



*South Asia's leading aviation  
consulting, research and  
knowledge practice*



# **Future of Air Navigation Services An Independent Structure for ATC**

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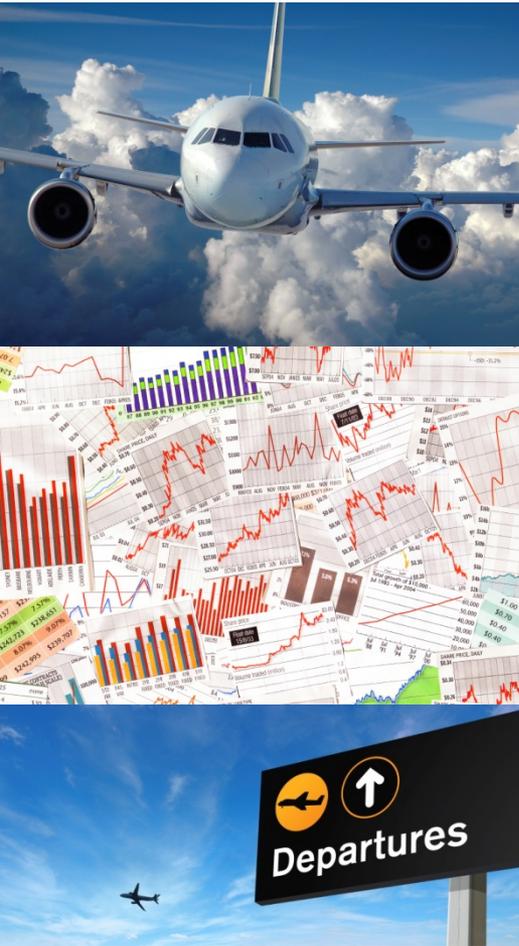
Presentation at 29<sup>th</sup> Asia Pacific Regional Meet of IFATCA  
New Delhi, 20 October 2012

**Leadership:**

- South Asia's leading aviation consulting, research and knowledge practice, provides services across the value chain.
- Completed more than 55 advisory engagements South Asia, and over 600 worldwide covering airlines, airports, investors, ground handling, distribution, cargo, business aviation, regulatory studies, due diligence and forecasts.

**Research:**

- Operate India's first and largest dedicated aviation research practice.
- Released in excess of 30 in-depth research reports and position papers, with 12 currently underway in verticals such as distribution, ground handling, MRO, air traffic management, freight and logistics and ancillary revenues.
- Supported by the most comprehensive databases in the market.

**CAPA AeroPark:**

- Initiative to bring world class aviation education and training to South Asia, in conjunction with the leading global universities and practitioners.
- Launching first series of courses in Mumbai on 1-3 November, covering aviation leadership, airport management, international aviation law and policy and strategic planning for communications, navigation and surveillance.
- CAPA AeroPark Knowledge Centre to launch in May 2013 with more than 20 international faculty and over 15 comprehensive simultaneous training programs across disciplines – will include dedicated ANS School.
- Supported by a unique R&D centre of excellence to position India at the forefront of industry thought and practice on issues such as:
  - Aviation and the environment;
  - Aircraft noise;
  - Efficient use of fuel;
  - Innovation in air traffic management;
  - Sustainable business models;
  - Travel technology.



### **CAPA Analytics**

- CAPA Analytics will launch in FY13/14 to provide high performance outsourced analytics to the aviation industry. Initial focus will be on market analytics to support revenue and sales initiatives, and will expand into risk and financial analytics.

### **CAPA-VIC Aerospace City**

- CAPA India and Vittal Innovation City are co-promoting a high-technology aviation park.
- Key activities will include aerospace manufacturing, design, research, maintenance, education and training.
- 750 acre aerospace park is located just 50 minutes from Bangalore International Airport.



- **Worldwide Coverage:**
  - Our global practice provides in-depth coverage of strategic industry trends across all regions.
  - We have released close to 10,000 reports for the global aviation community and offer a proprietary data analytics platform for more than 7,000 airlines, airports and suppliers.
- **Global Presence:**
  - Headquartered in Sydney, with offices in Singapore, Hong Kong, Tokyo, New Delhi, Manchester, Washington and San Francisco.
- **A world of experience:**
  - Established 22 years, our team includes distinguished aviation experts with a portfolio of more than 2000 consulting assignments.
  - Our consultants have held executive leadership positions at global airlines and airports, worked for IATA and ICAO and hold qualifications from prestigious institutions such as Harvard, Cambridge, INSEAD and McGill.

- Meeting the Challenges of Future Growth
- Elements of Corporatisation and its Key Success Factors
- Measuring the Results
- Next Steps for India

# Meeting the Challenges of Future Growth

- Indian aviation has gone through a dramatic transformation in recent years with the expansion in aircraft movements at Indian airports. This has placed great pressure on the infrastructure required to handle this volume of traffic.
- Industry and media focus has been on the capacity of airport terminals and runways. The positive impact of the multi-billion modernisation program is now becoming increasingly apparent.
- However, equally if not more critical, is the issue of airspace and air traffic management infrastructure. As India enters a new growth phase, this key component of the aviation value chain requires a renewed focus.
- There is a need for fresh thinking on how best to prepare the Indian Air Navigation Services Provider (ANSP) to meet the challenges ahead.

**CAPA View:** *“CAPA believes that the growth in traffic and aircraft movements over the next decade may be stronger and more sustained than anticipated. This will create significant pressures to which ad hoc responses will not suffice. The solution will require a new way of thinking with a fresh approach and an organisation that is focused not only on technology and equipment, but also people and training.”*

If India is to meet CANSO's Global Vision for the future of ANS, it will need to address issues such as:

- **Seamless & Efficient Airspace:** increased cooperation and coordination with global ANS providers in order to create an efficient and seamless global airspace;
- **Managed Safety:** Implementation of a Safety Management System and deployment of appropriate equipment;
- **Appropriate Regulation:** streamlined but effective regulation, and separation from the operator;
- **Civil-Military Airspace:** increased cooperation to optimise use of limited airspace through flexible management of capacity;
- **People:** enhanced training and performance, and greater harmonisation between countries on licensing to increase mobility;
- **Business-Like Approach:** establishment of normal business practices with respect to financial sustainability, with economic oversight to drive value and transparency;
- **Customer focused:** performance and service driven operations aligned with international best practice, with regular consultation with the industry;
- **Optimised ATM Systems:** implementation of productivity enhancing technology which is interoperable with other ANSPs;
- **Environment:** supporting efficient procedures and operations that will reduce the industry's carbon emissions within a clear regulatory framework;
- **Security:** establishment of clear responsibilities.

- In order to achieve this vision, the AAI will need to make significant investment in technology, people and training.
- Not only are the capital requirements massive, but there is virtually a need for a completely new culture which will require a focused approach.
- AAI has performed its responsibilities as the ANSP with great care and commitment. Given the expected future direction of the sector, and in line with international trends, perhaps the time is now approaching to develop a new model rather than ad hoc revisions to the existing structure.

**CAPA View:** *“CAPA believes that the critical challenge for Indian aviation over the next 10 years will be to ensure that there is significant and continuous investment in developing a world class ANS infrastructure with a rigorous focus on safety as the primary objective, whilst maintaining cost efficiency and environmental awareness. A culture in which safety is paramount must be instilled across the industry”.*

- The most common response to the call for change has been the so called corporatisation (or commercialisation) of ANSP’s. Corporatisation has myriad guises but at the broadest level includes changes to governance, ownership and regulation that enables the ANSP to operate in a more business like fashion

# **Elements of Corporatisation & its Key Success Factors**

- **Separation of Duties:** Since the mid 1980's however, there has been a defined trend to change this to have the Regulator and ANSP operator as two independent organisations. The FAA is a notable exception but many countries have or are contemplating such a separation.
- **Wide range of models:** According to CANSO the provision of ANS "covers a range of commercial models adopted with differing levels of independence from direct government control extending to the extreme case of privatisation."
- **Responsibility rests with government:** In all cases the government concerned retains responsibility for the provision of services but licences or contracts the corporatised body to perform the task on its behalf.
- **Corporatisation** usually means merely changing from a government department to a government-owned corporation.
- **Commercialisation** goes a step further. The ANSP remains a wholly owned government entity but is run under private sector disciplines, with implications for minimal economic regulation, financial independence, profit motive and a wholly different corporate culture.
- In theory this should produce a more efficient ANS organisation that can impart added value to the customer by way of reduced or at least stable ANS charges and improved operational practices.

IATA has identified 6 key success factors for the commercialisation of air navigation services:

1. Policy changes should be defined and agreed with customers.
2. A clear institutional environment/organisation need to be created.
3. Authorities and responsibilities need to be clearly defined and agreed.
4. The financial model needs to be defined and agreed.
5. As a monopoly provider full transparency is desirable.
6. Systematic performance management through benchmarking to promote improvements is required.

It would appear that to varying degrees, the nations that have successfully transformed the historically shaped government organisations seem to have adopted these principles, explicitly or not.

“Commercialisation has allowed significant improvements in service quality without substantial increases in cost of service, or the erosion of safety standards. Other public interest considerations have also been protected. These performance benefits can be attributed to key decisions on the governance on new ANS organisations”

*Messrs McDougall and Roberts, Suffolk University, 2009*

ICAO is largely in agreement with the success factors identified by IATA and concludes:

“Good ANS performance results from good governance”

ICAO encourages policy makers to focus on the following issues:

- **ANSP mission and objectives** – emphasis on safety, capacity, cost-efficiency, customer-focused service and environmental responsibility.
- **Enabling legislation and regulation** – roles and responsibilities and observance of international obligations.
- **ANSP governance structure** – processes, customs, policies, laws, regulations and institutions ensuring its vision, mission, goals and objectives are in line with obligations and expectations.
- **Independent & empowered management** – empowered, qualified, responsible and accountable.
- **Customer relations** – mature, transparent relationship that seeks agreed goals and objectives.
- **Other stakeholder relations and social dialogue** – appropriate and meaningful stakeholder interface mechanisms.
- **Performance measurement** – performance measurement and benchmarking has a positive influence on ANS performance.
- **Economic oversight** – nature, scope and extent of such oversight depends on other elements of ANSP governance, taking into consideration the cost of such oversight.

**Air Services Australia:** was one of the first ANSPs to corporatise, in 1988. Then in 1995 the Australian Civil Aviation Authority was split into two entities - Airservices Australia took on service provision for ANS and the Civil Aviation Safety Authority took on the regulatory role.

**Airways New Zealand:** Corporatised in 1987, and in recent years it has paid a dividend to government. The commercialisation of Airways New Zealand came about in the late 1990s as a result of the Asian Financial Crisis, which prompted a significant business review focused on cost reduction rather than an increase in fees.

**DFS Germany:** corporatised between 1993 and 1995 from a public authority to a private law company, the first such arrangement in Europe. It is 100% owned by the Federal Republic of Germany (Department of Transport). DFS was set for full privatisation in 2006, however the Act did not go through due to concerns that the process was not compatible with the German constitution.

**Nav Canada:** Nav Canada is organised as a non-profit non-share capital corporation, working on a breakeven basis. It is required to reinvest any surplus, minimise debt or return part of its charges to users by way of fee reductions. The driving force for privatisation was the inability of the previous government organisation to provide investment for much needed system modernisation.

**NATS UK:** With capital funding for new air traffic control systems reduced by the British government from a peak of £130 million in 1993/94 to £36 million in 1998/99, it was recognised that to meet the predicted traffic demand the National Air Traffic Services (NATS) needed freedom to invest. NATS was already corporatised in 1996, its funding emanating wholly from user fees. The chosen vehicle was a Public-Private Partnership (PPP).

## Measuring the Results

A central question is of course does corporatisation deliver results? Secondly is the question of defining what results are desirable.

- **Removal of Conflict:** The regulator can perform its regulatory role without being compromised through conflict of interest perceived or real;
- **Focus on Core Activity:** Severance of the regulator from the provider (and airport operators) allows the ANS provider to remain fully focused on its main reason for its being – air traffic control and facilitation to support such service, without being distracted by other activities;
- **Funding:** The ANS provider generates its own revenue through air navigation facility charging (ANFCs) as described in ICAO documents, in return for aeronautical services that satisfy the regulator's requirements and meet customer (e.g. airlines') needs and expectations. Accordingly the need for government funding is diminished and ultimately removed;
- **Efficiency:** The ANS provider operating on a commercial basis as a government owned corporation or private company can operate more efficiently in a business context than traditional government public service departments can. Efficiency increases benefit customer organisations contributing towards a more effective and safer air navigation environment;
- **Transparency:** Commercial operations that are audited internally and externally by the regulator and commercial accounting provide high degrees of transparency

ANSP performance can be grouped and measured in the four categories of:

- **Commercially successful:** profitable trading, funding capital programmes and appropriate pricing;
- **Helping customers succeed:** aligned priorities with customers in such noise, emissions and on time departure/arrivals;
- **Motivated and prepared workforce:** right people at the right time with the right skills;
- **Safe and reliable:** system integrity is extremely high and incidents are low and trending downwards.

Corporatised ANSPs have generally performed well on these metrics.

*“We find that ANSP commercialisation has generally achieved its objectives. Service quality has improved in most cases. Several ANSP’s have successfully modernized workplace technologies. The safety records of ANSP’s are not adversely affected by commercialisation, and in some cases safety is improved. Costs are generally reduced, sometimes significantly. Other risks of commercialisation – such as erosion of accountability to government, deterioration of labour relations, or worsened relationships between civil and military air traffic controllers – have not materialised.”*

*Messrs McDougall and Roberts, Suffolk University, 2009, Study of 10 ANSPs*

The United States Government Accountability Office also conducted a study on five commercialised ANSPs – Australia, Canada, Germany, New Zealand and the UK – and similarly found that each:

- Operates as a business and carries out its own strategic, operational and financial decisions;
- Generates and manages its own revenue to cover its costs (including raising commercial debt if required);
- Retains safety as the primary goal and is subject to external regulation – and in no cases have safety incidents increased, and in fact in 2 out of the 5 examples they have decreased;
- Invested in new technologies and equipment;
- Lowered costs through modernisation and efficiency – and some have reduced prices to airlines;
- Consults in a structured manner with their stakeholders.

## Next Steps for India

- Indian aviation is about embark upon its next phase of growth. In order to manage this safely and efficiently, significant investment will be required in ANS operations.
- The AAI has been a very capable provider, however the combination of the growing demands of the airport operations business and the need for continuous capital funding for ANS augmentation, means that it is appropriate to consider whether corporatisation may be the way forward from here.
- Critical challenge is to develop a world class ANS infrastructure with a rigorous focus on safety as the primary objective, whilst maintaining cost efficiency and environmental awareness. All against a backdrop of rapid growth.
- From the collective experience of corporatised ANSP's it is now becoming quite clear that corporatisation delivers results for the industry.
- Equally however, it is apparent the transformation is not necessarily an easy or rapid process. It requires commitment from the very highest levels of Government, tenacious focus by organisation leadership and often the assistance of external change agents.

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- CAPA Research
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- CAPA Analytics

**Thank You**  
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