



# Advisory Circular

## AC172-3

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### ATS Transmission of Graphical Meteorological Information by Voice

09 August 2016

#### General

Civil Aviation Authority Advisory Circulars contain information about standards, practices, and procedures that the Director General has found to be an acceptable means of compliance with the associated rule.

An acceptable means of compliance is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director General. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate advisory circular.

An advisory circular may also include guidance material to facilitate compliance with the rule requirements. Guidance material must not be regarded as an acceptable means of compliance.

#### Purpose

This advisory circular provides guidance for an organisation certificated under Part 172 with regard to passing, by voice, of information derived from graphical meteorological information products to aircraft in flight.

#### Related Rules

This advisory circular relates to Civil Aviation Rule Part 172 *Air Traffic Service Organisations* - specifically rule 172.73.

#### Change Notice

Subject to “Memorandum for Technical Cooperation” between the CAA of Mongolia and New Zealand on mutual cooperation in implementation of Assembly Resolution A29-3: Global Rule Harmonization, 29<sup>th</sup> ICAO Assembly, 1992, which urges States to promote global harmonization of national rules, dated 6<sup>th</sup> of May, 1999, Mongolian Civil Aviation Safety Regulation has been reconciled to the Civil Aviation Regulation of New Zealand.

Amendment 164 of Annex 1 to the Chicago Convention on International Civil Aviation urges flight crew members, ATC personnel and aircraft maintenance engineers to comply with the language proficiency requirements; and

Under Article 14 of the Civil Aviation Law of Mongolia 1999, "Use of foreign language in civil aviation" the AC has been released in English version only, in order to prevent any mistranslation and misuse of the aviation safety related documents.

This AC 172-3 was developed based on NZAC 172-3, dated on 30 July 2015.

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## **1. Introduction**

### **1.1. Applicable rules**

1.1.1. The Mongolian Civil Aviation Rules that apply to the provision of an air traffic control (ATC) aerodrome control service, and flight information service are contained within CAR 172 *Air Traffic Service Organisations*.

1.1.2. In particular CAR 172.73 requires certain meteorological information to be available for provision to pilots as part of any flight information service.

1.1.3. Meteorological information is a defined term under CAR 1.

### **1.2. Requirements**

1.2.1. CAR 172.73(b) requires the certificate holder to ensure that it has on hand the latest meteorological information, in a form that is easily applied to the performance of ATS and FIS operations.

1.2.2. If meteorological information is corrupted or contained any clear material errors or omissions, the certificate holder is expected to liaise with the supplier of any defective meteorological information, to have that information corrected.

1.2.3. Under the requirements of CAR 172, any onward voice transmission of meteorological information from a CAR 174 organisation by ATS must be done in an unambiguous manner, ensuring such transmissions do not materially change the nature of the particular meteorological information. This does not mean the information must be transmitted verbatim. It means the transmission should be done using words, phrases and descriptions that are easily understood by the recipient.

### **1.3. Graphical meteorological information**

1.3.1. As a result of international deliberations and technology developments, there is a move towards the provision of graphical renditions of traditional meteorological information products.

1.3.2. In this regard, a MCAR 172 organisation would benefit from the provision of a level of guidance on how to interpret such graphical meteorological information, in order to pass such information to pilots by voice transmission.

1.3.3. This advisory circular sets out such guidance for specific graphical representations of meteorological information.

## **2. Graphical SIGMET Information**

### **2.1. introduction**

2.1.1. Graphical representation of current SIGNificant METeorological information (SIGMET) will be provided by Meteorological Service Provider, as contracted by CAA, in addition to the standard text-based messages provided via the AFTN.

2.1.2. The graphical presentation of current SIGMETs is effectively a monitoring product intended for the situational awareness of ATS, pilots, and aircraft operators.

2.1.3. Standard textual SIGMETs will continue to be issued for hazardous weather phenomenon, whether observed or forecast.

### **2.2. ATS radio transmission of SIGMET information**

2.2.1. The voice transmission of SIGMET information to aircraft operating domestically in the Ulaanbaatar FIR should routinely be made using information from the graphical SIGMET monitor.

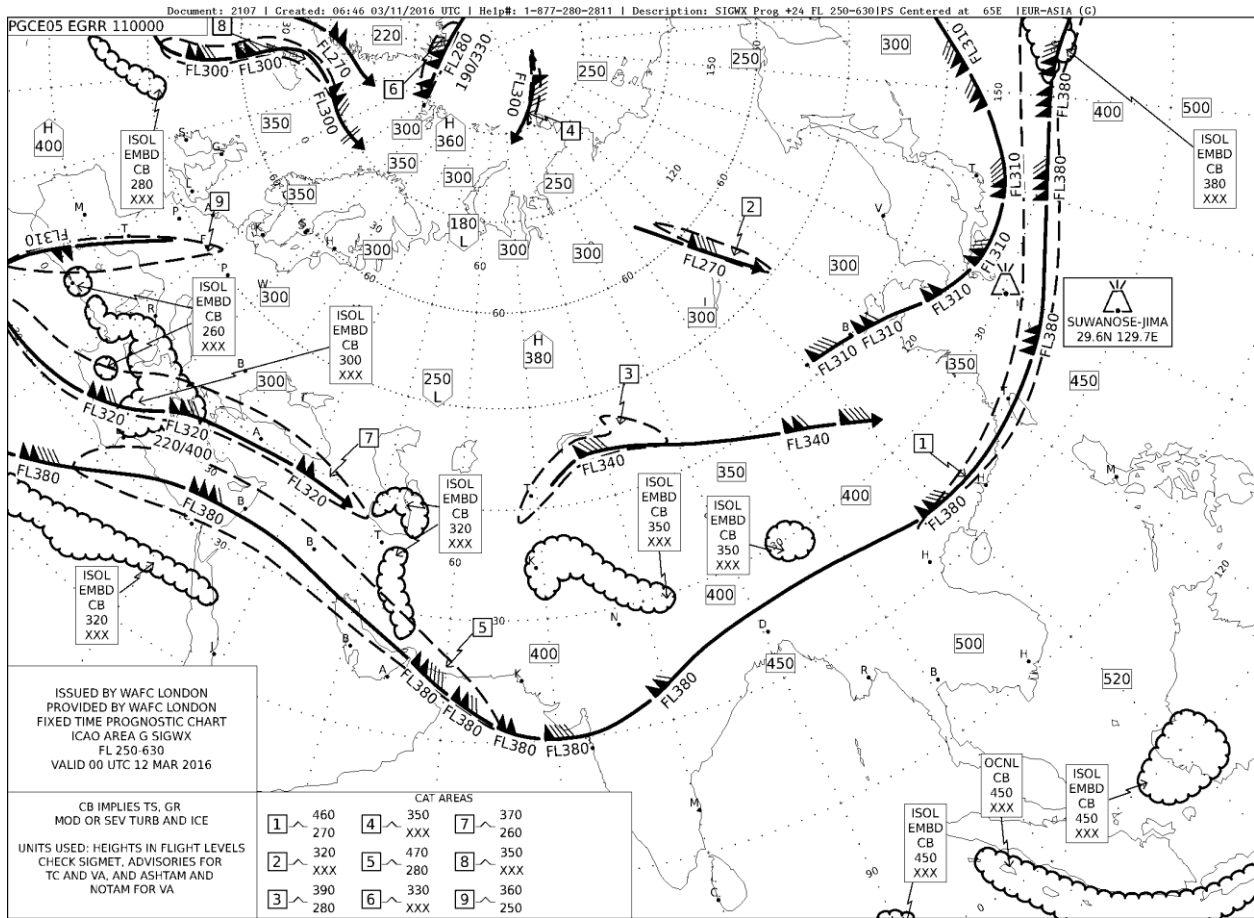
2.2.2. The location of the hazardous weather phenomena should be described in a general geographical regional area, sense from the location of the affected area. The description of the affected area does not need to be detailed.

2.2.3. The following are examples of what ATS might pass by voice transmission to an aircraft operating near, or towards the affected areas.










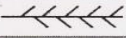

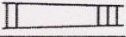








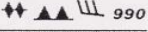








2.2.4. Should a pilot operating domestically in the Ulaanbaatar FIR requires the exact location of the hazardous weather phenomena covered in a SIGMET, ATS may pass that information using the standard textual SIGMET, which contains the latitude and longitude coordinates describing the area of severe weather phenomena.

2.2.5. Note that the voice transmission of SIGMET information to international aircraft operating, in the Ulaanbaatar FIR, should only be made using the standard textual SIGMET – relaying the latitude and longitude coordinates describing the area of severe weather phenomena.

# Appendix 1 – General SIGMET Information Examples



## LEGEND TO SYMBOLS

Active thunderstorms		Cold front	
Tropical cyclone		Warm front	
Severe line squall		Occluded front	
Hail		Quasi-stationary front	
Moderate turbulence		Convergence line	
Severe turbulence		Inter-tropical convergence zone	
Moderate aircraft icing		Tropopause High	
Severe aircraft icing		Tropopause Low	
Widespread sandstorm or duststorm		Tropopause level	
Drizzle	,	Speed in km/h of movement of frontal system	20 
Rain		Position speed and level of max wind	
Snow		<b>CLOUDS</b> except CB	
Shower		clear (0 oktas)	SKC
Widespread blowing snow		1/8 to 2/8	FEW
Widespread haze		scattered (3/8 to 4/8)	SCT
Freezing rain		broken (5/8 to 7/8)	BKN
Widespread smoke		overcast (8/8)	OVC
Clear air turbulence	CAT	<b>CB only</b>	
Widespread fog		individual CBs	ISOL
Hail		well-separated CBs	OCNL
		CBs with little or no separ	FRQ
		CBs embadded in layers of other clouds or conceoled by haze	EMBD

SWH significant weather forecast for high layer (FL250-450)  
 SWM significant weather forecast for middle layer (FL100-250)  
 SWL significant weather forecast for low layer (<FL100)