TOGETHER WE GROW..... In the limitless sky

Gp Capt Md Abdus Salam (BAF)⁽¹⁾, Gp Capt NC Chattopadhyay (IAF)⁽²⁾

- 1. Senior Instructor & Head of Department, Department of Aeronautical Engineering, Military Institute of Science and Technology, timamtaranni@yahoo.com
- 2. Senior Instructor, Indian Air force, On deputation to Department of Aeronautical Engineering, Military Institute of Science and Technology, ncchatto@rediffmail.com

ABSTRACT

From the beginning of twentieth century, aviation has witnessed sea changes due to advent of technology, change in military doctrine, socio-economic changes and change in perspective of human needs. Military and commercial aviation have taken new dimensions commensurate to the changes. This is an ever growing field and advanced countries have reaped the benefits of the same. It is time for the developing nations to harness the growing field for a sustained progress on socio – economic development. The present paper is focused towards this direction.

KEY WORDS: Concurrent needs, booming Industry, unlimited scope, synergy, lateral dialogue, national slogan.

1.0 INTRODUCTION

Desire to attach a wing had been an unsuccessful dream till nineteenth century. It was the twentieth century which brought in reality with practical flying machines. Thanks to Wright brothers whose relentless research on the ancient efforts and indomitable spirit enabled the world to witness the new dimension,' use of space'. Many efforts had gone by in the last century to evolve different kinds of flying machines; however, its progress in the last decade had been significantly discernable. Maturity of this field has exhibited tremendous growth of a new industrial dimension, the limitless boundaries of aviation industry. Developed countries have harnessed the potential of this industry while developing and under developed countries are yet to exploit its unfathomable growth potential.

It is in this context present article focuses on the scope of exploitation under the slogan, "TOGETHER WE GROW.....In the limitless sky"

2.0 AVIATION IN THE LAST CENTURY

Since practical evolution of Wright brothers' aero plane, many engineers in many countries experimented with numerous designs. Besides fantasy, these machines have been used towards practical utilization viz. transportation and cargo. Parallelly came the evolution of air power doctrine which recommended multiple uses of aircraft in military operations. Two concurrent needs (civil & military) gave impetus to the growth of this industry.

Military needs in WW-II boosted the industry remarkably and this tradition is being maintained continually to exploit the dominance of air power in military operations (Gulf war being the live example in the military history). While the need for expansion to suit military requirement was well conceived, civil aviation did not lag behind. Civil aviation too, grew parallelly to design new machines with more space to accentuate earning per seat or earning per kg of cargo. The developed nations viz. USA and Europe as expected, took the lead to reap the benefit of the growth potential of a dimensionless booming industry.

3.0 AVIATION IN THE LAST DECADE

Based on the past experience, military doctrine and future scope of space wars, aerospace industry has been growing remarkably with new type of machines with new capabilities. Parallelly the civil sector has been gainfully harnessing the growth potential of a mature industry, for easy, cheap, long distance and large freight conveyance. It has not only been found time and cost effective to the passengers/ exporters, but also has boosted the tourism sector. It is a well-known fact that each hour of flight consumes certain man hours and a definite amount of maintenance effort at different level of maintenance. These are obtained from specific organizations who have acquired certain level of skill set. Besides skilled manpower, the industry needs a definite quantum of unskilled manpower to support the services. These are direct sources of employment, while there are indirect source of employment to support the organizations (passive employment).

The core industry and the subsidiaries to support the manufacturing / maintenance organizations in advanced countries have generated employment opportunities, created new skills besides social transformation with improved quality of life. Although, the benefits accrued could be visible in US and European countries, the Asian countries do not lag behind. All out efforts are now being made by the developing nations to follow suit the giant leaders. Govt policies are being made to support such exploitation in the overall interest of the country, it's socio-economic growth and scope of enhanced employment

4.0 SCOPE

Having understood the growth potential and employment opportunities, it is high time for any developing nation (before it's too late) to exploit the opportunity in congruence with economic growth. The industry has unlimited scope but needs a chanelised impulse. The following areas merit consideration:

- (a) Rejuvenating existing aviation infrastructure of the country (Airfields, Industries etc)
- (b) Creation of new infrastructure through harmony of public- private entrepreneurship.
- (c) Advanced training in aviation operation and maintenance to support modern generation technology. (Training at national cost or through MOU)
- (d) Developing skills through advanced training and consolidate practical skill set at the premises of advanced technology supplier (New skill domain)
- (e) Entering into Maintenance, Repair and Overhaul contract (MRO) for country's civil and military aviation.
- (f) Encourage younger generation to enter into the field of aviation through formalized regular recruitment towards subsequent training/ education at national level (Catch them young).
- (g) Create new job opportunities for the young aspirants (Immediate absorption).
- (h) Aggressive publicity at international level on country's natural beauty and tourism potential to attract international tourists.

- (j) Creation of tourism friendly facilities to encourage international tourists (k) Strengthening the safety and security network for hassle free entry/ exit (of course without compromising national security) for the foreign nationals (tourists and aviation professionals)
- (I) A positive mind set towards a proactive development.

5.0 ISSUES

Without crunching the numbers like an economist or a business manager, it is well known fact (ample data and statistics are available though open sources) that economic scope in this field is in congruence with tremendous growth potential of the industry. But the issues are Who, What, When and How to "Bell the cat"? The following issues are relevant to ponder over:

- (a) Can a developing nation create/rejuvenate infrastructure to support a high cost industry?
- (b) Can the aspiring citizens be trained or skilled outside the country if such facilities are not available in-house?
- (c) Can a nation develop it's safety and security network more user friendly (without interfering national security) and a congenial entry / exit conditions?
- (d) Can a nation invite big players (private entrepreneurs home & abroad) to step forward and support in creating/ setting up of aviation infrastructure?
- (e) Can the govt policies support entry of private players?
- (f) Can a nation recognise this emerging field with a focused approach and lead from the front?
- (g) Can a nation recognize the growth potential of this field and consider it's employability for revenue generation in the long run if not immediately?
- (h) Can there be a civil- military- govt synergy for a concerted effort with a positive outlook?

6.0 FEW SUGGESTIONS

Understanding **the will of the nation**, it needs no emphasis, that the answers to all the questions of young admirer (a new entrant in the aviation field) as raised in the previous paragraph is a "big yes", but , the question remains as to "How"? Here are few suggestions:

- (a) Take a hard decision today to grow in this field and maintain it (selection and maintenance of aim).
- (b) Initiate internal (in-house) dialogue with big players to enter into maintenance, MRO, manufacture and supply of aviation related products/ services (if govt does not consider taking the task centrally).
- (c) A need for a relaxed and a congenial policy to encourage the entrepreneurs to enter into this unexplored arena (Govt support and encouragement are inescapable).
- (d) Creation of skilled and trained manpower for which govt/ Private players may recruit potential workforce and hone their skill set (of course with a bond of obligation to serve for a minimum definite period).

- (e) Support and create facilities for aviation training (Operation, maintenance and other services inclusive of logistics).
- (f) Lateral dialogue (Intra- Govt) to bridge the gaps between the Departments/ Ministries, so that, training, education, employment (direct or indirect) and skill development in this field takes a forward leap.
- (g) Lateral dialogue (Inter- Govt) to seek help/ support for education, practical training or infrastructure builds up.
- (h) Exhaustive steps by all players in this field to encourage growth of Human Resource Development (HRD) for overall national benefit through extensive use of HRD principles in job enrichment, job enlargement, job rotation and zero stagnation (to create multi skilled aviation professionals with wider job perspective and a deeper skill base).
- (j) A methodical initiation of maintenance contract and gradual expansion into the high skill spectrum viz. inspection, evaluations, testing and manufacturing to cater for both civil and military needs (Confidence in smaller steps leads to adventure into larger steps without complacency)

7.0 CONCLUSION

Aviation industry is no more nascent. It has grown over the years and proved it's potential. Developed countries including the neighbours have excelled in this field. Taking cues from these examples it is time for leaping a best foot forward for an overall development in this field. The first principle is **to initiate an executable positive step towards this direction**, so that the youth who would build the nation stronger and make it competitive tomorrow, are encouraged to understand the growth potential and confidently enter into this arena. A robust national policy towards this is inescapable. Congenial environment to encourage tourism sector is yet another boon to the economic growth of the country that can be harnessed from the future expansion of aviation industry. Intra govt and inter govt discussions for setting up infra structure, advanced training, education and skill development / consolidation will strengthen the base of expansion. A small step today, will appear as a huge leap forward tomorrow making a self reliant aviation industry. Hence, a young admirer of aviation and an aspiring student of aerospace science would make a humble appeal that," Itis the time to preach for a robust step with a national slogan...Together we grow,...... In the limitless sky".

8.0 REFERENCES

- [1] Open internet sources on growth of Aviation
- [2] Daily news papers on economy and aviation outlook
- [3] Aviation week (weekly aviation magazine)
- [4] www.wikipedia.org
- [5] <u>www.bdmilitary.com</u>
- [6] http://www.aviationweek.com/ shownews/02asia1/mro07.htm
- [7] http://www.asianaerospace.com/ en/The_Congress/congress_programme_and_booking.html
- [8] http://www.aviationnow.com.cn/ WEBVIEWS/qikan/AM&E-english.pdf