



Learning Event Trade and Freight Logistics

Overview of Air Cargo Title Slide Still To Be Finished

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Four Topics of Discussion

- **Industry overview – general knowledge**
- **Issues Related to Air Cargo Growth**
- **Traffic flows – Regions of Interest**
- **Issues Confronting Air Cargo in Client Regions**





Air Cargo – General Knowledge (1)

- Roughly 150 to 180 billion RTK per year
 - Shipping, in comparison, 53.4 trillion RTK (16.2 trillion without bulk)
 - Non-express items include perishables, high value electronic goods needing rapid consumer market access
 - Anecdotally, above \$3.00 per kilogram in value may justify shipping by air if time requirements so demand
- TIACA: Freight traffic growing internationally at 5.2% over the first three quarters of 2006
Projected growth in the 6.1% arena (Boeing)
- Yields: declined an average annual rate of 2.8% per year over the last 20 years.





Air Cargo – General Knowledge (2)

- Strong overall statistical relationship between air freight and GDP
- Many reports on the economics and forecasting for most of the world in air cargo
 - Boeing and Airbus forecasts
 - Economic linkages in relation to air transport – ATAG & Oxford Economic Research
 - MergeGlobal reports
 - Many others





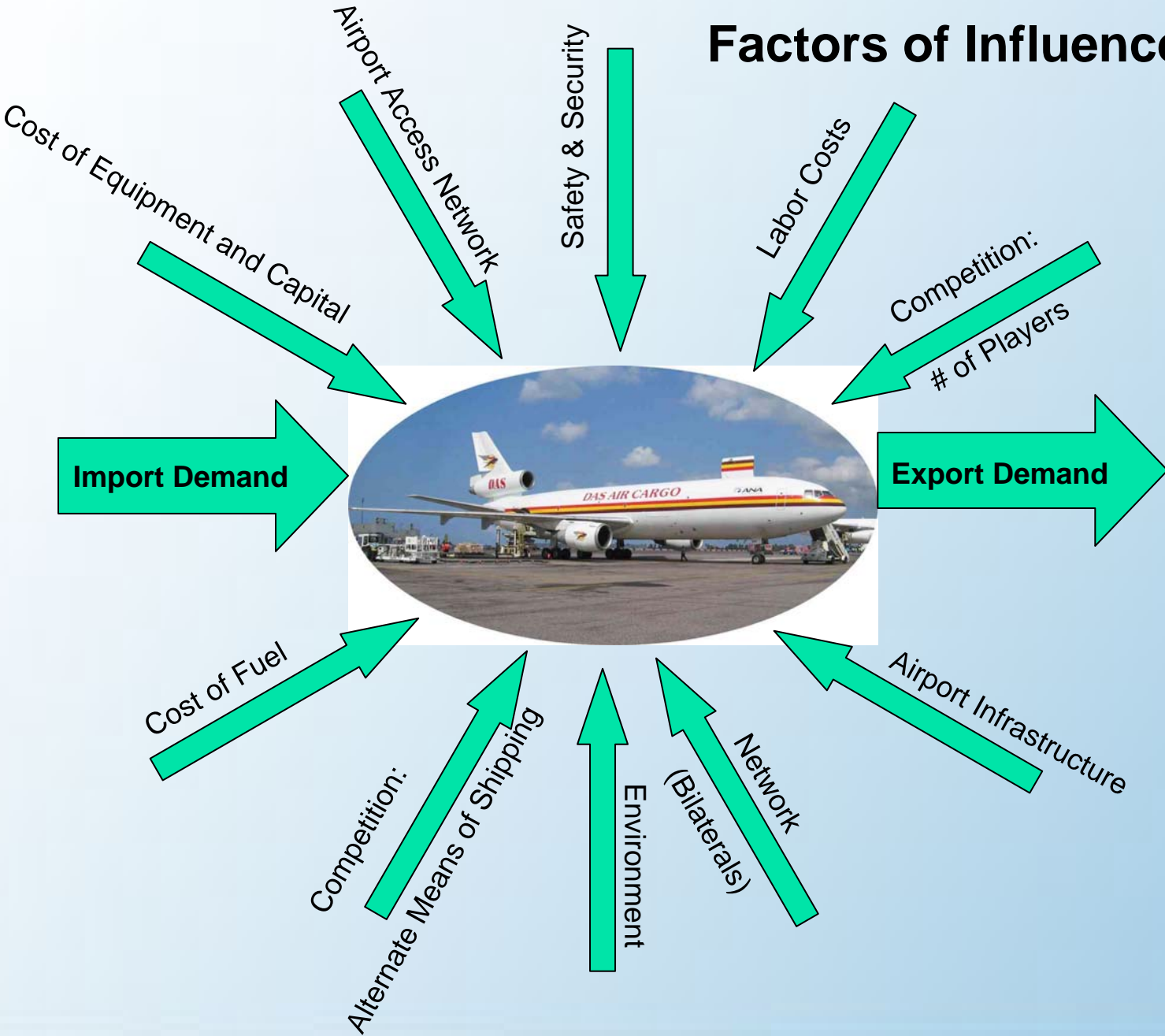
Air Cargo – General Knowledge (3)

- Demand-driven
 - Basic infrastructure requires a runway and an apron – if this exists, demand will cause service, at least unscheduled (charter)
 - Thus, infrastructure overall not very expensive
- Established markets capacity efficiencies brought about by freight forwarders
 - Scheduled air freight capacity: Anecdotally, 70% capacity out of Singapore sold 6 months ahead of time
- Bellies carried 50% of traffic, though growth is projected to be more in the dedicated traffic.





Factors of Influence





Air Cargo – Issues Related to Growth (1)

- Fuel prices (now somewhat stabilized slightly below \$1.80 per gallon for Jet-A)
- The condition of consuming economies
 - Of concern to the industry specifically is the potential bursting of the housing bubble in the U.S., and the impact this would have on overall consumption (perhaps causing a recession)





Air Cargo – Issues Related to Growth (2)

- Capacity by both service providers and infrastructure
 - Service providers include both the airlines transporting cargo and the ground facilities such as cargo handlers
 - Infrastructure can mean airport infrastructure (aprons, cold storage, etc)
 - Infrastructure can also mean distribution network (roads)
 - International express is 11% of air freight worldwide – depends heavily on getting items to and from airports
 - International express is growing at 12.9% annually over the last decade





Air Cargo – Issues Related to Growth (3)

- Technology and the elimination of paperwork (e-freight rather than paper airbill)
- Security





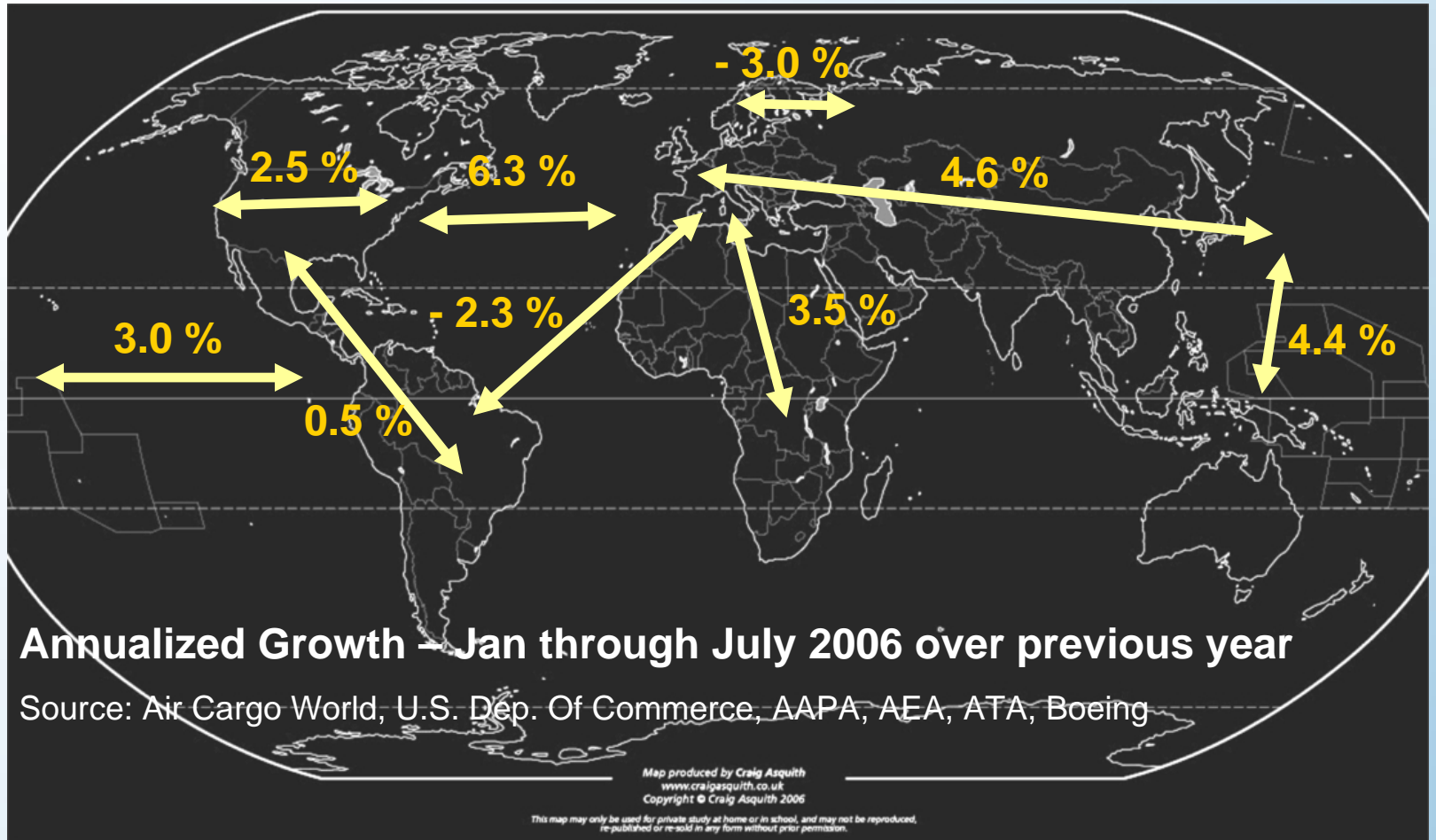
Air Cargo – Issues Related to Growth (4)

- 5.3 % growth in 2006 in Asia Pacific
 - Chinese economic growth and Japanese recovery
 - Projected: China 10.8% per year for the next two decades
 - Projected: Intra-Asia 8.6 % per year
- 5.9 % North American freight growth
- Middle East: 16.8% (Note: Not MENA)
- Africa 7.6 (Note: Includes North Africa)
- More sluggish
 - Latin America 3%
 - Europe 2.1%





Air Cargo – Issues Related to Growth (5)

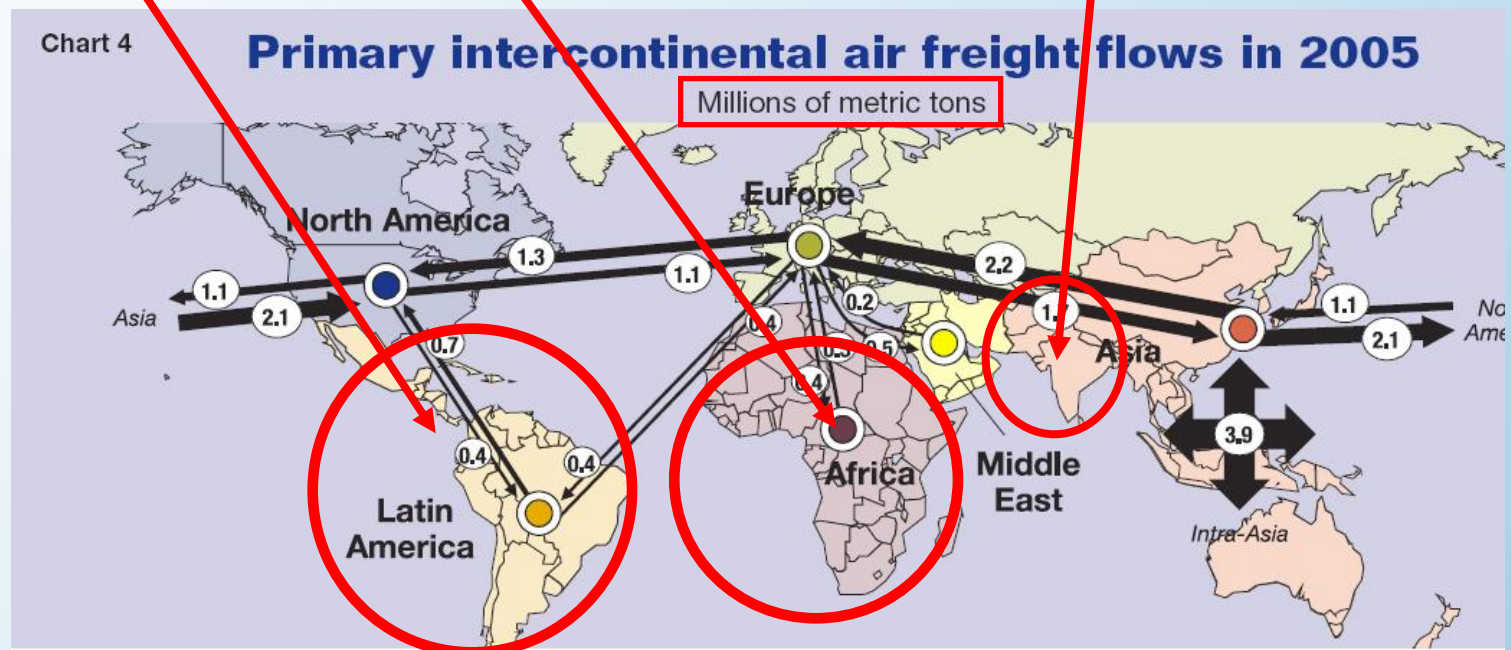




Regions of Interest

Of interest is not only the relationship of the structure of the market in developed economies – much research and material is available – however, what do we know about

Latin America? **Sub-Saharan Africa?** **South Asia?**

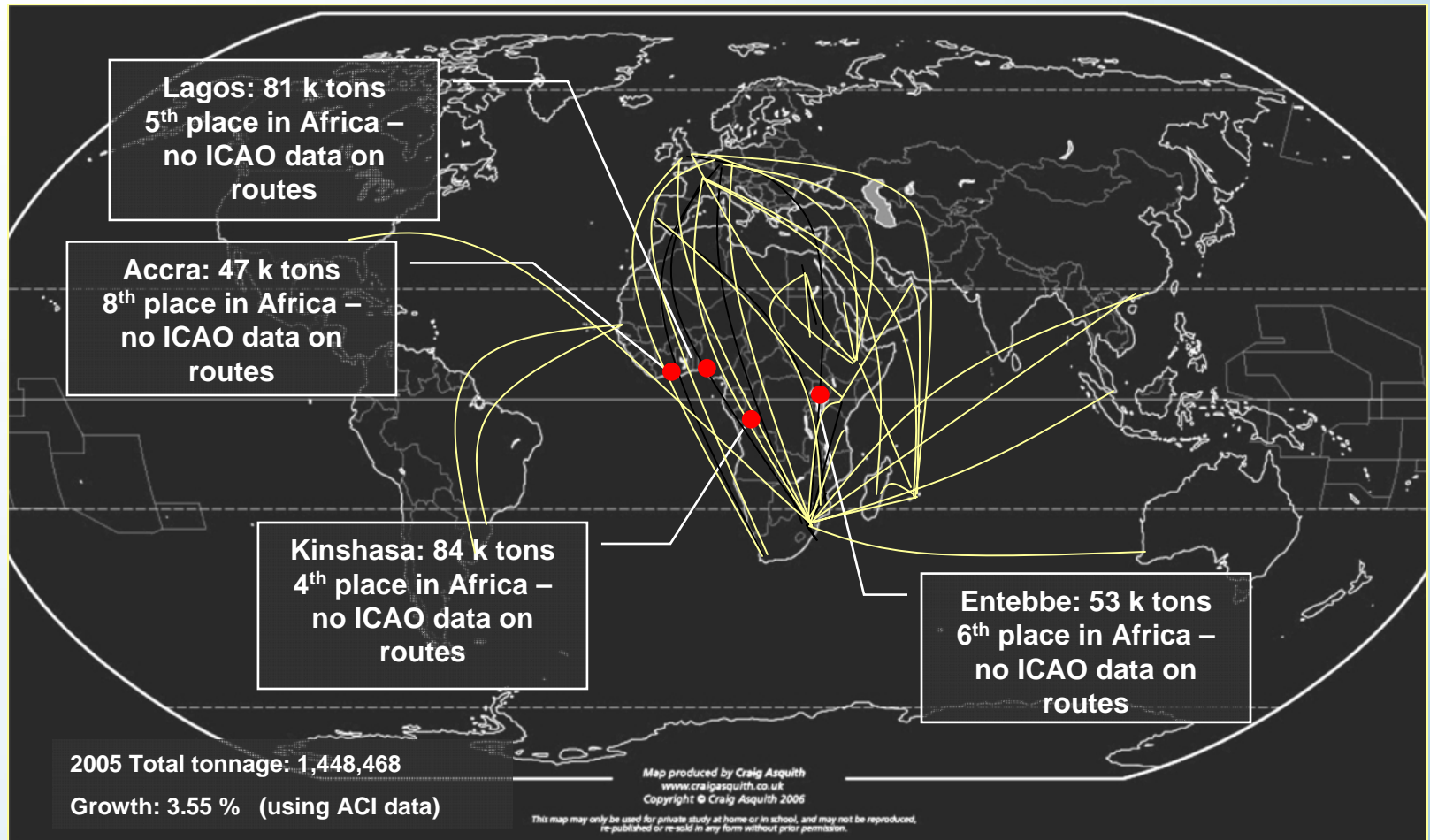


Source: MergeGlobal world air freight supply & demand model, American Shipper, August, 2006



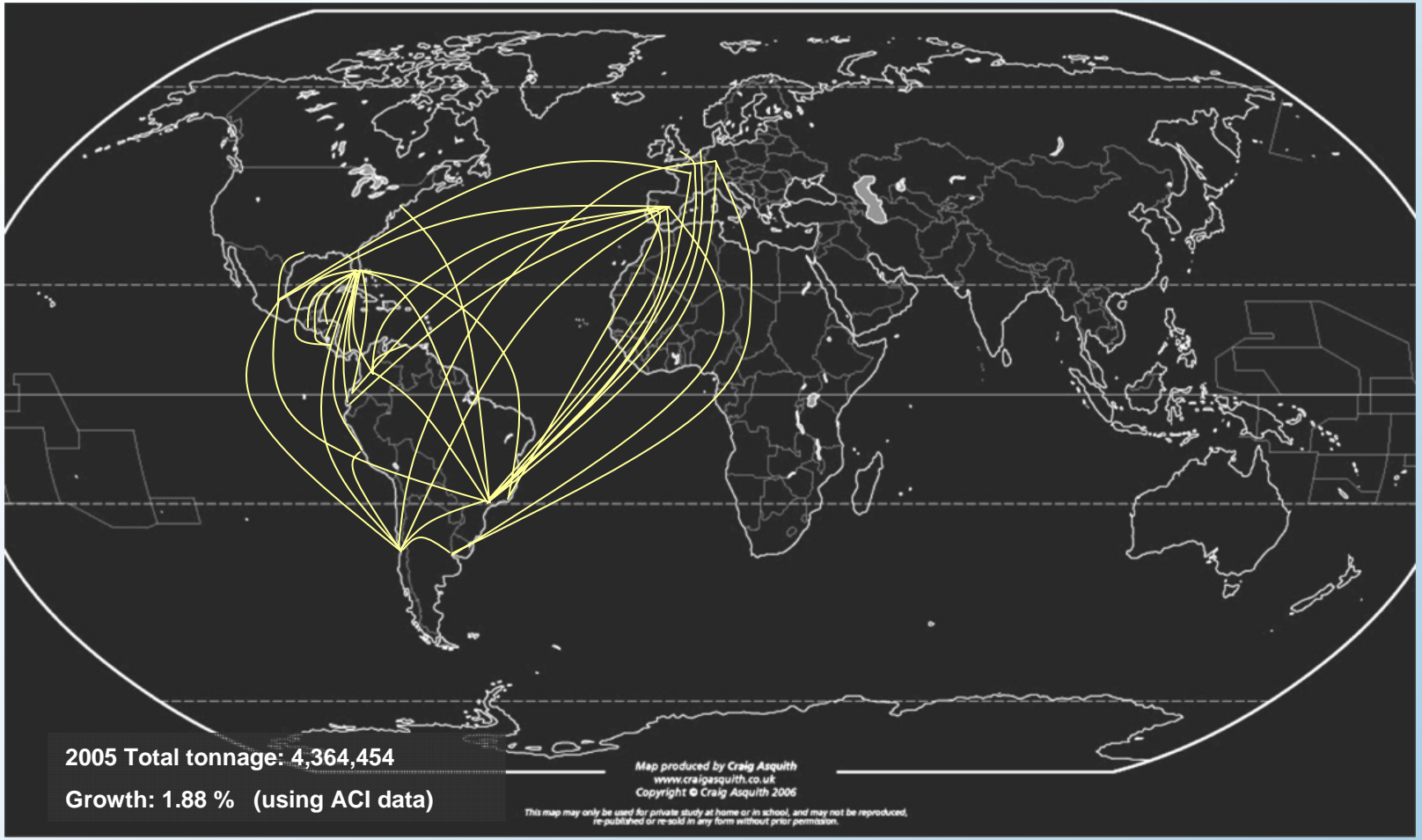


Regions of Interest - Africa



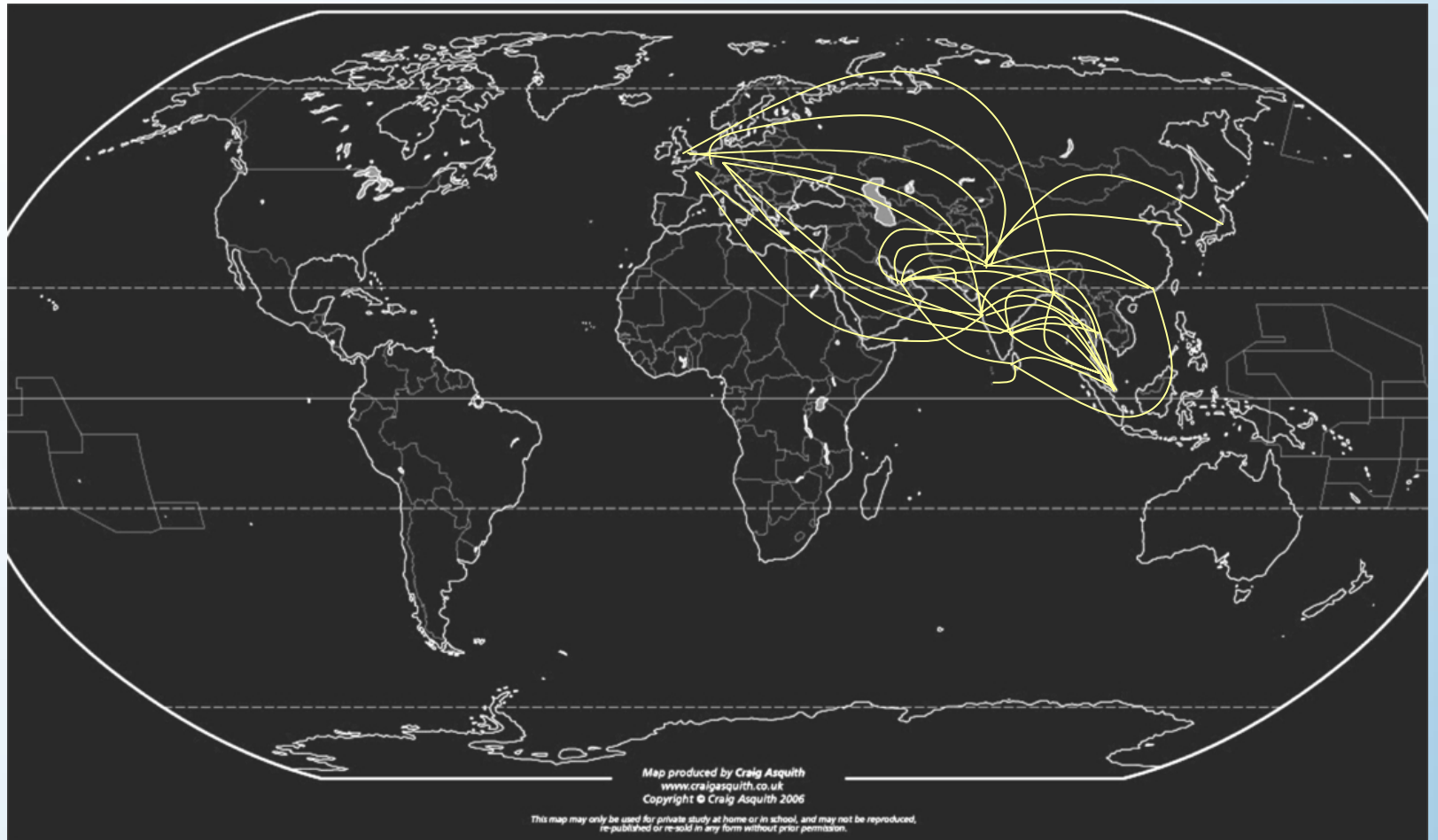


Regions of Interest - Latin America



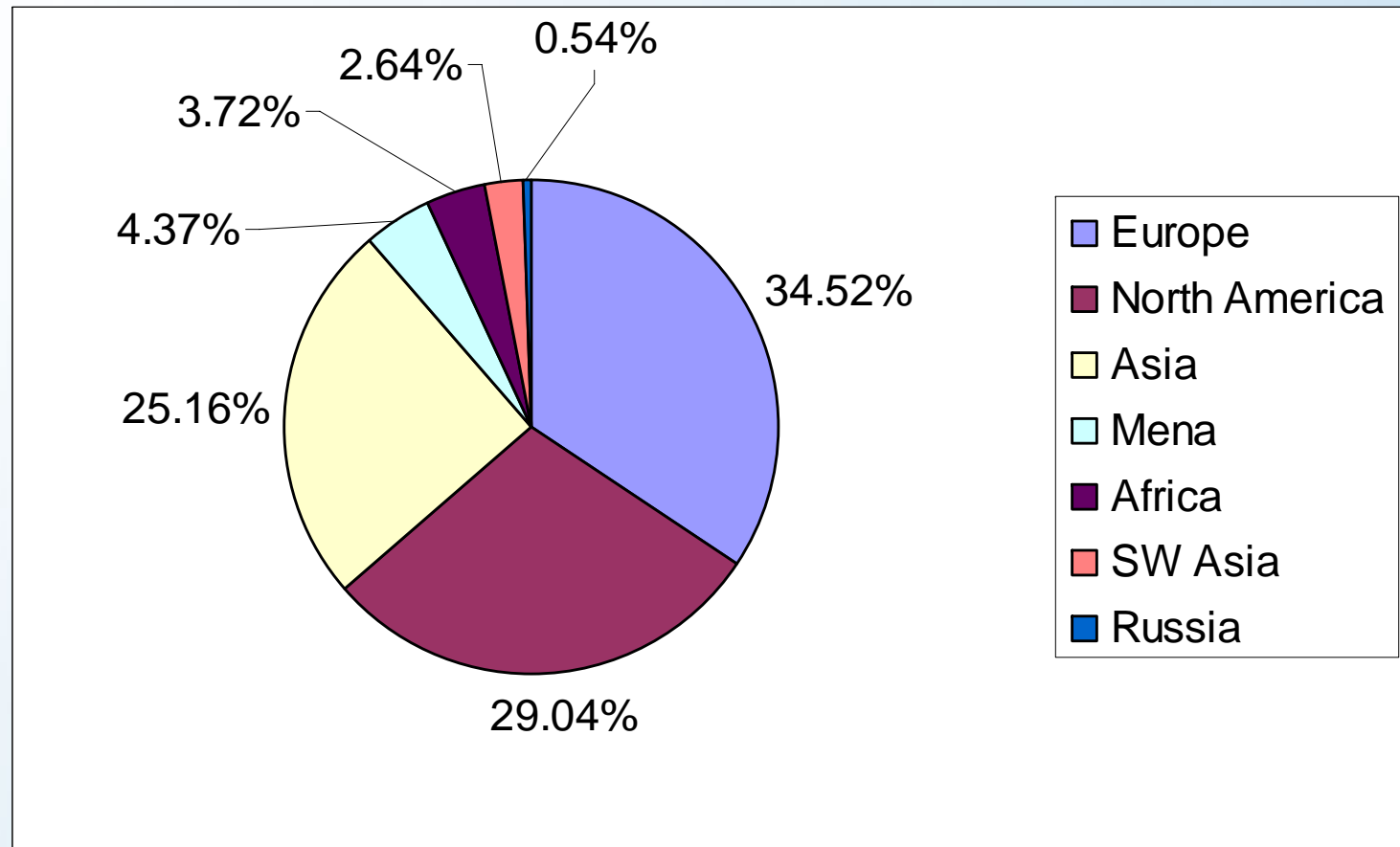


Regions of Interest - South Asia





Regional - Percentage of Global International Cargo Tonnage



Data Source: Boeing

Data excludes intra-regional traffic and the CIS





Issues Confronting Air Cargo in Client Regions

- India
 - Road network
 - Apron space
 - Customs

- Africa
 - Bringing perishables to the airport
 - Capacities (e.g. runway at Mwanza in Tanzania)





Examples of Issues Confronting Air Cargo – Africa (1)

- Africa-Europe:
 - 70% of Africa's air cargo market
 - Exports: roughly 500 thousand tonnes in 2005
 - Grew at 6.3%
 - Imports: just below 400 k tonnes
 - Grew at 3.4 %





Examples of Issues Confronting Air Cargo – Africa (2)

➤ Africa-Europe:

- Example Air Carrier - DAS Cargo:
 - Ugandan, now blacklisted in the EU
 - Flying dedicated fleet of seven DC10s
 - Aircraft maintained in the UK
 - Up until blacklisting had 100% perishables – now perishables clients are gone.





Examples of Issues Confronting Air Cargo – Africa (2)

- Example - Mwanza, Tanzania
 - Tonnage is decreasing at the airport
 - Runway limits size of aircraft
 - Smaller sized cargo aircraft (e.g. DC-8) cannot fly into Europe because of noise restrictions, or, if equipped with “hush kits”, become economically unfeasible to operate because of high fuel consumption
 - Often, exports (fish) are trucked to Nairobi and then flown worldwide, adding delivery timing risk





Examples of Issues confronting Air Cargo – Africa (3)

- Example - Addis Ababa, Ethiopia
 - Brand new cargo terminal
 - Cut flowers main export
 - New cold storage facilities
 - However, spoilage in bringing perishable exports to the terminal – flowers are delivered in open trucks from rural areas





Summary of Developmental Issues

- The majority of development issues with air cargo go hand in hand with issues in air transport overall
 - Governance, Safety, and Security
 - Customs
 - Liberalization of the air transport sector
 - In many cases, liberalization of air cargo is ahead of the passenger transport sector, e.g. the ASEAN countries
 - Service provider capacity and ability (airlines and on the ground)
 - Ground infrastructure such as airport facilities, and road networks





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Thank You!

