
GUIDANCE ON TECHNICAL SPECIFICATIONS FOR METEOROLOGICAL REPORTS FOR AIR NAVIGATION SERVICES

1.0 PURPOSE

- 1.1 The purpose of this Advisory Circular is to guide the Aeronautical Meteorological Service Provider (AMSP) in preparation and issuance of meteorological reports in accordance with the technical specifications in the Civil Aviation (Meteorological service for air navigation) Regulations.
- 1.2 This advisory Circular supersedes CAA-AC-MET-006 issued in December 2024.

2.0 REFERENCES

- 2.1 The Civil Aviation (Meteorological Service for Air Navigation) Regulations.
- 2.2 ICAO DOC. 8896; Manual of Aeronautical Meteorological Practice.
- 2.3 WMO No. 306 Manual on codes.

3.0 GUIDANCE AND PROCEDURES

3.1 General

- 3.1.1 Observations of meteorological conditions are made by means of instruments and visual estimation used for landing and take-off, en-route navigation and flight performance, and as a basis for forecasting. Those observations used primarily for aircraft operations are called “operational meteorological (OPMET) information” while those used primarily for forecasting purposes are considered to be “basic meteorological data”. OPMET information includes aerodrome reports, landing forecasts, aerodrome forecasts, special aircraft observations, SIGMETs and space weather advisories and WAFS forecasts.
- 3.1.2 At aerodromes, routine observations are made and reported at hourly or half-hourly intervals depending on the AFI regional air navigation agreement. When required as a result of specified operationally significant changes in the meteorological conditions, special observations and reports are made whenever such changes occur between routine observations.

3.1.3 Observational data are combined into a report for dissemination at the local aerodrome or beyond. Depending on their use, the reports are presented in two forms, i.e. as local routine reports (or MET REPORTS) and local special reports (or SPECIAL) in abbreviated plain language intended for dissemination and use at the aerodrome of origin or as an aerodrome routine meteorological report (METAR) and aerodrome special meteorological report (SPECI) intended for dissemination and use beyond the aerodrome of origin

3.1.4 This Circular therefore describes the specifications for meteorological reports that include; METAR, SPECI and TAF in accordance with the technical specification and detailed criteria in the Civil Aviation (Meteorological Service for Air Navigation) Regulations, as amended

3.2 Specifications for Aviation Routine Reports (METAR) and Special Reports (SPECI).

3.2.1 The AMSP shall prepare and issue routine and special meteorological reports for aviation users in form of METAR and SPECI using technically specified coded formats as prescribed in the Civil Aviation (Meteorological Service for Air Navigation) Regulations.

3.2.2 Local routine reports, local special reports, METAR and SPECI shall contain the following elements in the order indicated:

- 3.2.2.1 identification of the type of report;
- 3.2.2.2 location indicator; and time of the observation;
- 3.2.2.3 identification of an automated or missing report, when applicable;
- 3.2.2.4 surface wind direction and speed;
- 3.2.2.5 visibility; runway visual range, when applicable;
- 3.2.2.6 present weather;
- 3.2.2.7 cloud amount, cloud type (only for cumulonimbus and towering cumulus clouds) and height of cloud base or, where measured, vertical visibility;
- 3.2.2.8 air temperature and dew-point temperature; and
- 3.2.2.9 QNH and, when applicable, QFE (QFE included only in local routine and special reports).

3.2.3 The coded and/or plain language information elaborating on data in the body may be appended to the end of the METAR as “remarks” as specified in **Table 1** below.

Table 1: METAR/SPECI Coding and reporting Format

| | | | | |
|--------------|--------------------|-------------------------|-----------------|-------------------|
| METAR | HUEN* | 011900Z | AUTO | 22015G25KT |
| Report type | Station identifier | Date and Time of report | Report Modifier | Surface wind |
| 9000 | R17/0300M | +TSRA | OVC010CB | 23/19 |
| Visibility | Runway Visual | Present | Cloud | Temperature |

| | | | | |
|----------------------|-------------|---------|------------|------------------|
| | Range (RVR) | Weather | conditions | and Dew Point |
| | | | | |
| Q1020 | RMK NO SIG | | | |
| Altimeter Reading | Remarks | | | |

Note:

* *HUEN is used as example*

The interpretation and decoding of the METAR described in *Table 1* shall be as below;

- 3.2.3.1 Identification *of Type of Report*. **METAR** or **SPECI**, should precede the body of all reports to specify that the report is an Aviation Routine Weather Report (METAR) or Special Weather Report (SPECI).
- 3.2.3.2 *The Location indicator*. The *Location indicator in ICAO format* should be included in all reports to identify the location to which the coded report applies. The ICAO airport code is a four-letter alphanumeric code designating each airport around the world for example **HUEN** for Entebbe; **HSSJ** for Juba, **HRYR** is Kigali, **HTDA** is Dar Es Salaam; **HKJK** is Jomo Kenyatta (Nairobi).
- 3.2.3.3 *The time of observation*. The *time of observation* is coded in all reports as follows: the day of the month is the first two digits, followed by the hour and the minutes. The date and time group always ends with a **Z**, indicating universal time (UTC). For example, METAR HUEN 011900Z would be disseminated as the 1900 UTC routine report for station HUEN, taken on the 1st of the month at 1900 UTC.
- 3.2.3.4 *The identification of an automated or Corrected report*. The report identification **AUTO** identifies that the METAR/SPECI as a fully-automated report with no human intervention or oversight. In the event of a corrected METAR or SPECI, the report modifier **COR** is substituted for **AUTO**. For missing report is coded with ///
- 3.2.3.5 *The surface wind direction and speed*. The surface wind direction and speed indicate the direction from which the wind originates. In the wind group [**22015G25**], the wind direction is coded as the first three digits (**220**). It is coded in tens of degrees relative to true north using three figures and wind directions less than 100 degrees are preceded with a 0. For example, a wind direction of **90** degrees is coded as **090**. Immediately following the wind direction is the wind speed coded in two or three digits and coded in whole knots (KT). When wind speeds are less than 10 kts, a leading 0 is used to maintain at least a two-digit code. For example, a wind speed of 8 kts will be coded **08KT**.

Examples:

05008KT = Wind 50 degrees at 8 kts and
15014KT = Wind 150 degrees at 14 kts

- 1) **Wind Gusts.** The wind gusts should be coded in two or three digits immediately following the wind speed. For example, a wind originating from the west at 15 knots with gusts to 25 kts would be coded as **27015G25KT**.
- 2) **Variable wind.** The wind directional variability is coded in a clockwise direction and consists of the extremes of the wind directions separated by a **V**. For example, if the wind direction is recorded as 210 degrees and is variable from 180 degrees to 240 degrees at 10 kts, it should be coded as **21010KT 180V240**.
- 3) **Calm wind.** When no motion of air is detected, the wind is reported as calm and a calm wind is coded as **00000KT**.

3.2.3.6 **Visibility.** The visibility group is coded as the surface visibility in metres. For example, a visibility of 9 000 metres is coded **9000**. When the visibility is greater than 10000 metres, it is coded as **9999**. For local routine and special local report, the visibility is given in plain language (e.g. 800 metres, 5 kilometres) and when the visibility is 10000 metres or greater, it's given as 10 kilometres.

3.2.3.7 **Runway Visual Range (RVR), when applicable.** The AMSP should code RVR in the routine and special reports using initial **R** as code for runway and is followed by the runway number. Next is a solidus (/) followed by the visual range in metres and then **m** completes the RVR report. For example, an RVR value for Runway 17 is 800 m; This should be coded as **R17/0800m**. When the RVR varies by more than one reportable value, the lowest and highest values will be shown with **V** between them, indicating variable conditions. Example, the RVR for Runway 17 varying between 600m and 900m should be coded as **R17/0600V0900m**. When the RVR is greater than 2000m, it should be reported as P2000. For example, for runway 17, when the RVR is greater than 2000m, it's coded as **R17/P2000**.

3.2.3.8 **Present Weather Group.** When coding present weather, separate groups are used for each type of present weather. Each group is separated from the other by a space. The METAR/SPECI reports should **not** contain more than three present weather groups.

When more than one type of present weather is reported at the same time, present weather is reported in order of decreasing dominance (i.e., the most dominant type reported first):

The intensity qualifiers used to report present weather are light, moderate, and heavy; they are coded with precipitation types.

The descriptor qualifiers are:

low drifting (**DR**),

blowing (**BL**),
 shower(s) (**SH**),
 thunderstorm (**TS**) and
 freezing (**FZ**) as indicated in *Table 2* below;

Table 2: Examples of present weather reporting

| Present weather Code | Present weather in plain language |
|----------------------|--|
| -DZ | Light drizzle |
| -RA | Light rain |
| GR BR | (Moderate) hail, mist |
| FG | Fog |
| SHRA | (Moderate) showers and rain |
| VCBLDU | Blowing dust in the vicinity |
| -RAGR FG | Light rain and (light) GR, fog |
| TS | Thunderstorm (without precipitation) |
| +TSRA | Severe Thunderstorm and heavy rain |
| +FC TSRAGR | Funnel cloud, thunderstorms, (moderate) rain, hail |

3.2.3.9 **Cloud Group.** The descriptions of this group include either cloud cover, vertical visibility or clear skies. This group should be based on the amount of cloud cover (the first three letters) followed by the height of the base of the cloud cover (final three digits). No space is between the amount of cloud cover and the height of the cloud layer. The cloud condition is coded in ascending order and ends at the first overcast layer. The codes for cloud cover are in *Table 3* below.

3.2.3.10 **Vertical visibility.** The code for vertical visibility is **VV**, followed by the vertical visibility distance visible in feet (FT). No space is between the group identifier (VV) and the vertical visibility (distance in FT). Related to VV are the Clear skies that are coded in the format **SKC**. When **SKC** is used, an observer indicates no cloud layers are present. Each coded layer is separated from the others by a space. The codes **FEW**, **SCT**, **BKN** and **OVC** should be followed (without a space) by height of the layer. Example **FEW020**, **SCT120**, **BKN150** or **OVC080**. Interpretations of the codes is in *Table 3* below.

Table 3: METAR/SPECI reporting Codes for cloud cover

| Cloud amount descriptor | Meaning | Cloud coverage |
|-------------------------|--------------------------------------|--|
| VV | Vertical Visibility | 8 Oktas |
| CAVOK | Cloud ceiling and visibility OK | No cloud below 5000ft, No CB, No TCU |
| NSC | No cloud of operational significance | No cloud below 5000ft and visibility may be less than 10km |
| SKC | Clear sky | 0 Oktas |
| FEW | Few cloud cover | 0 to 2 Oktas |
| SCT | Scattered cloud cover | 3 to 4 Oktas |
| BKN | Broken cloud cover | 5 to 7 Oktas |
| OVC | Overcast | 8 Oktas |

Note:

For both METAR/SPECI reports, cumulonimbus (**CB**) or towering cumulus (**TCU**) is appended to the associated layer. For example, a scattered layer of towering cumulus at 1,500FT should be coded as **SCT015TCU** and would be followed by a space if there were additional higher cloud layers to code.

- 3.2.3.11 **Temperature/Dewpoint Group.** The code for temperature and dewpoint is two digits **rounded** to the nearest whole degree Celsius. For example, a temperature of 0.3 °C would be coded as **00**. If temperature record is not available, the entire temperature/dewpoint group is not coded. If dewpoint is not available, temperature is coded followed by a solidus (/) and no entry is made for dewpoint. For example, a temperature of 21.6 °C and missing dewpoint would be coded as **22/**.

- 3.2.3.12 **The altimeter setting group.** The AMSP should ensure that altimeter settings group starts with code **Q** and this is followed by the four-digit group representing the pressure in hectopascals (hPa). The decimal point is not coded. For example, an altimeter setting of 1020.3 hPa should be coded as **Q1020** and altimeter setting of 1022.7 hPa should be coded as **Q1022**.
- 3.2.3.13 **Remarks.** The AMSP should include at the end of METAR and SPECI, remarks when appropriate. Remarks are separated from the body of the report by the contraction **RMK**. When no remarks are necessary, the contraction **RMK** is not required.
- 3.2.3.14 **Volcanic eruptions** The AMSP should code volcanic eruption report in plain language in the Remarks section of the METAR or SPECI when appropriate and the volcanic eruption report should contain the following information, when such data is available:
- 1) **Name** of volcano.
 - 2) **Latitude and longitude** or the direction and approximate distance from the station.
 - 3) **Date/Time** (UTC) of the eruption.
 - 4) Size **description**, approximate height, and direction of movement **of the ash cloud**;
 - 5) Any **other pertinent data** about the eruption.

For example, a remark on a volcanic eruption is below:

RMK MT. MUHAVURA VOLCANO 600 KILOMETRES SW ERUPTED AT 231505 LARGE ASH CLOUD EXTENDING TO APRX 30000 FT MOVING NE.

- 3.2.3.15 **Trend Forecasts.** The Forecasters at the AMSP should in the Remarks section append the trend forecast, consisting of a concise statement of the expected significant changes in the meteorological conditions at that aerodrome to a METAR or SPECI. The period of validity of a trend forecast shall not exceed two (2) hours from the time of the report which forms part of the landing forecast.
- 3.2.3.16 **Supplementary information.** In local routine reports, local special reports, METAR and SPECI, the following recent weather phenomena, i.e. weather phenomena observed at the aerodrome during the period since the last issued routine report or last hour, whichever is the shorter, but not at the time of observation, should be reported such as;
- 1) moderate or heavy precipitation (including showers thereof)
 - 2) thunderstorm and dust storms
 - 3) funnel cloud (waterspout)
 - 4) volcanic ash

3.3 Specifications for Special Weather Report (SPECI)

- 3.3.1 The AMSP should report a SPECI as an unscheduled report taken when any of criteria in **Table 4** are observed during the period between hourly reports. The SPECI reports should contain all data elements found in a METAR and should be issued immediately the relevant criteria are observed.
- 3.3.2 The AMSP should ensure that a METAR is issued instead of a SPECI whenever the SPECI reporting criteria are met at the time of issuing routine METAR.

Table 4: SPECI reporting criteria

| | | |
|---|----------------------------|---|
| 1 | Wind shift | Wind direction changes by 45 degrees or more, in less than 15 minutes and the wind speed is 10 knots or more throughout the wind shift. |
| 2 | Visibility | Surface visibility, as reported in the body of the report, decreases to less than, or if below, increases to equal to or exceeding: <ul style="list-style-type: none">• 5 kilometres• 3 kilometres• 1.5 kilometres• The lowest standard instrument approach procedure minimum as published in the AIP Instrument Procedures. If none published, use 800 metres. |
| 3 | Runway Visual Range (RVR) | The highest value from the designated RVR runway decreases to less than, or if below, increases to, equal to or exceeding 800 metres during the preceding 10 minutes, the meteorological authority may not report a SPECI based on RVR. |
| 4 | Funnel cloud or waterspout | Where applicable, SPECI is issued immediately when a funnel cloud or waterspout; <ul style="list-style-type: none">• is observed• Disappears, or ends• |
| 5 | Severe Thunderstorm | SPECI is issued when a severe thunderstorm is observed, however, SPECI is not required to report the beginning of a new thunderstorm if one is currently reported and SPECI is issued when severe thunderstorm ends |
| 6 | Precipitation | Hail begins or ends Heavy showers begins, ends or changes intensity |
| 7 | Cloud ceiling | The cloud ceiling (rounded to reportable values) forms or dissipates below, decreases to less than, or if below, increases to equal to or exceeding: <ul style="list-style-type: none">• 3,000 feet; • 1,500 feet; • 1,000 feet; • 500 feet• The lowest standard instrument approach procedure minimum as published in the AIP Instrument Procedures. If none published, use 200 feet. |
| 8 | Cloud/sky condition | A layer of clouds or obscurations aloft is present below 1,000 feet and no layer aloft reported below 1,000 feet in the preceding METAR or SPECI. |

| | | |
|---|-------------------|----------------------------------|
| | | |
| 9 | Volcanic eruption | When an eruption is first noted. |

3.4 Automated Observation

- 3.4.1 The AMSP should ensure that measurements derived from instruments and algorithms without human input in form of Automated Weather Observing System (AWOS) are reported in METAR and SPECI with modifier of **AUTO** in the report.
- 3.4.2 The AMSP should ensure that in augmented observations where the automated observing system have input and oversight by human weather observers that may include visibility, cloud amounts, type and cloud height; modifier **AUTO** is not used in the meteorological reports.

3.5 Dissemination of Meteorological reports

- 3.5.1 METAR and SPECI shall be disseminated to international OPMET databanks and the centres designated by AFI regional air navigation agreement for the operation of aeronautical fixed service Internet-based services.
- 3.5.2 METAR and SPECI shall be disseminated to other aerodromes in accordance with the AFI regional air navigation agreement.
- 3.5.3 SPECI representing a deterioration or improvement in meteorological conditions shall be disseminated immediately after the observation.

3.6 Terminal Aerodrome Forecasts (TAF)

- 3.6.1 The AMSP shall prepare the TAF, in accordance with AFI regional air navigation agreement, at the aerodrome meteorological office designated by the meteorological authority.
- 3.6.2 The AMSP should prepare and issue Terminal Aerodrome Forecast (TAF) as a concise statement of the expected meteorological conditions significant to aviation for a specified time period within 8 nautical miles (NM) of the center of the airport's runway (Aerodrome Reference Point).
- 3.6.3 The AMSP should ensure that the TAF uses the same weather codes found in METAR weather reports (See Paragraph 3.2). The AMSP should use technical specifications for TAF as given in Table 5 below.
- 3.6.4 Aerodrome forecasts and amendments thereto shall be issued as TAF and include the following information in the order indicated:
 - 3.6.4.1 identification of the type of forecast;
 - 3.6.4.2 location indicator;
 - 3.6.4.3 time of issue of forecast;
 - 3.6.4.4 identification of a missing forecast, when applicable;
 - 3.6.4.5 date and period of validity of forecast;
 - 3.6.4.6 identification of a cancelled forecast, when applicable;
 - 3.6.4.7 surface wind;
 - 3.6.4.8 visibility;
 - 3.6.4.9 weather;
 - 3.6.4.10 cloud; and
 - 3.6.4.11 expected significant changes to one or more of these elements during the period of validity.

Table 5: Generic Format of Terminal Aerodrome Forecasts (TAF)

| Identification of Type of TAF Report | TAF or TAF AMD or TAF COR | | |
|--------------------------------------|---|-------------------------------------|---------------------------|
| CCCC | YYGGggZ Y | Y1Y1G1G1/Y2Y2G2G2 | dddfGfmfmKT |
| Location Indicator | <i>Date/time of forecast origin group</i> | Date/period of Validity | Surface wind Group |
| VVVV | w'w' or NSW | NsNsNshshshs or VVhshshs or SKC | |
| Visibility group | Significant weather group | Cloud and vertical visibility group | |
| TTGGgg | FMY1Y1GGgg | TEMPO Y1Y1GG/YeYeGeGe | PROB30 Y1Y1GG/YeYeGeGe |
| Forecast change indicator group | From group | Temporary group | Probability group |

3.6.5 The AMSP shall use interpretation and decoding of the TAF described in *Table 5* as below;

3.6.6 **Identification of type of Report (TAF or TAF AMD or TAF COR).** The AMSP should ensure TAF has the report-type header appearing as the first element in the TAF and is produced in three forms:

- 3.6.6.1 a routine forecast (TAF),
- 3.6.6.2 an amended forecast (TAF AMD) or
- 3.6.6.3 a corrected forecast (TAF COR).

3.6.7 The AMSP should ensure that TAFs are amended whenever they become, in the forecaster's judgment, unrepresentative of existing or expected conditions, particularly regarding those elements and events significant to aircraft and airports operations.

3.6.8 **Location Identifier (CCCC).** The AMSP should include after the report-type header the line containing location identifier, with four-letter ICAO location identifier. Examples: HUEN Entebbe; HSSJ Juba; HKJK Jomo Kenyatta, HRYR Kigali, HTDA Dar Es Salaam

3.6.9 **Date/Time of Forecast Origin Group (YYGGggZ).** The AMSP should include, the date/time of forecast origin group (YYGGggZ) following the TAF location identifier. This group should contain the day of the month in two 2 digits (YY) and the time in four digits (GGgg in hours and minutes) in which the forecast is completed and ready for transmission, with a Z appended to denote UTC. The AMSP should issue the TAF at specified time and not earlier than one hour prior to the beginning of its validity period.

Example: **061740Z** is the TAF issued on the 6th day of the month at 1740 UTC.

- 3.6.10 **Validity Period ($Y_1Y_1G_1G_1/Y_2Y_2G_2G_2$)**. The AMSP should ensure that the TAF validity period ($Y_1Y_1G_1G_1/Y_2Y_2G_2G_2$) follows the date/time of forecast origin group. The AMSP should issue the scheduled 24-hour or 30-hour four times per day, at 0000, 0600, 1200, and 1800Z. The first two digits (Y_1Y_1) are the day of the month for the start of the TAF. The next two digits (G_1G_1) are the starting hour (UTC). Y_2Y_2 is the day of the month for the end of the TAF and the last two digits (G_2G_2) are the ending hour (UTC) of the valid period. A forecast period that begins at midnight UTC is annotated as **0000**. If the end time of a validity period is at midnight UTC, it is annotated as **2400**.

Example 1:

0000Z TAF issued on the 9th of the month and valid for 24 hours would have a validity period of **0900/1024**. Whenever an amended TAF (**TAF AMD**) is issued, it supersedes and cancels the previous TAF.

Example 2:

1512/1612 TAF is valid from the 15th day at 1200 UTC until the 16th day of the month at 1200 UTC.

- 3.6.11 **Surface wind Group ($dddffGf_mf_mKT$)**. The AMSP should ensure that initial time period and any subsequent groups begin with a mean surface wind forecast ($dddffGf_mf_mKT$) for that period. Wind forecasts are expressed as the mean three-digit direction (**ddd** -relative to true north) from which the wind is blowing, rounded to the nearest 10 degrees, and the mean wind speed in knots (**ff**) for the time period. If wind gusts are forecasted, they are indicated immediately after the mean wind speed by the letter **G**, followed by the peak gust speed expected. **KT** is appended to the end of the wind forecast group. Any wind speed of 100 KT or more will be encoded as **P99KT**. Calm winds are encoded as **00000KT**. When the prevailing surface wind direction is variable, the forecast wind direction is encoded as **VRBffKT**. For Convective activity, the wind group may be encoded as **VRBffGf_mf_mKT**, where Gf_mf_m is the maximum expected wind gusts. **VRB** is not used in the Non-Convective LLWS group. Wind coding is given in *Table 6* below.

Table 6: Coding the wind reports:

| Coded wind | Meaning |
|-------------------|--|
| 23010KT | Wind from 230 degrees “true” (southwest) at 10 knots. |
| 28020G35KT | Wind from 280 degrees “true” (west) at 20 knots gusting to 35 knots. |
| VRB05KT | Wind variable at 5 knots. This example depicts a forecast for light winds that are expected to be variable in direction |
| VRB15G30KT | Wind variable at 15 knots gusting to 30 knots. This example depicts winds that are forecast to be variable with Convective activity. |
| 00000KT | Wind calm |
| 090P99KT | Wind from 90 degrees (easterly) at wind speed exceeding 100KT |

- 3.6.12 **Visibility Group (VVVV).** The AMSP should ensure that the initial time period and any subsequent groups include a visibility forecast (VVVV) in kilometres is appended. Visibility greater than 10 kilometres should be encoded as **9999**. If the visibility is not expected to be the same in different directions, prevailing visibility is used.
- 3.6.13 The AMSP should use the code “**CAVOK**” (Cloud ceiling and Visibility OK) to replace the visibility, weather and cloud condition groups if all of the following conditions are forecasted: Visibility of 10 kilometers (km) or more, no clouds below 1500 meters (m) or (5,000 ft) or below the highest minimum sector altitude (whichever is greater), no cumulonimbus and no significant weather phenomena.
- 3.6.14 **Significant Weather Group (w’w’ or NSW).** The AMSP should ensure that the significant weather group (w’w’ or NSW) consists of the appropriate qualifier(s) and weather phenomenon codes of NSW (no significant weather). **NSW should not** be used in the initial forecast time period or **FM** groups. The exceptions are: volcanic ash (**VA**), low drifting dust (**DRDU**) or shallow fog (**MIFG**).
- 3.6.15 **Thunderstorm Descriptor (TS).** The AMSP should ensure that Thunderstorm descriptor (TS) is used differently than other descriptors in the following cases:
- 3.6.15.1 When non-precipitating thunderstorms are forecast, **TS** should be encoded as the sole significant weather phenomenon; and
- 3.6.15.2 When forecasting thunderstorms with precipitation (**TSRA**), the **TS** descriptor is included first, followed by the intensity and weather phenomena. Example: **+TSRA**
- 3.6.16 **Cloud Group (NsNsNshshshs).** The AMSP should use the cloud group (NsNsNshshshs) to forecast cloud amount and should be coded as indicated in *Table 6*.

Table 6. Cloud amounts coding in TAF

| Cloud amount descriptor | Cloud coverage |
|-------------------------|----------------|
| SKC | 0 Oktas |
| FEW | 0 to 2 Oktas |
| SCT | 3 to 4 Oktas |
| BKN | 5 to 7 Oktas |
| OVC | 8 Oktas |

Note.

When 0 oktas of cloud coverage are forecasted, the cloud group should be replaced by **SKC**.

- 3.6.17 **Forecast Change Indicator Groups.** The AMSP should ensure that forecast change indicator groups codes are used to subdivide the forecast period (24 or 30 hours) according to significant changes in the weather. The AMSP should ensure that forecast change indicators **FM**, **TEMPO** and **PROB** are used when a change in any or all the elements forecasted are expected. The change group **FMYGGgg** (coded as “**FM**”) should be used to indicate when prevailing conditions are expected to change significantly over a period of less than 1 hour. The change-indicator group **TEMPO YYGG/YeYeGeGe** should be used to indicate temporary fluctuations to forecast meteorological conditions that are expected to:

- 3.6.17.1 Have a high percentage (greater than 50 percent) probability of occurrence.
- 3.6.17.2 Last for one hour or less in each instance; and
- 3.6.17.3 In the aggregate, cover less than half of the period

The probability group, **PROB30 YYGG/YeYeGeGe**, should only be used by forecasters to forecast a low probability occurrence (30 percent chance) of a thunderstorm or precipitation event and its associated weather elements (wind, visibility, and/or cloud condition) at an airport or within its vicinity

- 3.6.18 Example of TAF valid for 24-hours and interpretation in **Table 7** below

TAF

HUEN 111140Z 1112/1212 13012KT P6SM BKN100 WS020/35035KT

TEMPO 1112/1114 7000 BR

FM111500 16015G25KT 9999 SCT040 BKN250

FM120000 14012KT 9999 BKN080 OVC150 PROB30 1200/1204 7000 TSRA BKN030CB

FM120400 14008KT 9999 SCT040 OVC080 TEMPO 1204/1208 7000 TSRA OVC030CB=

Table 7: Interpretation of the TAF Message

| Forecast Code | Meaning |
|---------------------|--|
| TAF | Terminal Aerodrome Forecast |
| HUEN or HKJK | Entebbe, Uganda or Jomo Kenyatta, Kenya respectively |
| 111140 | Prepared on the 11th at 1140 UTC |

| Forecast Code | Meaning |
|-----------------------------|--|
| 1112/1212 | Valid from the 11th at 1200 UTC until the 12th at 1200 UTC |
| 13012KT | Surface wind 130 at 12 kts |
| 9999 | Visibility greater than 10 km |
| BKN100 | Ceiling 10,000 broken |
| WS020/35035KT | Wind shear at 2,000 ft, wind from 350 at 35 KT |
| TEMPO 1112/1114 | Temporary conditions between the 11th day of the month at 1200 UTC and the 11th day of the month at 1400 UTC |
| 7000 | Visibility is 7 km |
| BR | Mist |
| FM111500 | From the 11th day of the month at 1500 UTC |
| 16015G25KT | Wind 160 at 15KT gusting to 25 KT |
| 9999 | Visibility greater than 10 km |
| SCT040 | cloud ceiling at 4,000FT scattered |
| BKN250 | cloud ceiling at 25,000FT broken |
| FM120000 | From the 12th day of the month at 0000Z |
| 14012KT | Wind 140 at 12 kts |
| 9999 | Visibility greater than 10 km |
| BKN080 OVC150 | Cloud Ceiling at 8,000FT broken, 15,000FT overcast |
| PROB30 1200/1204 | 30 percent probability between the 12th day of the month at 0000 UTC and the 12th day of the month at 0400 UTC |
| 7000 | Visibility 7 km |
| TSRA | Thunderstorm with moderate rain showers |
| BKN030CB | Cloud Ceiling at 3,000FT broken with cumulonimbus |
| FM120400 | From the 12th day of the month at 0400 UTC |
| 14008KT | Wind 140 at 8 kts |
| 9999 | Visibility greater than 10 km |
| SCT040 OVC080 | Cloud ceiling at 4,000FT scattered, cloud ceiling at 8,000FT overcast |
| TEMPO 1204/1208 | Temporary conditions between the 12th day of the month at 0400 UTC and the 12th day of the month at 0800 UTC |
| 7000 | Visibility 7 km |
| TSRA | Thunderstorms with moderate rain showers |
| OVC030CB | Cloud Ceiling 3,000 overcast with cumulonimbus |
| = | End of message |

3.6.19 Example of TAF AMD and interpretation in *Table 8* below

TAF AMD

**HUEN 131555Z 1316/1412 VRB03KT 9999 VCTS SCT025CB BKN250
TEMPO 1316/1318 2SM TSRA BKN020CB**

FM131800 VRB03KT P6SM SCT025 BKN250 TEMPO 1320/1324 1SM TSRA
OVC010CB
FM140000 VRB03KT P6SM TS SCT020CB BKN120 TEMPO 1408/1412 BKN020CB=

Table 8: Interpretation of the Amended TAF Message

| Forecast Code | Meaning |
|--------------------|--|
| TAF AMD | Amended Terminal Aerodrome Forecast |
| HUEN | Entebbe, Uganda |
| 131555Z | Prepared on the 13th at 1555 UTC |
| 1316/1412 | Valid from the 13th at 1600 UTC until the 14th at 1200 UTC |
| VRB03KT | Wind variable at 3 KT |
| 9999 | Visibility greater than 10 km |
| VCTS | Thunderstorms in the vicinity |
| SCT025CB BKN250 | Cloud ceiling at 2,500FT scattered with cumulonimbus, cloud ceiling at 25,000FT broken |
| TEMPO 1316/1318 | Temporary conditions between the 13th day of the month at 1600 UTC and the 13th day of the month at 1800 UTC |
| 5000 | Visibility 5 km |
| TSRA | Thunderstorms with moderate rain showers |
| BKN020CB | Cloud Ceiling at 2,000FT broken with cumulonimbus |
| FM131800 | From the 13th day of the month at 1800 UTC |
| VRB03KT | Wind variable at 3 knots |
| 9999 | Visibility greater than 10 km |
| SCT025 BKN250 | Cloud ceiling at 2,500FT scattered, cloud ceiling at 25,000FT broken |
| TEMPO 1320/1324 | Temporary conditions between the 13th day of the month at 2000 UTC and the 14th day of the month at 0000 UTC |
| 3000 | Visibility 3 km |
| TSRA | Thunderstorms with moderate rain showers |
| OVC010CB | Cloud Ceiling 1,000 overcast with cumulonimbus |
| FM140000 | From the 14th day of the month at 0000 UTC |
| VRB03KT | Variable wind at 3 knots |
| 9999 | Visibility greater than 10 km |
| TS | Thunderstorms |
| SCT020CB BKN120 | Cloud ceiling at 2,000FT scattered with cumulonimbus, cloud ceiling at 12,000FT broken |
| TEMPO 1408/1412 | Temporary conditions between the 14th day of the month at 0800 UTC and the 14th day of the month at 1200 UTC |
| BKN020CB | Cloud Ceiling at 2,000FT broken with cumulonimbus |
| = | End of Message |

3.6.20 **Issuance of TAF.** The MSP should ensure that TAFs are issued four times a day, at an interval of every 6 hours, according to the following scheduled times in **Table 9** below:

Table 9: TAF Issuance Schedule

| SCHEDULED ISSUANCE | VALIDITY PERIOD | ISSUANCE WINDOW |
|-----------------------|--------------------------|------------------|
| 0000 UTC | 0000 to 2400 or 0600 UTC | 2320 to 2340 UTC |
| 0600 UTC | 0600 to 0600 or 1200 UTC | 0520 to 0540 UTC |
| 1200 UTC | 1200 to 1200 or 1800 UTC | 1120 to 1140 UTC |
| 1800 UTC | 1800 to 1800 or 2400 UTC | 1720 to 1740 UTC |


Civil Aviation Authority