

GEN 3.5 METEOROLOGICAL SERVICES**1. RESPONSIBLE SERVICE**

1.1 The meteorological service for civil aviation in Albania is provided by ALBCONTROL, Air Navigation Services of Albania.

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1.2 Meteorological observations and reports at international aerodromes in Albania are provided by the MWO (for more detailed information, see AD 2.11 of aerodrome concerned).

1.3 The service is provided in accordance with the provisions contained in the following documents:

- ICAO Annex 3 - Meteorological Service for International Air Navigation
- ICAO Annex 11 - Air Traffic Services
- ICAO Annex 14 - Aerodromes
- ICAO Doc 7030 - Regional Supplementary Procedures
- ICAO Doc 7754 - Air Navigation Plan/European Region
- ICAO Doc 8896 - Manual of Aeronautical Meteorological Practices
- ICAO Doc 9328 - Manual of RVR Observing and Reporting Practices
- EUR Doc 014 - SIGMET and AIRMET Guide
- Implementing Regulation (EU) No 923/2012 - SERA
- Regulation (EU) No 2017/373

1.4 Differences to these provisions are detailed in GEN 1.7.

2. AREA OF RESPONSIBILITY

2.1 Meteorological service is provided for the entire Tirana FIR.

3. METEOROLOGICAL OBSERVATIONS AND REPORTS**3.1 Meteorological office**

3.1.1 The following meteorological observations and reports are provided by meteorological offices established at public aerodromes in Albania:

Name of station/ Location indicator	Type & frequency of observations	Types of MET reports and availability of trend forecasts	Observation system and site(s)	Hours of operation	Climatological information
1	2	3	4	5	6
Tirana LATI	Routine observations half hourly Special observations	METAR, MET Report SPECIAL TREND	RWY 17/35 2 SFC wind sensors: See AD Chart 2 RVR EQPT: See AD chart 2 Ceilometers: RWY 17, RWY 35 2 Temperature and humidity sensors: TDZ 17, TDZ 35 2 Pressure sensors : TDZ 17, TDZ 35 2 MOR EQPT: TDZ 17, TDZ 35 1 Present Weather sensor: RWY 17 1 Thunderstorm Detector: RWY 17	H24	Aerodrome climatological tables and summaries AVBL on request.
Kukes LAKU	Routine observations half hourly Special observations	METAR, MET Report, SPECIAL AUTO METAR *	RWY 01/19 2 SFC wind sensors: TDZ 01, TDZ 19 2 RVR EQPT: TDZ 01, TDZ 19 2 Ceilometers: See AD chart 2 Temperature and humidity sensors: TDZ 01, TDZ 19 2 Pressure sensors: TDZ 01, TDZ 19 2 MOR EQPT: TDZ 01, TDZ 19 Present Weather sensor: NIL Thunderstorm Detector: NIL	H24	Aerodrome climatological tables and summaries AVBL on request.
<p>* AUTO METAR:</p> <p>AUTO METAR reports are generated and disseminated outside aerodrome service hours according to the following terms:</p> <p>The content of these reports will include all meteorological parameters which are part of METAR corresponding to ICAO Annex 3, except:</p> <p>Visibility cannot be estimated within 360 DEG and this is why the reported visibility may not represent prevailing values. Minimum visibility in a certain direction cannot be reported. Present Weather, not reported due to PW sensor absence</p> <p>No cloud type will be reported (TCU, CB)</p> <p>No Supplementary information on WS and recent weather will be reported</p> <p>In the AUTO METAR report if the system has not detected any clouds, instead of using:</p> <p>NSC (no significant cloud)</p> <p>the following abbreviation will be used:</p> <p>NCD (no cloud detected)</p> <p>The generation of AUTO METAR is based on instrumental measurements at specific locations and algorithms only and not on human observations or measurements.</p>					

3.1.2 CAVOK criteria for clouds (highest minimum sector altitude)

LATI	9 500 ft
LAKU	11 100 ft

3.1.3 Local routine, special reports and METAR contain the following elements:

- identification of the type of report;
- location indicator;
- time of the observation;
- identification of an automated or missing report, when applicable;
- surface wind direction and speed;
- visibility;
- runway visual range, when applicable;
- present weather (for LAKU not available during AUTO METAR);

- i. cloud amount, cloud type (only for cumulonimbus and towering cumulus clouds) and height of cloud base or, where measured, vertical visibility;
- j. air temperature and dew-point temperature;
- k. QNH and, when applicable, QFE (QFE included only in local routine and special reports); and
- l. supplementary information including significant weather phenomena and recent weather (for LAKU not available during AUTO METAR).

3.1.4 Meteorological observations and reports are provided and disseminated from aeronautical meteorological stations, according to ICAO Annex 3 regulations. Routine reports are issued at HR+20 and HR+50.

3.1.5 The RVR values are displayed automatically in digital form at the MET and ATS units.

3.1.6 AUTO METAR is made from sensor data and a calculation of algorithms. Sensors are located on sites representative for airport measurements. In AUTO METAR reports weather conditions are reported in accordance with ICAO Annex 3 if they are within the detection range of the system.

3.1.7 Climatological information for Tirana Aerodrome is available based on observations made over a period of at least five years. Climatological statistics for routes and areas in Albania are not available. Climatological information for Kukes Aerodrome is available from 2022.

4. TYPES OF SERVICES

4.1 General

4.1.1 Meteorological flight documentation is available at Tirana MWO by meteorological forecaster. Briefing and consultation with a forecaster is available by telephone (+35544542278). Satellite and lightning data are available.

4.2 MET information

4.2.1 Meteorological documentation consists of:

- METAR/SPECI for aerodrome of departure, destination and alternate aerodromes
- TAF for aerodrome of departure, destination and alternate aerodromes
- SIGWX charts and upper-wind/temperature charts
- SWL charts for low levels
- SIGMET and SPECIAL AIREP en route
- AIRMET en route
- Volcanic Ash Advisory, Tropical Cyclone Advisory and Space Weather Advisory
- On request by the operator, the meteorological information supplied for flight planning shall also include data for the lowest usable flight level determined

4.2.2 When necessary, the personal advice of a forecaster or other meteorological information can be obtained by the forecast office. English is the language used for all documentation and forecast clarification.

Note: Details of meteorological briefing at Tirana aerodrome are given in the section LATI AD 2.

4.3 En route forecast

4.3.1 Low Level Forecast, SWL

Tirana MWO prepare and issues SWL - significant weather chart below FL 150. This chart is issued 4 times a day as follows:

Time of issuance (UTC)	Time of validity (UTC)
0400	0600 - 1200
1000	1200 - 1800
1600	1800 - 0000
2200	0000 - 0600

SWL charts are continuously monitored and amended if needed.

4.3.2 WT charts

Wind and air temperature charts at 2 000, 5 000, 10 000 and 15 000 ft AMSL, are issued as complementary information for SLW. These charts are generated automatically twice a day, and each set covers a period of 24 hours, as follows:

Time of issuance (UTC)	Time of validity (UTC)			
0400	0600	1200	1800	0000
1600	1800	0000	0600	1200

SWL and WT charts are published on Albcontrol website: <https://www.albcontrol.al/maps/>

4.4 Aerodrome forecasts, landing, forecasts and take-off forecasts

4.4.1 Aerodrome forecasts in TAF form are prepared and disseminated nationally and internationally for LATI and LAKU aerodromes.

Name of station/ Location indicator	Type & frequency of forecasts	Validity	AFS	Hours of Operation
1	2	3	4	5
LATI	TAF routine (every 6 hours) TAF AMD TAF COR	24 hours routine TAF	LATIYMYX	H24
LAKU	TAF routine* (every 6 hours) TAF AMD TAF COR TAF CNL ** TAF NIL***	24 hours routine TAF		HO * during AD HR SER ** at aerodrome closure *** outside AD HR SER See AD 2.3 for operational hours

4.4.2 Landing forecasts (TREND) is issued in METAR, MET REPORT and SPECIAL for Tirana airport LATI.

4.4.3 Take-off forecasts containing information on expected conditions over the runway complex, in respect of surface wind, temperature and pressure, can be made available from Meteorological Office, on request only.

4.4.4 Aerodrome warnings are issued as appropriate when one or more of the following phenomena is occurred or expected to occur:

- tropical cyclone (to be included if the 10-minute mean surface wind speed at the aerodrome is expected to be 34 kt or more)
- thunderstorm
- hail
- snow (including the expected or observed snow accumulation)

- e. freezing precipitation
- f. hoar frost or rime
- g. sandstorm
- h. duststorm
- i. rising sand or dust
- j. strong surface wind and gusts (Cross Wind \geq 20 kt and Wind \geq 40 kt)
- k. squall
- l. frost
- m. volcanic ash
- n. tsunami
- o. volcanic ash deposition
- p. toxic chemicals
- q. fog and/or freezing fog (prevailing visibility below 1000 meters)
- r. heavy precipitations \geq 10 mm/hr
- s. temperature below 0 degree Celsius or temperature above 35 degree Celsius

4.4.5 The normal method of notifying aerodrome warnings is by E-mail to the aerodrome, with local dissemination of the warning being the responsibility of the aerodrome operator.

4.4.6 Warnings of observed or expected existence of wind shear are issued for Tirana and Kukes aerodrome, and disseminated to the appropriate ATS units. The wind shear warnings are issued in English.

5. NOTIFICATION REQUIRED FROM OPERATORS

5.1 Requests to add flight folders should include all necessary details of the route, the period of the flight, the expected height of the flight operation and the time at which the forecast should be available or briefing is required. If the forecast is collected not immediately before takeoff, the enquirer should ensure to get informed about any amendments to the forecast issued prior to departure. Limits for notification are as follows:

1. scheduled flights:
 - within Europe - 24 hours prior to departure
 - outside Europe – 2 weeks in advance
2. non-scheduled flights:
 - within Europe - 1 hour and 30 minutes prior to departure
 - outside Europe - 24 hours prior to departure

Note: Details on meteorological briefing at LATI aerodrome are given in the aerodrome sections, AD 2.

6. AIRCRAFT REPORTS

6.1 Aircraft observations

6.1.1 Routine observations made by aircraft are not required in the Tirana FIR.

6.1.2 Special aircraft observations are required to be issued by aircraft as special air-reports in Tirana FIR whenever

the following conditions are encountered or observed:

- a. moderate or severe turbulence; or
- b. moderate or severe icing; or
- c. severe mountain wave; or
- d. thunderstorms, without hail, that are obscured, embedded, widespread or in squall lines; or
- e. thunderstorms, with hail, that are obscured, embedded, widespread or in squall lines; or
- f. heavy dust storm or heavy sandstorm; or
- g. volcanic ash cloud; or
- h. pre-eruption volcanic activity or a volcanic eruption;
- i. the runway braking action encountered is not as good as reported; or
- j. other meteorological conditions (e.g. wind shear during approach or take-off), when they, in the opinion of the pilot in command, may affect the safety of other aircraft operations.

6.1.3 Flight crews shall compile the reports using forms based on the model AIREP SPECIAL form as set out in point A, Appendix 5 of SERA. Those reports shall comply with the detailed instructions for reporting, as provided in point 2 of Appendix 5.

6.1.3.1 The detailed instructions, including the formats of messages and the phraseologies provided in Appendix 5 of SERA, shall be used by flight crews when transmitting air-reports and by ATS units when retransmitting such reports.

6.1.3.2 Special air-reports containing observations of volcanic activity shall be recorded on the special air-report of volcanic activity form. Forms based on the model form for special air-reports of volcanic activity set out in point B, Appendix 5 of SERA shall be provided for flight crews operating on routes which could be affected by volcanic ash clouds.

6.1.4 Aircraft observations shall be reported during flight at the time the observation is made or as soon thereafter as is practicable.

6.1.5 Aircraft observations shall be reported as air-reports and shall comply with the technical specifications in Appendix 5 of SERA.

6.1.6 ATS units shall transmit, as soon as practicable, special and non-routine air-reports to:

- a. other aircraft concerned;
- b. the associated meteorological watch office (MWO) in accordance with point 3, Appendix 5 of SERA; and
- c. other ATS units concerned.

6.1.7 Transmissions to aircraft shall be repeated at a frequency and continued for a period of time which shall be determined by the ATS unit concerned.

6.2 Specific provisions related to reporting wind shear and volcanic ash

6.2.1 Reporting of wind shear

6.2.1.1 When reporting aircraft observations of wind shear encountered during the climb-out and approach phases of flight, the aircraft type shall be included.

6.2.1.2 Where wind shear conditions in the climb-out or approach phases of flight were reported or forecast but not encountered, the pilot-in-command shall advise the appropriate ATS unit as soon as practicable unless the pilot-in-command is aware that the appropriate ATS unit has already been so advised by a preceding aircraft.

6.2.2 Post-flight reporting of volcanic activity

6.2.2.1 On arrival of a flight at an aerodrome, the completed report of volcanic activity shall be delivered by the aircraft operator or a flight crew member, without delay, to the aerodrome meteorological office, or if such office is not easily accessible to arriving flight crew members, the completed form shall be dealt with in accordance with local arrangements agreed upon between MET and ATS providers and the aircraft operator.

6.2.2.2 The completed report of volcanic activity received by an aerodrome meteorological office shall be transmitted without delay to the meteorological watch office responsible for the provision of meteorological watch for the flight information region in which the volcanic activity was observed.

6.3 In-flight Procedures

6.3.1 Aircraft can obtain aerodrome weather information from any of the following methods:

- a. Automatic Terminal Information Service (ATIS); and
- b. by request to an ATS Unit but whenever possible only if the information required is not available from a broadcast.

Note: ATIS service is not available for LAKU.

6.3.2 When an aircraft diverts, or proposes to divert, to an aerodrome along a route for which no forecast has been provided, the commander may request the relevant information from the ATS unit serving the aircraft at the time, and the necessary forecasts will be provided by the Forecast Office.

7. VOLMET SERVICE

Nil

8. SIGMET AND AIRMET SERVICE

Name of MWO Location Indicators	Hours of Service	FIR or CTA served	Validity periods	Specific procedures applied to SIGMET	Procedures applied to AIRMET	ATS Unit provided with information	Additional information
1	2	3	4	5	6	7	8
Tirana LATI	H24	Tirana FIR	SIGMET 4 hours Volcanic Ash SIGMET 6 hours	Tropical cyclone SIGMET is not issued	AIRMET 4 hours	Tirana TWR/ APP/ ACC/ AFISO	Nil

8.1 SIGMET service

8.1.1 Meteorological Watch Office is responsible for the preparation and dissemination of SIGMETs to appropriate ACC/FIC within Tirana FIR. Aircraft in flight should be warned by the ACC/FIC of the occurrence or expected occurrence of one or more of the following SIGMET phenomena:

- a. OBSC, EMBD, FRQ, SQL thunderstorms with or without hail;
- b. severe turbulence;
- c. severe icing (SEV ICE, SEV ICE FZRA);
- d. severe mountain waves;
- e. volcanic ash cloud;
- f. heavy duststorm;

- g. heavy sandstorm; and
- h. radioactive cloud.

8.2 AIRMET service

8.2.1 AIRMET information gives a concise description in abbreviated plain language, concerning the occurrence or expected occurrence of specified en-route weather phenomena. AIRMET information is provided for Tirana FIR flight levels from the ground up to FL150.

8.2.2 AIRMET information refers to the following phenomena:

- a. widespread mean surface wind speed above 30 kt;
- b. widespread area of visibility less than 5000 m;
- c. widespread area of BKN or OVC CLD with cloud base below 1000 ft AGL;
- d. ISOL, OCNL thunderstorms with or without hail;
- e. mountain obscuration;
- f. ISOL TCU, OCNL TCU, FRQ TCU, ISOL CB, OCNL CB, FRQ CB;
- g. moderate icing;
- h. moderate turbulence; and
- i. moderate mountain waves.

8.2.3 AIRMET covers Tirana FIR. Information is provided in text form via the AFS and Internet.

9. OTHER AUTOMATED METEOROLOGICAL SERVICES

Nil