











**Check Your Progress A**

1. Describe the origin of AAI.

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2. How many airports does AAI manage?

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3. Discuss on the following initiatives of AAI? a) ATMS b) GBAS

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**4.5 PRIMARY SERVICES OF AIRPORT AUTHORITY OF INDIA**

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Some of the most the major functions of AAI include:

**1. Passenger Facilities**

The AAI has the primary function of construction, modification & management of passenger terminals, development & management of cargo terminals, development & maintenance of apron infrastructure including runways, parallel taxiways, apron, etc. Provision of Communication, Navigation, and Surveillance includes DVOR / DME, ILS, ATC radars, visual aids, etc. Provision of air traffic services, passenger facilities, and related amenities at its terminals and ensuring safe and secure operations of aircraft, passenger, and cargo in the country are AAI's responsibilities.

**2. Air Navigation Services**

With the plan of modernization of Air Navigation infrastructure, AAI has been working for the transition to satellite-based Communication, Navigation, Surveillance, and Air Traffic Management.

Several co-operation agreements and memoranda of co-operation have been signed with US Federal Aviation Administration, US Trade & Development Agency, European Union, Air Services Australia and the French Government Co-operative Projects and Studies to gain from their experience

AAI, through such various collaborations, is being exposed to the latest technology, modern practices & procedures being adopted to improve the overall performance of Airports and Air Navigation Services.

Adoptions of the new and improved procedure and induction of new equipment ensure the security of Indian airspace.

Introduction of Reduced Vertical Separation Minima (RVSM) to increase airspace capacity, reduce congestion in the air and; implementation of GPS And Geo Augmented Navigation (GAGAN) jointly with ISRO are such recent security-based developments.

### **3. Security**

A number of steps were taken, including the deployment of CISF for airport security, CCTV surveillance system at sensitive airports, latest and state-of-the-art X-ray baggage inspection systems, premier security & surveillance systems for ensuring the security of Indian airspace. Smart Cards for access control to vital installations at airports are also being considered to supplement security personnel's efforts at sensitive airports.

### **4. Aerodrome Facilities**

In AAI, the basic approach to planning airport facilities has been adopted to create capacity ahead of demand in our efforts. Towards the implementation of this strategy, many projects for extension and strengthening of the runway, taxi track, and aprons at different airports have been taken up. Extension of runway to 7500 ft. has been taken up to support Airbus-320/Boeing 737-800 category of aircraft at all airports.

### **5. Airport Rescue and Fire Fighting (ARFF)**

ARFF services are provided by AAI at 67 airports as per guideline provided by International Civil Aviation Organization (ICAO) & Directorate General of Civil Aviation (DGCA). Airport Rescue & Fire Services have also become binding on safety of occupants and avoidance of fire risks to equipment, terminal / technical building and vital installations at 125 airports. Activities of rescue & fire services at airports are:

- ✓ Level of Protection provided at airports for Airport Rescue and Fire Fighting (ARFF) purposes according to the designated category of the airport as per the ICAO standard.
- ✓ Compliance of ICAO, DGCA & AAI Fire Orders.
- ✓ Fire prevention and protection of ATC Tower, Terminal Building, Technical Building, Cargo and other Airport infrastructures.
- ✓ Fire Orders/ Circulars are issued & updated for various activities and services which are related to fire safety and emergency services.
- ✓ The Airport Fire Service conducts various emergency exercises Full Scale Emergency Exercise, Partial Exercise, Building evacuation Drill, Mock Drill etc.
- ✓ Fire investigation and analysis
- ✓ Mutual aid firefighting with other fire safety assistance services like City Fire Brigade & industrial Fire Services.
- ✓ First Aid Firefighting Training to all stakeholders at airports.
- ✓ Ambulance services provides to the aircraft passengers
- ✓ AAI Rescue & Fire Services Introduced Fire Consultancy Services for other organization.

## 6. HRD Training

Airports Authority of India, Development and Technological enhancements and consequent refinement of operating standards and procedures, new means of safety and security, and improvements in management techniques call for continuing training to update officers and staff's knowledge and skill. For this purpose, AAI has several training establishments, viz.

- ✓ National Institute of Aviation Training and Management (NIAMAR), Delhi
- ✓ Civil Aviation Training College (CATC), Allahabad
- ✓ Fire Training Centres (FTC), Delhi & Kolkata
- ✓ Air Traffic Controllers, Rescue & Fire Fighting personnel
- ✓ Hyderabad Training Centre at Hyderabad (HTC)

NIAMAR & CATC are ICAO TRAINER program members under which they share Standard Training Packages (STP) from a central pool for imparting training on various subjects. Both CATC & NIAMAR have also contributed some STPs to the Central collection under ICAO TRAINER program. International students have also been participating in the training program being conducted by these institutions

## 7. IT Implementation

Information Technology holds the key to operational and managerial efficiency, transparency and employee productivity. AAI initiated a program to indoctrinate IT culture among its employees, and this is the most powerful tool to enhance efficiency in the organization. AAI website with domain name [www.airportsindia.org.in](http://www.airportsindia.org.in) or [www.aai.aero](http://www.aai.aero) is a popular website giving a host of information about the organization besides domestic and international flight information of interest to the public in general and passengers in particular.

Hence, in brief, the functions of the Airport Authority of India include,

- Design, Development, Operation and Maintenance of international and domestic airports and civil enclaves.
- Control and management of the Indian airspace extending beyond the country's territorial limits, as accepted by ICAO.
- Construction, Modification and Management of passenger terminals.
- Development and Management of cargo terminals at international and domestic airports.
- Provision of passenger facilities and information systems at the passenger terminals at airports.
- Expansion and strengthening of operation area, viz. Runways, Aprons, Taxiway etc.
- Provision of visual aids.
- Provision of Communication and Navigation aids, viz. ILS, DVOR, DME, Radar etc.
- Ensuring safe and secure operations of aircraft, passengers, and cargo in the country



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## 4.6 OTHER SERVICES OF AIRPORT AUTHORITY OF INDIA

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AAI is also related to functions and operations that are not taking place within the physical infrastructure of the Airport. Some of these related functions and activities of AAI are mentioned below:

### 4.6.1 Consultancy Services of AAI: Airport Authority of India offers various consultancy services like,

- i. Airport Feasibility Studies (Site selection/Technical Feasibility, Topography Surveys, cartography and Soil & pavement Investigation Facilities, Airport Obstruction Clearance Surveys, Air Traffic Forecasts & Normative Surveys)
- ii. Airport Development Services (Concept to commissioning service for new green field airports)
- iii. Preparation of TOR, Preparation of DPRS, Mandatory ministry clearances, RFP for module implementation/Scrutiny /Award)
- iv. Airport Commercial Viability Studies/Airport Audit Services
- v. Airport Master Planning.
- vi. Designing, Evaluation & Construction of Air Passenger Terminals/Air Cargo Terminals and Airport Pavements, Design of Aircraft Hangars and Supporting Infrastructure, Airport Electrical Installations/Approach and Night Landing Facilities, Remodeling, Modernisation of Airports.
- vii. Planning, Installation, Operation & Maintenance of Radars, Nav Aids, Visual & Non-Visual Landing Aids, and Com. Facilities
- viii. Air Space & Air Traffic Management, Air Route Re-Structuring
- ix. Development of SIDS, STARS, IAL Procedures, Obstruction Charts.
- x. Computerisation (Cargo Handling.Integrated Passenger Information System.Automatic Self Briefing System, Airport Terminal Information System, Air Traffic Management and Airlines Billing,
- xi. Automatic Message Switching System)
- xii. Training (Air Traffic Controllers, Airport Air Side Management (Ground Flight Safety), Radar & Nav. Aids & Communication Equipment, Engineers, Airport Terminal Management, Airport Fire Services)
- xiii. Flight Calibration of Airport Ground Facilities (Commissioning & routine flight check of RADAR System, VOR, DME, NDB, ILS, VASI, PAPI etc.)

### 4.6.2 AAI Startup Initiatives

The startup initiative offers India's Airports Authority (AAI) the opportunity to leverage its startup ecosystem to drive innovation in its functions, leading to more efficient airports and a better passenger experience. Launched on the 16th of January 2016, the program provides an excellent opportunity to work with India's Airports Authority towards

customizing and developing relevant airport innovations at airports across the country. Selected startups are provided with funding and mentorship by the Airports Authority of India. Startups are judged based on the following criteria:

- Relevance in terms of AAI's core mandate
- Potential incremental value add/ savings
- Innovativeness of idea
- Team capability in terms of ability to deliver
- The willingness of the team to dedicate resources for the POC
- The criticality of the problem that the startup is trying to serve

Major Focus Sectors for AAI Startup Initiative - Innovate for Airports program is on,

- Logistics
- Airport Operations
- IT & Data Analytics
- Renewable Energy
- Security Solutions
- Robotics
- Air Navigation System
- Passenger Delight

#### **4.6.3 Fire Training Centers**

i. Fire Service Training Centre, Kolkata

Fire Service Training Centre, Kolkata also known by its acronym as FSTC, established in the year 1954, at Kolkata by the Ministry of Civil Aviation, Govt. of India to meet the requirement of trained fire safety personnel for fire & rescue services in the aviation sector. FSTC is a premier training centre in the field of aviation fire and rescue service which works towards developing the professional skills and upgrading the knowledge of rescue and fire fighters. Also, conduct Basic Training Course for private candidates and advance course in fire and rescue for Officer and staff of ports & shipping industries.

ii. Fire Training Centre, New Delhi

In the year 1976, International Airports Authority of India, Government of India Undertaking established Fire Training Centre to meet the training requirement of fire safety personal for International Airports namely Delhi, Mumbai, Kolkata, Chennai & Trivandrum.

Both training centers are enlisted in training directory of International Civil Aviation Organization (ICAO) and advisory circular of Federal Aviation Administration (FAA). Training Centre at New Delhi is an ICAO TRAINAIR PLUS CERTIFIED centre and Training Centre at Kolkata is in line for certification.

**Check Your Progress - 2**

1. What are the functions of AAI?

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2. List out the consultancy services of AAI?

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3. Discuss the significant sources of revenue for AAI

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**4.7 LET US SUM UP**

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Airports are the organized area of land where aviation operations are planned, controlled, and managed. Airport Authority of India, a statutory body, working under the DGCA, Ministry of Civil Aviation, Government of India is a responsible body that works with the vision of maintaining the highest standard of excellence in providing sustainable, modern, and robust airport infrastructure and thereby safe and profitable operations of major airports of India. Through continuous efforts, AAI ensures airport security, maintenance of the quality, and profitable operations of Indian airports.

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**4.8 FURTHER READINGS**

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- Edissa Uwayo(2016) Airline and Airport Operations, Chennai: Notion Press
- Official website of Airport Authority of India <https://www.aai.aero>
- Airport Authority of India Annual reports

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**4.9 CLUES TO CHECK YOUR PROGRESS**

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**Check Your Progress - 1**

1. See section 4.1 and frame your answer
2. See section 4.2 and frame your answer
3. See section 4.2 and frame your answer

**Check Your Progress - 2**

1. See section 4.3 and frame your answer
2. See section 4.4 and frame your answer
3. See section 4.6 and frame your answer

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#### 4.10 ACTIVITIES

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1. Collect the details of airports managed by Airport Authority of India
2. Analyze the ongoing construction and consultancy projects of Airport Authority of India
3. Know the board members and key managerial personnel of AAI.
4. Enlist AAI's persistent efforts to improve the services and passenger facilities at any 4 airports



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