

Basic Meteorology Course for Air Traffic Controller



Course Details:

Learning Method: Online / Virtual /classroom

Language: English **Duration:** Online (3 Weeks) Virtual / Class (5 days)

Course fee: USD \$ 2750 per trainee (*In-house fee is dependent on number of trainees*)

Overview:

This training aims at imparting to the Air Traffic Control Officers with necessary knowledge, skills and attitude to interpret and use aeronautical meteorological information in accordance with ICAO Annex-3, Annex-11, ICAO DOC- 4444(PANS-ATM), ICAO DOC-7192 Part F-1, MATS (Manual of Air Traffic Services) and CAR Section-9 for safe and efficient ATC operations.

Requirements from all trainees:

1. The trainee shall have a thorough understanding of the basic physical principles of meteorology; MET observations as well as their interpretation and dissemination; and the use of MET observations in making forecasts.
2. The trainee must also have an adequate understanding of the general circulation and world climate; weather conditions at aerodromes, along specific routes, in relevant flight information regions (FIRs) and control areas.
3. The trainee should be able to understand weather conditions and make intelligent deductions there from.

Primary Target Population

Personnel who are currently assigned or about to be assigned ATC duties at the Airports/ATS units.

Learning Objectives

On completion of the course the trainee will be able to:

- Interpret aeronautical meteorological information, reports, forecasts and warnings correctly and efficiently.
- Use aeronautical meteorological information, reports, forecasts and warnings correctly and efficiently, while exercising ATC duties.
- Learn how aerodrome weather is collected and reported (AWOS, ATIS, D-ATIS, VOLMET)
- Read and interpret Terminal Weather Reports: MEATR and SPECI
- Read and interpret Terminal Area Forecasts (TAF)
- Read and interpret Runway status reports and SNOWTAMs
- Read and interpret Weather depiction charts
- Calculate wind components: Crosswind, Tailwind, Headwind
- Learn aerodrome approach categories and how these are linked with weather



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Recommended duration and degree of expertise for the ATCO course

Subject matter	Recommended duration (hours)		Degree of expertise
	Trainees without previous aviation experience	Trainees with previous aviation experience	
	33	21	
Initial course			
Atmosphere; atmospheric temperature and humidity			2
Atmospheric pressure			3
Pressure-wind relationship; vertical motion in the atmosphere			2
Formation of clouds and precipitation			3
Air masses and fronts; frontal depressions; weather at fronts and other parts of the frontal depression			2
Other types of pressure systems			2
Surface observations			3
Upper-air observations; station model			2
Licence course			
Winds near the earth's surface; winds in the free atmosphere			2
Turbulence; thunderstorms			3
Aircraft icing; visibility and runway visual range (RVR)			3
Volcanic ash			3
General climatology			1
MET service for international air navigation			2
Aeronautical MET reports			4
Prognostic charts			2
Aeronautical forecasts and warnings; aircraft observations and AIREPs			4
MET information for ATS units and search and rescue services centres			4
<i>Weather in the tropics (where the topic is considered necessary)*</i>			2
Field trip to a local MET office and station (about 1.5 hours)			2

* When this topic is included in the course, the recommended duration becomes as follows: 34.5 hours for trainees without previous aviation experience and 22.5 hours for trainees with previous aviation experience.

