

Air traffic controller, the important for the airline

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Abstract

When the Wright Brothers first invented the revolutionary Aircraft or Flying Machine as they affectionately called it, nobody would have imagined that it would grow into such a big phenomenon. Today almost over 2 million people use a plane ride daily. This has resulted in a large number of airports and with the air traffic only poised to grow further, the level of management of air traffic is going to be a big mayhem and as such there is need for skilled personal for timely management of Air Traffic Control. Air traffic controllers coordinate the movement of aircraft to maintain safe distances between them. Also Air traffic controllers' primary concern is safety, but they also must direct aircraft efficiently to minimize delays. They manage the flow of aircraft into and out of the airport airspace, guide pilots during take-off and landing, and monitor aircraft as they travel through the skies. Air traffic controllers use radar, computers, or visual references to monitor and direct the movement of the aircraft in the skies and ground traffic at airports.

Keywords: Aerothai, Aircraft, Air traffic control

Introduction

When the general public thinks about an airport, the long, iconic runway and massive air control tower come to mind. However, not everyone understands just how important the giant air control tower is. Inside is a crew of air control technicians that have trained for years to increase safety in the skies for airplanes and citizens around the airport. These are duties of Air Traffic Controllers.

Air traffic controllers typically do the following:

- Monitor and direct the movement of aircraft on the ground and in the air
- Control all ground traffic at airport runways and taxiways
- Issue landing and takeoff instructions to pilots
- Transfer control of departing flights to other traffic control centers and accept control of arriving flights
- Inform pilots about weather, runway closures, and other critical information
- Alert airport response staff in the event of an aircraft emergency

Research Methodology

To study the important of Air traffic control

What is an Air traffic controller?

Air traffic control (ATC) is a service provided by ground-based air traffic controllers who direct aircraft on the ground and through controlled airspace, and can provide advisory services to aircraft in non-controlled airspace. The primary purpose of ATC worldwide is to prevent collisions, organize and expedite the flow of air traffic, and provide information and other support for pilots. In some countries, ATC plays a security or defensive role, or is operated by the military.

Important of Air traffic control

ATC, short for air traffic control, is a ground-based service provided in the traditionally tall air control towers. Individuals, known as controllers, who work in these towers are vital for safely directing and navigating airplanes through the local airspace, to land and during take-off.

In the ATC profession, controllers must have the capacity to make split-second decisions that will affect hundreds of lives. Air traffic controllers have one of the most mentally demanding jobs in the world in order to prevent aerial crashes. This is accomplished by unparalleled levels of communication, quick mathematical calculations, special awareness and the ability to keep the flow of air traffic moving smoothly.

Company that provide Air traffic control in Thailand

In Thailand Aerothai company provides Air Traffic Control Services in accordance with international standards and regulations as well as providing Flight Information Services and Alerting Services to ensure safe, convenient and expeditious air travel. The role also includes coordinating search and rescue operations.

The services are divided into the following three sectors:

- Aerodrome Control Service
- Approach Control Service
- Area Control Service

Aerothai provides Air Traffic Services to both civilian and military flights using Radar System and Automatic Dependent Surveillance System, or ADS. Both systems can provide aircraft information such as call sign, position, heading and altitude as well as other information necessary for effective Air Traffic Control Operations.

To know how to become an ATC

There are several different paths to becoming an air traffic controller. A candidate must have either 3 years of progressively responsible work experience, a bachelor's degree, a combination of postsecondary education and work experience totalling three years, or obtain a degree through an Federal Aviation Administration (FAA)-approved Air Traffic Collegiate Training Initiative (AT-CTI) program.

Additionally in Thai for being and ATC you must have a test in AEROTHAI Company, which provide ATC in Thailand, to become an ATC in AEROTHAI Company you must:

- Pass TOEIC score 650+
- Pass physic, mathematics and English test
- Pass typing test
- Pass ICAO English Proficiency test
- Pass the aviation medicine (health, speed test and etc.)

Controllers also must pass a physical exam each year and a job performance exam twice per year. In addition, they must pass periodic drug screenings.

To know the risk of ATC career

Air traffic control is a highly demanding job which requires *high levels of responsibility with inherent stress* due to its nature and the complexity of tasks involved.

Air traffic control in its nature entails a complex set of tasks demanding levels of knowledge and expertise, as well as the practical application of specific skills pertaining to:

- the cognitive domain (e.g. spatial perception, information processing, movement detection, image and pattern recognition, prioritising, logic reasoning and decision making),
- communicative aspects (verbal filtering including phraseology and language clarity), and
- human relations (teamwork and communication strategies).

The air traffic controller must constantly reorganise and adapt his or her system of processing information (often done under time deficit) by changing operating methods (in particular, cognitive processes, conversation, coordinating with other controllers, assistants, anticipation and solving problems) as they arise and interact with each other. This is carried out by means of the precise and effective application of rules and procedures that need to be quickly selected and applied according to differing circumstances.

The mental stress of being responsible for the safety of aircraft and their passengers can be tiring. As a result, controllers retire earlier than most workers. Those with 20 years of experience are eligible to retire at age 50, while those with 25 years of service may retire earlier than that. Controllers are required to retire at age 56.

Conclusion

Air traffic control is a ground-based service provided in the traditionally tall air control towers for safely directing and navigating airplanes through the local airspace, to land and during take-off. To command the skies with confidence, Air traffic controllers or air traffic control officers must have an extensive amount of education and experience. The job is come up with huge responsibilities because it always related to handling the lives of millions of passengers that involves a huge risk factor, which make Controllers retire earlier than most workers. Those with 20 years of experience are eligible to retire at age 50, while those with 25 years of service may retire earlier than that. Controllers are required to retire at age 56.

Discussion and Recommendation

Today there is lack of personal needed for this job especially in India. Many people do not take up the job of an Air Traffic Controller because it involves a huge risk factor. The job is always related to handling the lives of millions of passengers. There is no scope for any sort of errors or miscalculations. They must be accurate to the point. There is no second chance and every mistake will adversely affect your career and that too in a severe and profound manner.

There are other problems that haunt those who take up a career in Air Traffic Control such as health problems pertaining to ulcers which are a result of frequent gulping of Coffee and Tea in order to stay vigilant and focused. This is one job where you cannot take an occasional nap while in duty. Besides the frequent look ups of bright displays and small texts embedded in route maps and radar readings results in a lot of strain imposed on your eyes.

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