Chairman’s Opening Remarks

William Pershke, Head, IDFS Development and Performance, IATA
Dr. Emre Serpen, Executive Vice President, InterVISTAS Consulting Group
...in 2008 world air cargo market looked bleak

However compared with 2009 world air cargo market expected to grow approx 5.9 % per annum over the next 20 years
Air Freight Traffic Shows Normalisation of cargo traffic in recent months, as high yoy growth rates was due to recovery from recession

Source: International Air Transport Association
IMF sees strong growth in emerging markets such as India and China

World Economic Outlook Projections (GDP)
2011 Estimates

Source: International Monetary Fund, World Economic Outlook Update, January 2010
Asian and Middle Eastern Markets are among fastest growth markets

**World Air Cargo Forecast (RTKs)**
*CY 1999 – 2009 (Historical) and CY 2010 – CY 2029 (Long-Term Forecast)*

<table>
<thead>
<tr>
<th>Region</th>
<th>1999-2009</th>
<th>2010-2029</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td></td>
<td>5.9%</td>
</tr>
<tr>
<td>Intra-North America</td>
<td>-2.5%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Latin America–North America</td>
<td>-0.7%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Latin America–Europe</td>
<td>-1.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Europe–North America</td>
<td></td>
<td>4.2%</td>
</tr>
<tr>
<td>Intra-Europe</td>
<td></td>
<td>3.6%</td>
</tr>
<tr>
<td>Middle East–Europe</td>
<td></td>
<td>6.0%</td>
</tr>
<tr>
<td>Africa–Europe</td>
<td></td>
<td>5.1%</td>
</tr>
<tr>
<td>Asia–North America</td>
<td></td>
<td>6.7%</td>
</tr>
<tr>
<td>Europe–Asia</td>
<td></td>
<td>4.1%</td>
</tr>
<tr>
<td>Intra-Asia</td>
<td></td>
<td>3.4%</td>
</tr>
<tr>
<td>South Asia–Europe</td>
<td></td>
<td>4.1%</td>
</tr>
<tr>
<td>Domestic China</td>
<td></td>
<td>9.2%</td>
</tr>
</tbody>
</table>

Source: Boeing World Air Cargo Forecast

**Economic Trends**
Since 2004, the historical relationship between GDP and air freight volume growth has deteriorated.

Source: ICAO Air Transport Reporting Form A plus ICAO estimates for non-reporting States
Air freight yields continued to rise thru 2008 with increasing fuel prices than fell 22% in 2009 with falling fuel prices.

**Air Freight Operating Revenues per RTK**
*CY 1995 – CY 2007*

- **Avg. Annual Growth Rate Air Freight Yields**
  - 1995-2001: -1.1%
  - 2002-2006: +2.9%

**Fuel/Security Surcharge Effects**

Deregulation, liberalisation and increased belly capacity contributed to continuously declining air freight yields.

Source: ICAO Air Transport Reporting Form A plus ICAO estimates for non-reporting States
Few years ago compared to passenger airlines cargo airlines were slow in executing capacity adjustments.

YoY Percent Chance in Air Freight Traffic

**CY 2007 – 2008**

Source: International Air Transport Association
Cargo Airlines are now doing much better job matching cargo capacity with demand

YoY Percent Change in Traffic and Capacity – Passenger vs. Cargo
January 2011 vs. January 2010

Source: International Air Transport Association

Commercial decision making, Balancing Yield, Price and Service
Operating freighter efficiency critical for profitable operation

Net Payload vs. Fuel Burn per Block Hour for Select Freighter Types

- **A300-600F**
- **B767-300F**
- **A340-300F**
- **MD11-F**
- **B777-200F**
- **B747-400F**

Source: DAC; Note: Fuel burn and net payload at 2,500 km (net payload at 8.5 lb/cu ft); Boeing
Opportunities for improving margins with better commercial decisions, route/yield management, fleet mix, and working with other carriers/alliances.

Operating Margin for Select Cargo Operators

FY 2009

- Astar Air Cargo: 14.2%
- Atlas Air: 14.1%
- EgyptAir Cargo: 14.0%
- Centurion Air Cargo: 6.5%
- UPS: 5.9%
- Kalitta Air: 4.6%
- Cargolux: 4.4%
- FedEx: 3.6%
- AirBridge Cargo: 3.6%
- Polar Air Cargo: 3.6%
- Lufthansa Cargo: -0.2%
- Arrow Cargo: -8.8%

Average: 4.1%

Source: ATW World Airline Report Financial 2010
Thank You

www.InterVISTAS.com
Keynote: Economic Trends

Brian Pearce, Chief Economist, IATA
Economic outlook: cyclical, capacity and structural issues

March 2011
Brian Pearce
www.iata.org/economics

To represent, lead and serve the airline industry
Renewed trade expansion but how fast?

Source: IATA, Netherlands CPB

World trade in goods and air FTKs

Source: Netherlands CPB and IATA

International FTKs (left scale)

World goods trade volumes (right scale)

Source: IATA, Netherlands CPB
A much slower growth environment for air

International Freight growth by major routes
Source: IATA ODS

-40%
-30%
-20%
-10%
0%
10%
20%
30%
40%
50%
60%

Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09 Oct-09 Nov-09 Dec-09 Jan-10 Feb-10 Mar-10 Apr-10 May-10 Jun-10 Jul-10 Aug-10 Sep-10 Oct-10 Nov-10 Dec-10

YoY Growth

Within Far East
Europe - Far East
North Atlantic
North and Mid Pacific

Source: IATA
Ocean freight regaining lost share

Source: Drewry

Container Shipping Volume Growth by Region
Source: Drewry

<table>
<thead>
<tr>
<th>Region</th>
<th>Dec-09</th>
<th>Nov-10</th>
<th>Dec-10</th>
</tr>
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<tbody>
<tr>
<td>North America</td>
<td>5.6</td>
<td>11.2</td>
<td>13.4</td>
</tr>
<tr>
<td>North Europe</td>
<td>3.1</td>
<td>7.8</td>
<td>9.5</td>
</tr>
<tr>
<td>Far East</td>
<td>-2.3</td>
<td>17.8</td>
<td>19.7</td>
</tr>
<tr>
<td>Middle East</td>
<td>2.1</td>
<td>7.0</td>
<td>8.7</td>
</tr>
<tr>
<td>Latin America</td>
<td>3.9</td>
<td>15.5</td>
<td>17.8</td>
</tr>
</tbody>
</table>

Source: Drewry
Now that business restocking is over

Total Business inventories to sales ratio and FTKs

Source: US Census Bureau and IATA

Inventories to sales ratio

FTKs (billion)

Source: IATA, Haver
Europe’s economic situation remains risky

10-year government bond yields, %

Source: Haver
Economic forecasts still relatively rosy

Forecasts for GDP growth
Source: EIU

<table>
<thead>
<tr>
<th>Region</th>
<th>% change over year</th>
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</thead>
<tbody>
<tr>
<td>US</td>
<td>2010</td>
</tr>
<tr>
<td>Japan</td>
<td>2011</td>
</tr>
<tr>
<td>Europe</td>
<td>2010</td>
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<tr>
<td>ASPAC excl Japan</td>
<td>2011</td>
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<tr>
<td>Middle East</td>
<td>2010</td>
</tr>
<tr>
<td>North Africa</td>
<td>2011</td>
</tr>
<tr>
<td>Latin America</td>
<td>2010</td>
</tr>
<tr>
<td>World</td>
<td>2011</td>
</tr>
</tbody>
</table>

Source: EIU
Mixed picture for the consumer demand

Consumer confidence
Source: Haver Analytics

Balance expecting improvement, net %
China
Europe (right scale)
US

Source: Haver
Is a problem developing in China?

Purchasing managers confidence indices

50 = no change

Major country average

China

Source: Markit
The big challenge will be fuel prices
Not clear if cargo costs can be recouped

Air Freight Yields (US$ per kilo)
Seasonally Adjusted
Source: IATA CASS

Source: IATA
Load factors slipping as capacity expands

Loads factors on international passenger and freight markets

% AFTKs

% ASKs

Source: IATA
Downsized freighter fleet little changed

![Graph showing changes in in-service aircraft fleet from Dec 06 to Dec 10. The freighter fleet shows a slight decline, while the twin aisle passenger fleet shows a more significant decline and then a recovery.](Source: Ascend)
But sharp rise in its utilization

Aircraft daily hours utilized

Hour per day

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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</thead>
<tbody>
<tr>
<td>Freighters</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Twin-aisle passenger</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: IATA
Plenty of wide-body capacity arriving

Twin Aisle Aircraft Deliveries by Airline Region
Source: Ascend

Number of Aircraft

Source: Ascend
Passenger cooperation and cargo JVs – but does it lead to consolidation?

Source: Bloomberg
Poor profitability is a long-term problem

Profitability of the worldwide commercial airline industry

Source: ICAO, IATA

-6%
-4%
-2%
0%
2%
4%
6%
8%


% revenues

EBIT margin

Net post-tax profit margin

40-year average (0.1%)

Source: IATA
A handful of airlines created value

Economic profit, (ROIC-WACC)*IC
Cumulated over 2002-2009

Emirates
Ryanair
Aeroflot
LAN
COPA
Air Arabia
Easyjet
Allegiant
Aegean

$ million

Source: McKinsey & Company for IATA
Most of the value chain is profitable

Return on invested capital, 2002-2009

Source: McKinsey & Company for IATA
Reward seems not to be related to risk

ROIC compared to a measure of risk, 2002-2009

Source: McKinsey & Company for IATA
But most profitable sectors are small

Invested capital and revenue by sector, 2009

- **Airlines**: 506 billion
- **Airports**: 293 billion
- **Lessors**: 48 billion
- **Manufacturers**: 27 billion
- **ANSPs**: 18 billion
- **Freight forwarders**: 12 billion
- **Maintenance**: 11 billion
- **Travel Agents**: 10 billion
- **Ground services**: 9 billion
- **CRS**: 6 billion
- **Catering**: 3 billion

Source: McKinsey & Company for IATA
The main problem lies in the airline sector

US$ billion per year

Source: McKinsey & Company for IATA
Panel: Commercial Decision Making

Moderator: William Pershke, Head, IDFS Development and Performance, IATA

Panel: James Fernandez, CHAMP Cargo Systems
    Jay Shelat, Vice President, Cargo, Jet Airways
    David Yokeum, President, WCA Family of Logistic Networks Limited
Networking Coffee Break

Sponsored by:

Easy DGR

IATA
Keynote: Profitable Techniques to Balance Yield, Price and Service Range

David Hoppin, Managing Director, D. F. Hoppin & Associates
Profitable Techniques to Balance Yield, Price, and Service Range

Presentation by:

David F. Hoppin

IATA World Cargo Symposium | Istanbul | March 2011
Effective cargo airline strategy development is necessarily iterative and continuous

The Circle of Airline Strategy Development

- **Which customers?**
  - Customer selection is the logical starting point because it influences the answers to all other questions

- **What products?**
  - Which product(s) do the target customer want, and can we make the desired products at a profit?
  - Products defined as scheduled / charter / ACMI, types of A2A products, etc.

- **What network and fleet?**
  - Which geographic markets (lanes), how much capacity per departure and per week, and how many frequencies per week?
  - Depending on the above answers, what are the best fleet types?

- **Are you achieving success?** And, how do you measure success?

Critical questions to ask about each customer / product / market choice:
- Do you have a cost advantage?
- Can you earn at least your “fair share” of revenue?
Which Customers?
Customer selection is the foundation of commercial strategy in the air cargo business

Pick Your Customers Carefully

- Accurately forecasting revenue is typically the most difficult part of airline planning
- Best way is bottom-up forecasting – expected volume and rates by customer by flight
- Robust market research function is of course important – need to analyze available statistics on demand, competition and pricing
- A2A cargo is an industrial market, with a limited number of powerful, well-informed buyers (freight forwarders) – so statistical revenue-forecasting approaches have limited applicability (in contrast to passenger airline business)
- Therefore critical to identify target customers, and to truly know them in terms of requirements and behavior
A number of factors can turn a high-yield customer into a profit problem

**Requirements**
- Geographic market coverage
- Capacity per departure
- Schedule frequency
- Special handling
- Services beyond A2A

**Behavior**
- Demand variability (day-of-week, seasonal)
- Demand predictability (tender performance each day)
- Use of ad hoc pricing
- Demand for ad hoc pricing
- Collections & credit risk

Above factors can make a big difference in the profitability of different customers!
What Products?
It is a real challenge not to succumb to the siren song of high gross yields

Horizontal versus Vertical Expansion Vectors

- The core business of an airline is basic A2A transportation of general freight

- It is possible to increase yields by adding complexity:
  - **Horizontal expansion** into premium products, such as live animals, temperature-controlled, time-definite, etc.
  - **Vertical expansion** into the door-to-door journey – mostly in the form of RFS

- The real challenge is to truly understand the cost of complexity:
  - What is the cost of maintaining facilities, IT and trained staff even if zero demand for the complex service?
  - How does cost increase with volume?
What Network and Fleet?
A network’s scope and scale affects not only its costs, but also its revenue.

**Revenue Benefits to Scale**

- Minimum Competitive Scale (MCS) is the fleet size below which unit revenue will not exceed unit cost over the long term.
- Both unit revenue and unit cost curves are unique to each airline.
- An airline manager’s objective should be to maximize the profit envelope, not unit cost or unit revenue.
- Additionally, many large, powerful customers will not deal extensively with customers who cannot offer a minimum scope.
- Accordingly, tuning the network to achieve the goal of maximizing profit is an ongoing operation.

**ILLUSTRATION**

*Unit Cost versus Unit Revenue*

USD per Block Hour

- Minimum Competitive Scale (MCS)
- Average Unit Cost
- Average Unit Revenue
- Profit
The seasonality of many air freight markets can make it difficult to sustain expensive new freighters

“The Slope Is Too Steep”

- Air freight demand tends to be highly seasonal. It is not unusual for freighter operators make 60% of annual revenue in four months

- There is a trade-off between minimizing cash operating costs via new, fuel-and-maintenance-efficient aircraft, and minimizing ownership costs via older, less expensive and less efficient freighters

- Naturally, in the current environment of rising fuel prices, many executives are focused on fuel efficiency – but do not underestimate the value of flexible utilization that older aircraft offer
Naturally, the largest aircraft offer the lowest unit cost but also impose the greatest capacity risk.

**Freighter Trip Cost versus Unit Cost: PVG-[GYD]-LUX-AUH-PVG Rotation**

Index, B744F Cost = 100; Fuel Cost = $2.84 per USG

Source: DFH Associates.
There are a number of large freighter options, each offering distinct trade-offs between capacity risk/unit cost and capital cost/operating efficiency.

**Primary Large Freighter Fleet Options**
Net Payload versus Range; Existing & Potential Fleet Size (Excluding Integrators)

**Maximum Volumetric Payload**
(Metric Tons – Net)

Still-Air Range At Max Volumetric Payload
(Kilometers)

- **B747-8F**: 74, +52
- **B747-400ERF**: 114, 40
- **B777F**: 54+5

Source: DFH Associates analysis of Ascend CASE fleet database, aircraft performance data from manufacturers
A “breakeven” calculation – showing breakeven tons and profit potential – can help illustrate each aircraft’s fit within a network

**Illustrative Asia-Europe-Asia Breakeven Calculation**

<table>
<thead>
<tr>
<th></th>
<th>MD-11F</th>
<th>B747-400BCF</th>
<th>B777-200LRF</th>
<th>B747-400F</th>
<th>B747-200F</th>
<th>B747-8F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Yields (USD/kg)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backhaul</td>
<td>$1.24</td>
<td>$1.24</td>
<td>$1.24</td>
<td>$1.24</td>
<td>$1.24</td>
<td>$1.24</td>
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<tr>
<td>Fronthaul</td>
<td>$4.20</td>
<td>$4.20</td>
<td>$4.20</td>
<td>$4.20</td>
<td>$4.20</td>
<td>$4.20</td>
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<tr>
<td><strong>ACMI Rate (USD/BH)</strong></td>
<td>$5,600</td>
<td>$5,550</td>
<td>$7,400</td>
<td>$6,300</td>
<td>$4,200</td>
<td>$8,400</td>
</tr>
<tr>
<td>Block Hours/Roundtrip</td>
<td>27.5</td>
<td>25.3</td>
<td>25.6</td>
<td>25.4</td>
<td>27.1</td>
<td>25.1</td>
</tr>
<tr>
<td><strong>ACMI</strong></td>
<td>$153,832</td>
<td>$140,249</td>
<td>$189,514</td>
<td>$159,768</td>
<td>$113,862</td>
<td>$211,092</td>
</tr>
<tr>
<td><strong>Fuel @ USD 2.84/USG</strong></td>
<td>$186,470</td>
<td>$231,840</td>
<td>$167,356</td>
<td>$224,777</td>
<td>$285,545</td>
<td>$218,790</td>
</tr>
<tr>
<td><strong>Landing, Handling, Nav.</strong></td>
<td>$73,730</td>
<td>$81,154</td>
<td>$76,577</td>
<td>$82,491</td>
<td>$88,020</td>
<td>$89,553</td>
</tr>
<tr>
<td><strong>Cost Per Roundtrip</strong></td>
<td>$414,032</td>
<td>$453,243</td>
<td>$433,447</td>
<td>$467,036</td>
<td>$487,427</td>
<td>$519,435</td>
</tr>
<tr>
<td><strong>Unit Cost (USD/ATK)</strong></td>
<td>$0.245</td>
<td>$0.232</td>
<td>$0.234</td>
<td>$0.231</td>
<td>$0.235</td>
<td>$0.212</td>
</tr>
<tr>
<td><strong>Breakeven Load Factor</strong></td>
<td>68.8%</td>
<td>60.6%</td>
<td>64.0%</td>
<td>60.8%</td>
<td>63.9%</td>
<td>55.5%</td>
</tr>
<tr>
<td><strong>Tons Of Capacity Per Roundtrip:</strong></td>
<td>153</td>
<td>183</td>
<td>175</td>
<td>191</td>
<td>188</td>
<td>231</td>
</tr>
</tbody>
</table>

**Profit Potential**

- **Breakeven Tons**
  - MD-11F: 105
  - B747-400BCF: 111
  - B777-200LRF: 112
  - B747-400F: 116
  - B747-200F: 120
  - B747-8F: 128

*Source: DFH Associates analysis based on flight plans and assumptions about long-term traffic flows and yields. All assumptions (except ACMI rate per block hour) are applied uniformly to the three aircraft types analyzed.*
Are you achieving success?
What does “success” even mean?

What is Success?

- It is critical that each airline come to internal consensus on what “success” means

- Disparate goals – maximize passenger route profitability, maximize market share, maximize growth, maximize overall profitability, etc. – require disparate targets and strategies

- Whatever the goal is, airlines should ensure that managers have an incentive to make progress towards it, rather than work to benefit only their specific P&L

- Therefore, impose a common analytical framework – and require commercial, operations, and finance areas to use it!
What does “success” even mean?

Some Key Issues in Defining and Measuring Success

- Is there and how do you account for a freighter “halo” effect – the presence of freighters allowing you to capture more and more profitable customers for your belly network?

- How do you set the transfer price of belly capacity for your cargo operation? What behavior does setting it high or low engender?

- What time frame are you analyzing? Are you willing to undergo short-term financial pain in order to achieve some long-term strategic gain (e.g., capture market share)?

- Is there a social or government mandate to maintain air service, despite unsatisfactory financial results?
Conclusions
Conclusions

- Keep revisiting the core question: which customers do I want to serve?

- Invest appropriate time and effort in truly understanding your cost-to-serve each customer
  - How would total costs change if we add or totally delete a particular product or service?

- Be a “benevolent dictator”!
  - Impose a common definition of success
  - Ensure that the organization responds timely to new opportunities and threats
Keynote: Cargo Fleet Trends

Jonathan Lesieur, Freight Aircraft Marketing Manager, Airbus
Cargo Fleet Trends
Measuring the cargo fleet’s efficiency

Presented by
Jonathan Lesieur / Marketing manager, Freighters
Turkey is the second largest domicile for Airbus freighters

- **ACT Airlines:**
  - 6 A300B4 P2Fs

- **Turkish Cargo:**
  - 4 A310-300P2Fs + 1 A330-200F
  - (+ 4 A330-200F in the backlog)

- **MNG Airlines:**
  - 5 A300B4 P2Fs + 2 A300-600P2Fs
  - (+ 4 A330-200Fs on order)

- **ULS Airlines Cargo:**
  - 3 A300B4 P2Fs + 3 A310-300P2Fs

(*) Confidential and proprietary document.*
The A330-200F is operating into Beijing, Shanghai and Hong Kong

The A330-200F is operating into China with less sensitivity to imbalanced flows compared to larger freighters
Evaluating an aircraft’s efficiency: What’s important?

Fuel at $25 per barrel:
- Fuel represents 20% of overall operating costs

Fuel at $100+ per barrel:
- Fuel represents 50% of overall operating costs
Freighter aircraft are globally getting more efficient...

...but this has translated into fleetwide efficiency gains only since the mid 90s...

Constant fuel price (today’s fuel price)
To face increasing demand, expensive capacity is maintained in the market.

12 month moving average (international FTK, ATK)

Reference = January 2001

FTK (traffic)

ATK (capacity)

12mma FTK

12mma ATK
The current fuel environment is resulting in the freighter fleet being less efficient today than it was 30 years ago!

The efficiency of (most of) the available capacity is not adequate for today’s conditions.
Higher fuel prices are changing the rationale between modern and ageing aircraft.

The utilization threshold required to compensate higher acquisition costs gets significantly lower as fuel prices increase.
World map distorted by freight volume

Markets come in all shapes and sizes

Source: www.worldmapper.org
Is a “one-size-fits-all” approach to cargo the best approach?

Today’s and tomorrow’s fuel prices call for increased flexibility in the marketplace.
Panel: Consolidation and Alliances

*Moderator:* William Pershke, Head, IDFS Development and Performance, IATA

*Panel:* Marco Bloemen, Vice President, Seabury Aviation & Aerospace LLC

*Oliver Evans,* Chief Cargo Officer, Swiss International Air Lines Ltd

*Neel Shah,* Senior Vice President and Chief Cargo Officer Delta AirLines
Chairman’s Closing Remarks

William Pershke, Head, IDFS Development and Performance, IATA