an upward pressure on mainly used aircraft prices. New aircraft pricing seems unrelated and influenced by other factors, described below under the third cycle. With abundant equity floating around in the market, looking for investment opportunities, the last 2-3 years have seen many initiatives from various entities, mostly described as private equity funds, hedge funds etc. to buy used aircraft in anticipation of significant upside potential. In addition to this, significant new equity has been made available to existing leasing companies. Being severely restricted by shareholders that were more interested in exiting the business during the period 2001-2004, the new equity enabled these existing leasing companies to start an aggressive expansion in 2004/5. So whereas "aircraft were chasing money" in 2001-2004, during 2004 the game changed to "money chasing aircraft". Apart from fresh equity, 2005 also saw many traditional banks returning to aircraft financing with the predictable effects of margins for "good credits" dropping significantly, upward pressure on acceptable "appraised" values and -in parallel- increased LtV-requirement.

Equally predictable the second half of 2005 saw some of the very aggressive terms for bank debt spreading from 1st tier credits to include to 2nd and even 3rd tier airlines. The longer this trend continues and the more aggressive terms will get, the bigger could be the inevitable "bang" for bankers and investors as the business cycle turns south again in a few years time. For 2006 however it looks like abundant equity and debt will be available at very attractive terms to the airlines.

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Equipment Cycle

The third - and maybe most interesting - cycle is the equipment life cycle. DVB's equipment finance decisions are strongly influenced by the Bank's perception of where in it's life-cycle an aircraft type or an individual asset is. Clearly, as aircraft types are in different phases of their life cycle, no uniform answer can be given for all commercial jets. The equipment life cycle is largely driven by individual aircraft technology developments and the manufacturer's policy of launching new aircraft types or derivatives. In general the early production models of a certain aircraft type (excluding early odd-balls or lead-sleds) show the most favorable value curves, whereas late production aircraft tend to under-perform as values of different vintage converge and newness premiums disappear.

Regional and Small Mainline Jets

The 50-seater regional jet market will continue to have a very difficult time in 2006. The manufacturers have indicated they more or less have given up this market for new sales in the near future, as the segment is suffering under both "cyclical" and "structural" pressure. The mere threat that under Chapter 11 legislation, major 50-seater operators could offer financiers the choice of (i) getting back "their" assets - potentially in "below half life" condition - or (ii) accepting a significant reduction in debt-service or lease rates, has had a significant impact on the 50-seater segment. The demise of the scope clauses in the US, combined with the higher fuel costs and the superior economics of the larger jets (>70 seats) is already exercising downward pressure on 50-seater values and lease-rates. Lacking any large-scale alternative uses for the 50-seaters that can easily absorb the increasing surplus, financiers and lessors are now forced to find creative solutions for these aircraft. Although a number of 50-seaters may be placed with non-US carriers, used as corporate shuttles or could even be converted to freighter, it is unlikely that values and lease-rates will return to previous levels in the near future. In short, the 50-seater market has now become extremely challenging from a pure asset-based financier's point of view.

Embraer is one manufacturer that has apparently anticipated this change in the market. The Brazilian manufacturer that already was very successful in transitioning from the turboprop to the small jet market, apparently anticipated the demise of the 50-seater and the rise of the 70+ seat aircraft when it introduced its family of E-jets some time ago. Whereas Bombardier's CRJ700 and 900 benefit from the broad operator base of the CRJ200, the Embraer 170-190 family has had to conquer market share on its own merits, including superior passenger appeal. With the 50-seaters seemingly near the end of their life-cycles, it will be a major challenge for Bombardier to maintain momentum based on just the CRJ700 and CRJ900 in a very competitive market segment. Embraer's E-jets currently seem to have an edge over Bombardier for pure asset-based financing, although for a financier

For the coming year 2006, DVB expects that airline profitability may finally return despite expiring low cost fuel hedges for some airlines and bar any significant further oil price increases. Aircraft values will continue to increase, also for older technology equipment. This requires a very disciplined commercial approach to avoid becoming exposed to equipment that is bound to drop in value during the unavoidable next downturn.

the 170-190 family may suffer under the usual problem of too many different versions. The Embraer family as a whole however is likely to become very successful and "mainstream" versions should be well suited for asset based finance.

With limited prospects for the CRJ200 and 900, Bombardier's future in commercial jets will largely depend the CRJ700 but maybe even more on the alternative for the aborted CSeries. As this will be a "make or brake" project for Bombardier's future in the commercial jet market, the above average asset risk involved in any new product will have to be mitigated by strong guarantees from "Canada Inc." despite the fact that a number of these Canadian parties involved must currently be suffering the consequences of the 50-seater turbulence.

Single Aisle Market

In the 150-seater market, both the Airbus A320 family and the Boeing 737 NG are doing extremely well. It seems both production lines are almost fully booked till the end of the decade, although for major customers there always seem to be early production slots available (incl. slots booked by leasing companies). The prospect of A320 assembly in China is –of course – very interesting and may have long term implications for the entire industry.

Despite having full order books, price competition seems to be as strong as ever. With lean production techniques applied by both manufacturers and development cost fully recouped it seems airlines and selected lessors are as well positioned as before to negotiate significant discounts. According to DVB's analysis, actual aircraft prices have come down over the last years, despite ever increasing "list prices". Applying the usual 2,5% inflation to future aircraft prices can hardly be justified anymore, the more so as escalation clauses are coming under fire as well. In the recent past, unrestricted escalation clauses caused a wide discrepancy between the price levels of pre-2001 orders and newly negotiated levels.

As evidenced by the stated policy in the wide-body segment to keep the price-levels of the new generation aircraft largely at the same level as the older generation, it is unlikely that the price of the eventual successors of the A320 and B737 NG will materially exceed the level of their predecessors. One question that remains unanswered is when this new generation of narrowbodies will be launched. It seems hard to imagine that either of the two manufacturers will be allowed to gain a major head start and any launch by Airbus will trigger a parallel launch by Boeing and vice-versa. Based on advances in engine-technology, the successor may be targeted for e.i.s. around 2012.

Despite initial suggestions from Airbus that the company was actively preparing a composite A320 successor that would offer both significant operating efficiencies as well as low production cost, later statements said the life of the A320 would be extended till at least 2015. The combination of (i) both Airbus and Boeing having their hands full in developing new wide-bodies (ii) A320 and B737NG technology fairly balanced and both families still selling very well and (iii) an expected "parallel launch" would actually suggest both manufacturers are more incentivised to postpone the launch of a new 150-seater. Although the technology of the 787 vs. the A350 suggests Boeing may have taken the lead, it seems unlikely that either of the two manufacturers will be able to gain a significant technology edge over the other in the 150-seater segment, especially as the same engine technology will most likely be available to both. Bar any significant drop in orders for either the A320 or B737 NG we believe the production live of these types may actually be extended past 2012.

For asset-based financiers this all should have positive implications for future value projections. The current aircraft shortage will ensure good asset values for the coming 3 years, despite new aircraft discounting. Medium to long term values – especially for later production aircraft – may be stimulated by a later announcement or e.i.s.-date of the next generation of 150-seaters. As inevitably the next generation will be around by 2015, planes produced in the coming years will eventually suffer under the usual accelerated depreciation of late production aircraft. Despite of this the A319, A320, B737-700, B737-800 and to a lesser extend the A321 remain the darling aircraft of the financial community.

Medium Twin Aisle Market

Whereas there is still some debate when the successors to the A320 and B737 NG will enter into service, things are more clear in the medium wide-body segment. Under our definitions, this market covers the segments from the old Boeing 757 upwards and includes the A310, A300, B767, A330 and CFM-powered A340's. Although in our view the B777 and Rolls powered A340's were initially not included in the "medium" category, the A350-900 and B787-10X may seem to close the gap to the "large" segment (see below). Whereas within the Boeing line-up the B757/767 were clearly ripe for replacement by the revolutionary new Boeing 787 Dreamliner, this was not so obvious in the Airbus product range for the A340-300 and even less so for the Airbus A330-200 and -300. Clearly Airbus' decision to launch the A350 has accelerated the life-cycles of the A340 and A330 despite the claimed co-existence scenario. Assessing the impact of the 787 and the A350 on the current generation of medium wide-body is fairly complex and necessarily somewhat arbitrary.

During 2005 the Boeing product clearly took the lead over the A350. By introducing 9 abreast seating for the 787, the two types became even more closely matched. Whereas the Boeing 787-8 and -9 now seem to be well understood by the aviation finance community, the A350 still seems to be a moving target with design chances appearing in the press on a regular basis. Boeing has clearly made a conscious effort to educate the financial community about the Boeing 787 and based on public reaction from some leading aerospace bankers has been very successful in doing so. Maybe more than any other new aircraft design in the past the Dreamliner seems to have been adopted by the financial community as a financeable asset in such an early stage. Without any doubt, Airbus must be considered capable of making the A350 a successful program as well, but so-far the type seems to be less understood and appreciated by the financial community than its competitor from Seattle. Maybe this will change in 2006 ?

Outlook 2006 continued page 8

What will be the impact of the 787 and A350 on the current generation widebodies, and especially the A330-200/-300, A340-300/500 and Boeing 777-200ER ? Based on recent press articles, it looks like Airbus will make significant improvements to the basic "A300" fuselage design in an attempt to match the 787 technology, with the latter having the benefit of starting from a clean sheet of paper. Surely these improvements must – at least partly – benefit the A330. So, even if the A330 can co-exist with the A350, we believe this may very well be a different A330, a A330 "NG". The A350 will largely cover the A340-300 and A330-200 payload/range envelops and as such takes away the raison d'etre for these models. Already today the A340-300 is not the most financeable aircraft in the world and this is unlikely to improve. The A330-200 is still very popular but value implications of the A350 introduction need to be considered carefully. The A330-300 seems to be the version least affected by the A350 and B787. The A330-300 is optimized for short to medium haul operations, setting it apart from the long haul A350/B787.

So overall, the position of the A330-200 as the most financeable type in this segment will come under pressure from the A350/B787. From the current generation, surprisingly enough financeability of the A330-300 seems to be least affected by the new technology planes.

Large Widebodies

Although obviously including the A380, Boeing 747-400 and the new B747-8, this category comprises the Airbus A340-500 and -600 as well as the Boeing 777. Although the A350-900 was directly aimed at the B777-200ER, interestingly enough, the potential Boeing 787-10X version takes the Dreamliner there as well. Airlines will have to decide if they prefer to extend their medium widebody fleet to include the A350-900 / B787-10X or if they want to start with the B777-200ER and extend up to the 777-300ER. Although the 777-300ER seems to be taking over as the more popular version anyhow, introduction of the 787-10X (if and when this happens) may cannibalize part of the 777-200ER market. As such the 777-200ER does not seem to be anywhere near the end of its production life but the B787-10X could take away some market share.

With respect to the ultra long range versions, the A340-500 and the B777-200LR, we believe the market base for these "niche" products will remain limited. In addition these aircraft seem to be the subject of continuous product improvements. In the battle between the A340-600 and the B777-300ER is seems Boeing has been the more successful during 2005, although at the time of writing SIA still had to announce their new fleet plans. Airbus reportedly will significantly change the A340-600. This will be the third version of this model (Basic, HGW, Enhanced). Despite its single engine option, the many different A340-600 versions break this market into distinct sub-segments. The A340-600 Enhanced may shorten the life-cycle of the current -600 as press reports indicate it will have significant advantages over the current version in an attempt to beat the B777-300ER.

In the very top of the market, Airbus now rules the passenger segment with the A380. The Boeing 747-8 is clearly in a different league and positioned in-between the A380 and the B777-300ER. Interestingly enough in the cargo market the two types are more closely matched. Here the A380 seems to be the preferred aircraft for the integrators that need big volume and long range, whereas the B747-8F is more aimed at the general freight operators. Although equipping the B747-400 with Dreamliner engines resulted in a surprisingly efficient aircraft – at least on paper – for the longer term Airbus clearly has more "stretch" potential in the A380. From the financing point of view, both the A380 and the B747-8 are very challenging. The A380, because of its operational restrictions and the limited number of operators that can absorb such a machine, the B747-8 because of its newness and the lack of any launching customers for the passenger version. With the introduction of the -8, the faith of the -400 has been sealed. Potentially the most affected version will be the -400F/ERF. The superior economics of the -8F will make this the future favorite for the general cargo operators and flag carriers. The -400F/ERF will consequently be squeezed between the cheaper -400SF/BCF and the more advanced -8F. Although currently still much sought after, eventually the values of the -400F/ERF may go down to a level slightly above the -400SF/BCF reflecting the slightly better payload range characteristics and the nose-cargo door.

Finance Implications

Aircraft financiers are currently benefiting from the order boom and the increase in aircraft values. This - as expected - inspired many non-specialist banks to resume aircraft finance activities. Predictably they focused on the top-tier airlines first, resulting in margin pressure and (from a banker's point of view) unattractive conditions (high loan-to-value ratios). DVB – as a specialist bank – successfully avoided these more crowded segments of the market and by using its well developed asset knowledge and creative structuring ability booked excellent results.

For the coming year 2006, DVB expects that airline profitability may finally return despite expiring low cost fuel hedges for some airlines and bar any significant further oil price increases. Aircraft values will continue to increase, also for older technology equipment. This requires a very disciplined commercial approach to avoid becoming exposed to equipment that is bound to drop in value during the unavoidable next downturn. New technology aircraft, such as the Boeing 787 and Airbus A350 will have a significant cost advantage, resulting in structural values adjustments for older aircraft types. In conclusion, whilst 2006 is expected to become a very good year for commercial aviation, for aircraft financiers the challenge will be to remain disciplined and avoid overfinancing of aircraft that temporary benefit from overheated market circumstances.

Bert van Leeuwen *is Head of DVB Bank's Aviation Industry Research unit and may be reached at bert.van.leeuwen@dvbbank.com.*

AROUND THE WORLD WITH ISTAT

ISTAT
23rd Annual
Conference
Orlando

Conference attendees from forty-two countries were welcomed with golden Buddhas, silken dragons, Pisa's leaning tower, food-laden Cantina tables, steins of beer, not only German bier, but other libations from our very own British pub. We think we saw a harem room.

A break from the expected fare, luncheons featured food from China, India, Italy and more at buffet tables each day. A staggering assortment of international coffees filled cups at breaks. With Chinese dragons soaring overhead, a feisty lion danced through luncheon tables to the beat of determined percussionists. At the Gala Dinner, a Brazilian combo entertained arriving guests and traditional Brazilian dancers/acrobats reminded us all what it was like to be fit.

ISTAT went around the world at this Conference and we all came along for the ride.

ISTAT 23rd Annual Conference Orlando

March 26 - 28 . 2006

If Everyone renews an old acquaintance and meets a new potential business partner, the Conference is a success. ISTAT is where the business of commercial aircraft trading and financing takes place.

Michael Platt, ILFC
Conference Chairman

Michael Conway, Air Jamaica

Board of Directors + Foundation Trustees presented by ISTAT President Thomas Heimsoth at opening session

Tuncay Doganer, Atlas Jet

Steven Harris MD, CDC

Joe Leonard, AirTran

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ISTAT 23rd Annual Conference Orlando

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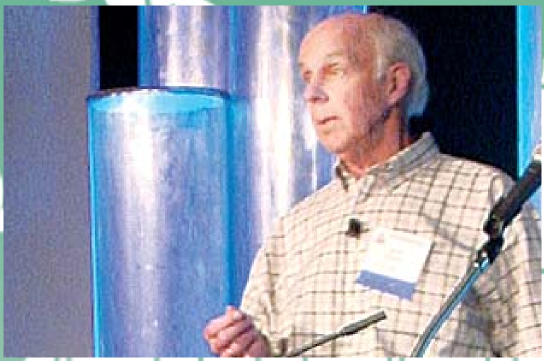
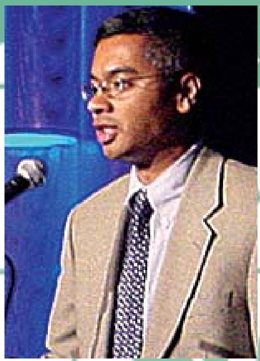
Girma Wake, Ethiopian Airlines



Bob Francis, USNTSB



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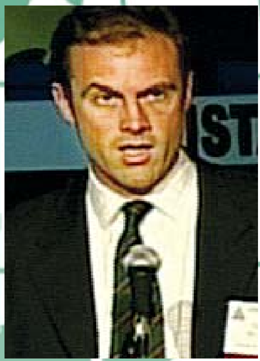

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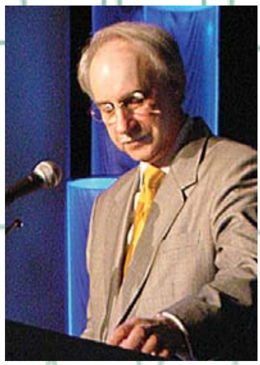

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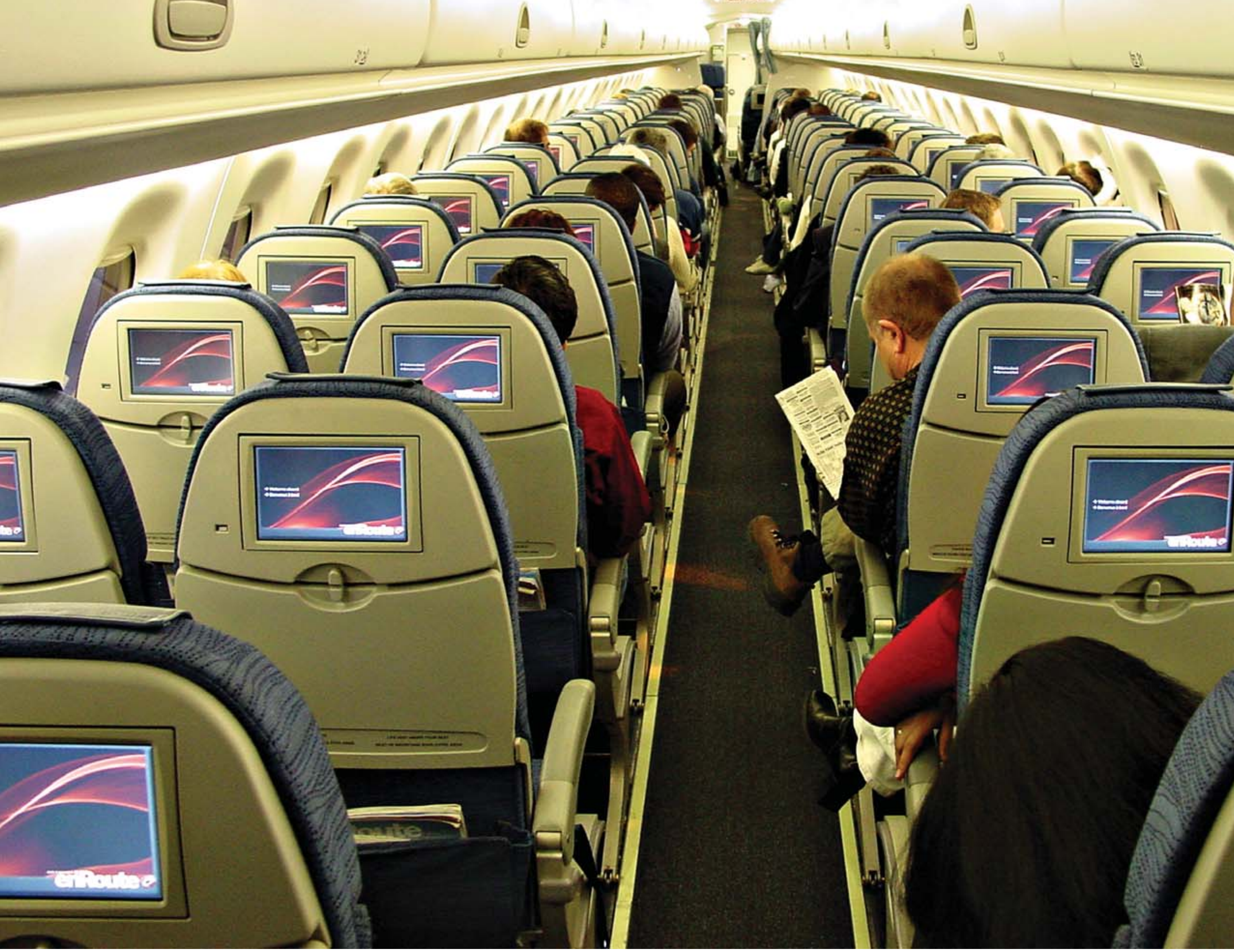

70 to 110-Seat Jets are Narrowing the Capacity Gap

Right Size. Right Time.

Article provided by Embraer

Embraer Market Intelligence

It is an airline industry story reminiscent of Goldilocks and her search for the perfect bed. Instead of settling on something too hard or too soft, today's troubled air carriers are looking for something just right. Right-sized airplanes, that is. Similar to the fifty-seat regional jet innovation that revolutionized air travel in the mid-1990s, new 70 to 110-seat aircraft are changing the face of the airline industry and challenging traditional business models.

Embraer's decision to launch its family of E-Jets in 1999 was made after analyzing market trends and discussing future fleet requirements with some forty airlines. In-house preparation of a future aircraft demand forecast revealed four key forces (see box) that presented a new opportunity in the capacity segment between 50-seat regional jets and larger 120-seat mainline aircraft. At a time when the industry was still reeling from post 9/11 traffic contractions, Embraer rolled out four 70, 78, 100 and 110-seat airplanes to carriers needing new solutions to improve operating efficiency, better match capacity to demand, and re-jig networks and frequencies to stay competitive. But did airlines understand how to use them?

In The Rule of 70 to 110 (www.ruleof70to110.com), Embraer set out to enlighten fleet planners and financiers as to the opportunities that lay in the untapped domain between regional and mainline jets. That study introduced the tap the gap lexicon suggesting that airlines could derive greater cost savings and operating efficiencies if they used the right sized equipment on those city pairs that were too small for Boeing & Airbus jets, yet too big for high-frequency RJs.

blurring the line with E-Jets

Prior to Embraer's E-Jets, there had never been a family of new-generation airplanes designed specifically for the 70 to 110-seat segment. Equipment available in that capacity range was limited to out-of-production airplanes, stretched versions of a business jet or shrunken mainline single aisle platforms. In order to achieve optimal aircraft economics and performance, Embraer adopted a clean sheet design approach to maximize operating efficiency. The initial E-Jets No Compromises advertising campaign promoted the absence of the weight, cabin and economic shortcomings and penalties that exist in stretched or shrunken aircraft.

Traditional thinking can be difficult to change. Airline reaction to mock up visits was a mix of curiosity and discovery. A double-bubble cross section had never been applied to an airplane of such size, and the new found spaciousness was unprecedented for travelers accustomed to the cramped four-abreast cabins of turboprop, RJ and even Concorde aircraft. The enhanced comfort of the E-Jets family meant airlines finally had a new option to take them beyond the operational limits of first generation regional jets. For Embraer, the advantages of an optimized, high technology, fly-by-wire aircraft family introduced a new standard of mission versatility, allowing carriers to fly longer stage lengths, offering on-board amenities similar to those found on their mainline fleets. The capacity gap had been tapped, and the line between regional and large aircraft blurred.

The names mid-capacity, intermediate, and wide body regional jet did not accurately reflect the unique identity of the 70 to 110-seat classification. Embraer decided that rather than naming the capacity category itself, the distinctive characteristics of the new aircraft family would be better recognized by adopting the name E-Jets and promoting the principles of E.

the principles of E

Airlines repeatedly advised against over-engineering a new aircraft design. Embraer ensured that new technology was introduced only when it added true economic and operational benefits. That design philosophy allows E-Jets to maintain their long-term value with innovations in engineering, efficiency, ergonomics and economics.

Engineered for value

An aircraft family optimized for the 70 to 110-seat segment has distinct advantages over shrunken airframes. The structural design efficiency of E-Jets, the amount of payload per unit of operating empty weight, can be up to 30% greater than comparable capacity aircraft. E-Jets use fuel more efficiently to carry payload, not aircraft structural weight. In addition to fly-by-wire flight controls, new generation landing gear, fuel, air management and propulsion systems, advances in technology allowed Embraer to develop an aircraft platform with an exceptional level of electronics and systems integration. A central maintenance computer (CMC) continually measures all aircraft systems performance and identifies root causes of failures. Not only can in-flight data be transmitted online to down line stations for maintenance follow up, ground technicians can access the CMC via exterior LAN ports using a laptop computer, troubleshooting and isolating faults via links and hyperlinks to aircraft maintenance manuals and technical publications. The CMC is an innovation that decreases downtime and increases airline schedule reliability.

a special focus on Ergonomics

For international connecting passengers, dual class configuration capability on E-Jets brings mainline premium cabin standards to the 70 to 110-seat category. The double bubble cross section maximizes personal space at elbow level when reclining in seats that are wider than those found on

Embraer continued page 14

NOTE :: The JETRADER publishes articles written by ISTAT members as a priority, giving the JETRADER variety, diversity and insight into the issues that affect and impact the aviation community.

The JETRADER Editorial Board has ultimate control over all aspects of JETRADER and retains final approval of all articles.

most five and six-abreast arrangements. With only two seats on either side of the aisle and without the leg support rail structure typical of three-person module seating, passengers have more foot clearance and carry on baggage stowage. The absence of over wing exits on the EMBRAER 170 & 175 gives airlines total flexibility in configuring cabins as they wish, including positioning passenger seats at varying pitch and away from high-traffic lavatories. As operators discover that their E-Jets fleets easily deliver the level of cabin comfort that customers demand on longer haul flights, airlines are introducing new standards of in-flight entertainment never before seen on aircraft in this category. JetBlue Airways was the first to install DIRECTV® programming, XM Satellite Radio®, and FOXTM flight movies on its 100-seat EMBRAER 190s. Air Canada's fleet of EMBRAER 175s and 190s feature in-seat power ports and state-of-the-art video and audio-on-demand.

achieving greater Efficiency

Embraer analysis in The Rule of 70 to 110 showed the extent of over capacity in the U.S. domestic market. Prior to the introduction of new 70 to 110-seat jets, some 60% of all annual departures until 2004 would have been more economically flown with airplanes offering right-sized capacity. Today, the deployment of growing fleets of 70 to 110-seat aircraft is having a positive effect on the industry (see Fig. 1) – the gap between capacity and demand has narrowed. Extended range capability combined with cabin comfort and amenities as good as, or better than, some mainline aircraft make E-Jets worthy substitutes for over-sized equipment. Efficiency can also be measured by productivity. With simultaneous servicing made easier by a single point lavatory connection, optional self-contained air stairs, and low cargo doorsill height for stand up baggage loading, Embraer E-Jets are designed for ground turnarounds in as little as fifteen minutes. Maximizing daily utilization to keep unit costs low is critical for survival in the new airline environment.

the Economics of family

New generation, right sized aircraft deliver cost saving with their advanced technology and integrated systems. From the smart use of composites to the diagnostic power of the CMC, a streamlined maintenance philosophy helps to reduce task time and hourly costs. A 6,000 flight hour interval for basic checks is the longest in the industry, 44% to 80% longer than comparable aircraft, figures that translate into less E-Jets downtime. Economic benefits accrue when carriers operate more than one family model, profiting from same E-Jets crew type rating and between 85% and 100% parts commonality. Cross utilization of flight crews opens up new efficiencies with multi-fleet flying, generating greater productivity of human resources while maximizing an airline's fleet deployment flexibility.

beyond Right Sizing

Just over 130 Embraer E-Jets are in service with 13 airlines in 10 countries. In North America, the fleet is already correcting the capacity-demand imbalance. The dynamics predicted in The Rule are evident among the five U.S. & Canadian carriers operating the EMBRAER 170, 175 & 190. (see Fig. 2) While the growth from 50-seat RJs and the replacement of over sized equipment with right sized aircraft each account for more than 40% of deployments, airlines are discovering the untapped potential for developing new long and thin routes with their E-Jets. Both Air Canada and JetBlue have been particularly aggressive in opening new markets, with some sectors exceeding five hours flight time. As much as fleet right sizing may be the immediate priority for North American carriers, new applications for 70 to 110-seat capacity are quickly emerging. More than half of JetBlue's ten daily shuttle flights between Boston and JFK operate with EMBRAER 190s and low cost carrier flybe of the UK will soon offer affordable low fare transportation aboard its new EMBRAER 195s.

By August, all four models of the E-Jets family will be in revenue service. Beyond their proven value for right sizing, the aircrafts' greatest potential may yet to be seen. Embraer's philosophy of E may grow to include a new principle – expansion.

The Dynamics of Change

1| The Gap Between Capacity & Demand is Growing
Market with demand requiring 70 to 110-seat jets are currently being served inefficiently due to the industry's lack of optimized aircraft between 50 and 120-seat equipment.

2| Excess Capacity
Minimizing the cost of flying empty seats with new 70 to 110-seat jets would not only lower overall expenses, it would free up larger aircraft to fly on routes where they were more profitable.

3| Replacement of Ageing Fleets
More than one-third of the world's in-service fleet of 61 to 120-seat jets are more than 20 years old and approaching the end of their economic lives. Retiring older aircraft gives operators the opportunity to optimize fleets, right-sizing for profitability with 70 to 110-seat jets.

4| 50-Seat RJ Operational Limitations
As regional city pair frequencies reach their schedule limits, fully booked, prime-time, 50-seat RJs can often spill passengers. With a growing need to serve new long and thin markets, RJs are increasingly being pushed beyond their comfort threshold.

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February 2006

Palm bladed fans and Singapore Slings welcomed back a hardy band of ISTAT members and guests to the ISTAT reception at the Raffles Hotel. The 275 guests came to explore an energized aviation market in Asia. Blockbuster equipment purchases, monumental infrastructure improvements, and markets that are growing explosively open enormous possibilities for our members.

This reception, one of an ongoing effort to develop new opportunities to Make Business Happen, ISTAT is truly becoming the International venue for aviation industry participation.

Christine Tan, left with Khorolsuren Ch; Sponsor Robert Martin of Singapore Air Leasing with David Lowe
Terrence Wong, JT Foo with Chan Mui Sin; Dinesh Keskar and Friends

Liwen Huang with representative from Air China; Peter Huijbers and Uwe Mueller

Patrick Guillotin and Valerie Tay; Neville Taylor and K. Josef Laakso

ISTAT 23rd Annual Conference Orlando

President's Gala Dinner and Award Presentation

sponsored by AerCap Aviation Solutions

Diana Metcalf and Fred Klein, Truett Moore and Edward Collins; Vito LaForgia with Elizabeth Halsmer; and Debbi and Jim McMillan

Congratulations to ISTAT Award Winner Mauricio Botelho. With Mr Botelho is Steve Hazy and Herb Kelleher.

Herb Kelleher addresses the audience as Mauricio Botelho, Steven F Udvar-Hazy and Thomas Heimsoth stand by at the Awards Presentation, Gala Dinner.

Ethiopian Airlines CEO Girma Wake

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AROUND THE WORLD WITH ISTAT

Wolfgang **Mayrhuber**
CEO—Lufthansa addressed the crowd at the Sunday evening reception.

Prosit!

23rd ISTAT **ANNUAL CONFERENCE**

Where business happens

882 Attendees from 42 countries listened to over 25 speakers from 5 continents give a global overview of the aviation industry and the challenges it faces in the next year. Fuel, flu pandemic, competition were discussed and analyzed. The opportunities described were of historic proportions with emerging markets in India and China, the challenges and opportunities of Africa, the new competitors from Vietnam and Ethiopia, the variety of new aircraft coming to market and the changing regulatory environment were all presented.

The exhibit halls, corridors and outside terraces were humming with the networking and deal making that is the real business of ISTAT. These Conference venues make it easy to have lunch with the CEO of an airline, coffee with a bankruptcy attorney, dinner with the staff of a repossessor, and the following day to help arrange the wet leasing of eight air crews for an emerging airline. And those needing quiet or discretion disappeared for a few hours and came out with self satisfied grins from productive meetings and new profit opportunities.

These ISTAT conferences bring together aviation decision makers who establish economic context and allow ISTAT members to renew old acquaintances and make new ones. So, if you weren't there we missed you, if you made profitable transactions don't forget to share your good fortune with the ISTAT Foundation and plan on attending our future events. We all thank Mike Platt, Conference Chair and the staff of ISTAT for making this 23rd Conference another one to remember. This is WHERE BUSINESS HAPPENS.

Above, Hannah McCarthy with the Hinikers. Below, Chris Partridge is pictured with Kingfisher flight attendants

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ISTAT Foundation Reception guests included Chris Partridge with Connie Laudenschlager, Bill Cumberlidge with Diana Metcalf, and Herb Kelleher.

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Michael Platt, Conference Chair and ISTAT Board Member is pictured with Mauricio Botelho, President and CEO Embraer, 2006 ISTAT Award Winner, and Chris Partridge, ISTAT Foundation Trustee at the Foundation's Cocktail Reception.

Bruce Dankburg, Paul Newrick, Guy McLeod and Peter Seidlitz on the balcony at the reception.

The 2006 Annual Conference was a busy one for the ISTAT Foundation. We were pleased to again host six ISTAT Foundation scholarship recipients. My concerns that they would have trouble fitting in were relieved when I saw Ryan Egan singing lead vocals with the Repo Men on Monday night. In fact, I saw all of the recipients blending in and networking along side the members. We hope they become members themselves one day.

The Dig Deep Raffle was a success due primarily to the efforts of the sage-popovich crew who dug deep themselves to solicit donations from our members. The concept of raffling the "experience" of a luxurious holiday was also compelling. A total $80,000 was raised which, after costs, will alone provide three scholarships next year.

At the Gala Dinner, I was proud to present the 28 Roundtable Members who together gave $240,000 to the Foundation since its inception in December, 2005. We are so happy to have formed this group of generous firms and individuals within ISTAT. I'd like to recognize Dave Treitel and Wayne Lippman as having led the charge to make the Roundtable happen.

The Roundtable Members were also treated to a cocktail reception on Tuesday evening which featured Herb Kelleher holding court with the scholarship recipients on a 16th floor balcony!

Our accomplishments during 2005 were many and included the following highlights:

1. We granted $80,000 in scholarships.
2. We issued $70,000 in grants.
3. We gave $30,000 to aircraft-related humanitarian causes.
4. We initiated an Internship Program to complement our Scholarship Program.

In 2006, we plan to grow our programs again.

Also during 2005, our past Chairman Tom Hiniker secured the gift of a 1919 Vickers Vimy bomber that graced the cover of the last *Jetrader* magazine. We intend to announce where the Vimy will "live" at the Farnborough Air Show this summer.

We thank all of our supporters and promise to keep the Foundation's programs rolling. I would also like to thank the Foundation's Board of Directors for their incredible time and energy.

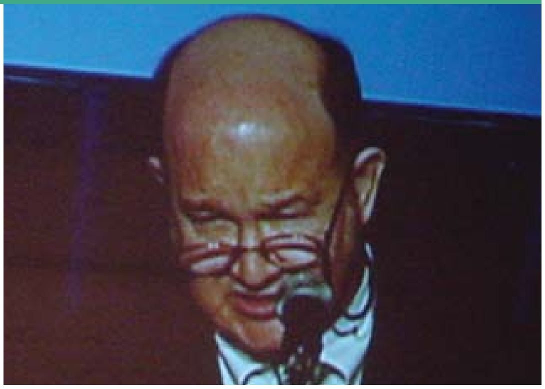
Congratulation to ISTAT Raffle Winners
John O'Bryan, RVI Group . Grand Prize . $25,000
Brian Hollnagel, BCI Aircraft Leasing . $10,000
Alex Lallanilla, AeroDirect . $5,000

[ISTAT Foundation Scholarship Winners]

ISTAT Foundation Scholarship winners with Herb Kelleher, l/r Ryan Egan, Embry-Riddle Aeronautical University; **Sandra Patino,** Purdue University; **Elizabeth Halsmer,** Purdue University; **Pradeev Haridas,** Emirates Airlines.

Jill Day
Daniel Webster College

Paul Mwangi, *Kenya Airways*
City University of London



HOW DETRIMENTAL ARE HIGH OIL PRICES TO AIRLINE PROFITABILITY?

By Adam Pilarski Ph.D.
Senior Vice President, AVITAS

US airlines, mainly through the efforts of the major legacy carriers have been successful in raking in tremendous losses consistently year after year since 2001. Mind you, the rest of the world had losses in 2001 but has been since then consistently, albeit not wildly, profitable. Some airline in the US has also been profitable but as an industry we managed to lose so much that I am ashamed to even mention that number. Oil being the villain used as an explanation for the losses replaces the previous villains who were, just to remind the reader, the recession, the tragic events of 9/11, SARS, greedy labor unions, historic pension obligations, oppressive government taxation, unfair bankruptcy laws et al. All these were used as explanation for losses and of course all these were exogenous factors, i.e. were outside management control. Please note that incompetent management or inefficient pricing, factors in airlines' control, were not promoted to the rank of villains responsible for the financial performance of the US airline industry.

It is amazing how the above mentioned view is almost universally accepted by executives, analysts and journalists. I do not want to embarrass anybody so I will not name names but the readers are welcome to check for themselves appropriate quotes. It is a fact though that almost every analyst blindly correlates high oil prices and airline losses. Even the fairly recent demise of Independence Air has been tied to high oil prices. It does not take a lot of imagination to come up with a series of alternative and at least as plausible factual explanations for that particular airline liquidation. In a similar vein a very famous aviation magazine expressed an opinion, shared apparently by most of its readers, that Southwest is profitable solely because of its oil hedging. Actually, the quote went something like that: "Southwest would be losing money if it didn't have fuel hedges". Additionally, virtually every airline executive announcing losses (read: most airline executives in the US) points out that were it not for the oil prices their airline would have been profitable. For some reason our imagination becomes active and dreams up a level of oil prices above which the industry simply cannot be profitable. A well known Chief Executive of an airline, whom I highly respect, pegged that level at $55 a barrel, a well known analyst and an industry trade group at $60 a barrel and another analyst concluded that at $70 the industry simply and absolutely cannot be profitable. Says so right in the Good Book, you see.

Reality Check

Let us take a step back and do a reality check. First, before anybody assumes I let go of my senses, I do realize that higher oil prices are not good for the industry. Fuel is one of the major cost components and when its price goes up dramatically total costs have to go up, other things unchanged. What is worth investigating, though, is the almost universally held belief that high oil prices must necessarily lead to losses. A few facts are worthwhile pointing out. Oil is a commodity traded worldwide and at world prices. This means that, except for taxation, fuel prices faced by airlines worldwide are similar. Or at least changes in oil prices should be similar. Combine this, please, with the fact that after 2001 airline financial losses are a strictly US phenomenon and that non US airlines in the aggregate have been profitable every year since 2001. These two facts point out that the statement asserting high oil prices must necessarily lead to financial losses is (necessarily) not true. And how about shipping? Or trucking? For those not aware of it, shipping and trucking also use fuel to power their vessels/vehicles and also pay world prices for their fuel. And incidentally, they do not all lose money or are in Chapter 11. And another reality check – Southwest has been profitable for decades, including the post 9/11 period, so it is clearly not correct to ascribe their financial success to fuel price hedging.

Ceteris Paribus

Ceteris Paribus is a Latin phrase beloved by economists which basically means "other things being equal". To assess the impact of some change in one variable on our economic environment economists try to isolate that particular relationship holding everything else constant. The calculations done to figure out what level of oil prices the industry can tolerate (the $55, $60 or $70 a barrel mentioned above) all come from models that assume everything else not changed. Same as the hedging quote related to Southwest. The analysis assumes what actually happened last quarter to Southwest performance, holds everything constant and just changes the fuel prices the airline would have paid sans hedging and then recalculates the profit/loss using actual market fuel prices versus the prices Southwest paid because of its prudent financial planning. Such analysis does not assume any changes Southwest would have made had it paid the fuel market prices other non hedged airlines were forced to pay. This does not make sense. Had Southwest faced higher oil prices there is a reasonable chance they would have changed their behavior and operated in a different

The US airline industry has found its

villain du jour

and this time it's the high price of oil.

manner. They might have dropped some flights, they might have slowed their expansion, and they would have considered some other cost saving options to counter the increase in cost due to high oil prices. And most definitely, they would have raised some fares. In short, they would have done what they have been doing successfully for decades; they would have adapted to the change and made profits.

Theoretical Relationship

Higher oil prices depress world economic growth. Some areas, notably the Middle East, do better but the total world economic growth will be lower. This by itself will lead to lower traffic growth compared to a situation where oil prices are lower. Higher oil prices automatically lead to higher airline costs through the fuel component, ceteris paribus. This cost pressure may lead airlines to attempt to lower other cost components, especially labor. While operational efficiencies are improved with higher oil prices that improvement takes time and will not be of the magnitude of recent oil price hikes. Overall with the significant oil price hikes experienced recently it is hard to imagine a scenario under which total airline costs will actually go down. The most important point to remember, though, is that profit is a function of both cost and revenue. Simply, profits are revenue minus costs. That fact seems to be forgotten by many and leads to the fallacy of automatically tying fuel price increases with financial losses for the air-

line industry. To assume that one part of the equation automatically must lead to a given answer is using the ceteris paribus concept in an inappropriate way. Theoretically, higher oil prices leading to higher costs may move airlines to raise fares and actually come ahead and increase profits. There were periods of time when the industry was engulfed in fairly vicious price wars and nobody was willing to rock the boat and increase ticket prices. Then, a substantial oil price hike occurred which necessitated an increase in fares which in turn led to increased total revenue. So, theoretically at least, higher oil prices which generally lead to higher costs could also result in higher revenue which could even (theoretically) lead to an increase in profits. That much for theory.

Reality

Theoretically many things can happen, everybody agrees. Empirically though we can verify a postulated theoretical assumption. The question as to what historically happened to profits when oil prices increased can be answered by looking at historical numbers. Let us start with the various theoretical combinations. An increase in oil prices can lead to an increase in yields (Counter intuitive in most people's minds) or a decrease in yields. Each of these options generates two possible outcomes regarding profits – they could have gone up or down. This way we have 4 possible combinations with the standard expectation of most people that they all lead to lower profits (remember: oil price increases must necessarily lead to lower profits). And then we have the other four theoretical possibilities associated with lower oil prices leading to higher (lower) yields and higher (lower) profits. Here the belief of most people is that these situations will result in higher profits.

Now that we have a theoretical project set up let us look at reality. Investigating US quarterly data and having the appropriate seasonal corrections by comparing each quarter to the same quarter of the previous year we find very interesting facts. In the third quarter of 1981 oil prices went up 25 percent and yields also rose albeit by a modest 1 percent. Profits though rose by 61 percent. In the second quarter of 1981 both oil prices and yields also rose (43% and 7%) but profits fell by 180 percent. In the third quarter of 1989 oil price increase of 24 percent was associated with a decline of yields by 3 percent leading to a rise in profits of 48 percent. On the other hand, the second quarter of 1987 saw oil price increase of 39 percent also associated with a decline in yields of 6 percent but this time leading to a decline in profits of 218 percent. We can find similar relationships when looking at examples of periods of declining oil prices. In the third quarter of 1998 both yields and profits rose, in the second quarter of 1988 yields rose but profits declined. Similarly, when oil prices declined and yields rose in the second quarter of 1986 profits rose but in the third quarter of same 1986 profits fell.

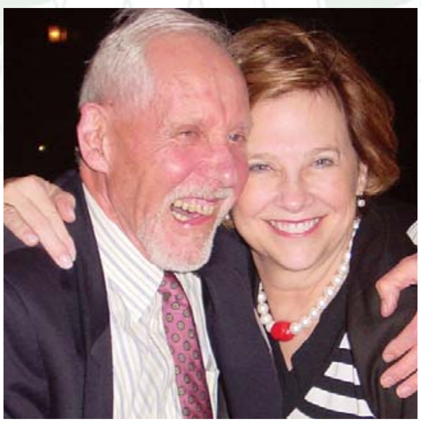
So, what does it all tell us? Not much regarding causality. In other words, just knowing that oil prices went up gives us little predictive power regarding the profitability of the airline industry. Other factors and changed airline behavior can mitigate even fairly steep oil price increases.

Now, the reader may find these data biased. It may be possible to find in history these particular 8 quarters which show no clear unambiguous relationship between oil price and profit changes. To answer that concern let us look at the total of easily available US data. Looking at quarterly US data of changes in oil prices and in airline profitability from the second quarter of 1977 until the second quarter of 2005 (a total of 113 quarters) produces interesting results. Our intuition would lead us to expect that quarters during which oil prices rose would be associated with a decrease in profitability while those showing oil price declines would be accompanied by increases in airline profitability. This was indeed the case in 21 quarters of oil price increases and 41 oil price decreases. On the other hand, the non-intuitive answers of oil price

HIGH Oil Continued page 22

ISTAT 23rd Annual Conference Orlando

At Club ISTAT, right, Guitarist Dave Wilson of GECAS takes the lead with the Repo Men; Bill Cumberlidge still rocks, Bill Bath and Susan Sutton share a moment, and the Browns enjoy it all!



increase/profit increase combination occurred also 21 times and oil price decrease/profit reduction happened in 30 cases. So, looking at a fairly long run period we cannot find a clear relationship between oil prices and airline profitability. During that time, as a matter of fact, there were exactly as many cases of oil price increases associated with increases as with decreases in airline profits.

Summary

The dramatic rise in oil prices is the villain du jour responsible in the mind of most aviation professionals for the tremendous losses faced by US legacy carriers. This article argues that the relationship of oil prices and airline profitability is not as linear and unambiguous as many people believe. While high oil prices are without doubt a negative factor for the airlines, there are many others responsible for the situation the US industry has been in for the last few years. Irrational pricing and inappropriate yield management, as I have been preaching for a long time, have more to do with losses than high oil prices. Introducing rational prices, as one example, will make the industry withstand even higher oil prices. A sound, rational industry with proper management can prosper even with oil prices in excess of $100 a barrel. In the long run oil prices will come down but as Lord Keynes said "in the long run we are all dead" so not every airline would survive such high oil prices. The industry as a whole would though and needs no outside help. Reforming the industry instead of blaming the various aspects of the external environment should be the first step to recovery.

Adam Pilarski may be reached at gurudude@avitas.com

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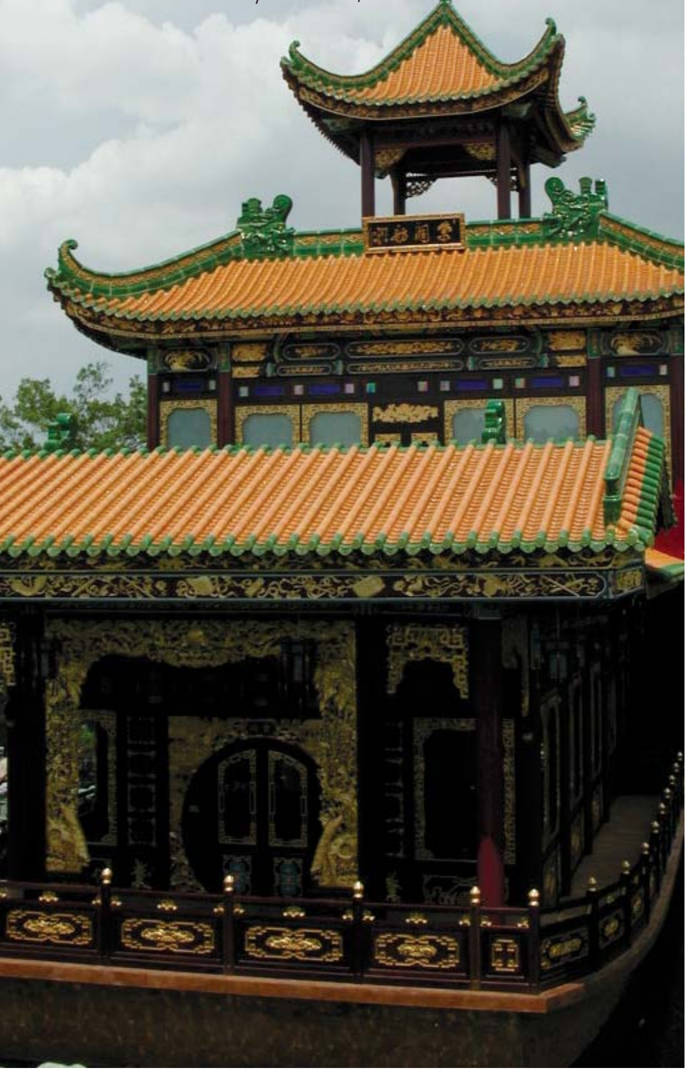
Gateway to the Pearl River Delta

by Alex Hsu, Excellerate



The Pearl River Delta is China's economic engine, producing one third of the country's entire economic output, and Guangzhou—for centuries China's most important seaport—has become the country's richest city. Located seventy-five miles up the Pearl River from Hong Kong, it has been host to traders from around the world; merchants from Rome and India arrived as early as the second century A.D. while the Portuguese arrived in 1514 and the British in the 17th century. Today, Guangzhou hosts the semi-annual Canton Trade Fair, China's largest trade event, and continues to welcome visitors from around the world.

Growing numbers of people involved in aviation are now making the journey to Guangzhou and the Pearl River Delta cities of Shenzhen, Zhuhai, Macau and Hong Kong. Most arrive at the recently opened Baiyun International Airport; built at a cost of $2.4 billion, CAN will be able to accommodate eighty million passengers a year. Among these modern traders are airlines negotiating code-share agreements or joint ventures (Lufthansa Cargo and Shenzhen Airlines' new cargo company, for example), parts manufacturers seeking low-cost production bases, MROs looking for lower labor costs, financiers competing for mandates (China Southern Airlines, for example, will have sixty new aircraft delivering this year), and of course aircraft traders searching for opportunities in China's fleet rationalization programs.

Where to Stay Perhaps most popular among business people is the Garden Hotel, a thirty-story building surrounded by landscaped gardens and three-story waterfalls. The Executive Floors feature minimalist design and unique views of the surrounding city center. Many excellent restaurants are located in the compound and, given its central location, there is much to do and see right in the neighborhood. The prices are very reasonable by Western standards, except for the two weeks in mid-April and mid-October of the Canton Trade Fair when everything costs four times more than normal.

My favorite is the White Swan Hotel located on Shamian Island, along the Pearl River itself. The island, once the site of the French and British concessions of the 19th century, remains a historical district so strolling around the tree-lined streets makes for a great tour of life in another era. The views from the rooms, of course, are of modern river life in all its variety, from small sampans to great ships.

Where to Eat Guangzhou is the birthplace of China's most popular export: Cantonese food. You will be able to find all your favorite delicacies but be aware of what the Chinese say: when it comes to food, the Cantonese will eat anything with four legs except for the table. On Shamian Island, for example, you will find several restaurants where exotic animals—alive in their cages—are actually on the menu. I recommend avoiding the civets but gecko soup (with the entire gecko floating in clear broth) is actually not bad. Should your Chinese guests insist on the exotic, you may want to try the Game Restaurant on Beijing Road or the Snake Restaurant on Jiang Lan Lu.

More traditional fare is available in abundance, from dim sum to noodle shops. The most elegant Cantonese restaurant is perhaps the Peach Blossom located in the Garden Hotel. Floor to ceiling windows overlooking the orchid-filled garden and large hanging red lanterns create a nice backdrop for excellent food and exceptional service.

Modern day China traders, like their counterparts of old, will continue their visits to Guangzhou and the Pearl River Delta. A thirst for the exotic and a hunger for adventure will prove you in good stead. Eat well!

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