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THE CIVIL AVIATION ACT
(CAP. 80)

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REGULATIONS

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(Made under section 4)

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THE CIVIL AVIATION (METEOROLOGICAL SERVICE FOR INTERNATIONAL AIR NAVIGATION) REGULATIONS, 2017

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Citation

1. These Regulations may be cited as the Civil Aviation (Meteorological Service for International Air Navigation) Regulations, 2017.

Interpretation

2. In these Regulations unless the context requires otherwise -

"aerodrome" means a defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft;

"aerodrome climatological summary" means concise summary of specified meteorological elements at an aerodrome, based on statistical data;

"aerodrome climatological table" means a table statistical data on the observed occurrence of one or more meteorological elements at an aerodrome;

"aerodrome control tower" means a unit established to provide air traffic control service to aerodrome traffic;

"aerodrome elevation" means the elevation of the highest point of a landing area;

"aerodrome meteorological office" means an office designated to provide meteorological service for aerodromes serving international air navigation;

"aerodrome reference point" means the designated geographical location of an aerodrome;

"Aeronautical Fixed Service (AFS) "means a telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical

operation of air services;

"Aeronautical Fixed Telecommunication Network (AFTN)" means a worldwide system of aeronautical fixed circuits provided, as part of the aeronautical fixed service, for the exchange of messages and/or digital data between aeronautical fixed stations having the same or compatible communications characteristics;

"aeronautical meteorological station" means a station designated to make observations and meteorological reports for use in air navigation;

"aeronautical mobile service" means a mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate, emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies;

"aeronautical telecommunication station" means a station in the aeronautical telecommunication service;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface;

"aircraft observation" means the evaluation of one or more meteorological elements made from an aircraft in flight;

"AIRMET information" means the information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof;

"air-report" means a report from an aircraft in flight prepared in conformity with requirements for position, and operational or meteorological reporting;

"air traffic services unit" means a generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office;

"alternate aerodrome" means an aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the

expected time of use; Alternate aerodromes include the following:

"take off alternate" means an alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take off and it is not possible to use the aerodrome of departure;

"en-route alternate" means an alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while en route;

"destination alternation" means an alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended laanding;

"altitude" means the vertical distance of a level, point or an object considered as a point, measured from mean sea level (MSL);

"approach control unit" means a unit established to provide air traffic control services to controlled flights arriving at, or departing from, one or more aerodromes;

"appropriate ATS authority" means the relevant authority designated by the State responsible for providing air traffic services in the airspace concerned;

"area control centre means" a unit established for providing air traffic control services to controlled flights in control areas under its jurisdiction;

"area navigation" means a method of navigation which permits aircraft operations on any desired flight path within the coverage of ground or space-based navigation aids or within the limits of the capability of self contained aids, or a combination of these;

note area navigation includes performance-based as well as other operations that do not meet the definition of performance-based navigations;

"Authority" means the Tanzania Civil Aviation Authority;

"Automatic Dependent Surveillance (ADS)" means a surveillance technique in which an aircraft automatically provides, via a data link, data derived from on-board navigation and position-fixing systems, including aircraft identification, four-dimensional position and additional data as appropriate;

"briefing" means an oral commentary on existing or expected meteorological conditions;

"cloud of operational significance" means a cloud with the height of cloud base below 1500 m (5000 ft) or below the highest minimum sector altitude, whichever is greater, or a cumulonimbus cloud or a towering cumulus cloud at any height;

"consultation" means the discussion with a meteorologist or another qualified person of existing or expected meteorological conditions relating to flight operations; a discussion includes answers to questions;

"control area" means a controlled airspace extending upwards from a specified limit above the earth;

"cruising level" means a level maintained during a significant portion of a flight;

"elevation" means the vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level;

"extended range operation" means any flight by an aeroplane with two turbine engines where the flight time at the one engine inoperative cruise speed, in ISA and still air conditions, from a point on the route to an adequate alternate aerodrome, is greater than the threshold time approved by the state of the operator;

"flight crew member" means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period;

"flight documentation" means written or printed documents, including charts or forms, containing meteorological information for a flight;

"flight information centre" means a unit established to provide flight information service and alerting service;

"flight information region" means an airspace of defined dimensions within which flight information service and alerting service are provided;

"flight level" means a surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals;

"QNH altimeter setting" means a pressure type altimeter calibrated in accordance with the standard atmosphere which when set indicates altitude;

"QFE altimeter setting" means a pressure type altimeter calibrated in accordance with the standard atmosphere which when set indicates height above the QFE reference datum;

"forecast" means a statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace;

"GAMET area forecast" means an area forecast in abbreviated plain language for low-level flights for a flight information region or sub-area thereof, prepared by the meteorological office designated by the meteorological authority concerned and exchanged with meteorological offices in adjacent flight information regions, as agreed between the meteorological authorities concerned.;

"grid point data in digital form" means a computer processed meteorological data for a set of regularly spaced points on a chart, for transmission from a meteorological computer to another computer in a code form suitable for automated use;

"height" means the vertical distance of a level, a point or an object considered as a point, measured from a specified datum;

"human factor principles" means the principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance;

"International airways volcano watch (IAVW)" means International arrangements for monitoring and providing warnings to aircraft of volcanic ash in the atmosphere;

"level "means a generic term relating to the vertical position of an aircraft in flight and meaning variously height, altitude or flight level;

"meteorological authority" means the Tanzania Meteorological Agency designated and responsible for providing or arranging for the provision of meteorological services

for international air navigation on the behalf of the United Republic of Tanzania.

"meteorological bulletin" means a text comprising meteorological information preceded by an appropriate heading;

"meteorological information" means Meteorological report, analysis, forecast, and any other statement relating to existing or expected meteorological conditions;

"meteorological office" means an office designated to provide meteorological service for international air navigation;

"meteorological report" means a statement of observed meteorological conditions related to a specified time and location;

"meteorological satellite" means an artificial earth satellite making meteorological observations and transmitting these observations to earth;

"minimum sector altitude" means the lowest altitude which may be used which will provide a minimum clearance of 300 m(1 000 ft) above all objects located in the area contained within a sector of a circle of 46 km (25 NM) radius centred on a radio aid to navigation;

"navigation specification" means a set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specifications;

(a) Required Navigation Performance (RNP) specification means a navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH;

(b) Area Navigation (RNAV) specification means a navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, , RNAV 5 or RNAV 1;

"observation (meteorological)" means the evaluation of one or more meteorological elements;

"operational control" means the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight;

"operational flight plan" means the operator's plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned;

"operational planning" means the planning of flight operations by an operator;

"operator "means a person, organization or enterprise engaged in or offering to engage in an aircraft operation;

"Performance-Based Navigation (PBN)" means Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

"pilot-in-command" means the pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight;

"prevailing visibility" means the greatest visibility value, observed in accordance with the definition of "visibility", which is reached within at least half the horizon circle or within at least half of the surface of the aerodrome; These areas could comprise contiguous or non-contiguous sectors;

"prognostic chart" means a forecast of a specified meteorological element for a specified time or period and a specified surface or portion of airspace, depicted graphically on a chart;

"quality assurance" means part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO 9000- Quality management system);

"quality control" means part of quality management focused on fulfilling quality requirements (ISO 9000- Quality management system);

"quality management" means Coordinated activities to direct and control an organization with regard to quality (ISO 9000- Quality management system);

"regional air navigation agreement" means an Agreement approved by the Council of ICAO normally on the advice of a regional air navigation meeting;

"reporting point" means a specified geographical location in relation to which the position of an aircraft can be reported;

"rescue coordination centre" means a unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region;

"runway" means a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft;

"Runway Visual Range (RVR)" means the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line;

"search and rescue services unit" means a generic term meaning, as the case may be, rescue coordination centre, rescue sub centre or alerting post.;

"service provider" means the meteorological authority providing or arranging for the provision of meteorological service for air navigation;

"SIGMET information" means information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified enroute weather phenomena which may affect the safety of aircraft operations;

"standard isobaric surface" means an isobaric surface used on a worldwide basis for representing and analyzing the conditions in the atmosphere;

"terminal aerodrome forecast (TAF)" means the aerodrome forecast issued at a specified time consisting of a concise statement of the expected meteorological conditions at an aerdrome;

"threshold" means the beginning of that portion of the runway usable for landing;

"touchdown zone" means the portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway;

"tropical cyclone" means Generic term for a non-frontal synoptic-scale cyclone originating over tropical or sub-tropical waters with organized convection and definite cyclonic surface wind circulation;

"Tropical Cyclone Advisory Centre (TCAC)" means a meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, world area forecast centres and international OPMET databanks regarding

the position, forecast direction and speed of movement, central pressure and maximum surface wind of tropical cyclones;

"upper-air chart" means a meteorological chart relating to a specified upper- air surface or layer of the atmosphere;

"visibility" means visibility for aeronautical purposes is the greater of;

(a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background;

(b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background;

"Volcanic Ash Advisory Centre (VAAC)" means a meteorological centre designated by regional air navigation agreement to provide advisory information to meteorological watch offices, area control centres, flight information centres, world area forecast centres and international OPMET databanks regarding the lateral and vertical extent and forecast movement of volcanic ash in the atmosphere following volcanic eruptions;

"VOLMET" means Meteorological information for aircraft in flight;

"data link-VOLMET (D-VOLMET)" means Provision of current aerodrome routine meteorological reports (METAR) and aerodrome special meteorological reports (SPECI), aerodrome forecasts (TAF), SIGMET, special air-reports not covered by a SIGMET and, where available, AIRMET via data link;

"World Area Forecast Centre (WAFC)" means a meteorological centre designated to prepare and issue significant weather forecasts and upper-air forecasts in digital form on a global basis direct to States by appropriate means as part of the aeronautical fixed service;

(a) for the purpose of these regulations, the following terms shall be used with a limited meaning;

(b) to avoid confusion in respect of the term “service” between the meteorological service considered as an administrative entity and the service which is provided, “meteorological authority” is used for the former and “service” for the latter.

Application

3. These Regulations shall-

(a) apply to the provision of meteorological services for air navigation services within designated air spaces and at aerodromes; but

(b) not apply to the provision of air navigation services for state aircraft.

PART II
PROVISION OF METEOROLOGY SERVICES FOR AIR NAVIGATION

Authority to provide meteorology services for air navigation

4. A person shall not provide meteorology services for air navigation unless-

(a) he is mandated by the government of United Republic of Tanzania; and

(b) the services are provided in accordance with the requirements prescribed in these regulations and any associated standards and procedures and includes having in place a manual of operations in terms of these Regualtions.

Procedures for provision of services

5. A person mandated to provide meteorology services for air navigation under regulation 4 shall do so in accordance with the-

(a) the manual of operations required under these regulations; and

(b) the quality management system manual required under these regulations.

Obligations of the services provider

6.-(1) The service provider of meteorology services for air navigation shall, before providing the services, be satisfied that-

(a) the personnel are adequate in number and have the necessary competency to provide the service;

(b) the manual of operations contains all the relevant information;

(c) the facilities, services and equipment are established in accordance with these Regulations;

(d) the operating procedures make satisfactory provision for the safety of aircraft;

(e) an approved quality management system is in place;

(f) the person has financial capability to provide the service; and

(g) the applicant has insurance policy in force in relation to the services provided.

Personnel qualification and training

7. The Authority shall ensure that the designated meteorological authority complies with the requirements of the World Meteorological Organization in respect of qualifications and training of meteorological personnel providing service for international air navigation.

PART III
GENERAL PROVISIONS FOR METEOROLOGY SERVICES FOR AIR NAVIGATION

Objective, determination and provision of meteorology service

8.-(1) The objective of meteorological service for air navigation shall be-

(a) to contribute towards the safety, regularity and efficiency of air navigation.

(b) achieved by supplying the following users with the meteorological information necessary for the performance of their respective functions;

(c) operators, flight crew members;

(d) air traffic services units;

(e) search and rescue services units;

(f) airport managements; and

(g) others concerned with the conduct or development of international air navigation.

(2) The meteorological services provided shall be provided in accordance with these regulations and associated technical standards to meet the needs of international air navigation.

(3) Notwithstanding sub-regulation (3), the service provider shall determine the meteorological services to be provided in accordance with the provisions of these regulations and regional air navigation agreements and shall include the determination of the meteorological service to be provided for international air navigation over international waters and other areas which lie outside the territory of United Republic of Tanzania.

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Supply, use and quality management of meteorological information

9.-(1) Close liaison shall be maintained between supplies and users of meteorological information in matters which affect the provision of meteorological service for international air navigation.

(2) The Authority shall ensure that a meteorological service provider establishes and implements a properly organized quality system comprising procedures, processes and resources necessary to provide for the quality management of the meteorological information to be supplied to users.

(3) The quality system established in accordance with sub-regulation (2) shall be in conformity with the International Organization for Standardization (ISO) 9000 series of quality assurance standards and shall be certified by an approved organization.

(4) The quality system shall provide the users with assurance that the meteorological information supplied complies with the stated requirements in terms of the geographical and spatial coverage, format and content, time and frequency of issuance and period of validity, as well as the accuracy of measurements, observations and forecasts.

(5) Where the quality system indicates that meteorological information to be supplied to the users does not comply with the stated requirements, and automatic error correction procedures are not appropriate, such information shall not be supplied to the users unless it is validated with the originator

(6) With regard to the exchange of meteorological information for operational purposes, the quality system shall include verification and validation procedures and resources for monitoring adherence to the prescribed transmission schedules for individual messages or bulletins required to be exchanged, and the times of their filing for transmission.

(7) The quality system shall be capable of detecting excessive transit times of messages and bulletins received

(8) Demonstration of compliance of the quality system applied shall be by audit and where a non-conformity of the system is identified, action shall be initiated to determine and correct the cause.

(9) All audit observations shall be evidenced and properly documented.

(10) The meteorological information supplied to the users shall be consistent with Human Factors principles and

shall be in forms which require a minimum of interpretation by these users.

Notifications required from operators

10.-(1) An operator requiring meteorological service or changes in existing meteorological service shall notify, sufficiently in advance, the service provider or the aerodrome meteorological office concerned.

(2) The minimum amount of advance notice required shall be as agreed between the service provider or aerodrome meteorological office and the operator

(3) The service provider shall be notified by the operator requiring service when-

(a) new routes or new types of operations are planned;

(b) changes of a lasting character are to be made in scheduled operations; and

(c) other changes, affecting the provision of meteorological service, are planned.

(4) The information in sub regulation (3) shall contain all details necessary for the planning of appropriate arrangements by the service provider.

(5) The operator or a flight crew member shall ensure that, where required by the service provider in consultation with users, the aerodrome meteorological office concerned is notified:

(a) of flight schedules

(b) when non-scheduled flights are to be operated; and

(c) when flights are delayed, advanced or cancelled.

(6) The notification to the aerodrome meteorological office of individual flights shall contain the following information except that, in the case of scheduled flights, the requirement for some or all of this information may be waived by agreement between the aerodrome meteorological office and the operator-

(a) aerodrome of departure and estimated time of departure;

(b) destination and estimated time of arrival;

(c) route to be flown and estimated times of arrival at, and departure from, any intermediate aerodromes;

(d) alternate aerodromes needed to complete the operational flight plan and taken from the relevant list contained in the regional air navigation plan;

(e) cruising level;
(f) type of flight, whether under visual or instrument flight rules;
(g) type of meteorological information requested for a flight crew member, whether flight documentation or briefing or consultation; and
(h) and the time at which briefing, consultation or flight documentation are required.

PART IV
WORLD AREA FORECAST SYSTEM AND METEOROLOGICAL OFFICES

Objective of the world area forecast system

11.-(1) The objective of the world area forecast system shall be to supply meteorological authorities and other users with global aeronautical meteorological en-route forecasts in digital form.

(2) This objective shall be achieved through a comprehensive, integrated, worldwide and, as far as practicable, uniform system, and in a cost effective manner, taking full advantage of evolving technologies.

World area forecast centres

12.-(1) The meteorological service provider, having accepted the responsibility for providing a WAFC within the framework of the world area forecast system, shall arrange for that centre:

(a) to prepare gridded global forecasts of:
    (i) upper wind;
    (ii) upper-air temperature and humidity;
    (iii) geopotential altitude of flight levels;
    (iv) flight level and temperature of tropopause;
    (v) direction, speed and flight level of maximum wind;
    (vi) cumulonimbus clouds;
    (vii) icing; and
    (viii) turbulence;
(b) to prepare global forecasts of significant weather (SIGWX) phenomena;
(c) to issue the forecasts referred to in paragraphs (a) and (b) in digital form to meteorological services and other users, on advice from the service provider

(d) to receive information concerning the accidental release of radioactive materials into the atmosphere from its associated WMO regional specialized meteorological centre (RSMC) for the provision of transport model products for radiological environmental emergency response, in order to include the information in SIGWX forecasts; and

(e) to establish and maintain contact with VAACs for the exchange of information on volcanic activity in order to coordinate the inclusion of information on volcanic eruptions in SIGWX forecasts.

(2) In case of interruption of the operation of a WAFC the functions of the WAF shall, where there is an interruption in its operations, be carried out by the other WAFC.

Aerodrome meteorological offices

13.-(1) The Meteorological service provider shall establish one or more aerodrome or other meteorological offices which shall be adequate for the provision of the meteorological service required to satisfy the needs of l air navigation.

(2). An aerodrome meteorological office shall carry out all or some of the following functions as necessary to meet the needs of flight operations at the aerodrome:

(a) preparation or obtaining forecasts and other relevant information for flights with which it is concerned; the extent of its responsibilities to prepare forecasts shall be related to the local availability and use of en-route and aerodrome forecast material received from other offices;

(b) preparation or obtaining of forecasts of local meteorological conditions;

(c) maintain a continuous survey of meteorological conditions over the aerodromes for which it is designated to prepare forecasts;

(d) provision briefing, consultation and flight documentation to flight crew members or other flight operations personnel;

(e) supply of other meteorological information to aeronautical users;

(f) display the available meteorological information;

(g) exchange of meteorological information with other aerodrome meteorological offices; and

(h) supply of information received on pre-eruption volcanic activity, a volcanic eruption or volcanic ash cloud, to its associated air traffic services unit, aeronautical information service unit and meteorological watch office as agreed between the meteorological, aeronautical information service and ATS authorities concerned

(3) The aerodromes for which landing forecasts are required shall be determined by regional air navigation agreement.

(4) For an aerodrome without an aerodrome meteorological office located at the aerodrome:

(a) the Meteorological service provider shall designate one or more aerodrome meteorological offices to supply meteorological information as required; and

(b) shall establish means by which such information can be supplied to the aerodromes concerned.

Meteorological watch offices

14.-(1) The meteorological services provider, having accepted the responsibility for providing meteorological services for air navigation in United Republic of Tanzania shall establish, on the basis of regional air navigation agreement, one or more meteorological watch offices.

(2) A meteorological watch office shall:

(a) maintain continuous watch over meteorological conditions affecting flight operations within its area of responsibility;

(b) prepare SIGMET information and other information relating to its area of responsibility;

(c) supply SIGMET information and, as required, other meteorological information to associated air traffic services units;

(d) disseminate SIGMET information;

(e) when required by regional air navigation agreement;

(i) prepare AIRMET information related to its area of responsibility

(ii) supply AIRMET information to associated air traffic services units; and

(iii) disseminate AIRMET information;

(f) supply information received on pre-eruption volcanic activity, a volcanic eruption and volcanic ash cloud for which a SIGMET has not already been issued, to its associated ACC/FIC, as agreed between the meteorological and ATS authorities concerned, and to its associated VAAC as determined by regional air navigation agreement; and

(g) supply information received concerning the release of radioactive materials into the atmosphere, in the area for which it maintains watch or adjacent areas, to its associated ACC/FIC, as agreed between the meteorological and ATS authorities concerned, and to aeronautical information service units, as agreed between the meteorological and appropriate civil aviation authorities concerned and such information shall comprise location, date and time of the release, and forecast trajectories of the radioactive materials.

(3) The boundaries of the area over which meteorological watch is to be maintained by a meteorological watch office shall be coincident with the boundaries of a flight information region or a control area or a combination of flight information regions or control areas.

Volcano observatories

15. Where there is active or potentially active volcanoes the meteorological service provider shall arrange that selected State volcano observatories, as designated by regional air navigation agreement, monitor these volcanoes and when observing:

(a) significant pre-eruption volcanic activity, or a cessation thereof;

(b) a volcanic eruption, or a cessation thereof; or

(c) volcanic ash in the atmosphere; shall send this information as quickly as practicable to their associated ACC, MWO and VAAC.

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PART V
METEOROLOGICAL OBSERVATIONS AND REPORTS

Aeronautical meteorological stations and observations

16.-(1) The meteorological service provider shall establish, such aeronautical meteorological stations as it determines to be necessary.

(2) An aeronautical meteorological station may be a separate station or may be combined with a synoptic station.

(3) The meteorological service provider shall establish, or arrange for the establishment of, aero-nautical meteorological stations on offshore structures or at other points of significance in support of helicopter operations to offshore structures, if required by regional air navigation agreement.

(4) Aeronautical meteorological stations shall make routine observations at fixed intervals. At aerodromes, the routine observations shall be supplemented by special observations whenever specified changes occur in respect of surface wind, visibility, runway visual range, present weather, clouds or air temperature.

(5) The meteorological service provider shall arrange for its aeronautical meteorological stations to be inspected at sufficiently frequent intervals to ensure that a high standard of observation is maintained, that instruments and all their indicators are functioning correctly, and that the exposure of the instruments has not changed significantly

(6) At aerodromes with runways intended for ILS approach and landing operations, automated equipment for measuring or assessing, as appropriate, and for monitoring and remote indicating of surface wind, visibility, runway visual range, height of cloud base, air and dew-point temperatures and atmospheric pressure shall be installed to support approach and landing and take-off operations.

(7) These devices shall be integrated automatic systems for acquisition, processing, dissemination and display in real time of the meteorological parameters affecting landing and take-off operations.

(8) The design of integrated automatic systems shall observe Human Factors principles and include back-up procedures.

(9) Where an integrated semi-automatic system is used for the dissemination or display of meteorological information, it shall be capable of accepting the manual insertion of data covering those meteorological elements which cannot be observed by automatic means.

(10) The observations shall form the basis for the preparation of reports to be disseminated at the aerodrome of origin and of reports to be disseminated beyond the aerodrome of origin.

(11) Owing to the variability of meteorological elements in space and time, to limitations of observing techniques and to limitations caused by the definitions of some of the elements, the specific value of any of the elements given in a report shall be understood by the recipient to be the best approximation to the actual conditions at the time of observation

Agreement between air traffic services provider and meteorological services provider

17. An agreement between the meteorological services provider and the appropriate ATS authority shall be established to cover, amongst other things-

(a) the provision in air traffic services units of displays related to integrated automatic systems;

(b) the calibration and maintenance of these displays or instruments;

(c) the use to be made of these displays or instruments by air traffic services personnel;

(d) as and where necessary, supplementary visual observations, for example, of meteorological phenomena of operational significance in the climb-out and approach areas, where and when made by air traffic services personnel to update or supplement the information supplied by the meteorological station;

(e) meteorological information obtained from aircraft taking off or landing; and

(f) if available, meteorological information obtained from ground weather radar.

Routine observations and reports

18.-(1) At aerodromes, routine observations shall be made throughout the 24 hours each day, except as otherwise agreed between the service provider, the appropriate ATS authority and the operator concerned and such observations shall be made at intervals of one hour or, if so determined by regional air navigation agreement, at intervals of one half-hour.

(2) At other aeronautical meteorological stations, such observations shall be made as determined by the service provider taking into account the requirements of air traffic services units and aircraft operations

(3)Reports of routine observations shall be issued as:

(a) local routine reports, only for dissemination at the aerodrome of origin ,intended for arriving and departing aircraft; and

(b) METAR for dissemination beyond the aerodrome of origin, mainly intended for flight planning, VOLMET broadcasts and D-VOLMET.

(4) At aerodromes that are not operational throughout 24 hours, METAR shall be issued prior to the aerodrome resuming operations.

Special observations and reports

19.-(1) A list of criteria for special observations shall be established by the service provider, in consultation with the appropriate ATS authority, operators and others concerned.

(2) Reports of special observations shall be issued as:

(a) local special reports, only for dissemination at the aerodrome of origin, intended for arriving and departing aircraft; and

(b) SPECI for dissemination beyond the aerodrome of origin (mainly intended for flight planning, VOLMET broadcasts and D-VOLMET) unless METAR are issued at half-hourly intervals.

(3) At aerodromes that are not operational throughout 24 hours, following the resumption of the issuance of METAR, SPECI shall be issued, as necessary.

Contents of reports

20.-(1) Local routine and special reports and METAR and SPECI shall contain the following elements in the order indicated:

(a) identification of the type of report;

(b) location indicator;

(c) time of the observation;
(d) identification of an automated or missing report, when applicable;
(e) surface wind direction and speed;
(f) visibility;
(g) runway visual range, when applicable;
(h) present weather
(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; and
(k) QNH and, when applicable, QFE (QFE included only in local routine and special reports).

(2) In addition to elements listed under subregulation (1), local routine and special reports and METAR and SPECI shall contain supplementary information to be placed after paragraph (k).

Observing and reporting meteorological elements

21.-(1) The mean direction and the mean speed of the surface wind shall be measured, as well as significant variations of the wind direction and speed, and reported in degrees true and metres per second or knots, respectively.

(2) When local routine and special reports are used for departing aircraft, the surface wind observations for these reports shall be representative of conditions along the runway; when local routine and special reports are used for arriving aircraft, the surface wind observations for these reports shall be representative of the touchdown zone.

(3) For METAR and SPECI, the surface wind observations shall be representative of conditions above the whole runway where there is only one runway and the whole runway complex where there is more than one runway.

(4) The visibility shall be measured or observed, and reported in metres or kilometres;

(5) When local routine and special reports are used for departing aircraft, the visibility observations for these reports shall be representative of conditions along the runway; when local routine and special reports are used for arriving aircraft, the visibility observations for these reports shall be representative of the touchdown zone of the runway.

(6) For METAR and SPECI, the visibility observations shall be representative of the aerodrome

(7) The runway visual range shall-

(a) be assessed on all runways intended for Category II and III instrument approach and landing operations;

(b) be assessed on all runways intended for use during periods of reduced visibility, including:

(i) precision approach runways intended for Category I instrument approach and landing operations; and

(ii) runways used for take-off and having high-intensity edge lights or centre line lights.

(c) be reported in metres throughout periods when either the visibility or the runway visual range is less than 1 500 m;

(d) be representative of:

(i) the touchdown zone of the runway intended for non precision or Category I instrument approach and landing operations;

(ii) the touchdown zone and the mid-point of the runway intended for Category II instrument approach and landing operations; and

(iii) the touchdown zone, the mid-point and stop-end of the runway intended for Category III instrument approach and landing operations

(iv) the units providing air traffic service and aeronautical information service for an aerodrome shall be kept informed without delay of changes in the serviceability status of the automated equipment used for assessing runway visual range.

(8) The present weather occurring at the aerodrome or its vicinity shall be observed and reported as necessary, including intensity thereof, and thunderstorms in the vicinity.

(9) Rain, drizzle, snow and freezing precipitation, haze, mist, fog, freezing fog and thunderstorms shall be as the minimum weather phenomena for-

(a) local routine and special reports, the present weather information shall be representative of conditions at the aerodrome; and

(b) METAR and SPECI, the present weather information shall be representative of conditions at the aerodrome and, for certain specified present weather phenomena, in its vicinity.

(10) The cloud amount, cloud type and height of cloud base shall be observed and reported as necessary to describe the clouds of operational significance.

(11) Where the sky is obscured, vertical visibility shall be observed and reported, where measured, in lieu of cloud amount, cloud type and height of cloud base and the height of cloud base and vertical visibility shall be reported in metres or feet.

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(12) Cloud observations for-

(a) local routine and special reports shall be representative of the runway thresholds in use; and

(b) METAR and SPECI,

shall be representative of the aerodrome and its vicinity.

(13) The air temperature and the dew-point temperature shall be measured and reported in degrees Celsius.

(14) Observations of air temperature and dew-point temperature for local routine and special reports and METAR and SPECI shall be representative of the whole runway complex

(15) The atmospheric pressure shall be measured, and QNH and QFE values shall be computed and reported in hectopascal

(16) Observations made at aerodromes shall include the available supplementary information concerning significant meteorological conditions, particularly those in the approach and climb-out areas.

(17) Where practicable, the information in subregulation (16) shall identify the location of the meteorological condition.

Reporting meteorological information from automatic observing systems

22.-(1) METAR and SPECI from automatic observing systems shall be used during non-operational hours of the aerodrome, and during operational hours of the aerodrome as determined by the service provider in consultation with users based on the availability and efficient use of personnel.

(2) Local routine and special reports and METAR and SPECI from automatic observing systems shall be identified with the word "AUTO".

Observations and reports of volcanic activity

23.-(1) The occurrence of pre-eruption volcanic activity, volcanic eruptions and volcanic ash cloud shall be reported without delay to the associated air traffic services unit, aeronautical information services unit and meteorological watch office.

(2) The report shall be made in the form of a volcanic activity report comprising the following information in the order indicated:

(a) message type, VOLCANIC ACTIVITY REPORT;
(b) station identifier, location indicator or name of station;
(c) date or time of message;
(d) location of volcano and name if known; and
(e) concise description of event including, as appropriate, level of intensity of volcanic activity, occurrence of an eruption and its date and time, and the existence of a volcanic ash cloud in the area together with direction of ash cloud movement and height.

PART VI
AIRCRAFT OBSERVATIONS AND REPORTS

Obligations of the Authority

24. The Authority shall arrange, according to the provisions of these regulations, for observations to be made by aircraft of its registry operating on national and international air routes and for the recording and reporting of these observations.

Types of aircraft observations

25. The following aircraft observations shall be made-

(a) routine aircraft observations during en-route and climb-out phases of the flight; and
(b) special and other non-routine aircraft observations during any phase of the flight.

Routine aircraft observations - designation

26.-(1) When air-ground data link is used and automatic dependent surveillance (ADS) or Secondary surveillance radar (SSR) Mode S is being applied; automated routine observations shall be made every 15 minutes during the en-route phase and every 30 seconds during the climb-out phase for the first 10 minutes of the flight

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(2) For helicopter operations to and from aerodromes on offshore structures, routine observations shall be made from helicopters at points and times as agreed between the meteorological authorities and the helicopter operators concerned.

(3) In the case of air routes with high-density air traffic (e.g. organized tracks), an aircraft from among the aircraft operating at each flight level shall be designated, at approximately hourly intervals, to make routine observations in accordance with these regulations

(4) The designation procedures shall be subject to regional air navigation agreement

(5) In the case of the requirement to report during the climb-out phase, an aircraft shall be designated, at approximately hourly intervals, at each aerodrome to make routine observations in accordance with these regulations.

Routine aircraft observations - exemptions

27. Aircraft not equipped with air-ground data link shall be exempted from making routine aircraft observations

Special aircraft observations

28. Special observations shall be made by all aircraft whenever the following conditions are encountered or observed-

(a) moderate or severe turbulence;
(b) moderate or severe icing;
(c) severe mountain wave;
(d) thunderstorms, without hail, that are obscured, embedded, widespread or in squall lines;
(e) thunderstorms, with hail, that are obscured, embedded, widespread or in squall lines;
(f) heavy dust storm or heavy sandstorm;
(g) volcanic ash cloud; or
(h) pre-eruption volcanic activity or a volcanic eruption.

Other non routine aircraft observations

29. Where meteorological conditions other than the conditions listed under regulation (31), are encountered and which, in the opinion of the pilot-in command, may affect the safety or markedly affect the efficiency of other aircraft operations, the pilot-in-command shall advise the appropriate air traffic services unit as soon as practicable.

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Reporting of aircraft observations during flight

30. -(1) Aircraft observations shall be reported-

(a) by air-ground data link;

(b) where air-ground data link is not available or appropriate, special and other non-routine aircraft observations during flight, by voice communications;

(c) during flight at the time the observation is made or as soon thereafter as is practicable; and

(d) as air-reports.

Relay of air reports by air traffic services units

31. The meteorological services provider concerned shall make arrangements with the appropriate ATS authority to ensure that, on receipt by the air traffic services units of-

(a) special air-reports by voice communications, the air traffic services units relay them without delay to their associated meteorological watch office; and

(b) routine and special air-reports by data link communications, the air traffic services units relay them without delay to their associated meteorological watch office and WAFCs.

Recording and post-flight reporting of aircraft observations of volcanic activity

32.-(1) Special aircraft observations of pre-eruption volcanic activity, a volcanic eruption or volcanic ash cloud shall be recorded on the special air report of volcanic activity form.

(2) A copy of the activity form shall be included with the flight documentation provided to flights operating on routes which, in the opinion of the service provider concerned, are likely to be affected by volcanic ash clouds.

PART VII
FORECASTS

Interpretation and use of forecasts

33.-(1) Owing to the variability of meteorological elements in space and time, to limitations of forecasting techniques and to limitations caused by the definitions of some of the elements, the specific value of any of the elements given in a forecast shall be understood by the recipient to be the most probable value which the element is likely to assume during the period of the forecast and when the time of occurrence or change of an element is given in a forecast, this time shall be understood to be the most probable time.

(2) The issue of a new forecast by an aerodrome meteorological office, such as a routine aerodrome forecast,

shall be understood to cancel automatically any forecast of the same type previously issued for the same place and for the same period of validity or part thereof.

Aerodrome forecasts

34.-(1) An aerodrome forecast shall be:

(a) prepared, on the basis of regional air navigation agreement, by the aerodrome meteorological office designated by the service provider concerned; and

(b) issued at a specified time not earlier than one hour prior to the beginning of its validity period and consist of a concise statement of the expected meteorological conditions at an aerodrome for a specified period.

(2) Aerodrome forecasts and amendments shall be issued as TAF and include the following information in the order indicated:

(a) identification of the type of forecast;

(b) location indicator;

(c) time of issue of forecast;

(d) identification of a missing forecast, when applicable;

(e) date and period of validity of forecast;

(f) identification of a cancelled forecast, when applicable;

(g) surface wind;

(h) visibility;

(i) weather;

(j) cloud; and

(k) expected significant changes to one or more of these elements during the period of validity.

(3) Optional elements shall be included in TAF in accordance with regional air navigation agreement

(4) Aerodrome meteorological offices preparing TAF shall keep the forecasts under continuous review and, when necessary, shall issue amendments promptly.

(5) The length of the forecast messages and the number of changes indicated in the forecast shall be kept to a minimum.

(6) TAF that cannot be kept under continuous review shall be cancelled.

(7) The period of validity of a routine TAF shall be not less than 6 hours nor more than30 hours, the period of validity shall be determined by regional air navigation agreement.

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(8) TAF valid for less than 12 hours shall be issued every 3 hours and those valid for 12 to 30 hours shall be issued every 6 hours..

(9) When issuing TAF, aerodrome meteorological offices shall ensure that not more than one TAF is valid at an aerodrome at any given time.

Landing forecasts

35.-(1) A landing forecast shall-

(a) be prepared by the aerodrome meteorological office designated by the meteorological authority concerned as determined by regional air navigation agreement; such forecasts are intended to meet the requirements of local users and of aircraft within about one hour's flying time from the aerodrome;

(b) be prepared in the form of a trend forecast; and

(c) consist of a concise statement of the expected significant changes in the meteorological conditions at that aerodrome to be appended to a local routine or local special report, or a METAR or SPECI.

(2) The period of validity of a trend forecast shall be 2 hours from the time of the report which forms part of the landing forecast.

Forecasts for take-off

36.-(1) A forecast for take-off shall-

(a) be prepared by the aerodrome meteorological office designated by the service provider concerned, where required by agreement between the service provider and operators;

(b) refer to a specified period of time and shall contain information on expected conditions over the runway complex in regard to surface wind direction and speed and any variations thereof, temperature, pressure (QNH), and any other elements as agreed locally; and

(c) be supplied to operators and flight crew members on request within the 3 hours before the expected time of departure.

(2) Aerodrome meteorological offices preparing forecasts for take-off shall keep the forecasts under continuous review and, when necessary, shall issue amendments promptly.

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Area forecasts for low-level flights

37.-(1) Where the density of traffic operating below flight level 100, or up to flight level 150 in mountainous areas, or higher, where necessary, warrants the routine issue and dissemination of area forecasts for such operations, the frequency of issue, the form and the fixed time or period of validity of those forecasts and the criteria for amendments thereto shall be determined by the service provider in consultation with the users.

(2) Where the density of traffic operating below flight level 100 warrants the issuance of AIRMET information, area forecasts for such operations shall be prepared in a format agreed upon between the meteorological authorities concerned.

(3) Where-

(a) an abbreviated plain language is used, the forecast shall be prepared as a GAMET area forecast, employing approved ICAO abbreviations and numerical values; and

(b) where an chart form is used, the forecast shall be prepared as a combination of forecasts of upper wind and upper-air temperature, and of SIGWX phenomena.

(4) The area forecasts shall be issued to cover the layer between the ground and flight level 100, or up to flight level 150 in mountainous areas, or higher, where necessary, and shall contain information on en-route weather phenomena hazardous to low-level flights, in support of the issuance of AIRMET information, and additional information required by low-level flights.

(5) Area forecasts for low-level flights prepared in support of the issuance of AIRMET information shall be issued every 6 hours for a period of validity of 6 hours and transmitted to meteorological watch offices or aerodrome meteorological offices concerned not later than one hour prior to the beginning of their validity period.

PART VIII
SIGMET INFORMATION, AERODROME WARNINGS AND WIND SHEAR WARNINGS AND ALERT

SIGMET information

38.-(1) The SIGMET information shall be-

(a) issued by a meteorological watch office and shall give a concise description in abbreviated plain

language concerning the occurrence or expected occurrence of specified en-route weather phenomena, which may affect the safety of aircraft operations, and of the development of those phenomena in time and space; and

(b) cancelled when the phenomena are no longer occurring or are no longer expected to occur in the area.

(2) The period of validity of a SIGMET information shall:

(a) be not more than 4 hours; and

(b) in the special case of SIGMET information for volcanic ash cloud and tropical cyclones, the period of validity shall be extended up to 6 hours.

(3) The SIGMET information concerning volcanic ash cloud and tropical cyclones shall be based on advisory information provided by VAACs and TCACs, respectively, designated by regional air navigation agreement.

(4) Close coordination shall be maintained between the meteorological watch office and the associated area control centre or flight information centre to ensure that information on volcanic ash included in SIGMET and NOTAM messages is consistent.

(5) SIGMET information shall be issued not more than 4 hours before the commencement of the period of validity.

(6) In the special case of SIGMET information for volcanic ash cloud and tropical cyclones, these messages shall be issued as soon as practicable but not more than 12 hours before the commencement of the period of validity.

(7) SIGMET information for volcanic ash and tropical cyclones shall be updated at least every 6 hours.

Aerodrome warnings

39.-(1) Aerodrome warnings shall be issued by the aerodrome meteorological office designated by the service provider concerned and shall give concise information of meteorological conditions which could adversely affect aircraft on the ground, including parked aircraft, and the aerodrome facilities and services.

(2) Aerodrome warnings shall be cancelled when the conditions are no longer occurring or no longer expected to occur at the aerodrome.

Wind shear warnings and alert

40.-(1) Wind shear warnings shall be prepared by the aerodrome meteorological office designated by the service provider concerned for aerodromes where wind shear is considered a factor, in accordance with local arrangements with the appropriate air traffic services unit and operators concerned.

(2) Wind shear warnings shall give concise information on the observed or expected existence of wind shear which could adversely affect aircraft on the approach path or take-off path or during circling approach between runway level and 500 m (1 600 ft) above that level and aircraft on the runway during the landing roll or take-off run.

(3) Where local topography has been shown to produce significant wind shears at heights in excess of 500 m (1 600 ft) above runway level, then 500 m (1 600 ft) shall not be considered restrictive.

(4) Wind shear warnings for arriving aircraft or departing aircraft shall be cancelled when aircraft reports indicate that wind shear no longer exists or, alternatively, after an agreed elapsed time.

(5) The criteria for the cancellation of a wind shear warning shall be defined locally for each aerodrome, as agreed between the service provider, the appropriate ATS authority and the operators concerned.

(6) At aerodromes where wind shear is detected by automated, ground-based, wind shear remote-sensing or detection equipment, wind shear alerts generated by these systems shall be issued.

(7) Wind shear alerts shall give concise, up-to-date information related to the observed existence of wind shear involving a headwind or tailwind change of 7.5 m/s (15 kt) or more which could adversely affect aircraft on the final approach path or initial take-off path and aircraft on the runway during the landing roll or take-off run.

(8) Wind shear alerts shall be updated at least every minute. The wind shear alert shall be cancelled as soon as the headwind/tailwind change falls below 7.5 m/s (15 kt).

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PART IX
AERONAUTICAL CLIMATOLOGICAL INFORMATION

General provisions

41.-(1) The aeronautical climatological information required for the planning of flight operations shall be:

(a) prepared in the form of aerodrome climatological tables and aerodrome climatological summaries;

(b) be supplied to aeronautical users as agreed between the service provider and those user; and

(c) be based on observations made over a period of at least five years and the period shall be indicated in the information supplied.

(2) Climatological data related to sites for new aerodromes and to additional runways at existing aerodromes shall be collected starting as early as possible before the commissioning of those aerodromes or runways

Aerodrome climatological tables

42. The authority shall make arrangements for collecting and retaining the necessary observational data and have the capability:

(a) to prepare aerodrome climatological tables for each regular and alternate international aerodrome within its territory; and

(b) to make available such climatological tables to an aeronautical user within a time period as agreed between the service provider and that user.

Aerodrome climatological summaries

43.-(1) Aerodrome climatological summaries shall follow the procedures prescribed by the World Meteorological Organization.

(2)Where computer facilities are available to store, process and retrieve the information, the summaries shall be published or otherwise made available to aeronautical users on request.

(3) Where such computer facilities are not available, the summaries shall be prepared using the models specified by the World Meteorological Organization and shall be published and kept up to date as necessary.

Copies of meteorological observational data

44. The service provider, on request and to the extent practicable, shall make available to any other meteorological service provider, to operators and to others concerned with the

application of meteorology to international air navigation, meteorological observational data required for research, investigation or operational analysis.

PART X
SERVICE FOR OPERATORS AND FLIGHT CREW MEMBERS

General provisions

45.-(1) Meteorological information shall be supplied to operators and flight crew members for:

(a) pre-flight planning by operators;

(b) in-flight replanning by operators using centralized operational control of flight operations;

(c) use by flight crew members before departure; and

(d) aircraft in flight.

(2) Meteorological information supplied to operators and flight crew members shall cover the flight in respect of time, altitude and geographical extent.

(3) Accordingly, the information shall relate to appropriate fixed times, or periods of time, and shall extend to the aerodrome of intended landing, also covering the meteorological conditions expected between the aerodrome of intended landing and alternate aerodromes designated by the operator.

(4) Meteorological information supplied to operators and flight crew members shall be up to date and include the following information, as established by the service provider in consultation with operators concerned:

(a) forecasts of
  (i) upper wind and upper-air temperature;
  (ii) upper-air humidity;
  (iii) geopotential altitude of flight levels;
  (iv) flight level and temperature of tropopause;
  (v) direction, speed and flight level of maximum wind; and
  (vi) SIGWX phenomena;

(b) METAR or SPECI, including trend forecasts as issued in accordance with regional air navigation agreement, for the aerodromes of departure and intended landing, and for take-off, enroute and destination alternate aerodromes;

(c) TAF or amended TAF for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;
(d) forecasts for take-off;
(e) SIGMET information and appropriate special air-reports relevant to the whole route;
(f) volcanic ash and tropical cyclone advisory information relevant to the whole route;
(g) subject to regional air navigation agreement, GAMET area forecast or area forecasts for low-level flights in chart form prepared in support of the issuance of AIRMET information, and AIRMET information for low-level flights relevant to the whole route;
(h) aerodrome warnings for the local aerodrome;
(i) meteorological satellite images; and
(j) Ground-based weather radar information.

(5) Forecasts listed under sub-regulation (4) a) shall be generated from the digital forecasts provided by the WAFCs whenever these forecasts cover the intended flight path in respect of time, altitude and geographical extent, unless otherwise agreed between the service provider and the operator concerned.

(6) When forecasts are identified as being originated by the WAFCs, no modifications shall be made to their meteorological content.

(7) Charts generated from the digital forecasts provided by the WAFCs shall be made available, as required by operators, for fixed areas of coverage in accordance with technical guidance provided by the Authority.

(8) When forecasts of upper wind and upper-air temperature are supplied in chart form, they shall be fixed time prognostic charts for flight levels in accordance with guidance provided by the Authority, and when forecasts of SIGWX phenomena are supplied in chart form, they shall be fixed time prognostic charts for an atmospheric layer limited by flight levels as specified in technical standards developed by the Authority.

(9) The forecasts of upper wind and upper-air temperature and of SIGWX phenomena above flight level 100 requested for pre-flight planning and in-flight re planning by the operator shall be supplied as soon as they become available, but not later than 3 hours before departure.

(10) Where additional meteorological information is required for pre-flight planning and in-flight re-planning by the operator it shall be supplied as soon as is practicable.

(11) When necessary, the service provider providing service for operators and flight crew members shall initiate coordinating action with the meteorological authorities of other States with a view to obtaining from them the reports or forecasts required.

(12) Meteorological information shall be supplied to operators and flight crew members at the location to be determined by the service provider, after consultation with the operators and at the time to be agreed upon between the aerodrome meteorological office and the operator concerned.

(13) The service for preflight planning shall be confined to flights originating within United Republic of Tanzania.

(14) At an aerodrome without an aerodrome meteorological office at the aerodrome, arrangements for the supply of meteorological information shall be as agreed upon between the service provider and the operator concerned.

Briefing, consultation and display

46.-(1) Briefing or consultation shall be provided, on request, to flight crew members or other flight operations personnel.

(2) Its purpose shall be to supply the latest available information on existing and expected meteorological conditions along the route to be flown, at the aerodrome of intended landing, alternate aerodromes and other aerodromes as relevant, either to explain and amplify the information contained in the flight documentation or, if so agreed between the service provider and the operator, in lieu of flight documentation.

(3) Meteorological information used for briefing, consultation and display shall include any or all of the information.

(4) Where the aerodrome meteorological office expresses an opinion on the development of the meteorological conditions at an aerodrome which differs appreciably from the

aerodrome forecast included in the flight documentation, the attention of flight crew members shall be drawn to the divergence.

(5) The portion of the briefing dealing with the divergence shall be recorded at the time of briefing and this record shall be made available to the operator.

(6) The required briefing, consultation, display or flight documentation shall normally be provided by the aerodrome meteorological office associated with the aerodrome of departure

(7) At an aerodrome where these services are not available, arrangements to meet the requirements of flight crew members shall be as agreed upon between the service provider and the operator concerned.

(8) In exceptional circumstances, such as an undue delay, the aerodrome meteorological office associated with the aerodrome shall provide or, if that is not practicable, arrange for the provision of a new briefing, consultation or flight documentation as necessary.

(9) The flight crew member or other flight operations personnel for whom briefing, consultation or flight documentation has been requested shall visit the aerodrome meteorological office at the time agreed upon between the aerodrome meteorological office and the operator concerned.

(10) Where local circumstances at an aerodrome make personal briefing or consultation impracticable, the aerodrome meteorological office shall provide those services by telephone or other suitable telecommunications facilities

Flight documentation

47.-(1) Flight documentation to be made available shall comprise information on:

(a) upper winds and upper-air temperature;
(b) SIGWIX phenomena;
(c) METAR or SPECI, including trend forecasts as issued in accordance with regional air navigation agreement, for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes
(d) TAF or amended TAF for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;

(e) SIGMET information and appropriate special air-reports relevant to the whole route;

(f) volcanic ash and tropical cyclone advisory information relevant to the whole route; and if appropriate; and

(g) subject to regional air navigation agreement, GAMET area forecast or area forecasts for low-level flights in chart form prepared in support of the issuance of AIRMET information, and AIRMET information for low-level flights relevant to the whole route.

(2) Where the service provider and operator concerned agree flight documentation for flights of two hours' duration or less, after a short stop or turnaround, shall be limited to the information operationally needed, but in all cases the flight documentation shall at least comprise information in subregulation (1)(c), (d), (e), (f) and, where appropriate, paragraph (g).

(3) Whenever it becomes apparent that the meteorological information to be included in the flight documentation will differ materially from that made available for pre-flight planning and in flight re planning, the operator shall be advised immediately and, if practicable, be supplied with the revised information as agreed between the operator and the aerodrome meteorological office concerned.

(4) Where a need for amendment arises after the flight documentation has been supplied, and before take-off of the aircraft, the aerodrome meteorological office shall, as agreed locally, issue the necessary amendment or updated information to the operator or to the local air traffic services unit, for transmission to the aircraft.

(5) The service provider shall retain information supplied to flight crew members, either as printed copies or in computer files, for a period of at least 30 days from the date of issue.

(6) This information in subregulation (5) shall be made available, on request, for inquiries or investigations and, for these purposes, shall be retained until the inquiry or investigation is completed.

Automated preflight

48.-(1) Where the service provider uses automated pre-flight information systems to supply and display meteorological

information systems for briefing, consultation, flight planning and flight documentation

information to operators and flight crew members for self-briefing, flight planning and flight documentation purposes, the information supplied and displayed shall comply with the regulation.

(2) Automated pre-flight information systems providing for a harmonized, common point of access to meteorological information and aeronautical information services information by operators, flight crew members and other aeronautical personnel concerned shall be established by an agreement between the meteorological service provider and the Authority.

(3) Where automated pre-flight information systems are used to provide for a harmonized, common point of access to meteorological information and aeronautical information services information by operators, flight crew members and other aeronautical personnel concerned, the service provider concerned shall remain responsible for the quality control.

Information for aircraft in flight

49. Meteorological information-

(a) for use by aircraft in flight shall be supplied by an aerodrome meteorological office or meteorological watch office to its associated air traffic services unit and through D-VOLMET or VOLMET broadcasts as determined by regional air navigation agreement;
(b) for planning by the operator for aircraft in flight shall be supplied on request, as agreed between the service provider and the operator concerned;
(c) for use by aircraft in flight shall be supplied to air traffic services units in accordance with the provision under Part XI of these Regulations; and
(d) shall be supplied through D-VOLMET or VOLMET broadcasts in accordance with the requirements under Part XII of these Regulations.

PART XI
INFORMATION FOR AIR TRAFFIC SERVICES, SEARCH AND RESCUE SERVICES AND AERONAUTICAL INFORMATION SERVICES

Information for air traffic services units

50.-(1) The meteorological authority shall designate an aerodrome meteorological office or meteorological watch office to be associated with each air traffic services unit.

(2) The associated aerodrome meteorological office or meteorological watch office shall, after coordination with the air traffic services unit, supply, or arrange for the supply of, up-to-date meteorological information to the unit as necessary for the conduct of its functions.

(3) An aerodrome meteorological office shall be associated with an aerodrome control tower or approach control unit for the provision of meteorological information.

(4) A meteorological watch office shall be associated with a flight information centre or an area control centre for the provision of meteorological information.

(5) Where, owing to local circumstances, it is convenient for the duties of an associated aerodrome meteorological office or meteorological watch office to be shared between two or more aerodrome meteorological offices or meteorological watch offices, the division of responsibility shall be determined by the meteorological authority in consultation with the appropriate ATS authority.

(6) Any meteorological information requested by an air traffic services unit in connection with an aircraft emergency shall be supplied as rapidly as possible

Information for search and rescue services units

51.-(1) Aerodrome meteorological offices or meteorological watch offices designated by the meteorological authority in accordance with regional air navigation agreement shall supply search and rescue services units with the meteorological information they require in a form established by mutual agreement.

(2) The designated aerodrome meteorological office or meteorological watch office shall for that purpose maintain liaison with the search and rescue services unit throughout a search and rescue operation.

Information for aeronautical information services units

52. The service provider, in coordination with the appropriate civil aviation authority, shall arrange for the supply of up-to-date meteorological information to relevant aeronautical information services units, as necessary, for the conduct of their functions.

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PART XII
REQUIREMENTS FOR AND USE OF COMMUNICATIONS

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Requirements for communication

53.-(1) Suitable telecommunications facilities shall be made available to permit-

(a) aerodrome meteorological offices and, as necessary, aeronautical meteorological stations to supply the required meteorological information to air traffic services units on the aerodromes for which those offices and stations are responsible, and in particular to aerodrome control towers, approach control units and the aeronautical telecommunications stations serving these aerodromes;

(b) meteorological watch offices to supply the required meteorological information to air traffic services and search and rescue services units in respect of the flight information regions, control areas and search and rescue regions for which those offices are responsible, and in particular to flight information centres, area control centres and rescue coordination centres and the associated aeronautical telecommunications stations; and

(c) world area forecast centres to supply the required world area forecast system products to aerodrome meteorological offices, meteorological authorities and other users.

(2). Telecommunications facilities between aerodrome meteorological offices-

(a) and, as necessary, aeronautical meteorological stations and aerodrome control towers or approach control units shall permit communications by direct speech, the speed with which the communications can be established being such that the required points may normally be contacted within approximately 15 seconds; and

(b) or meteorological watch offices and flight information centres, area control centres, rescue coordination centres and aeronautical telecommunications stations shall permit-

(i) communications by direct speech, the speed with which the communications can be established being such that the required points may normally be contacted within approximately 15 seconds; and

(ii) printed communications, when a record is required by the recipients; the message transit time shall not exceed 5 minutes.

(3) As agreed between the service provider and operators, provision shall be made to enable operators to establish suitable telecommunications facilities for obtaining meteorological information from aerodrome meteorological offices or other appropriate sources.

(4) Suitable telecommunications facilities shall be made available to permit meteorological offices to exchange operational meteorological information with other meteorological offices.

(5) The telecommunications facilities used for the exchange of operational meteorological information shall be the aeronautical fixed service or, for the exchange of non-time critical operational meteorological information, the public Internet, subject to availability, satisfactory operation and bilateral, multilateral or regional air navigation agreements.

Use of aeronautical fixed service communications and the public Internet - Meteorological bulletins

54. Meteorological bulletins containing operational meteorological information to be transmitted via the aeronautical fixed service or the public Internet shall be originated by the appropriate meteorological office or aeronautical meteorological station.

Use of aeronautical fixed service communications - world area forecast system products

55.-(1) The world area forecast system products in digital form shall be transmitted using binary data communications techniques.

(2) The method and channels used for the dissemination of the products shall be as determined by regional air navigation agreement.

Use of aeronautical mobile service communications

56. The content and format of meteorological information transmitted to aircraft and by aircraft shall be consistent with the provisions of these regulations.

Use of aeronautical data link service-contents of DVOLMET

57. D-VOLMET shall contain current METAR and SPECI, together with trend forecasts where available, TAF and SIGMET, special air reports not covered by a SIGMET.

Use of aeronautical broadcasting service-contents of VOLMET broadcasts

58.-(1) Continuous VOLMET broadcasts, normally on very high frequencies (VHF), shall contain current METAR and SPECI, together with trend forecasts where available.

(2) Scheduled VOLMET broadcasts, normally on high frequencies (HF), shall contain current METAR and SPECI, together with trend forecasts where available and, where so determined by regional air navigation agreement, TAF and SIGMET.

PART XIII
EXEMPTIONS

Requirements for application for exemption

59.-(1) A person may apply to the Authority for an exemption from any provision of these Regulations.

(2) Unless in case of emergency, a person requiring exemption from any provision of these Regulations shall make an application to the Authority at least sixty days prior to the proposed effective date, giving the following information-

(a) name and contact address including electronic mail and fax if any;
(b) telephone number;
(c) a citation of the specific requirement from which the applicant seeks exemption;
(d) justification for the exemption;
(e) a description of the type of operations to be conducted under the proposed exemption;
(f) the proposed duration of the exemption;
(g) an explanation of how the exemption would be in the public interest;
(h) a detailed description of the alternative means by which the applicant will ensure a level of safety equivalent to that established by the regulation in question;

(i) a safety risk assessment carried out in respect of the exemption applied for;

(j) if the applicant handles international operations and seeks to operate under the proposed exemption, an indication whether the exemption would contravene any provision of the Standards and Recommended Practices of ICAO; and

any other information that the Authority may require.

(3) Where the applicant seeks emergency processing of an application for exemption, the application shall contain supporting facts and reasons for not filing the application within the time specified in sub regulation (2) and satisfactory reason for deeming the application an emergency.

(4) The Authority may in writing, refuse an application made under subregulation (3), where in the opinion of the Authority, the reasons given for emergency processing are not satisfactory.

(6) The application for exemption shall be accompanied by fee prescribed by the Authority.

Review and publication

60.-(1) The Authority shall review the application for exemption made under regulation 52 for accuracy and compliance and if the application is satisfactory, the Authority shall publish a detailed summary of the application for comments, within a prescribed time, in either-

(a) aeronautical information circular; or

(b) a daily newspaper with national circulation.

(2) Where application requirements have not been fully complied with, the Authority shall request the applicant in writing, to comply prior to publication or making a decision under sub regulation (3).

(3) Where the request is for emergency relief, the Authority shall publish the decision as soon as possible after processing the application.

Evaluation of the request

61.-(1) Where the application requirements have been satisfied, the Authority shall conduct an evaluation of the request to include-

(a) determination of whether an exemption would be in the public interest;

(b) a determination, after a technical evaluation of whether the applicant's proposal would provide a level of safety equivalent to that established by the

regulation, although where the Authority decides that a technical evaluation of the request would impose a significant burden on the Authority's technical resources, the Authority may deny the exemption on that basis;

(c) a determination of whether a grant of the exemption would contravene these Regulations; and

(d) a recommendation based on the preceding elements, of whether the request should be granted or denied, and of any conditions or limitations that should be part of the exemption.

(2) The Authority shall notify the applicant in writing of, the decision to grant or deny the request and publish a detailed summary of its evaluation and decision.

(3) The summary referred to in sub-regulation (2) shall specify the duration of the exemption and any conditions or limitations of the exemption.

(4) Where the exemption affects a significant population of the aviation community of the United Republic of Tanzania the Authority shall publish the summary in aeronautical information circular.

PART XIV
GENERAL PROVISIONS

Drug and alcohol testing and reporting

62.-(1) A person who-

(a) performs any function prescribed by these Regulations directly or by contract may be tested for drug or alcohol usage;

(b) refuses to be tested for the percentage of present of alcohol in the blood; or

(c) refuses to be tested for the presence of narcotic drugs, marijuana, or depressant or stimulant drugs or substances in the body, when so requested by a law enforcement officer or the Authority, or refuses to furnish or to authorise the release of the test results requested by the Authority,

shall-

(i) be denied any licence, certificate, rating, qualification, or authorisation issued under these Regulations for a period of up to one year from the date of that refusal; or

(ii) have their licence, certificate, rating, qualification, or authorisation issued under these Regulations suspended or revoked.

(2) A person who is convicted for the violation of any local or national statute relating to the use, growing, processing, manufacture, sale, disposition, possession, transportation, or importation of narcotic drugs, marijuana, or depressant or stimulant drugs or substances, shall-

(a) be denied any license, certificate, rating, qualification, or authorisation issued under these Regulations for a period of up to one year after the date of conviction; or

(b) have their licence, certificate, rating, qualification, or authorisation issued under these Regulations suspended or revoked.

Change of Name

63.-(1) A holder of a certificate issued under these Regulations may apply to the Authority for-

(a) a replacement of the certificate if lost or destroyed;

(b) a change of name on the certificate; or

(c) an endorsement on the certificate

(2) For the purposes of sub regulation (1), the holder of a certificate shall submit to the Authority-

(a) the original certificate or a copy thereof in case of loss; and

(b) a court order, or other legal document verifying the name change.

(3) The Authority shall return to the holder of a certificate, with the appropriate changes applied for, if any, the documents in sub regulation (2) and, where necessary, retain copies thereof.

Change of address

64.-(1) A holder of a certificate issued under these Regulations shall notify the Authority of any change in the physical and mailing address within fourteen days of such change.

(2) A person who does not notify the Authority of the change in the physical and mailing address within the time frame specified in sub-regulation (1) shall not exercise the privileges of the certificate.

GN. No. 59 (contd.)

Replacement of documents.

65. A person may apply to the Authority, in the prescribed form for a replacement of the documents issued under these Regulations where the documents are lost or destroyed.

Use and retention of documents and records

66.-(1) A person shall not-

(a) use any certificate or exemption issued or required by or under these Regulations which has been forged, altered, cancelled, or suspended, or to which he is not entitled;

(b) forge or alter any certificate or exemption issued or required by or under these Regulations;

(c) lend any certificate or exemption issued or required by or under these Regulations to any other person;

(d) make any false representation for the purpose of procuring for himself or any other person the grant, issue, renewal or variation of any such certificate or exemption; or

(e) mutilate, alter, render illegible or destroy any records, or any entry made therein, required by or under these Regulations to be maintained, or knowingly make, or procure or assist in the making of, any false entry in any such record, or wilfully omit to make a material entry in such record.

(2) All records required to be maintained by or under these Regulations shall be recorded in a permanent and indelible material.

(3) A person shall not issue any certificate:

(a) or exemption under these Regulations unless he is authorised to do so by the Authority; or

(b) referred to in sub-regulation (3) unless he has satisfied himself that all statements in the certificate are correct, and that the applicant is qualified to hold that certificate.

Reports of violation Cap.80

67.-(1) Any person who knows of a violation of the Act, or any Regulations, rules, or orders issued there under, shall report it to the Authority.

(2) The Authority may determine the nature and type of investigation or enforcement action that need to be taken.

GN. No. 59 (contd.)

Failure to comply with direction

68. A person who fails to comply with any direction given to him by the Authority or by any authorised person under any provision of these Regulations commits an offence.

Aeronautical fees

69.-(1) The Authority shall issue a written notification of the fees to be charged in connection with the issue, renewal or variation of any certificate, test, inspection or investigation required by, or for the purpose of these Regulations any orders, notices or proclamations made there under.

(2) An applicant for anything under these Regulations shall, before the application is accepted, be required to pay the fee so chargeable for the respective application.

(3) Where a payment has been made in terms of sub regulation (2) and the applicant decides to withdraw the application, the Authority shall not refund the payment made.

PART XV
OFFENCES AND PENALTIES

Penalties

70.-(1) A person who contravenes any provision of these Regulations, orders, notices or proclamations made there under shall, upon conviction, be liable to a fine not exceeding one million shillings or to imprisonment for a term not more than six months or both, and in the case of a continuing contravention, each day of the contravention shall constitute a separate offence.

(2) Where it is proved that an act or omission of any person, which would otherwise have been a contravention by that person of a provision of these Regulations, orders, notices or proclamations made there under was due to any cause not avoidable by the exercise of reasonable care by that person, the act or omission shall be deemed not to be a contravention by that person of that provision.

(3) Where any person is aggrieved by any order made under these Regulations the person may, within twenty one days of such order being made, appeal against the order to a court of law with competent jurisdiction.

GN. No. 59 (contd.)

General penalty

71. A person who contravenes any provision of these Regulations for which no penalty has been provided, commits an offence and-

(a) shall, on conviction be liable to a fine of the sum equivalent in Tanzanian shillings of five hundred United States dollars; and
(b) may, on conviction have his certificate, approval, authorisation, exemption or such other document revoked or suspended.

Dar es Salaam,
20th February, 2017

MAKAME M. MBARAWA,
Minister for Works, Transport and Communication