



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

DIRECTORATE OF AIR TRAFFIC MANAGEMENT
RAJIV GANDHI BHAWAN, NEW DELHI-110003

[File No. AAI/ATM/OPS/30-280/2026]

Doc. Id: ED/ASM/ATS/311602/ATMC/PROC

ATMC

AIR TRAFFIC MANAGEMENT CIRCULAR NO. 02 of 2026

POLICY FOR PROGRESSIVE ESTABLISHMENT OF ATS UNITS

1. Introduction

- 1.1. The past two decades have witnessed an exponential growth in passenger traffic in the Indian air transport sector. Factors such as rising disposable incomes, increased urbanization, and a growing middle class have fuelled the demand for air travel.
- 1.2. One of the primary challenges for the AAI is to cope with the rapid growth of air traffic in India. With the steady rise in domestic and international flights, airports are experiencing congestion, leading to delays and compromised efficiency. The AAI must continuously enhance infrastructure and airspace capacity to accommodate the increasing demand on Air Traffic Services, as also for efficient management of Air Traffic.
- 1.3. With the surge in air transport operations, the existing ATC infrastructure faces challenges in managing the increased demand. Upgradation and augmentation of ATC units help increase airspace capacity and optimize route management. This allows for improved traffic flow management, reduced congestion, and enhanced flexibility in accommodating diverse air transport operations, including commercial flights, general aviation, and cargo operations. This entails constant review and planned upgradation of various ANS infrastructure at all the ATC centres by AAI.
- 1.4. Besides technological upgradation of ANS infrastructure, establishment/addition of Air Traffic Control Services units at an ATC centre is the primary means to ensure safe and efficient services commensurate with international standards while meeting the capacity demand, at the same time. It is also emphasized that any upgradation of ANS facilities should be planned proactively, in anticipation of proposed growth in Air Traffic rather than a means of coping with it.
- 1.5. This document aims to bridge that gap by quantifying the need of establishment of various ATSUs in a dynamic framework while keeping in mind the growth of Aviation Sector in India.

Handwritten signature

2. Purpose

Given the expected growth in the air transport sector, airport operators aim to increase the number of hourly movements within the limits of safety, admitted delays, and workload of air traffic controllers. The progressive establishment of ATC units is a vital process in the development and modernization of air traffic management infrastructure. By systematically expanding and upgrading ATC capabilities, AAI can ensure safe, efficient, and sustainable air travel, meeting the demands of a growing aviation industry.

This ATMC is formulated primarily to provide guidelines to ATS Personnel on policy for Progressive establishment of ATS units.

3. Scope

This ATMC is applicable to ANS personnel providing facilities/equipment/services in provision of Air Traffic Services.

4. General

Air Traffic operations involve multiple phases, such as en-route flight, approach, landing, take-off and ground movement, each requiring specialized monitoring and control. Additionally, advancement in technology and air navigation systems requires specialized units to manage aircraft operations efficiently. The ATS units are designed for ensuring safety, reducing delays and enhancing the overall airspace capacity.

4.1 ATS Units (ATSUs)

Air traffic services i.e., flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service) are provided by specially designated air traffic service units (ATSUs). Further, an ATSU may provide more than one type of service. For example, an air traffic control unit may provide flight information and alerting service in addition to air traffic control service.

The **need** of service to be provided depends on several factors, such as:

- traffic types (commercial air transport, general aviation, etc.);
- traffic density (i.e., how busy the airspace is);
- available equipment (e.g., communication, navigation and surveillance facilities);
- meteorological conditions (e.g., hazardous phenomena typical for the particular area);
- geography considerations (e.g., presence of deserts, mountains, open waters, etc.) and others.

After analysis of the factors above, Classification of Airspace is made and appropriate ATSUs are established.

The **level** of service to be provided depends on the airspace class and the ATS unit. An ATC unit may provide ATC service, FIS and alerting service, although FIS would normally be of lower priority. An FIS unit however will not provide ATC service. Also, if the area of responsibility of an ATC unit contains uncontrolled airspace (class G), only FIS and alerting service will be provided in this portion of airspace even though the provider is an ATC unit.

4.2 Types of ATS units

The basic Air Traffic Control Units at an airport/ATC Centres are listed as below:

- **ATS Reporting Office (ARO)** - Air traffic services reporting office is a unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.

Note. — An air traffic services reporting office may be established as a separate unit or combined with an existing unit, such as another air traffic services unit, or a unit of the aeronautical information service.

- **Aerodrome Control Tower (TWR)** – Aerodrome Control Tower is a unit established to provide air traffic control service to aerodrome traffic. Aerodrome Traffic is all traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.
- **Surface Movement Control (SMC)** – Surface movement control is a unit often bifurcated from ADC which provides routing, guidance and surveillance for the control of aircraft and vehicles on manoeuvring area maintaining required level of safety.
- **Clearance Delivery (CLD)** - Clearance delivery is the unit that issues route clearances to aircraft, typically before they commence taxiing. These clearances contain details of the route that the aircraft is expected to fly after departure. This unit is often bifurcated from SMC unit to reduce the workload at busier airports.
- **Approach Control Unit (APP)** – Approach Control Unit is a unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes.
- **Aerodrome Control (ADC)** - When functions of other units like SMC, CLD and APP are combined with the TWR, a generic term Aerodrome Control (ADC) is used for the combined unit.
- **Area Control Centre (ACC)** - Area Control Centre is a unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.
- **Oceanic Control Centre (OCC)** - Oceanic Control Centre is a unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction. It is different from ACC in the aspect that since substantial volumes of oceanic airspace lie beyond the range of ground-based radars, oceanic airspace controllers must estimate the position of an airplane from pilot reports and procedural control, rather than observing the position directly.

4.3 General principles for establishment of ATS Units

- Establishment of ARO is done on requirement basis as per the ARO rationalization plan.
- At a new airport, the establishment of ATC units is planned based on the projected air traffic movement as well as the type of ATC services to be provided.
- Initially when the airport is handling light density traffic, only the aerodrome control unit (ADC) is established with the functions of Surface Movement Control (SMC) and Clearance Delivery (CLD) combined with ADC.
- Establishing a control zone becomes necessary with increase in traffic density in order to protect the flight paths of departing and arriving flights. If the airport has a control zone then an associated Approach Control unit (APP) is also established. For Light and Medium density airports, the functions of APP too, is normally combined with ADC.
- An Area Control Centre is established to provide en-route services at operational airports which are connected by multiple ATS routes and complexities of air traffic so demand, to enhance the Safety and operational efficiency to support Approach control operations.

3/2/2024

- Oceanic Control Centres are established at Mumbai, Chennai and Kolkata ATC centres for providing en-route services in oceanic airspace within their defined jurisdiction.
- Further bifurcation/splitting of above-mentioned ATC units as well as addition of surveillance units is done progressively with the increasing air traffic movement and addition of new Runways /Taxiways while considering the complexity of aerodrome layout or airspace, as applicable.

5. Establishment of New ATC unit at the time of initial operationalization of an airport:

At a new airport, the establishment of ATC units shall be planned based on the projected air traffic movement as well as the type of ATC services to be provided. When the airport is expected to handle light density traffic, only the Aerodrome Control unit (ADC) shall be established with the functions of Aerodrome Control Tower (TWR), Surface Movement Control (SMC) and Clearance Delivery (CLD) combined. In case, the airport to be operationalized has control zone assigned to it and is expected to cater to IFR/Special VFR traffic, then Approach Control (APP) unit may be established there which may either be combined with the Aerodrome Control (ADC) or be an independent Procedural or Surveillance unit depending upon the traffic metrics as defined in the subsequent paras.

6. Progressive Establishment of ATC units

ATC is about guiding aircrafts on ground or in air by giving them appropriate clearances/instructions to keep them safe while moving/flying and at the same time ensuring an efficient and orderly flow of aircraft movements/air traffic. Air Traffic Controllers have an incredibly large responsibility while on duty and make countless real-time decisions on a daily basis. The ATC profession is consistently regarded around the world as one of the most mentally challenging jobs, and can be notoriously stressful depending on many variables *viz.* equipment, airspace configuration, weather, traffic volume, traffic type, special activities, governmental actions, human factors, etc. So, the capacity of an individual controller to safely handle a number of aircraft simultaneously with the required level of alacrity and efficiency has a limit. A controller must remain alert and effective throughout that part of their assigned shift which involves operational duty and ready to cope with unexpected or unforeseen situations such as the consequences of aircraft emergency declarations or extreme weather conditions.

Therefore, it is necessary that the workload of a controller is adequately assessed for optimum performance and efficiency. If the workload is too high, they may become fatigued and prone to judgemental errors having catastrophic consequences. So, there is a mandatory requirement of rationalising the workload of a controller working in an ATC unit by addition of a new ATC unit or a new sector, progressively, to meet the increased air traffic demand/capacity.

The progressive establishment of Air Traffic Control (ATC) units is a strategic and systematic approach to the development and expansion of air traffic management infrastructure. This document outlines the key considerations and steps associated with the progressive establishment of ATC units for enhancing the safety and efficiency in provision of Air Traffic Services.

7. Guidelines for progressive establishment of ATC units

The guidelines for establishment of new ATC units, progressive bifurcation/sectorization of existing ATC units and addition of surveillance units proposed here are divided in three parts:

1. Bifurcation of existing ATC units and addition of surveillance units, based purely on daily as well as on hourly air traffic movement metrics at an ATC centre considering Single

Runway Operations at the airport which is served by it. These guidelines would be applicable in respect of ADC and APP units,

2. Sectorization of ACCs & OCCs based on declared sector capacity, and
3. Establishment of additional Aerodrome Control Units (ADC) to cater for multiplicity of Taxiways & Aprons and simultaneous multiple Runway operations.

Progressive plan for Bifurcation of combined units/addition of Surveillance units for Single Runway Operations:

Bifurcation of existing combined ATS units and/or addition of Surveillance units are to be planned based on the **daily average Air Traffic Movements (ATM)** or, alternately, on the basis of **hourly ATM** as per the metrics defined in paras below. The bifurcation or addition of units as mentioned above shall be planned when the traffic volume/density reaches the threshold defined **EITHER** by the daily average ATM **OR** by the hourly ATM as per the metrics.

7.1 Based on Daily Average Air Traffic movements

Progressive plan for Bifurcation of existing ATC units and addition of Surveillance units based on daily average Air Traffic Movement (ATM) shall be as mentioned in paras below. For the purpose of application of these metrics, the Daily Average ATM for a period of six consecutive months as a minimum has to be considered.

7.1.1 Daily Avg. ATMs less than or equal to 40:

Until the Daily Average ATMs at an aerodrome is less than or equal to 40, the ATC services shall be provided by the ADC unit which would function as combined TWR, SMC, CLD and APP, wherever APP unit is established.

7.1.2 Daily ATMs greater than 40:

When the Daily Average ATMs exceeds 40, the ADC and APP units shall be bifurcated. TWR, SMC and CLD functions shall continue to be combined in ADC. Thus, there would be **ADC (TWR+SMC+CLD) and APP** units at the aerodrome.

7.1.3 Daily Avg. ATMs greater than 60:

When the Daily Average ATMs exceeds 60, it is recommended to provide ADS-B feed in TWR/APP for enhancing situational awareness of the ATCOs.

7.1.4 Daily Avg. ATMs greater than or equal to 70:

When the Daily Average ATMs at an aerodrome reaches 70, the ADC unit shall be further bifurcated into TWR and SMC units. Functions of CLD shall remain combined with SMC. Consequently, there would be **TWR, SMC (SMC+CLD), APP** units at the ATC centre serving the aerodrome.

7.1.5 Daily Avg. ATMs greater than or equal to 100:

Once the Daily Average ATMs reaches 100, Surveillance based Approach Control Unit (Surv APP) shall be established at the ATC centre serving the aerodrome. Post establishment of the Surv APP unit, the ATC centre would have **TWR, SMC (SMC+CLD), and Surv APP** units.

7.1.6 Daily Avg. ATMs greater than or equal to 150:

When the Daily Average ATMs at the aerodrome served by the ATC centre is 150 or more, the SMC unit shall be bifurcated into independent SMC and CLD. Thus, overall, there would be **TWR, SMC, CLD and Surv APP** units at such ATC centre.

7.1.7 Daily Avg. ATMs greater than or equal to 350:

Handwritten signature

At the ATC centre serving an aerodrome having a Daily Average ATMs of 350 or greater the Surv. APP unit shall be bifurcated into Surv APP-DEP and Surv. APP-ARR. In total there would be **TWR, SMC, CLD, Surv APP-DEP and Surv APP-ARR** units at such centres.

7.1.8 Daily Avg. ATMs greater than or equal to 450:

When the Daily Average ATMs at the aerodrome served by an ATC centre is 450 or more, the SMC unit shall be bifurcated into two SMC units which may have a locally designated nomenclature viz. SMC1 & SMC2, or SMC (North) & SMC (South), as deemed appropriate by the local ATS-In-Charge. Thus, there would be **TWR, SMC1, SMC2, CLD, Surv APP-DEP and Surv APP-ARR** units at such ATC centres.

7.1.9 Daily Avg. ATMs greater than or equal to 700:

When the Daily Average ATMs at the aerodrome served by an ATC centre is 700 or more, an additional Surv APP unit named Surv APP-SEQ (Surveillance Approach Sequencing) or with any other appropriate nomenclature, shall be established to meet the high traffic density and increased capacity demand in the approach control. Overall, there would be **TWR, SMC1, SMC2, CLD, Surv APP-DEP, Surv APP-ARR and Surv APP-SEQ** units at such ATC centres.

7.1.10 Daily Avg. ATMs greater than or equal to 800:

When the Daily Average ATMs at the aerodrome served by an ATC centre having TWR, SMC1, SMC2, CLD, Surv APP-DEP, Surv APP-ARR and Surv APP-SEQ units reaches 800, the CLD unit shall be bifurcated into two units: CLD1 & CLD2. In all there would be **TWR, SMC1, SMC2, CLD1, CLD2, Surv APP-DEP, Surv APP-ARR and Surv APP-SEQ** units at that ATC centre.

The overall progression plan based on Daily Average ATM is summarized in the table below:

No. of Daily Avg. Air Traffic Movements	ATS Units
≤ 40	ADC (TWR+SMC+CLD+APP)
> 40	ADC (TWR+SMC+CLD), APP
When the Daily Average ATMs exceeds 60, it is recommended to provide ADS-B feed in TWR/APP for enhancing situational awareness of the ATCOs.	
≥ 70	TWR, APP, (SMC+CLD)
≥ 100	TWR, (SMC+CLD), Surveillance APP
≥ 150	TWR, SMC, Surveillance APP, CLD
≥ 350	TWR, SMC, Sur APP (Arr), Sur APP (Dep), CLD
≥ 450	TWR, SMC1, SMC2, Sur APP (Arr), Sur APP (Dep), CLD
≥ 700	TWR, SMC1, SMC2, Sur APP (Seq), Sur APP (Arr), Sur APP (Dep), CLD
≥ 800	TWR, SMC1, SMC2, Sur APP (Seq), Sur APP (Arr), Sur APP (Dep), CLD1, CLD2

7.2 Based on hourly Air Traffic Movements:

Progressive plan for Bifurcation of existing ATC units and addition of Surveillance units based on hourly Air Traffic Movement (ATM) shall be as mentioned in paras below. For the purpose of application of these metrics the hourly ATM data over a period of six consecutive months as a minimum has to be considered.

7.2.1 Hourly ATMs greater than or equal to 10 in each of the two consecutive hours:

Handwritten signature

Where there are **10 or more** hourly ATMs in each of the two consecutive hours, the ADC and APP units shall be bifurcated. TWR, SMC and CLD functions shall continue to be combined in ADC. Thus, there would be **ADC (TWR+SMC+CLD) and APP** units at such aerodromes.

7.2.2 Hourly ATMs greater than or equal to 10, Four times in a day:

When there is an hourly ATMs of 10 or more, four times in a day (24 hours period), the ADC unit shall be further bifurcated into TWR and SMC units. Functions of CLD shall remain combined with SMC. Consequently, there would be **TWR, SMC (SMC+CLD), APP** units at the ATC centre serving the aerodrome.

7.2.3 Hourly ATMs greater than or equal to 10, Five times in a day:

When the hourly ATMs become greater than & equal to 10, five times in a day, it is recommended to provide ADS-B feed in TWR/APP for enhancing situational awareness of the ATCOs.

7.2.4 Hourly ATMs greater than or equal to 10, Six times in a day:

When there is an hourly ATMs of 10 or more, six times in a day (24 hours period), the Surveillance based Approach Control Unit (Surv APP) shall be established at the ATC centre serving the aerodrome. Post establishment of the Surv APP unit, the ATC centre would have **TWR, SMC (SMC+CLD), and Surv APP** units.

7.2.5 Hourly ATMs of 30 or greater:

When the hourly ATMs reach 30 the Surv. APP unit shall be dynamically bifurcated into Surv APP-DEP and Surv. APP-ARR. In total there would be **TWR, SMC (SMC+CLD), Surv APP-DEP and Surv APP-ARR** units at such centres.

7.2.6 Hourly ATMs greater than or equal to 30, thrice a day:

When there is an hourly ATMs of 30 or more, thrice in a day (24 hours period), the SMC unit shall be bifurcated into independent SMC and CLD. Thus, overall, there would be **TWR, SMC, CLD, Surv APP-ARR and Surv APP-DEP** units at such ATC centre.

7.2.7 Hourly ATMs greater than or equal to 40 for three consecutive hours:

When there is an hourly ATMs of 40 or more for three consecutive hours, an additional Surv APP unit named Surv APP-SEQ (Surveillance Approach Sequencing) or with any other appropriate nomenclature, shall be established to meet the high traffic density and increased capacity demand in the approach control. Overall, there would be **TWR, SMC, CLD, Surv APP-DEP, Surv APP-ARR and Surv APP-SEQ** units at such ATC centres.

The overall progression plan based on hourly ATM as detailed above is summarized in the table below:

Hourly Air Traffic Movements	ATS Units
≥ 10 each in two consecutive hours	ADC (TWR+SMC+CLD), APP
≥ 10 four times in a day	TWR, (SMC+CLD), APP
It is recommended to provide ADS-B feed in TWR/APP when Hourly ATMs ≥ 10 five times in a day for enhancing situational awareness of the ATCOs.	
≥ 10 six times in a day	TWR, SMC (SMC+CLD), Surv APP
≥ 30	TWR, SMC (SMC+CLD), Surv APP-DEP, Surv APP-ARR
≥ 30 thrice in a day	TWR, SMC, CLD, Surv APP-DEP, Surv APP-ARR
≥ 40 for three consecutive hours	TWR, SMC, CLD, Surv APP-DEP, Surv APP-ARR, Surv APP-SEQ

Handwritten signature

8. Sectorization of ACCs & OCCs based on declared sector capacity:

Further sectorization of ACC/OCC sector(s) may be done when demand in existing sector(s) exceeds the declared sector(s) capacity.

9. Establishment of additional Aerodrome Control Units (ADC) to cater for complexity of Taxiway layout, multiplicity of Aprons and simultaneous multiple Runway operations:

Requirement of additional SMC unit due to complexity of Apron/Taxiway layout and/or multiplicity of Aprons at any airport may be considered on case to case basis. When any airport has multiple simultaneous Runway operations then requirement of additional TWR and associated SMC, if deemed necessary, shall be considered depending upon the mode and number of Runways in Simultaneous mode.

10. Queries:

Any queries or further guidance required on the contents of this ATMC should be addressed to:

Executive Director [ASM]
Airports Authority of India
Rajiv Gandhi Bhawan
Safdarjung Airport
New Delhi-110003
E-mail: edasm@aai.aero

11. Validity:

This ATMC shall remain in force until further notice.

Dated: 23-01-2026.

MOOSA T F 23/01/26
(MOOSA T F)

**EXECUTIVE DIRECTOR [ASM]
AIRPORTS AUTHORITY OF INDIA**

मूसा टी एफ / MOOSA T F
कार्यपालक निदेशक (ए.टी.एम-ए.एस.एम) / Executive Director (ATM-ASM)
भारतीय विमानपत्तन प्राधिकरण / Airports Authority of India
राजीव गांधी भवन / Rajiv Gandhi Bhawan
सफदरजंग हवाई अड्डा / Safdarjung Airport
नई दिल्ली-110003 / New Delhi-110003