

White paper on starting up a....  
- Schedule Air Transport Services  
- Non Schedule Air Transport Services

Presented by: Anisoft Aviation Technical Consultants  
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## Project Report Overview

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Not for Circulation without AnisoFT Aviation Technical Consultants (AATC) written consent.  
(Reference: Final Report: Study on Promotion of Regional and Remote Area Air Connectivity in India )

# Present Air Services

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**Air Transportation Services** are a major element for the growth of a economy and an evolving society.

A well planned, developed and extensive network of Air Connectivity allows link between different parts of the country; thereby creating corridors for the flow of passengers, goods , services, culture, information and social interactions.

Air Connectivity serves these objectives as well as creates additional advantages that it offers over surface transportation :

- Reduction of travel time,
- Enhanced comfort
- Savings in travel time creates more productivity

Presently, Air Services / Connectivity is largely concentrated on certain types of metro routes. This has implied that parts of the country are devoid of Air Services for Passenger / Cargo.

Providing Air Services to UNDER-SERVED and UN-SERVED regions by new Regional Airlines could add impetus to economic development / growth of such REGIONS and business opportunities to the new airlines operators,.

# Benefits of Air Services

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The economic benefits from Air Services / Connectivity can be seen to be a result of the following:

**Direct Effect :** The employment generated by airline and its airport operations, aircraft maintenance and activities that directly serve the passengers such as baggage handling and ground-handling services.

**Indirect Effect** – These benefits arise from the supply chain that is required by airline operation in a region. This includes presence and economic activity of air fuel suppliers, inter-modal transport services such as taxis and buses from airports etc.

**Induced Effect** – These benefits accrue from spending of people employed by airlines, through indirect and direct effect.

**Catalytic Effect** – The contribution of Air Services / Connectivity to economics of other industries, in terms of the ability to more efficiently channel factors of production (labor) and move / make available products (to the market / leisure or tourism services within the market), is characterized as catalytic or spin-off effect. It is this effect which creates significant additional value to the economy of a region over and above the investments required for establishing air connectivity to a town / city / region. The most prominent example of catalytic effect is the impact that is witnessed by the local hospitality industry due to higher inflow of tourists.

**The aggregate effect of these impacts generates the additional economic benefits from Air Services / Connectivity.**

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# Demand of Air Services

In the aviation industry, the Demand side factors are the ones which impact the decision of the consumers to opt for air transportation. While air services provide benefits of convenience and time effective travelling, it comes at a higher price as compared to the other competing modes of transportation, largely due to high capital intensive nature of airline operations. The balance of these two opposing factors determines the demand for air services.

In India's context, the demand for air transport services can be considered to originate from two blocks of consumers. The first one pertains to the high income individuals who assigns a premium to their time and thus have inelastic demand for air transportation even at higher prices. The other consumer block belongs to the middle and lower-middle income class group for whom optimal value of trade-off between time and price is more skewed towards price; i.e. they are willing to opt for air transportation but have elastic demand and high prices deter them from opting for such services

One of the key factors influencing the demand of air travel over 300-1000 km range (Regional) distances is the cost of air travel. In order to promote air connectivity over such routes, the competitiveness of the air transportation mode is needed to be enhanced vis-à-vis the other modes including road and rail by reviewing various elements impacting the cost of operations such that the air transportation can compete against the other modes.

## **Source of Demand**

There are mainly 2 types of travelers generating the demand for air travel in the country, people traveling for business purposes and people travelling to religious/ tourist places or for meeting family relatives and friends.

# Aircraft Deployment

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An important consideration for **selecting a particular aircraft for a route** is the cost of operating the aircraft. **Operating costs** can vary significantly from one aircraft type to another. The main factors which determine the cost of operating an aircraft includes fuel efficiency of an aircraft, the route network (aircraft utilization, average stage length), crew costs and maintenance costs. Maintenance costs are further impacted by the cost of labour as well as material cost .

**Three main elements which impact the productivity of an aircraft :**

**Fuel Efficiency :** Fuel costs constitute around 40-50% of an airline's total cost of operations per hour. Thus it becomes imperative for an airline to go for aircraft which offer better fuel efficiency. The fuel efficiency is in turn determined by various factors such as the cruising speed of the aircraft, the fuel burn of the aircraft etc.

**Aircraft Utilization:** Airlines incur high fixed capital costs in purchasing or leasing an aircraft. Higher aircraft utilization means that such fixed costs are spread over a larger base of per seat kilometer. Based on industry experience, an average 6 hour per day utilization is considered minimum for a 20-seater or a 40-seater aircraft. The desirable utilization for a 70-seater aircraft is considered to be at least 8 hours per day.

**Average Stage Length:** This is a factor of aircraft's range as well as the airline's flight schedule. The longer the average stage length of an airline, the lower would be the total operating cost per seat kilometer .

**Aircraft lease rentals may constitute around 15%, maintenance costs and airport charges around 20% and the cost of the crew may constitute another 10% of the cost of operations of an aircraft on a per hour basis.**

# Aircraft Deployment

## As an Example:

A breakup of various direct operating costs for a 250 nautical mile sector in Indian environment, based on the industry data s presented below:

These costs have been estimated assuming a 2700 Block Hour Utilization Per year, Fuel Price \$4.2/Gallon and Airport Fees as per Airport Authority of India charges.

Based on assumptions and information based on industry interactions, the cost of operations of a 20-seat aircraft, a 50-seat aircraft and a 70-seat aircraft are estimated to be as per the table below:

<b>Approximate Operating Cost of Aircraft Per Hour</b> <i>(Reference: Final Report: Study on Promotion of Regional and Remote Area Air Connectivity in India )</i>		
20 seat aircraft	50 seat aircraft	70 seat aircraft
INR 95,000	INR 155,000	INR 195,000

As can be observed from the above table, per seat cost of operations would be smaller for a larger aircraft for the same Passenger Load Factor.

# Aircraft Recommended

## SAMPLE FIGURES OPTION 1 - Regional Schedule Operation (RSOP)

AIRCRAFT TYPE	MANUFACTURER MODEL	PASSENGER SEATING CAPACITY	NUMBER of AIRCRAFT	MIN PAID UP CAPITAL FOR GETTING NO OBJECTION CRORES (INR)	LEASE COST PER AIRCRAFT PER MONTH USD
TURBOJET with A.U.W Less then 40,000 kg	BOMBARDIER CRJ 700 NG	70-78	0-05 aircraft	20 crore	675,000 <i>(Sample figure)</i>  <i>Get our Project Report with detailed data</i>
			Each additional a/c up to 05	10 crore each	
			10-Max	NIL	
TURBOJET with A.U.W Less then 40,000 kg	EMBARER ERJ 170	70-78	0-05 aircraft	20 crore	660,000 <i>(Sample figure)</i>  <i>Get our Project Report with detailed data</i>
			Each additional a/c up to 05	10 crore each	
			10-Max	20 crore	

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# Aircraft Recommended

## OPTION 2 - Non-Schedule Operation (NSOP)

AIRCRAFT TYPE	MODEL	SEATING CAPACITY	NUMBER of AIRCRAFT	MIN PAID UP CAPITAL FOR GETTING NO OBJECTION CRORES (INR)	LEASE COST PER AIRCRAFT PER MONTH USD
TURBOJET	BOMBARDIER CRJ 700 NG	70-78	0-02 aircraft	02 Crores	675,000 <i>(Sample figure)</i>  <i>Get our Project Report with detailed data</i>
			03-05 aircraft	05 Crores	
			06-10 aircraft	10 Crores	
			>10 aircraft	15 Crores	
TURBOPROP	EMBARER ERJ 170	70-78	0-02 aircraft	02 Crores	660,000 <i>(Sample figure)</i>  <i>Get our Project Report with detailed data</i>
			03-05 aircraft	05 Crores	
			06-10 aircraft	10 Crores	
			>10 aircraft	15 Crores	

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# Process & Time-lines

Basic Reference Time-line for Task Required for Grant of NOC and Air Operator Permit:

Task	In-house	External Agency	Days	Remarks
Company Registration	In-house	ROC		
Select Aircraft and proposed routes	In-house	Feasibility Study		
Apply for NOC with application/Annex/Fee	In-house	MOCA		
Grant of NOC from MOCA		MOCA		
Aircraft Lease Agreement & Configuration	In-house	Lessor		
Letter of Intent to DGCA after NOC Granted	In-house	DGCA		
Setting up Infra Structure/Manpower at base and operating stations to satisfy DGCA requirements	In-house	External Agencies		
Flying/Ground Crew Trainings and import of aircraft	In-house	External Agencies		
Final Inspections by DGCA, Proving Flights	In-house	DGCA		
Grant of Air Operator Permit (AOP)		DGCA		

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# Financials

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The Financial Implications , Proposed Route Model etc. customized for the project can be obtained by getting our Detailed Project Report.

Kindly contact us at [contact@ani-soft.com](mailto:contact@ani-soft.com) or call at +91 9717065522

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# Risk Factors

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The Company has to operate in the highly regulated aviation industry environment, which requires considerable expertise and experience for qualifying to carry out this kind of business and in which there is considerable time period involved for gaining profits. Human resources are another important factor for success in this industry, Therefore, the regulations and client requirements require experienced crew and expert maintenance services.

The ATF Prices in India continue to be higher than the global market rates, ATF accounts for almost 35-40% of the operating cost, moreover, the ATF prices also rise in tandem with the rise in crude oil prices. Thus, any ad-hoc increases in ATF prices or undue volatility in the same would adversely affect the profitability margins and the operational efficiency of the company.

The aviation industry is highly regulated and the business activities of the company require various approvals licenses, registrations and permissions. Each authority may impose its own requirements or delay or refuse to grant approval, even when the same permission/license has already been granted in another jurisdiction. The company's operations and/or profitability could be adversely affected if it fails to obtain, in a timely manner or at all, or comply with the conditions that may be attached to, such approvals, licenses, registrations and permissions.

The Company has to pay most of its aircraft lease rentals in foreign currency and also imports a significant portion of the spares, special tools and equipment, used in its business and as a result it is subjected to foreign currency fluctuations. Therefore, such fluctuations may have an adverse effect on the results of operations of the company.

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# Our Professional Services Charges

We can Prepare and customize detailed Project Report for you, based on the options selected. Additionally, we can assist you in the selection/sourcing of aircraft, assist in completing documents and their submission, provide you with professional advisory services during the project., thus economizing and ensuring project completion within the targeted timelines.

Our Professional Service Charges for these options are detailed below as a ready reference:

Services	Cost	Timeline	Remarks
Project Report - Scheduled Operator Permit.	** (INR) enquire		85% Advance deposit paid on start. Balance on submission of project.
Project Report - Regional Schedule Operator Permit.	** (INR) enquire		85% Advance deposit paid on start. Balance on submission of project.
Project Report - Non Schedule Operator Permit.	** (INR) enquire		85% Advance deposit paid on start. Balance on submission of project.
Assistance in preparation and submitting application to MOCA.	** (INR) enquire		All Govt. Fee's + incidental / transport charges borne by you.
Professional / Advisory / Management Services for the project, from ground-up to start of operations.	** (INR) enquire		Paid on 1 <sup>st</sup> of Every Month.

*\*\*The above charges are exclusive of the Govt. levies e.g Service Tax / Professional Tax etc.*

For further details and customized costing, you may contact us at [contact@ani-soft.com](mailto:contact@ani-soft.com) or call at +91-9717065522.

# End of Presentation

# Thank You



For Detailed Project and Feasibility Report for this Project you can contact us at

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