



China Civil Aviation Development Forum 2007

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Expanding into the Chinese Market: Opportunities and Obstacles

John W. Dietrich

Executive Vice President & Chief Operating Officer
Atlas Air Worldwide Holdings



Agenda

- Polar Air Cargo

- Corporate Structure
- Route Structure
- Entry into the China Market

- Opportunities

- Improved Regulatory Environment
- Improved Infrastructure
- Booming Economy
- Long Term Growth

- Obstacles

- Operational & Regulatory Constraints
- Trade Imbalance
- Seasonality
- Fuel Cost





Polar Air Cargo

- Atlas Air Worldwide Holdings, Inc. (“AAWW”) is the parent company of Polar Air Cargo, Inc. and Atlas Air, Inc.
- Together, Polar Air Cargo and Atlas Air operate the world’s largest fleet of Boeing 747 freighter aircraft.
- Atlas Air, Inc. is primarily an ACMI carrier providing fully dedicated aircraft to primarily international airline customers (e.g., Emirates, Qantas, Air New Zealand)
- Polar is a Scheduled Service operator providing global scheduled service for primarily the shipping and freight forwarding community
- Both Polar Air Cargo & Atlas Air provide full aircraft charter services (civil and military)
- AAWW has a combined total fleet of 37 B747 Freighters:
 - 20 x B747-400F
 - 17 x B747 Classics
 - Orders placed for 12 new B747-8 Freighters
 - Options on a further 14 x B747-8 Freighters





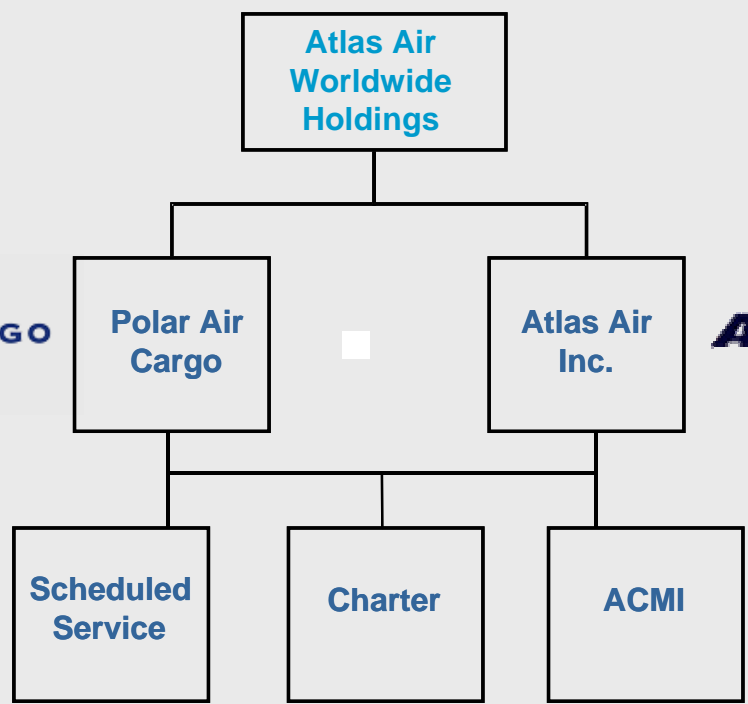
Polar Air Cargo

- Polar was established in 1994
- AAWW acquired Polar Air Cargo from GE in 2001
- Polar is a global scheduled service airline with valuable traffic rights throughout the world, including, China, Japan (and other intra-Asia rights) and Brazil
- Current operating fleet consists of 6 x B747-400 freighter and one B747 Classic; supplemental capacity is provided by Atlas Air, Inc. as needed
- Based in Purchase, New York, with sales and operations offices throughout the world (e.g., LGB, UK, AMS, HKG, PVG, PEK)





Corporate Structure



POLAR AIR CARGO





Polar Global Network



Updated: 04/19/07





Polar Air Cargo

Development on Mainland China

- In July 2004, the PRC and USA expanded the bilateral agreement to allow for additional designated carriers
- In October 2004, Polar Air Cargo was awarded the designation as the fifth US Flag Carrier to operate in China
- Polar was initially awarded 6 frequencies in October, 2004
 - 3 frequencies awarded in March 2005
 - 3 frequencies awarded in March 2006
 - 4 frequencies awarded in March 2007
- Total of 16 frequencies awarded





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- Obstacles





Airfreight Developments in China

- Air cargo prospects were boosted in 2004 when the US and China agreed to expand bilateral rights for all-cargo carriers (111 additional weekly all-cargo flights phased in between 2004 and 2010).
- Going forward, CAAC predicts a double-digit average annual growth rate per year.
- The 11th 5 year plan focuses heavily on providing the infrastructure necessary to support the exponential growth in manufacturing.
- CAAC predicts China to be the largest air cargo market in Asia by 2010, and the 2nd largest in the world by 2020.





Polar Air Cargo

CAAC & PRC Support

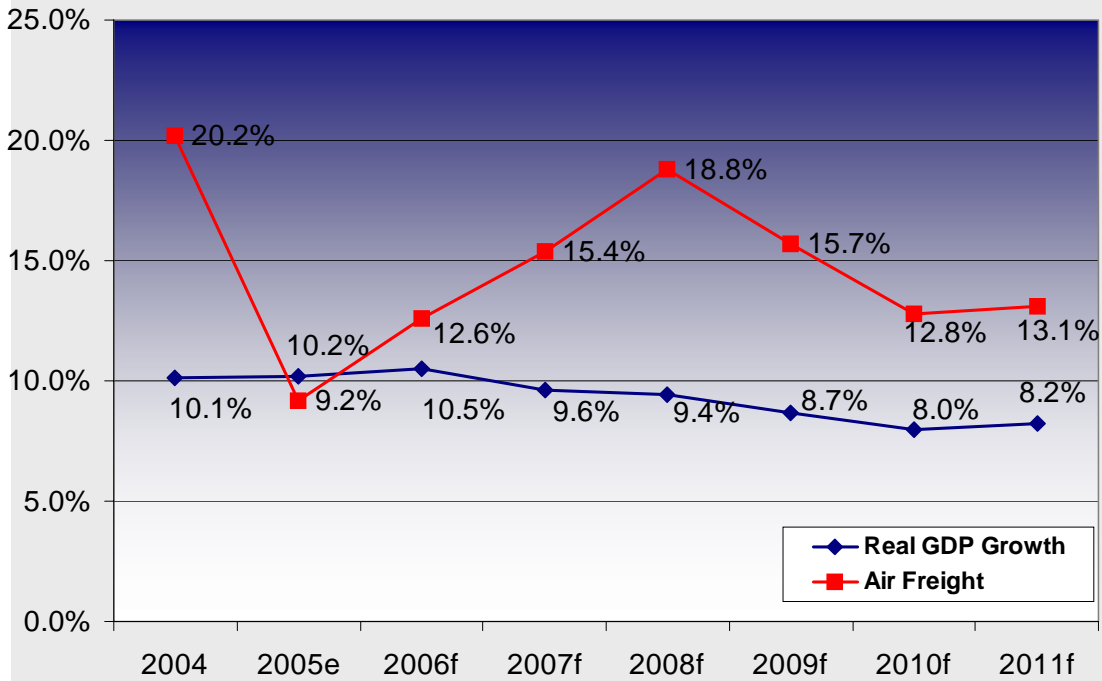
- CAAC has improved efficiencies and processes in the development of air transportation:
 - More timely approvals for charter and scheduled operation applications
 - Infrastructure projects to support growing air cargo demand (e.g., new runway at PVG, new runway at PEK)
 - Further efforts to liberalize air space for civilian air operations
 - ✓ IATA has been lobbying the Chinese authorities to liberalise the country's air space, with only a portion of China's air space open to civil aviation operations, making it one of the world's most restricted countries.





China Economic and Airfreight Outlook

Booming Economy



- ➔ The fastest growing economy of the world, China's GDP is forecasted to avg. around 8.8% for 2007-2011.
- ➔ Forecast air freight will continue to outpace the economy as a whole, reaching avg 15.1% p.a.

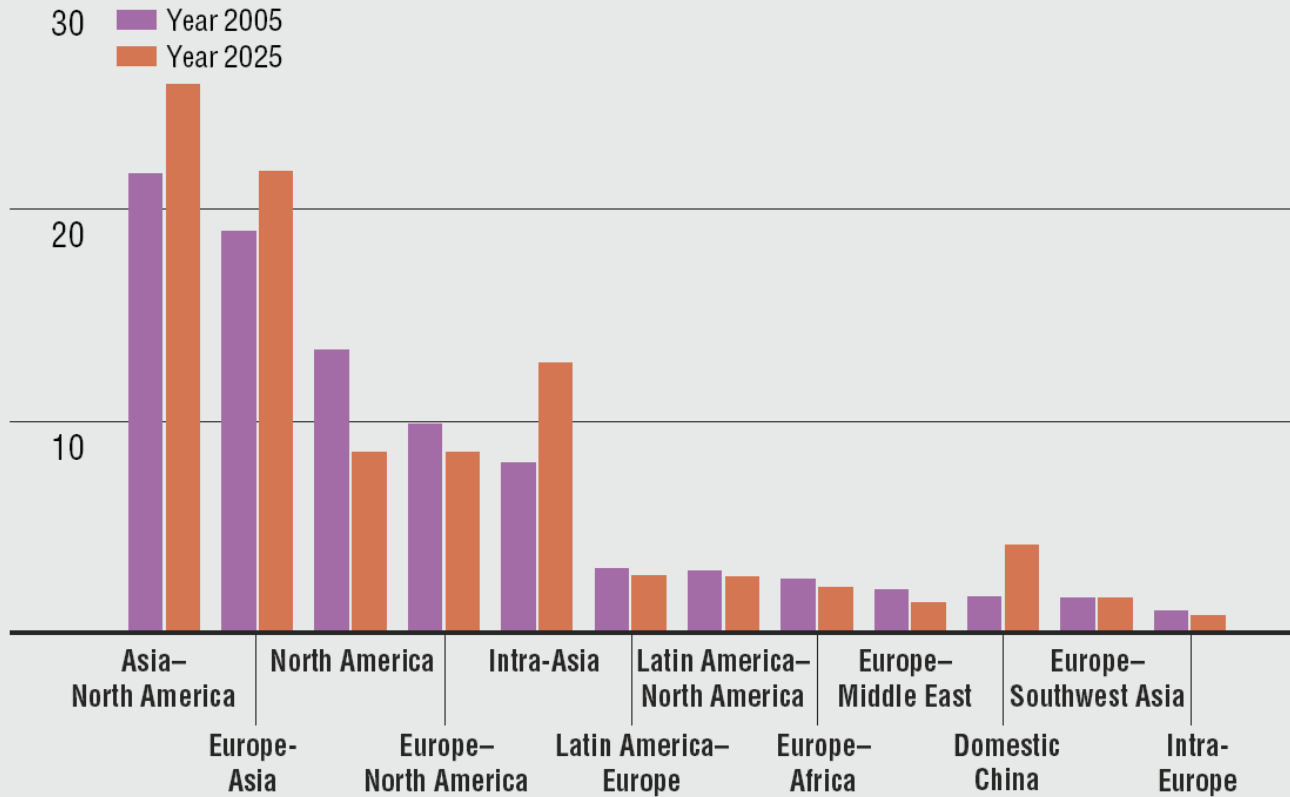


Asia Air Cargo 2005 & 2025

Asia – The Fastest Growing Trans-Pacific Air Cargo Market

North America – Asia route set to dominate the World Air Cargo market

Share of world total market, RTKs percentage

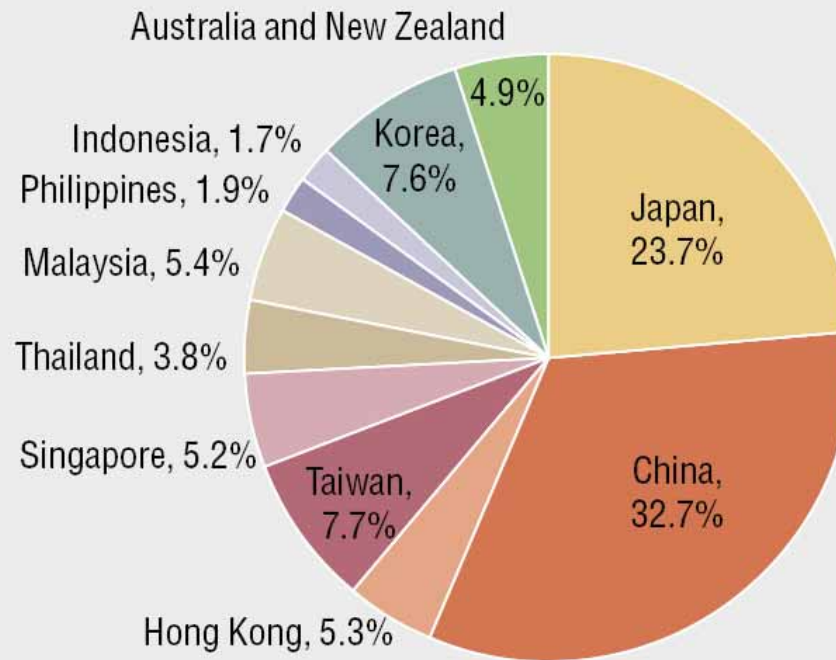




Transpacific Air Cargo 2005

China – Dominating Trans-Pacific Air Cargo Market

China accounts for 32.7% share of the Asia-North America air cargo market (tonnage) in 2005





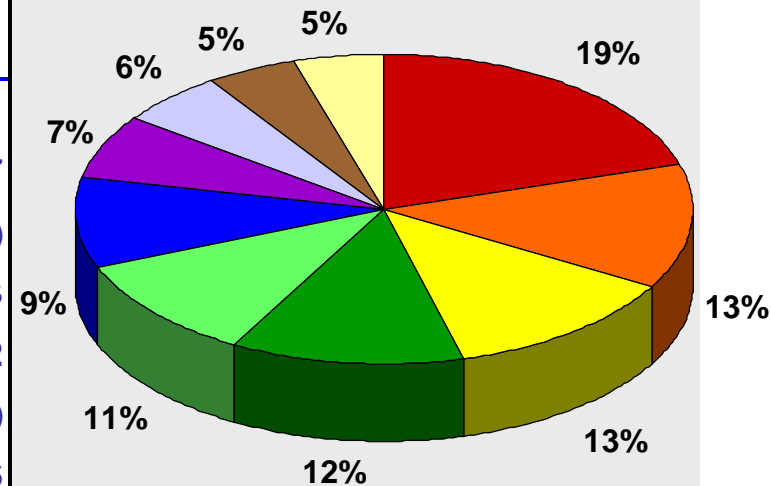
Asia Air Cargo

Asia's Top 10 Cargo Airports in 2006

Asia Airports

(in thousand tonnes)

World Rank	2006	2005	City (Airport)	2006 Cargo Traffic	2005-06 % Change
2	2	HONG KONG (HKG)	3,608.8	5.1	
4	5	SEOUL (ICN)	2,336.6	8.7	
5	4	TOKYO (NRT)	2,280.0	(0.5)	
6	8	SHANGHAI (PVG)	2,159.3	16.3	
9	9	SINGAPORE (SIN)	1,931.9	4.2	
13	13	TAIPEI (TPE)	1,698.8	(0.4)	
19	19	BANGKOK (BKK)	1,181.8	3.6	
21	24	BEIJING (PEK)	1,028.9	31.6	
23	22	OSAKA (KIX)	842.1	(3.1)	
24	23	TOKYO (HND)	832.9	4.3	





Polar Air Cargo Mainland China

- 23 Charter flights in 2003
- 28 Charter flights in 2004
- Scheduled Service commenced in Dec 04
- December 2004 - 6 flights per week PVG
- March 2005 - 9 flights per week PVG
- March 2006 - 12 flights per week PVG
- March 2007 – 16 flights per week
 - 10 flights per week PVG (reduced service in Nov 06)
 - 2 flights per week PEK (began service in Nov 06)
 - 4 flights – pending an award of daytime slots at PEK





Polar Air Cargo Shanghai

Why Shanghai?

- Air cargo throughput is:
 - 1st in Mainland China
 - 4th in Asia
 - 6th in the world

- Yangtze River Delta catchment area

- Great future
 - completion of the new runway and ramp space in 2009
 - air cargo throughput in 2015 estimated to reach 4.0 million tons





Polar Air Cargo Beijing

Why Beijing?

- Air cargo throughput was the 2nd strongest in Mainland China and the 1st in northern China air cargo market in 2005
- Ranked #8 and #21 in Asia and the world in 2006 respectively with a 31.6% growth of cargo traffic over 2005
- Great future – supportive government aviation policy, massive infrastructure projects underway, fast economic development





Polar Air Cargo Service Coverage in China





Agenda

- Polar Air Cargo
- Opportunities
- **Obstacles**
 - Operational and Regulatory Constraints
 - Trade Imbalance
 - Seasonality
 - High Fuel Costs





CAAC Challenges

Operating and Regulatory Conditions need to be in line with the growing business volumes in China:

- **Slots** (landing/take-off procedures)
- **Infrastructure** (runways, ramp space, warehousing)
- **Air Space** (overflight, entry/exit points, approaches, vertical separation)
- **Customs** (consistency in rules, allow trans-loading)





CAAC Challenges: Preparation for the Games

- A number of initiatives are being considered to accommodate the 2008 Olympic Games in Beijing.
- Air traffic in China is expected to increase by at least 50% by 2008, with the Games generating an additional 15%.
- Minister Yang Yuanyuan of the CAAC has urged the air traffic control department to study airspace issues and has said, 'The key issues include adjusting air routes over Beijing during the Games, redesigning air routes for departing planes and planes flying through the capital's air space and improving air routes in neighboring areas.'
- CAAC also plans to apply the RVSM (reduced vertical separation minimums) system to handle increased air traffic.
- Another measure is to set up an air control region in Beijing before the end of this year, with terminals shared by both the military and the civil aviation department. IATA, which helped the Athens and Sydney organizers with air traffic control during the last two Games, said it would do the same with Beijing.
- We hope these measures would not be temporary.



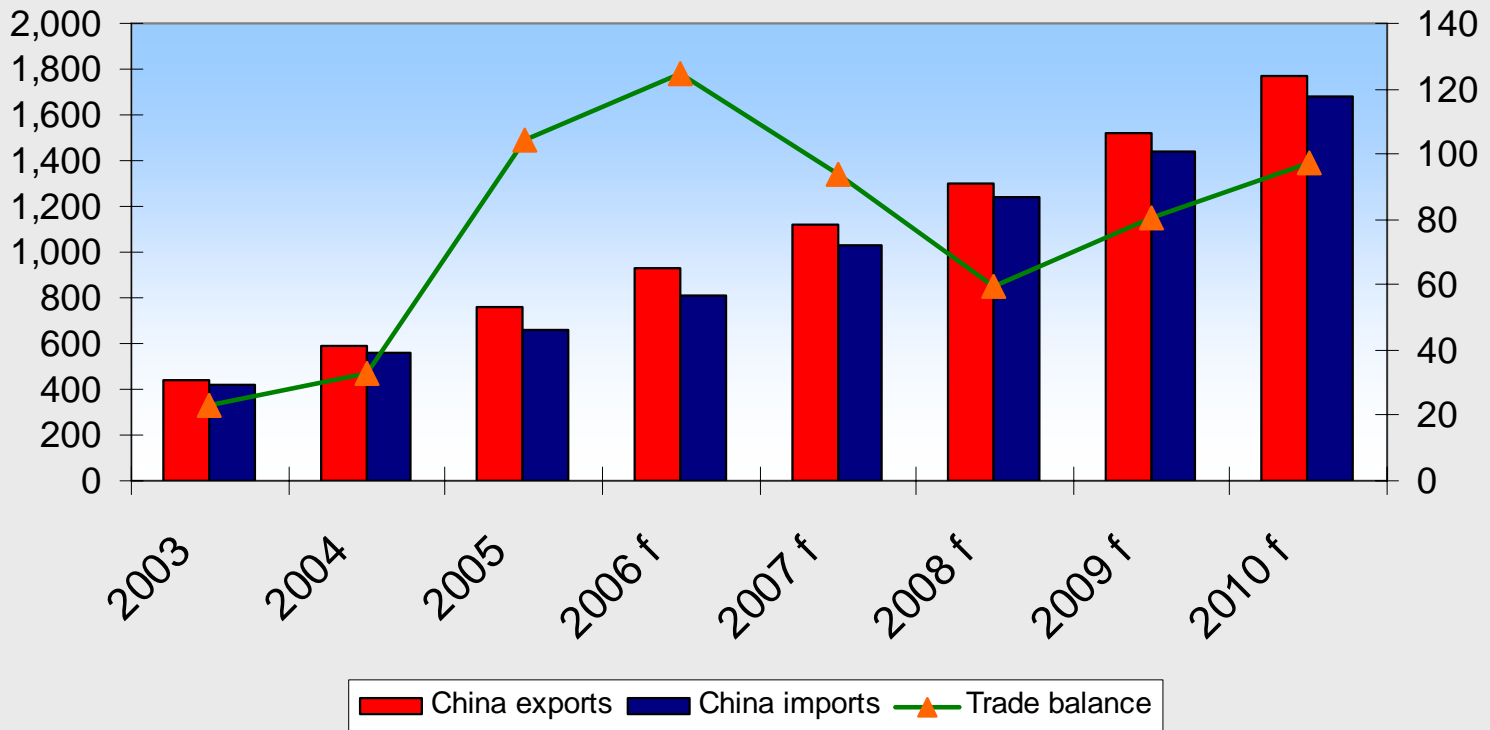


US-China Trade Imbalance

2003 – 2010F

**Import / Export by Value
(US\$ billion)**

**Trade Balance
(US\$ billion)**

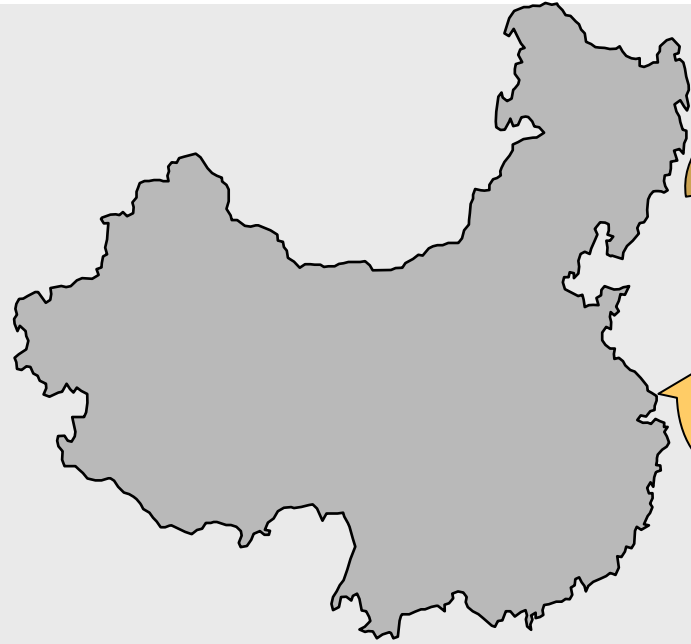




US-China Trade Imbalance

- Following a record high in 2006, the most recent data suggests that mainland's trade surplus is expected to surge even further in 2007.
- If realized, the PRC-US trade surplus will be greater than 2-1/2 times the figure recorded two years ago (more than US\$250 billion)
- The mainland's trade surplus for the first quarter almost doubled year on year. The surplus widened to US\$46.4 billion, from US\$23.3 billion a year earlier in the first quarter, according to figures from the General Administration of Customs.





Total Export 2006 to the World : 969 bil. USD, 27.2% growth

Total Export 2006 to the US : 203.5 bil. USD, 24.9% growth

Total Import 2006 from the World : 792 bil. USD, 20.0% growth

Total Import 2006 from the US : 59.2 bil. USD, 21.5% growth

Imbalance in Import / Export in the airfreight market is caused by the nature of the goods:

Export = Primarily High Tech goods = Air Freight

Import = Primarily Raw Materials = Ocean Freight





Trade Imbalance China and Asia

- Most of China's imports by value from the US are not flying on airplanes
 - ✓ Microsoft Software
 - ✓ Boeing Aircraft
 - ✓ Raw Materials

- 2005 MergeGlobal Statistics
 - North America - Asia 10.2 Million kilos
 - Asia – North America 39.3 Million kilos

- China's air freight imbalance is extreme at 8:1





USA-Asia vs. Asia-USA

- Trade imbalance = revenue imbalance for airlines
- 1/4 of the amount of cargo to Asia vs. from Asia
 - Imbalance of load exacerbates directional imbalance of revenue
- Flights must operate and make economic sense on a round-trip basis





Asia Seasonality

- Early week to later week
- Early month to later month
- Early quarter to late quarter
- Peak season prior to Lunar New Year holiday, quarter-end March, June, Sept, Dec, and the back-to-school/holiday season rush Sep – Dec





Fuel Cost

- Fuel continues to be a challenge in the air cargo market
- This is a significant component of an airline's variable cost, particularly in the long haul Trans-Pacific Markets
- Despite slight periods of relief, fuel cost continues to rise
- There are fuel surcharges in place to offset some of this cost, but they are not compensatory
- We cannot count on relief in the near term.





Fuel Cost 2002 vs. 2006

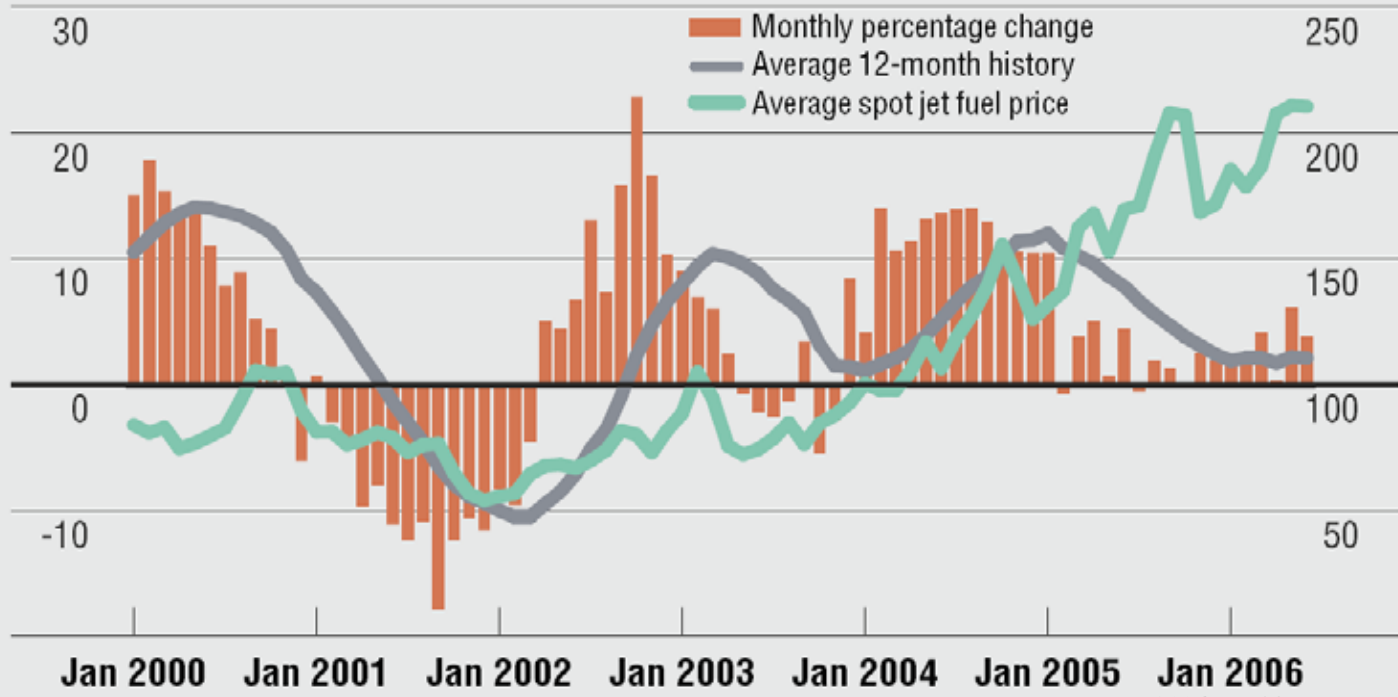
- This example uses the straight line average of five major fuel spot markets: West Coast, Rotterdam, Singapore, Gulf Coast and Mediterranean.
- Jan 25, 2002 that average was \$0.53335 USD per gallon
- May 2006 that average was \$2.13 USD per gallon



Growth in Major Air Cargo Markets Was Curbed Primarily Owing to High Jet Fuel Prices

Monthly percentage of change over prior year

Average spot jet fuel price, cents per gallon



Source: Boeing 2006 World Air Cargo Forecast





Conclusion

- While there are obstacles, there are also many opportunities
- Polar is pleased to have overcome the first obstacles by being designated for service to China and receiving important frequency awards
- We are also pleased with the CAAC's focus on providing the infrastructure to accommodate future growth.
- We believe that Polar has the opportunity to serve and grow with China in the development of the air cargo market
- We look forward to the future....





Thank You!