The future of turboprops in the European market

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Regional fleet in Europe

- **3,100 aircraft in service**
  - Source: Ascend
  - Includes Russia and part of CIS

- **60% turboprops**
- **40% regional jets**

- **70% out-of-production models**

- **40% Russian production**
Factors to support turboprop (re)development in Europe

- High cost environment
  - Regional jets keep a limited role, on longer sectors

- Mix of network and independent operations
  - Many specific operations outside hub-and-spoke
  - Island hopping, short runways, steep approaches

- « Turboprop avoidance factor » exists
  - Not as strong as in the US
  - More with airline managers than with passengers

- High sensitivity to environmental issues
  - Turboprops are « green » aircraft

- PSO routes
Turboprop usage in European countries

- European markets present large contrasts in TP usage
- Linked to geographical, economical and cultural factors
- Northern countries generally have a better understanding of turboprop role and economics
- Southern countries have more easily embraced the jetmania
European PSO require large turboprops

- Public Service Obligation governed by EC Regulation (also adopted by some non-EU countries)

- 250 routes across Europe
  France, Italy, Norway, Portugal, UK, Greece, etc.

- 86% are less than 300 NM

- Most are operated by 30-50 seat turboprops
  unlike in the US where most of EAS routes are flown by < 20 seats
Market in Europe (Western & Central)

- **Today…**
  - **650 regional aircraft older than 15**
    - 200 RJ: Fokker 70/100, BAe146/RJ, already a few CRJ…
    - 450 TP: Fokker 27/50, ATP, J41, Saab 340/2000, Dash 8, ATR

- **Tomorrow…**
  - **Over 800 turboprops required in Europe over next twenty years**

- **2010-2029 Airlines will need 2,950 new turboprops**
  - 22% of total
  - 28% of total
  - 12% of total
  - 10% of total
  - 28% of total
Russia

- **Extreme geography**
  - Immense territory
  - Only 113 airports served today

- **Fragmented airline business**
  - 33 scheduled airlines
  - Mix of government and private airlines
  - Most airlines are loss making
  - Consolidation pushed by the Russian government

- **Difficult regulatory and business environment**
The next frontier in regional transport

“The transport network needs to be optimized here too. The goal is obvious: to build big transport hubs so that people do not need to fly from Krasnoyarsk to Novosibirsk via Moscow.”

“Almost all of the air traffic flying regional routes goes via Moscow.”

“Air transport is not the luxury here that it is in some European countries, where it is much quicker to drive than to fly. For us it is a vital necessity”.

President Medvedev:
Security Council Meeting on long term state policy in the aviation sector,
April 1st 2011
Weak domestic production

Ilyushin Il-114
First flight 1990
14 aircraft built

Antonov An-140
First flight 1997
28 aircraft built

- Russian manufacturers focused on jet programmes
- An-148, Sukhoi Superjet, UAC MS-21 face a tough future
- Tax system designed to protect industry from Western competition
Adaptation required to Russian environment

- **Extreme cold weather certification**
  - Temperatures down to -45°C
  - EASA certification achieved for all ATR models
  - Endorsed by Russian MAK (Interstate Aviation Committee)

- **Unpaved runways**
  - EASA certification (laterite, soil, gravel, grass)
  - Under certification by MAK for Russian unpaved runways

- **120 min ETOPS capability for Siberian flights**
- Brand name of Taymir Airlines
- Owned by giant mining company Norilsk Nickel

- Operates 737NG on trunk routes to link Siberia to Moscow and the rest of the world

- Recent acquisition of 4 ATR 42-500 to replace An-24
- Based in Krasnoyarsk region
Brand name of Tyumenaviatrans Airlines
- Fifth largest airline in Russia

Biggest regional carrier
- Introduced in 2005 second-hand ATR 42 followed by ATR 72
- Instrumental in Russian certification of all ATR models

Decision announced today to acquire 20 new ATR 72-500
- Financing support of French/Italian ECAs

Deliveries to start in the next months
- Will become the largest ATR operator in Europe
The unique turboprop family

**ATR 42**
- 50 seats
- The only Western 50-seater in production
- Excellent airport performance
- *Perfect for PSO routes*

**ATR 72**
- 70 seats (up to 74 for low-cost ops)
- Fuel burn < 3 liters/100km per pax
- The lowest seat cost of all regional aircraft
- *Profitability guaranteed*

- Airframe and engine commonality
- A single pilot type rating across all models
Takk !