

# AVIATION WEATHER PRODUCTS

## SIGMET



The format given here is valid until 29 May 2013

### SIGMET

A SIGMET is a warning issued to provide urgent advice to aircraft of the actual or expected occurrence, in areas over which meteorological watch is being maintained, of weather phenomena that are potentially hazardous. A SIGMET will contain information on one of the following phenomena:



**Pilots in command of aircraft encountering any phenomenon in this table not notified by SIGMET must report details of the phenomenon in an AIREP SPECIAL**

Code	Description
OBSC TS	Obscured thunderstorms
EMBD TS	Embedded thunderstorms
FRQ TS	Frequent thunderstorms
SQL TS	Squall line thunderstorms
OBSC TSGR	Obscured thunderstorms with hail
EMBD TSGR	Embedded thunderstorms with hail
FRQ TSGR	Frequent thunderstorms with hail
SQL TSGR	Squall line thunderstorms with hail
TC	Tropical cyclone
SEV TURB	Severe turbulence
SEV ICE	Severe icing
SEV ICE FZRA	Severe icing due to freezing rain
SEV MTW	Severe mountain wave
HVY DS	Heavy duststorm
HVY SS	Heavy sandstorm
VA	Volcanic ash
RDOACT CLD	Radioactive cloud

A SIGMET will provide information on the location, extent, intensity and expected evolution of the specified phenomenon.

SIGMETs for thunderstorms are only issued when they are:

- obscured (OBSC) by haze or smoke
- embedded (EMBD) within cloud layers
- frequent (FRQ), i.e. with little or no separation between clouds and covering more than 75% of the area affected
- squall line (SQL) thunderstorms along a line of about 100 nautical miles or more in length, with little or no separation between clouds

SIGMET for thunderstorms do not include reference to cumulonimbus cloud (CB) or associated icing and turbulence as these are implied as occurring.

SIGMET for tropical cyclones include cumulonimbus but not associated icing and turbulence as these are implied as occurring.

## Responsibility for the issuance of SIGMET within the Australian Flight Information Regions

SIGMETs for volcanic ash are the responsibility of the Volcanic Ash Advisory Centre, Darwin.

SIGMETs for tropical cyclones are the responsibility of the Tropical Cyclone Warning Centres in Perth, Darwin and Brisbane.

SIGMETs for turbulence and icing above FL185 are the responsibility of the Aviation Weather Centre, Melbourne.

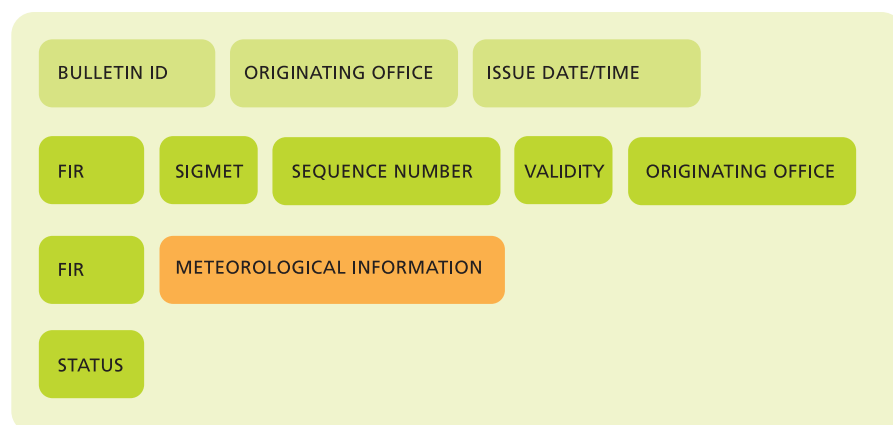
SIGMET for all other phenomena are the responsibility of the Meteorological Watch Offices located in Perth, Darwin, Adelaide, Hobart, Melbourne, Sydney and Brisbane.

WCAU01 APRF 180217  
 YMMM SIGMET PH01 VALID  
 180215/180815 YPRF-  
 YMMM MELBOURNE FIR TC  
 ILSA OBS AT 0000Z S1330  
 E11324 CB TOP FL500 WI  
 120NM OF  
 CENTRE MOV WSW 17KT  
 INTSF FCST 0815Z TC CENTRE  
 S1418 E11036  
 STS:NEW

WVAU01 ADRM 200100  
 YBBB SIGMET BT04 VALID  
 200100/200700 YPDM-  
 YBBB BRISBANE FIR VA  
 ERUPTION LOC S0416 E15212  
 VA CLD OBS AT 200100Z  
 A100/180 APRX 120NM BY  
 40NM S1130 E14530 - S1330  
 E14900 - S1030 E15030  
 - S0830 E14700 - S1130  
 E14430 MOV SW 20KT FCST  
 0700Z VA CLD APRX S110  
 E144530 - S1230 E14930  
 - S1050 E15130 - S0800  
 E14700 - S1130 E14400  
 STS:REV SIGMET BT03  
 191900/200100

WSAU21 AMMC 180357  
 YMMM SIGMET MM01 VALID  
 180439/180839 YMMC-  
 YMMM MELBOURNE FIR SEV  
 TURB FCST WI S3200 E12800 -  
 S3200 E13000 - S4700 E13600  
 - S4700 E13400 FL260/400  
 MOV E 25KT NC  
 STS:NEW

## SIGMET Structure



### Bulletin Identification

- WCAU01 for SIGMET for tropical cyclones
- WVAU01 for SIGMET for volcanic ash cloud
- WSAU21 for SIGMET for other phenomena

### Originating Office (WMO Location Indicator)

The World Meteorological Organisation (WMO) location indicators for Australian Meteorological Watch Offices are:

APRM	Adelaide
APRF	Perth
ABRF	Brisbane
ASRF	Sydney
ADRM	Darwin
AMRF	Melbourne
AMHF	Hobart
AMMC	Aviation Weather Centre Melbourne

**Note:** These differ from the ICAO indicators (beginning with Y) used elsewhere in the message.

## SIGMET Abbreviations

A	Altitude
ABV	Above
APRX	Approximately
BLW	Below
CLD	Cloud
CNL	Cancel
DS	Dust storm
E	East or eastern longitude
EMBD	Embedded
FCST	Forecast
FIR	Flight Information Region
FL	Flight level
FRQ	Frequent
FZRA	Freezing rain
GR	Hail
HVY	Heavy
ICE	Icing
INTSF	Intensifying
KT	Knots
LOC	Location
MOV	Moving
MT	Mount
N	North or northern latitude
NC	No Change (in intensity)
NM	Nautical Miles
OBS	Observed
OBSC	Obscured
RDOACT	Radioactive cloud
CLD	
REV	Review
S	South or southern latitude
SEV	Severe
SQL	Squall line
SS	Sand storm
STNR	Stationary
STS	Status
TC	Tropical cyclone
TOP	Cloud Top
TS	Thunderstorm
TURB	Turbulence
VA	Volcanic ash
W	West or western longitude
WI	Within (area)
WKN	Weakening (intensity)
Z	Code for UTC (Universal Time Coordinated)

## Issue Date/Time

Issue date/time is given in UTC in the form DDHHMM, where DD is day of month, and HHMM is time in hours and minutes.

## Flight Information Region

Gives the abbreviation for the FIR (YMMM or YBBB) in which the phenomenon is located.

## Identifier

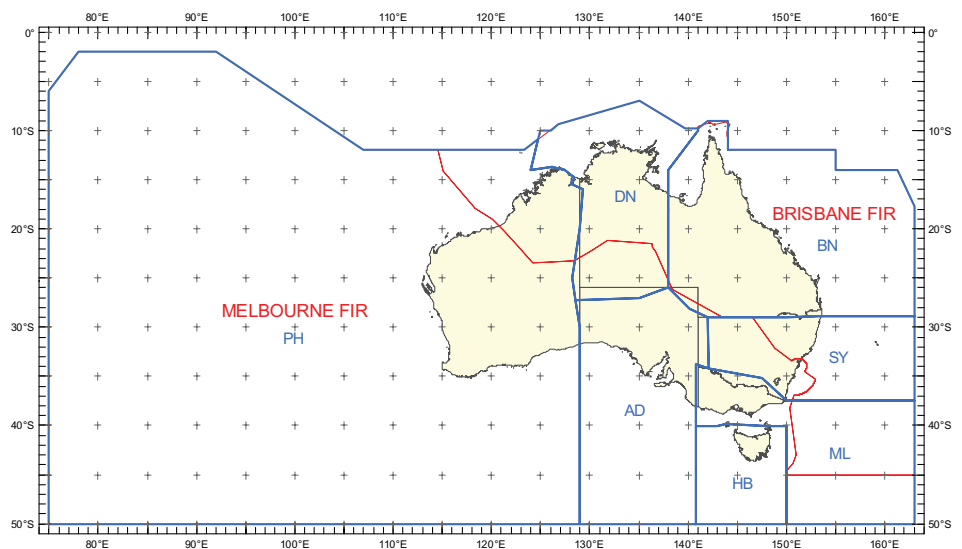
The message identifier is SIGMET.

## Daily Sequence Number

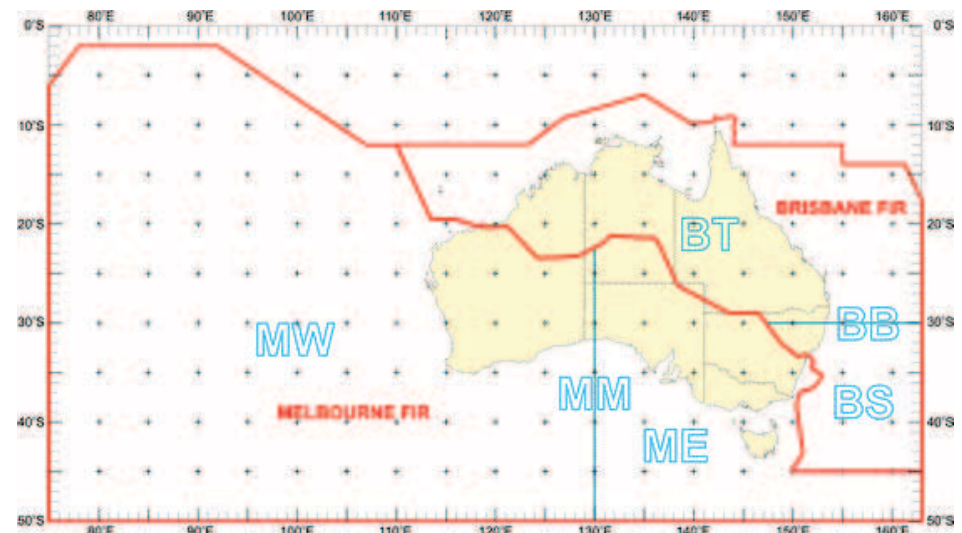
The four-character sequence number consists of:

- a two-letter designator to indicate the general location of the event (as given in the two maps below), and
- a two-digit number, giving the sequence number of SIGMETs issued by the relevant office, within the given FIR (Brisbane or Melbourne) since 0000 UTC.

The two-letter designators, and their associated geographical extent, for low-level (below FL185) SIGMET including tropical cyclones are:



The two-letter designators, and their general associated geographical extent, for volcanic ash and high-level (above FL185) icing and turbulence SIGMET are:



## Originating Office (ICAO Location Indicator)

The International Civil Aviation Organization (ICAO) location indicators for Australian Meteorological Watch Offices are:

YPRM	Adelaide
YPRM	Perth
YBRF	Brisbane
YSRF	Sydney
YPDM	Darwin
YMRF	Melbourne
YMHF	Hobart
YMMC	Aviation Weather Centre Melbourne

## Flight Information Region

This gives the abbreviation and full name for the FIR in which the phenomenon is located.

## Meteorological Information

This section includes:

- type of phenomenon
- observed or forecast
- location, both horizontal and vertical extent
- movement or expected movement
- expected change in intensity
- forecast position at the end of the validity period (only in SIGMET for TC and VA)

The first point of a polygon is not repeated when describing the horizontal extent of an event.

SIGMET for tropical cyclones do not include reference to cumulonimbus cloud (CB) or associated icing and turbulence as these are implied as occurring.

## Cancel SIGMET

If during the validity period of a SIGMET, the phenomenon for which the SIGMET is no longer occurring or is no longer expected, the SIGMET is cancelled by issuing a SIGMET with the abbreviation CNL in lieu of meteorological information. CNL is also included on the status line.

## SIGMET Status

The status line indicates whether the SIGMET is:

- NEW - the SIGMET is for a new phenomenon.
- REV - the SIGMET reviews an earlier SIGMET for the phenomenon.
- CNL - the SIGMET cancels a current SIGMET.

WSAU21 AMMC 180720  
YMMM SIGMET MM02 VALID  
180720/180839 YMMC-  
YMMM MELBOURNE  
FIR CNL SIGMET MM01  
180439/180839  
STS:CNL SIGMET MM01  
180439/180839

