

CCCC	ICAO location indicator. The code word COR before this indicator shall be used for corrected METAR or SPECI reports	CAVOK	CAVOK if: - Visibility ≥ 10 km - No cloud: below CAVOK reference height, CB y TCU - No w'w'	NSC	If there are no clouds below CAVOK reference height, no CB, no TCU and no restriction on vertical visibility, and the abbreviations CAVOK is not appropriate	Beginning of <b>TREND</b> TTTTT	BECMG indicator (changes) or TEMPO indicator (fluctuations)
YYGGggZ	The day of the month and the time of observation in hours and minutes UTC	V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> D <sub>v</sub>  RD <sub>R</sub> D <sub>R</sub> V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> i	Minimum visibility (V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> ) and its direction (D <sub>v</sub> )  Runway visual range, in metres (V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> ), at the D <sub>R</sub> D <sub>R</sub> runway; i = tendency (U: upward, D: downward, N: no tendency)	TT/T <sub>d</sub> T <sub>d</sub>	TT: air temperature in °C. T <sub>d</sub> T <sub>d</sub> : dew-point temperature in °C	TTGGgg	Optional time group. TT: FM (from), TL (until), AT (at). GGgg: hours and minutes UTC
dddffGf <sub>m</sub> f <sub>m</sub> KT	Wind speed on the surface (KT) ddd: mean true direction ff: mean speed Gf <sub>m</sub> f <sub>m</sub> KT: maximum gust value	w'w'	Present weather phenomena (see table). The w'w' groups shall be ordered as follows: intensity + descriptor + weather phenomenon	QP <sub>H</sub> P <sub>H</sub> P <sub>H</sub> P <sub>H</sub>	Q:QNH P <sub>H</sub> P <sub>H</sub> P <sub>H</sub> P <sub>H</sub> : value of QNH in hPa	NSW	End of significant weather phenomena w'w'
d <sub>n</sub> d <sub>i</sub> d <sub>v</sub> Vd <sub>i</sub> d <sub>v</sub> d <sub>i</sub>	Extreme directions between which the wind has varied	N <sub>s</sub> N <sub>s</sub> N <sub>s</sub> h <sub>3</sub> h <sub>3</sub> h <sub>3</sub> [cc]	Cloud amount and cloud height N <sub>s</sub> N <sub>s</sub> : cloud amount in oktas: FEW=1-2, SCT=3-4, BKN=5-7, OVC=8) h <sub>3</sub> h <sub>3</sub> h <sub>3</sub> : height of cloud base in steps of 100 ft [cc]: CB or TCU	REW'w'	Recent weather phenomena	NOSIG	None of the significant forecast weather is expected to change during the forecast time
VVVV	Prevailing visibility, or the lowest visibility when the prevailing visibility cannot be determined	VVh <sub>3</sub> h <sub>3</sub> h <sub>3</sub>	Vertical visibility (VV) in units of hundreds of feet (h <sub>3</sub> h <sub>3</sub> h <sub>3</sub> )	WS RD <sub>R</sub> D <sub>R</sub> or WS ALL RWY	Wind shear along the runway D <sub>R</sub> D <sub>R</sub> or affecting all runways (ALL RWY)	RMK...	Information included by national decision

**TABLE w'w': SIGNIFICANT PRESENT AND FORECAST WEATHER**

QUALIFIER		WEATHER PHENOMENA	
INTENSITY OR PROXIMITY 1	DESCRIPTOR 2	PRECIPITATION 3	OTHER 5
-	Light	<b>DZ</b> Drizzle	<b>BR</b> Mist
	Moderate (no qualifier)	<b>RA</b> Rain	<b>FG</b> Fog
		<b>SN</b> Snow	<b>FU</b> Smoke
		<b>SG</b> Snow grains	<b>VA</b> Volcanic ash
		<b>PL</b> Ice pellet	<b>DU</b> Widespread dust
		<b>GR</b> Hail	<b>SA</b> Sand
		<b>GS</b> Small hail and/or snow pellets	<b>HZ</b> Haze
			<b>PO</b> Dust/sand whirls (dust devils)
			<b>SQ</b> Squalls
			<b>FC</b> Funnel cloud(s) (tornado or waterspout)
			<b>SS</b> Sandstorm
			<b>DS</b> Duststorm
+	Heavy		
VC	In the vicinity		

### EXAMPLE 1

#### METAR WITH TREND

METAR LEVX 201230Z 21010G25KT 180V250 2000 1200 R17/1300U R35/P2000 +SHRA FEW010CB  
 a b c d e f g h i j  
 SCT017 BKN027 12/07 Q1002 RETSRA WS R17 BECMG 7000 NSW NSC=  
 k l m n o p q r

- a: ICAO location indicator: LEVX, Vigo.
- b: Day and time of the observation 201230Z: 20<sup>th</sup> of the month at 1230 UTC.
- c: Mean true direction, mean wind speed and maximum gust value over the 10-minute period immediately preceding: 210°, 10 kt, 25 kt.
- d: Total variation of the wind direction 180V250: over the 10-minute period immediately preceding the wind direction changed from 180° to 250° being the mean speed 10 kt.
- e: Prevailing visibility: 2000 m.
- f: Minimum visibility: 1200 m.
- g: Runway visual range R17/1300U: 1300 m at runway 17 and upward tendency.
- h: Runway visual range R35/P2000: P letter is added to indicate more than 2000 m at the runway 35.
- i: Present significant weather + SHRA: heavy showers of rain (table).
- j: Cloud amount and cloud height FEW010CB (1<sup>st</sup> layer): 1 to 2 oktas of CB and the cloud base at 1000 feet.
- k: Cloud amount and cloud height SCT017 (2<sup>nd</sup> layer): 3 to 4 oktas and the cloud base at 1700 feet.
- l: Cloud amount and cloud height BKN027 (3<sup>rd</sup> layer): 5 to 7 oktas and the cloud base at 2700 feet.
- m: Air and dew-point temperature 12/07: air temperature +12°C, dew-point temperature +7°C.
- n: QNH Q1002: 1002 hPa (hectopascal).
- o: Recent weather phenomena RETSRA: Recent thunderstorm of rain (but not at the moment of the observation) on the aerodrome.
- p: Wind shear WSR17: wind shear along the take-off path or approach path, or both, on the runway 17.
- q: TREND forecast BECMG: expected changes to meteorological conditions.
- r: Forecasted variations of the preceding meteorological conditions 7000 NSW NSC: During the next two hours a visibility of 7 km is expected and no significant weather and clouds are forecasted.

### EXAMPLE 2

#### SPECI

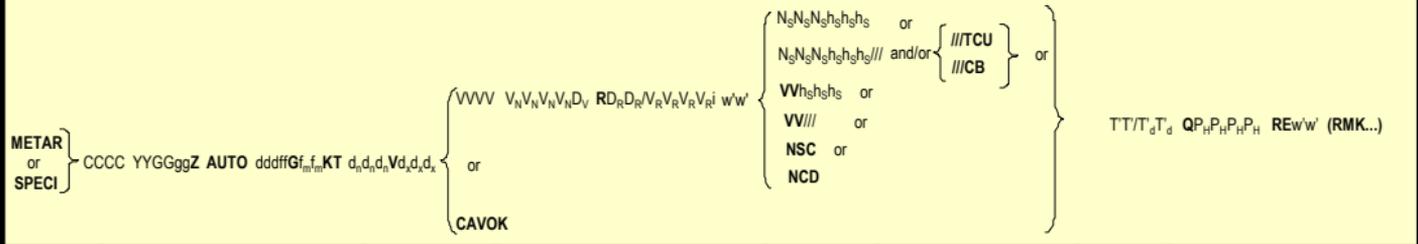
SPECI LEPP 050820Z 21015KT 1000 R15/0400U R33/0600U +SHSN FEW015 BKN025CB  
 a b c d e f g h i  
 M03/M04 Q1000=  
 j k

- a: ICAO location indicator: LEPP, Pamplona.
- b: Day and time of the observation 050820Z: 5<sup>th</sup> of the month at 0820 UTC.
- c: Mean true direction and mean wind speed over the 10-minute period immediately preceding: 210° y 15 kt.
- d: Prevailing visibility: 1 000 m (1 km).
- e: Runway visual range R15/0400U: 400 m at runway 15, and upward tendency.
- f: Runway visual range R33/0600U: 600 m at runway 33, and upward tendency.
- g: Present significant weather + SHSN: heavy showers of snow.
- h: Cloud amount and cloud height FEW015 (1<sup>st</sup> layer): 1 to 2 oktas and the cloud base at 1500 feet.
- i: Cloud amount and cloud height BKN025CB (2<sup>nd</sup> capa): 5 to 7 oktas of CB and the cloud base at 2500 feet.
- j: Air and dew-point temperature M03/M04: air temperature -3°C, dew point -4°C.
- k: QNH, Q1000: 1000 hPa (hectopascal).

See MET Guide for more information.

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# METAR / SPECI AUTO



CCCC	ICAO location indicator	VVVV	Prevailing visibility, or the lowest visibility when the prevailing visibility cannot be determined	N <sub>s</sub> N <sub>s</sub> N <sub>s</sub> h <sub>s</sub> h <sub>s</sub> h <sub>s</sub>	Cloud amount and cloud height N <sub>s</sub> N <sub>s</sub> N <sub>s</sub> : cloud amount in oktas: FEW=1-2, SCT=3-4, BKN=5-7, OVC=8 h <sub>s</sub> h <sub>s</sub> h <sub>s</sub> : height of cloud base in steps of 100 ft	TT'/T' <sub>d</sub> T' <sub>d</sub>	TT': air temperature in °C. T' <sub>d</sub> T' <sub>d</sub> : dew-point temperature in °C
				N <sub>s</sub> N <sub>s</sub> N <sub>s</sub> h <sub>s</sub> h <sub>s</sub> h <sub>s</sub> ///	There are convective clouds (TCU or CB) but it cannot be determined if they are linked to this layer		
YYGGggZ	The day of the month and the time of observation in hours and minutes UTC	CAVOK	CAVOK if: - Visibility ≥ 10 km - No cloud: below CAVOK reference height, CB y TCU - No w'w'	///TCU	There are cumulus congestus of great vertical extent (TCU) but their amount and height cannot be determined	QP <sub>H</sub> P <sub>H</sub> P <sub>H</sub> P <sub>H</sub>	Q:QNH P <sub>H</sub> P <sub>H</sub> P <sub>H</sub> P <sub>H</sub> : value of QNH in hPa
				///CB	There are cumulonimbus cloud (CB) but their amount and height cannot be determined		
AUTO	Report that contains fully automated observations without human intervention	V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> D <sub>v</sub>	Minimum visibility (V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> V <sub>N</sub> ) and its direction (D <sub>v</sub> )	VVh <sub>s</sub> h <sub>s</sub> h <sub>s</sub>	Vertical visibility (VV) in units of hundreds of feet (h <sub>s</sub> h <sub>s</sub> h <sub>s</sub> )	REw'w'	Recent weather phenomena
				VV///	Vertical visibility whose height cannot be determined		
dddffG <sub>m</sub> f <sub>m</sub> KT	Wind speed on the surface (KT) ddd: mean true direction ff: mean speed G <sub>m</sub> f <sub>m</sub> KT: maximum gust value	RD <sub>R</sub> D <sub>R</sub> V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> i	Runway visual range, in metres (V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> V <sub>R</sub> ), at the D <sub>R</sub> D <sub>R</sub> runway; i = tendency (U: upward, D: downward, N: no tendency)	NSC	If there are no clouds below CAVOK reference height, no CB, no TCU and no restriction on vertical visibility, and the abbreviations CAVOK is not appropriate	RMK...	Information included by national decision
d <sub>n</sub> d <sub>i</sub> d <sub>v</sub> V <sub>d</sub> d <sub>i</sub> d <sub>v</sub>	Extreme directions between which the wind has varied	w'w'	Present weather phenomena (see table). The w'w' groups shall be ordered as follows: intensity + descriptor + weather phenomenon	NCD	No clouds are detected		

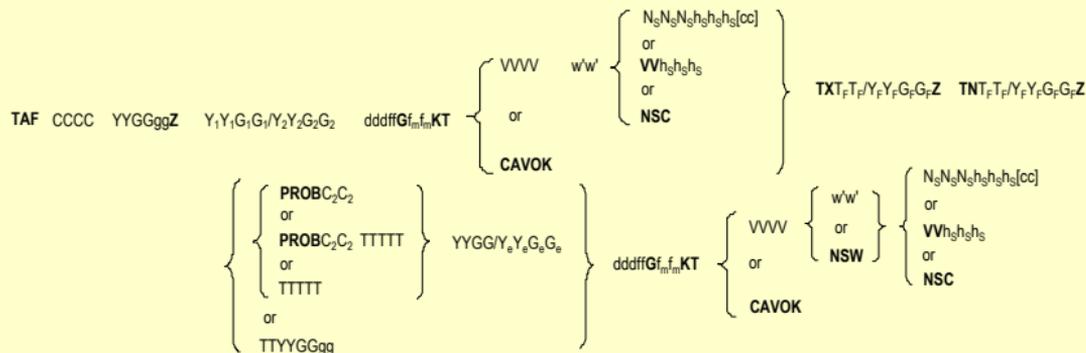
TABLE		w'w': PRESENT SIGNIFICANT WEATHER					
QUALIFIER		WEATHER PHENOMENA					
INTENSITY OR PROXIMITY 1	DESCRIPTOR 2	PRECIPITATION 3		OBSCURATION 4			
-	Light	<b>BC</b>	Patches	<b>DZ</b>	Drizzle	<b>BR</b>	Mist
	Moderate (no qualifier)	<b>SH</b>	Shower(s)	<b>RA</b>	Rain	<b>FG</b>	Fog
+	Heavy	<b>TS</b>	Thunderstorm	<b>SN</b>	Snow	<b>FU</b>	Smoke
<b>VC</b>	In the vicinity	<b>FZ</b>	Freezing (supercooled)	<b>GR</b>	Hail	<b>DU</b>	Widespread dust
				<b>GS</b>	Small hail and/or snow pellets	<b>HZ</b>	Haze
				<b>UP</b>	Unknown precipitation		

EXAMPLE 1											
METAR AUTO											
METAR LEPP 230200Z AUTO 10002KT 3700 0800NW R33/1800U R15/P2000 -UP BCFG SCT003 BKN008 OVC014											
a	b	c	d	e	f	g	h	i	j	k	l
01/01 Q1006= M n											
a: ICAO location indicator: LEPP, Pamplona.											
b: Day and time of the observation 230200Z: 23 <sup>rd</sup> of the month at 2 UTC.											
c: Code word AUTO: for a METAR AUTO report.											
d: Mean true direction and mean wind speed over the 10-minute period immediately preceding: 100°, 2 kt.											
e: Prevailing visibility: 3700 m. Minimum visibility of 800 m in the northwest.											
f: Runway visual range R33/1800U: 1800 m at runway 33 and upward tendency.											
g: Runway visual range R15/P2000: more than 2000 m at runway 15.											
h: -UP: Light unknown precipitation.											
i: Fog patches.											
j: Cloud amount and cloud height SCT003 (1 <sup>st</sup> layer): 3 to 4 oktas and the cloud base at 300 feet.											
k: Cloud amount and cloud height BKN008 (2 <sup>nd</sup> layer): 5 to 7 oktas and the cloud base at 800 feet.											
l: Cloud amount and cloud height OVC014 (3 <sup>rd</sup> layer): 8 oktas and the cloud base at 1400 feet.											
m: Air and dew-point temperature 01/01: Air temperature +1°C, dew-point temperature +1°C.											
n: QNH, Q1006: 1006 hPa (hectopascal).											

EXAMPLE 2											
METAR AUTO											
METAR LEBG 022230Z AUTO 21017KT 9999 VCTS SCT023/// BKN029/// BKN050/// ///CB 06/05 Q0991=											
a	b	c	d	e	f	g	h	i	j	k	l
a: ICAO location indicator: LEBG, Burgos.											
b: Day and time of the observation 022230Z: 2 <sup>nd</sup> of the month at 2230 UTC.											
c: Code word AUTO: for a METAR AUTO report.											
d: Mean true direction and mean wind speed over the 10-minute period immediately preceding: 210° and 17 kt.											
e: Prevailing visibility 9999: more than 10 km.											
f: Present significant weather VCTS: Thunderstorm in the vicinity.											
g: Cloud amount and cloud height SCT023/// (1 <sup>st</sup> layer): 3 to 4 oktas and the cloud base at 2300 feet. It cannot be determined whether it is a convective cloud.											
h: Cloud amount and cloud height BKN029/// (2 <sup>nd</sup> layer): 5 to 7 oktas and the cloud base at 2900 feet. It cannot be determined whether it is a convective cloud.											
i: Cloud amount and cloud height BKN050/// (3 <sup>rd</sup> layer): 5 to 7 oktas and the cloud base at 5000 feet. It cannot be determined whether it is a convective cloud.											
j: Cloud amount and cloud height ///CB (4 <sup>th</sup> layer of convective clouds): It cannot be determined the amount and height of the layer, and it cannot be linked to any of the cloud layers.											
k: Air and dew-point temperature 06/05: air temperature 6°C, dew-point temperature 5°C.											
l: QNH, Q0991: 991 hPa (hectopascal).											

See MET Guide for more information.

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CCCC	ICAO location indicator. The code words COR and AMD before this indicator shall be used for corrected and amended TAF reports, respectively	CAVOK	Forecasted CAVOK if: - Visibility ≥ 10 km - No cloud: below CAVOK reference height, CB y TCU - No w'w'	TX <sub>T</sub> T <sub>F</sub> T <sub>F</sub> Y <sub>F</sub> Y <sub>F</sub> G <sub>F</sub> G <sub>F</sub> Z TN <sub>T</sub> T <sub>F</sub> T <sub>F</sub> Y <sub>F</sub> Y <sub>F</sub> G <sub>F</sub> G <sub>F</sub> Z	TX(TN): Maximum (minimum) temperature indicator. T <sub>F</sub> T <sub>F</sub> : Forecasted maximum (minimum) temperature in °C. Y <sub>F</sub> Y <sub>F</sub> G <sub>F</sub> G <sub>F</sub> : Day and hour UTC of temperature expected to occur
YYGGggZ	The day of the month and the time of observation in hours and minutes UTC	w'w'	Present weather phenomena (see table)	PROBC <sub>2</sub> C <sub>2</sub>	Probability of occurrence in % (C <sub>2</sub> C <sub>2</sub> = 30 or 40) of alternative value(s) of forecast element(s) during a defined period of time
Y <sub>1</sub> Y <sub>1</sub> G <sub>1</sub> G <sub>1</sub> /Y <sub>2</sub> Y <sub>2</sub> G <sub>2</sub> G <sub>2</sub>	The forecast shall cover the period Y <sub>1</sub> Y <sub>1</sub> G <sub>1</sub> G <sub>1</sub> / Y <sub>2</sub> Y <sub>2</sub> G <sub>2</sub> G <sub>2</sub> (24 or 30 hours) Y <sub>1</sub> Y <sub>1</sub> G <sub>1</sub> G <sub>1</sub> : Day and hour UTC of starting period Y <sub>2</sub> Y <sub>2</sub> G <sub>2</sub> G <sub>2</sub> : Day and hour UTC of finishing period	N <sub>3</sub> N <sub>3</sub> N <sub>3</sub> h <sub>3</sub> h <sub>3</sub> h <sub>3</sub> [cc]	Cloud amount and cloud height N <sub>3</sub> N <sub>3</sub> N <sub>3</sub> : cloud amount in oktas: FEW=1-2, SCT=3-4, BKN=5-7, OVC=8) h <sub>3</sub> h <sub>3</sub> h <sub>3</sub> : height of cloud base in steps of 100 ft [cc]: CB or TCU	TTTTT	Change indicator: BECMG or TEMPO <b>BECMG</b> : Change in forecast meteorological conditions expected to occur at either a regular or irregular rate at an unspecified time within the period YYGG to Y <sub>e</sub> Y <sub>e</sub> G <sub>e</sub> G <sub>e</sub> <b>TEMPO</b> : Temporary fluctuations in forecast meteorological conditions which are expected to occur at any time during the period YYGG to Y <sub>e</sub> Y <sub>e</sub> G <sub>e</sub> G <sub>e</sub>
dddffG <sub>f<sub>m</sub></sub> mKT	Wind speed on the surface (KT) ddd: Mean true direction ff: Mean speed G <sub>f<sub>m</sub></sub> mKT: Maximum gust value	VVh <sub>3</sub> h <sub>3</sub> h <sub>3</sub>	Vertical visibility (VV) in units of hundreds of feet (h <sub>3</sub> h <sub>3</sub> h <sub>3</sub> )	YYGG/Y <sub>e</sub> Y <sub>e</sub> G <sub>e</sub> G <sub>e</sub>	YYGG: Day and hour of expected start time, UTC Y <sub>e</sub> Y <sub>e</sub> G <sub>e</sub> G <sub>e</sub> : Day and hour of expected finish time, UTC
VVVV	Prevailing visibility, or the lowest visibility when the prevailing visibility cannot be determined	NSC	No significant clouds are forecasted	TTYGGgg	The time indicator group TTYGGgg in the form of FMYGGgg shall be used to indicate the beginning of a self-contained part of the forecast indicated by YYGGgg. When the group FMYGGgg is used, all forecast conditions given before the group FMYGGgg are superseded by the conditions indicated after the group
				NSW	No significant weather phenomena w'w'

**TABLE** w'w': **SIGNIFICANT FORECAST WEATHER**

QUALIFIER		WEATHER PHENOMENA				
INTENSITY OR PROXIMITY 1	DESCRIPTOR 2	PRECIPITATION 3	OBSCURATION 4		OTHER 5	
-	Light	<b>MI</b> Shallow	<b>DZ</b> Drizzle	<b>BR</b> Mist	<b>PO</b> Dust/sand whirls (dust devils)	
	Moderate (no qualifier)	<b>BC</b> Patches	<b>RA</b> Rain	<b>FG</b> Fog		
		<b>PR</b> Partial (covering part of the aerodrome)	<b>SN</b> Snow	<b>FU</b> Smoke	<b>SQ</b> Squalls	
	Heavy		<b>SG</b> Snow grains	<b>VA</b> Volcanic ash	<b>FC</b> Funnel cloud(s) (tornado or waterspout)	
<b>VC</b>	In the vicinity	<b>DR</b> Low drifting	<b>PL</b> Ice pellet	<b>DU</b> Widespread dust		
		<b>BL</b> Blowing	<b>GR</b> Hail	<b>SA</b> Sand	<b>SS</b> Sandstorm	
		<b>SH</b> Shower(s)	<b>GS</b> Small hail and/or snow pellets	<b>HZ</b> Haze	<b>DS</b> Duststorm	
		<b>TS</b> Thunderstorm				
		<b>FZ</b> Freezing (supercooled)				

**EXAMPLE 1**

TAF of 30 hours long

TAF LEMD 101100Z 1012/1118 30010KT 7000 SHRA FEW008 SCT015TCU BKN025 TEMPO  
a b c d e f g h i j  
1015/1017 3000 +SHRA PROB30 TEMPO 1017/1019TSRA FEW008 BKN012CB BKN025=  
k

- a: ICAO location indicator: LEMD, Adolfo Suárez Madrid-Barajas.  
b: Day and time of the forecast 101100Z: 10<sup>th</sup> of the month at 1100 UTC.  
c: Period covered by the forecast 1012/1118: from 1200 UTC of 10<sup>th</sup> to 1800 UTC of 11<sup>th</sup>.  
d: Wind on surface: 300°, 10 kt.  
e: Forecasted prevailing visibility: 7000 m (7 km).  
f: Significant weather SHRA: moderate showers of rain.  
g: Cloud amount and cloud height (1<sup>st</sup> layer): 1 to 2 oktas and the cloud base at 800 feet.  
h: Cloud amount and cloud height (2<sup>nd</sup> layer): 3 to 4 oktas of TCU and the cloud base at 1500 feet.  
i: Cloud amount and cloud height (3<sup>rd</sup> layer): 5 to 7 oktas and the cloud base at 2500 feet.  
j: Temporary fluctuations in forecast meteorological conditions TEMPO 1015/1017 3000 +SHRA: temporary, from 1500 UTC to 1700 UTC of 10<sup>th</sup>; reduced visibility 3000 m (3 km) due to the presence of severe showers of rain.  
k: Temporary fluctuations in forecast meteorological conditions PROB30 TEMPO 1017/1019 TSRA FEW008 BKN012CB BKN025: moderate probability (30%), temporary, from 1700 UTC to 1900 UTC of day 10<sup>th</sup>, moderate thunderstorm of rain, 1 to 2 oktas and the cloud base at 800 feet, 5 to 7 oktas of CB at 1200 feet and 5 to 7 oktas, and the cloud base at 2500 feet.

**EXAMPLE 2**

TAF of 24 hours long

TAF LEST 191720Z 1918/2018 VRB02KT 6000 SCT050 TX18/2013Z TN10/2004Z BECMG 2003/2005 0900 FG BKN003  
a b c d e f g h  
OVC008 TEMPO 2006/2009 0500 FG VV001 BECMG 2009/2011 04010KT 8000 NSW=  
i j

- a: ICAO location indicator: LEST, Santiago.  
b: Day and time of the forecast 191720Z: 19<sup>th</sup> of the month at 1720 UTC.  
c: Period covered by the forecast 1918/2018: from 1800 UTC of 19<sup>th</sup> to 1800 UTC of 20<sup>th</sup>.  
d: Wind on surface: variable, 2 kt.  
e: Forecasted prevailing visibility: 6000 m (6 km).  
f: Cloud amount and cloud height : 3 to 4 oktas and the cloud base at 5000 feet.  
g: Forecasted maximum and minimum temperature TX18/2013Z TN10/2004Z: max temperature 18°C at 13Z and min temperature 10°C at 04Z of 20<sup>th</sup>.  
h: Change in forecast meteorological conditions BECMG 2003/2005 0900 FG BKN003 OVC040: changes from 0300 UTC and 0500 UTC: visibility 900 m due to presence of fog, very cloudy sky (5 to 7 oktas) with cloud base at 300 feet, covered sky (8 oktas) with cloud base at 800 feet.  
i: Temporary fluctuations in forecast meteorological conditions TEMPO 2006/2009 0500 FG VV001: temporary, from 0600 UTC to 0900 UTC, reduced visibility 500 m due to the presence of fog, and vertical visibility of 100 feet.  
j: Change in forecast meteorological conditions BECMG 2009/2011 04010KT 8000 NSW: changes from 0900 UTC to 1100 UTC, wind direction 40° and wind speed 10 kt, visibility 8000 m (8 km), and no significant weather.

See MET Guide for more information.

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An area forecast in abbreviated plain language for low-level flights (FL150) for a flight information region or sub-area thereof. It is issued every 6 hour and it has a 6 hour validity period. When a weather phenomenon hazardous to low-level flights has been included in the GAMET area forecast and the phenomenon forecast does not occur, or is no longer forecast, a GAMET AMD shall be issued, amending only the weather element concerned.

### FIRST LINE

<b>ICAO location indicator of the ATS unit</b>	LECM: Areas 1 and 2 of Madrid FIR LECB: Barcelona FIR GCCC: Sub-area Islands of Canarias FIR	<b>Message identification</b>	GAMET or GAMET AMD	<b>Validity period (UTC)</b>	YYGGgg/YYG <sub>2</sub> G <sub>2</sub> g <sub>2</sub> g <sub>2</sub> : Day of month, and start (YYGGgg) and end (YYG <sub>2</sub> G <sub>2</sub> g <sub>2</sub> g <sub>2</sub> ) time (hour, minutes) in UTC The validity period is 6 hour	<b>Meteorological watch office originating the message</b>	LEVA-: Meteorological Watch Office (OVM) of Valencia. GCGC-: Meteorological Watch Office (OVM) of Las Palmas de Gran Canaria
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### SECOND LINE

<b>Location indicator and name of the FIR, or part thereof for which the GAMET is issued</b>	LECM MADRID FIR/1 or LECM MADRID FIR/2 or LECB BARCELONA FIR or GCCC CANARIAS FIR SUBZONA ISLAS	<b>Vertical limit of the responsibility area</b>	BLW FL150: Below flight level 150
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### SECN I: Information on en-route weather phenomena hazardous to low-level flights

- (1) **SFC WIND:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [See note 2] [Location] [Direction] [Speed (kt)]: Widespread surface wind > 30 kt (see note 6)
- (2) **SFC VIS:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [Location] [Visibility in metres] [weather phenomena causing the reduction]: Widespread surface visibility < 5000 m (see note 6)
- (3) **SIGWX:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [Location] [Significant weather condition]: Any of the following significant weather conditions included: ISOL TS, OCNL TS, ISOL TSGR, OCNL TSGR, FRQ TS, OBSC TS, EMBD TS, HVY SS, HVY DS, SQL TS, FRQ TSGR, OBSC TSGR, EMBD TSGR, SQL TSGR, VA
- (4) **MT OBSC:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [Location]: Mountain obscuration
- (5) **SIG CLD:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [Location] [Amount (BKN or OVC)] [CB and/or TCU with ISOL, OCNL, FRQ or EMBD] [Altitude of cloud base and top (ft)]: Only clouds with height of base less than 1000 ft above ground level, and/or CB or TCU at any height, are included
- (6) **ICE:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [Location] MOD or SEV [Altitude of cloud base and top (FL)]: Moderate or severe icing.
- (7) **TURB:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [Location] MOD or SEV [Altitude of cloud base and top (FL)]: Moderate or severe turbulence.
- (8) **MTW:** [G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>] [Location] MOD or SEV [Altitude of cloud base and top (FL)]: Moderate or severe mountain wave.
- (9) **SIGMET APPLICABLE:** n.<sup>o</sup> of applicable message SIGMET to the FIR concerned or a sub-area thereof, for which the area forecast is valid

When no elements are included in SECN I next message is included:

- (10) **HAZARDOUS WX NIL:** No weather phenomena hazardous to low level flights and no applicable SIGMET are forecast

#### NOTES:

- 1: Elements of points 1 to 10 will only appear in GAMET when the phenomena is forecast during the validity period.
- 2: G<sub>1</sub>G<sub>1</sub>/G<sub>2</sub>G<sub>2</sub>: Optional group. Starting and end time of the weather phenomena forecast.
- 3: Vertical distances are altitudes, so they are referenced to the mean sea level (MSL) and the unit is the feet (ft). The AMSL abbreviation is used after FT. For some elements level flights (FL) are used.
- 4: For each element more than one line could be used. Only approved ICAO abbreviation are allowed.
- 5: These notes are complemented by AIRMET notes.
- 6: The term "area extensas" (widespread surface) is used to indicate a spatial coverage of more than 75% of the affected area.

### SECN II: Additional information required by low-level flights

- (11) **PSYS:** Data in abbreviated language on pressure centres and fronts and their expected movements and developments at the central hour of validity period of forecast
- (12) **WIND/T:** Upper wind (in kt) and upper-air temperature (in °C) forecast for altitudes 02000, 05000, 10000, 15000 ft, for given locations at the central hour of validity period of forecast.
- (13) **CLD:** Cloud information not included in Section I on clouds amount (BKN or OVC) between 1000 ft of height and FL150, showing the cloud type if known: ST, SC, CU, AS, AC and NS.
- (14) **FLZL:** Height indication of t = 0°C level(s) for given locations at the central hour of validity period of forecast.
- (15) **MNM QNH:** Forecast lowest QNH at the central hour of validity period of forecast (hectopascal).
- (16) **VA:** Volcanic eruptions and name of volcano.

## EXAMPLE

Routine GAMET(from 0300 to 0900 UTC)

LECM GAMET VALID 280300/280900 LEVA-  
LECM MADRID FIR/1 BLW FL150

**SECN I**

SIGWX: N OF N41 OCNL TSGR  
SIG CLD: 02500/ABV15000FT AMSL N OF N41 OCNL CB  
ICE: 03/06 050/100FL AMSL N OF N4030 MOD  
MTW: 5 OF N41 MOD  
SIGMET APLICABLES: 1

**SECN II**

PSYS: 06 L 1004 HPA N38 E003 MOV E 05KT INTSF

WIND/T:	LA CORUÑA	MADRID	SANTANDER	ZARAGOZA
	N4330 W00838	N4049 W00359	N4342 W00382	N4166 W00101
02000FT	029/17KT PS03	351/13KT PS04	345/18KT PS02	321/14KT PS03
05000FT	024/20KT MS04	358/17KT MS03	328/21KT MS05	339/21KT MS05
10000FT	011/32KT MS12	349/23KT MS14	018/23KT MS16	338/14KT MS15
15000FT	224/55KT MS20	312/42KT MS23	234/20KT MS28	305/20KT MS27
CLD: ALL FIR BKN SC 02500/13000FT AMSL				
FZLVL:	03400FT AMSL	03900FT AMSL	02700FT AMSL	03100FT AMSL
MNM QNH: 1010 HPA=				

See MET Guide for more information.

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Aeronautical Meteorological Service  
August 2021

Area forecast for low-level flights (GAMET) for sub-area 1 of flight information region (FIR) of Madrid and location indicator of the area control centre LECM . It includes altitudes for below flight level 150 (FL150). The message is issued by the meteorological watch office of Valencia (LEVA). The message is valid from 0300 UTC to 0900 UTC on the 28<sup>th</sup> of the month.

Section I:

Significant weather phenomena (SIGWX): during the validity period occasional thunderstorms with hail at north of parallel 41° N.

Significant clouds (SIG CLD): during the validity period occasional cumulonimbus base 2500, top higher than 15000 feet at north of 41 degrees north, so these CB are related to the thunderstorms of the previous element SIGWX.

Icing (ICE): moderate between 0300 UTC and 0600 UTC between flight level 050 and 100, at north of 40 degrees and 30 minutes north.

Mountain waves (MTW): during the validity period moderate mountain waves at south of 41 degrees north.

SIGMET message n.º 1 applicable to the validity period and sub-area concerned of Madrid FIR.

Section II:

Pressure systems and fronts (PSYS): at 0600 UTC (central hour of forecast), low pressure of 1004 hectopascals at 38° degrees north 3 degrees west, expected to move eastwards at 5 knots and to strengthen in intensity.

Winds (direction degrees and speed knots) and temperatures (degrees Celsius): at 2000, 5000, 10000 and 15000 feet, in A Coruña, Madrid, Santander and Zaragoza (at the central hour of the forecast: 0600 UTC).

PS: positive temperature; MS: negative temperature. Example: in A Coruña, at 2000 ft, wind direction 29 degrees, wind speed 17 kt, temperature 3°C. At 5000 ft, wind direction 24 degrees, wind speed 20 kt, temperature -4°C.

Clouds (CLD): during the validity period broken stratocumulus, base 2500 ft, top 13000 ft altitude.

Freezing level (FZLVL): at 0600 UTC (central hour of the forecast), in A Coruña at 3400 ft, in Madrid at 3900 ft, in Santander at 2700 ft and in Zaragoza at 3100 ft altitude.

Minimum QNH: at 0600 UTC (central hour of the forecast), 1010 hectopascals

Chart form of area forecasts (significant weather phenomena) for low-level flights (below FL150). It is issued every 6 hour for a period of validity of 6 hour.

The responsible meteorological watch offices are Valencia (LEVA) and Las Palmas (GCGC). They prepare and issue this chart.

Horizontal limits: The Peninsula and the Balearic Islands: latitude 35°N to 45°N; longitude from 10°W to 05°E; The Canary Islands: latitude 26°30'N to 30°30'N; longitude 12°00'W to 20°00'W.

Vertical limits: From the surface to FL150 for both areas.

Significant weather forecast from 3 hours before and 3 hours after the validity time shown in the chart, excepting fronts, pressure centres, freezing level and state of the sea, given at validity time.

## INFORMATION INCLUDED IN THE CHART

1. Forecasts of significant en-route weather phenomena (see table of symbols ). Top and base of the affected layer are shown for every phenomena forecast above the surface.

2. Cloud information included:

- i. Areas with amount of clouds forecasts BKN or OVC. Format: Amount Type Base altitude/Top altitude
- ii. Cumulonimbus (CB) and cumulus congestus of great vertical extent (TCU) forecast. Format: Descriptor CB (or TCU) Base altitude/Top altitude.

3. Widespread surface wind exceeding 30 kt

4. Widespread surface visibility below 5 000 m. Symbols V1 and V5 are used.

- V1: Visibility < 1 000 m
- V5: 1 000 m ≤ Visibility < 5000 m

5. Pressure centres and fronts and their expected movements (see table).

6. Height indication of 0°C level(s) at specified points.

7. Sea-surface temperature (in °C) and state of the sea (wave height in meters).

8. Information on volcanic eruptions.

## TABLE OF SYMBOLS

	Thunderstorms		Drizzle
	Tropical cyclone		Rain
	Severe squall line		Snow
	Moderate turbulence		Shower
	Severe turbulence		Hail
	Mountain waves		Widespread blowing snow
	Moderate aircraft icing		Severe sand or dust haze
	Severe aircraft icing		Widespread duststorm or sandstorm
	Widespread fog		Widespread haze
	Radioactive materials in the atmosphere		Widespread mist
	Volcanic eruption		Widespread smoke
	Mountain obscuration		Freezing precipitation

	Cold front at the surface		State of the sea
	Warm front at the surface		Sea surface temperature
	Occluded front at the surface		Freezing level
	Quasi-stationary front at the surface		Widespread strong surface wind (> 30 kt)
	Direction and speed (kt) of displacement		Convergence line

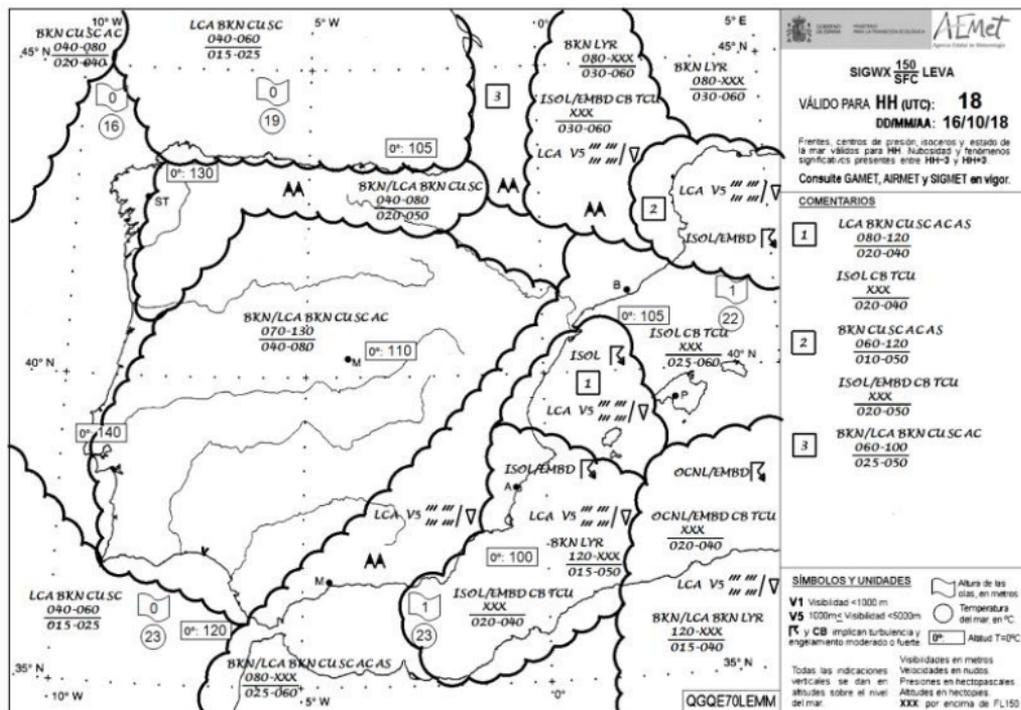
Abbreviations used for clouds			
Clouds excepting CB and TCU		Descriptors for CB and TCU	
BKN	Broken clouds (5-7 oktas)	ISOL	Isolated
OVC	Overcast clouds (8 oktas)	OCNL	Occasional
LYR	Layer clouds	FRQ	Frequent
		EMBD	Embedded

## ABBREVIATIONS:

ABV	Above
AGL	Above ground level
AMSL	Above mean sea level
BLO	Below clouds
BLW	Below
BTL	Between layers
COT	On the coast
E (W)	East (West)
LAN	Inland
LCA	Local or locally
MAR	At sea
MON	Over the mountains
MSL	Mean sea level
MT	Mountain
N (NE, NW)	North (Northeast, Northwest)
NM	Nautical miles
OHd	Overhead
OTP	On top
S (SE, SW)	South (Southeast, Southwest)
VAL	In the valleys

SLW:	Slow displacement (< 10 kt)	L:	Low pressure centre	H:	High pressure centre
STRN:	Stationary	X:	Position of pressure centre in Hectopascal		
V1:	Visibility < 1000 m	V5:	1000 ≤ visibility ≤ 5000 m		

## EXAMPLE



See MET Guide for more information.

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Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations

## FIRST LINE

ICAO location indicator of the ATS unit	LECM: Madrid FIR/UIR LECB: Barcelona FIR/UIR GCCC: Canarias FIR/UIR	Message identification and sequence number	SIGMET n n: the number shall correspond with the number of SIGMET messages issued for the FIR/UIR since 0001 UTC on the day concerned	Validity period (UTC)	YYGGgg/YYG <sub>2</sub> G <sub>2</sub> g <sub>2</sub> g <sub>2</sub> : Day of month, and start (YYGGgg) and end (YYG <sub>2</sub> G <sub>2</sub> g <sub>2</sub> g <sub>2</sub> ) time (hour, minutes) in UTC.  The period of validity shall be not more than 4 hours. In the special case of SIGMET messages for volcanic ash cloud and tropical cyclones, the period of validity shall be extended up to 6 hours	Location indicator of the meteorological watch office originating the message	LEVA-: Meteorological Watch Office (OVM) of Valencia. GCCC-: Meteorological Watch Office (OVM) of Las Palmas de Gran Canaria
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## FOLLOWING LINES

Location indicator + name of the FIR/UIR for which the SIGMET is issued	LECM MADRID FIR/UIR or LECB BARCELONA FIR/UIR or GCCC CANARIAS FIR/UIR	Description of phenomenon causing the issuance of SIGMET	<b>OBSC<sup>2</sup> TS</b> : obscured thunderstorms <b>EMBD<sup>3</sup> TS</b> : embedded thunderstorms <b>FRQ<sup>4</sup> TS</b> : frequent thunderstorms <b>SQL<sup>5</sup> TS</b> : squall line thunderstorms <b>OBSC TSGR<sup>6</sup></b> : obscured thunderstorms with hail <b>EMBD<sup>3</sup> TSGR</b> : embedded thunderstorms with hail <b>FRQ<sup>4</sup> TSGR</b> : frequent thunderstorms with hail <b>SQL<sup>5</sup> TSGR</b> : squall line thunderstorms with hail <b>TC (+name)</b> : tropical cyclone <b>SEV TURB<sup>7</sup></b> : severe turbulence <b>SEV ICE<sup>8</sup></b> : severe icing <b>SEV ICE (FZRA<sup>9</sup>)</b> : severe icing due to freezing rain <b>SEV MTW<sup>4</sup></b> : severe mountain wave <b>HVY DS</b> : heavy duststorm <b>HVY SS</b> : heavy sandstorm <b>VA(+name of volcano)</b> : volcanic ash <b>RDOACT CLD</b> : radioactive cloud	Observed or forecast phenomenon	<b>OBS</b> is used when the phenomenon is observed and expected to continue. Time of observation is included, if known. <b>FCST</b> is used when the phenomenon is forecast. Time of forecast is included, if known
Location and flight level or altitude	Location, referring to latitude and longitude (in degrees and minutes) and flight level or altitude, ENTIRE FIR: if the phenomenon is forecast for the entire FIR	Movement (direction and speed)	<b>MOV</b> Direction with reference to one of the sixteen points of compass Speed in kt or in km/h Or stationary (STNR)	Changes in intensity	<b>WKN</b> : weakening <b>NC</b> : no changes <b>INTSF</b> : intensifying

## NOTES

- Only one of the described phenomena shall be included in a SIGMET message, using the abbreviations as indicated above
- OBSC if it is obscured by haze or smoke or cannot be readily seen due to darkness. If there are no obscured TS but obscured CB, the descriptor OBSC TS shall be used.
- EMBD if it is embedded within cloud layers and cannot be readily recognized. If there are no embedded TS but embedded CB, the descriptor EMBD TS shall be used.
- FRQ descriptor and severe mountain waves (MTW) are defined in the notes of AIRMET.
- SQL should indicate a thunderstorm along a line with little or no space between individual clouds

## NOTES

6. GR (hail) should be used as a further description of the thunderstorm, as necessary.
7. TURB (severe and moderate turbulence ) should refer only to: low-level turbulence associated with strong surface winds; rotor streaming; or turbulence whether in cloud or not in cloud (clear air turbulence, CAT). Turbulence should not be used in connection with convective clouds.
8. ICE (severe) should refer to icing in other than convective clouds.
9. FZRA (freezing rain) should refer to severe icing conditions caused by freezing rain.
10. TS, CB and tropical cyclones imply severe turbulence and severe icing, so these phenomena are not explicitly included.
11. For volcanic ash, tropical ciclones or any other phenomenon hazardous to aviation (i.e. turbulence) the forecast position of the phenomenon at the end of the validity period is included in the message.

### EXAMPLE 1

#### SIGMET FOR FREQUENT THUNDERSTORMS WITH HAIL

LECM SIGMET 1 VALID 210500/210700 LEVA-  
LECM MADRID FIR/UIR FRQ TSGR FCST N OF N4220 AND W OF W00630 TOP FL390 STRN WKN=

First message SIGMET issued by the meteorological watch office LEVA for LECM FIR. The validity period is from 0500 UTC to 0700 UTC on the 21<sup>st</sup> of month. Frequent thunderstorms with hail are forecast at west of Galicia with cloud top at flight level 390. No significant movement is expected (stationary) and they will weaken.

### EXAMPLE 2

#### SIGMET FOR SEVERE TURBULENCE

LECM SIGMET 2 VALID 210600/210900 LEVA-  
LECM MADRID FIR/UIR SEV TURB OBS AT 0600Z N38 W008 FL240 MOV E 10KT WKN=

Second message SIGMET issued by the meteorological watch office LEVA for LECM FIR. The message is valid from 0600 UTC to 0900 UTC on the 21<sup>st</sup> of month. Severe turbulence was observed at 0600 UTC at 38 degrees north and 8 degrees west, at flight level 240. The affected area of turbulence is expected to move to the east at 10 kt of speed and weakening.

### EXAMPLE 3

#### SIGMET CANCELLATION OF EXAMPLE 2

LECM SIGMET 3 VALID 210730/210900 LEVA-  
LECM MADRID FIR/UIR CNL SIGMET 2 VALID 210600/210900=

### EXAMPLE 4

#### SIGMET FOR VOLCANIC ASH (fictitious location)

YUDD SIGMET 2 VALID 101200/101800 YUSO-  
YUDD SHANLON FIR/UIR VA ERUPTION MT ASHVAL PSN N4315 E02115 VA CLD OBS AT 1200Z WI  
N4315 E02115 - N4345 E02145 - N4330 E02215 - N4245 E02130 - N4230 E02145 - N4315 E02115  
FL250/370 MOV ESE 20KT WKN FCST AT 1800Z NO VA EXP=

Second message SIGMET issued by the meteorological watch office YUSO for YUDD FIR. The message is valid from 1200 UTC to 1800 UTC on the 10<sup>th</sup> of month. Eruption of volcano of ASHVAL mount located at 43°15'N 21°15'E. The ash cloud was observed at 1200 UTC inside the polygon circumscribed by the following points: 43°15'N 21°15'E, 43°45'N 21°45'E, 43°30'N 22°15'E, 42°45'N 21°30'E, 42°30'N 21°45'E y 43°15'N 21°15'E (initial point with which the polygon closes), between flight levels 250 and 370, moving to the east-southeast at 20 knots, and weakening. It is forecast that at 1800 UTC the ash cloud will scatter.

See MET Guide for more information.

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Information concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations (below FL150) and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof (SECN I of GAMET)

### FIRST LINE

<b>ICAO location indicator of the ATS unit</b>	LECM: Areas 1 and 2 of Madrid FIR LECB: Barcelona FIR GCCC: Sub-area Islands of Canarias FIR	<b>Message identification and sequence number</b>	AIRMET n n: the number shall correspond with the number of AIRMET messages issued for the FIR, or sub-area of FIR, since 0001 UTC on the day concerned	<b>Validity period (UTC)</b>	YYGGgg/YYG <sub>g</sub> G <sub>g</sub> g <sub>g</sub> : Day of month, and start (YYGGgg) and end (YYG <sub>g</sub> G <sub>g</sub> g <sub>g</sub> ) time (hour, minutes) in UTC. The period of validity shall be not more than 4 hours	<b>Location indicator of the meteorological watch office originating the message</b>	LEVA-: Meteorological Watch Office (OVM) of Valencia. GCGC-: Meteorological Watch Office (OVM) of Las Palmas de Gran Canaria
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### FOLLOWING LINES

<b>Location indicator + name of the FIR, or part thereof for which the AIRMET is issued</b>	LECM MADRID FIR/1 or LECM MADRID FIR/2 or LECB BARCELONA FIR or GCCC CANARIAS FIR SUBZONA ISLAS	<b>Description of phenomenon causing the issuance of AIRMET</b>	<ul style="list-style-type: none"> <li>* Widespread areas where mean surface wind speed &gt; 30 kt:</li> <li><b>SFC WIND</b> (+ wind speed, direction and units)</li> <li>* Widespread areas affected by reduction of visibility to less than 5000 m:</li> <li><b>SFC VIS</b> (+ visibility in m + weather phenomena)</li> <li>* Thunderstorms:</li> <li><b>ISOL TS, OCNL TS</b> (without hail)</li> <li><b>ISOL TSGR, OCNL TSGR</b> (with hail)</li> <li>* Mountains obscured:</li> <li><b>MT OBSC</b></li> <li>* Widespread areas of BKN or OVC cloud with height of base less than 1000 ft above ground level:</li> <li><b>BKN CLD</b> or <b>OVC CLD</b> (+ height of the base and top + units)</li> <li>* Cumulonimbus:</li> <li><b>ISOL CB, OCNL CB, FRQ CB</b></li> <li>* Towering cumulus clouds:</li> <li><b>ISOL TCU, OCNL TCU, FRQ TCU</b></li> <li>* Moderate icing:</li> <li><b>MOD ICE</b></li> <li>* Moderate turbulence:</li> <li><b>MOD TURB</b></li> <li>* Moderate mountain wave:</li> <li><b>MOD MTW</b></li> </ul>	<b>Observed or forecast phenomenon</b>	<p><b>OBS</b> is used when the phenomenon is observed and expected to continue. Time of observation is included, if known.</p> <p><b>FCST</b> is used when the phenomenon is forecast. Time of forecast is included, if known</p>
<b>Location and flight level or altitude</b>	Location, referring to latitude and longitude (in degrees and minutes) and flight level or altitude	<b>Movement (direction and speed)</b>	<p><b>MOV</b></p> <p>Direction with reference to one of the sixteen points of compass</p> <p>Speed in kt or in km/h</p> <p>Or stationary (STNR)</p>	<b>Changes in intensity</b>	<p><b>WKN</b>: weakening</p> <p><b>NC</b>: no changes</p> <p><b>INTSF</b>: intensifying</p>

### NOTES

- The term widespread areas is used to indicate a spatial coverage greater than 75 per cent of the area affected by the phenomenon.
- ISOL (isolated): TS, CB or TCU which affect, or are forecast to affect, an area with a maximum spatial coverage less than 50 per cent of the area concerned (at a fixed time or during the period of validity)
- OCNL (occasional): well-separated TS, CB or TCU which affect, or are forecast to affect, an area with a maximum spatial coverage between 50 and 75 per cent of the area concerned (at a fixed time or during the period of validity)

## NOTES

4. FRQ (frequent): an area of TS, CB o TCU if there is little or no separation between adjacent TS, CB o TCU with a maximum spatial coverage greater than 75 per cent of the area affected, or forecast to be affected, by the phenomenon (at a fixed time or during the period of validity).
5. Descriptors OBSC and TURB are defined in the notes of SIGMET.
6. A mountain waves should be considered:
  - a) severe: whenever an accompanying downdraft  $\geq 3.0$  m/s (600 ft/min) and/or severe turbulence is observed or forecast.
  - b) moderate: whenever an accompanying downdraft of 1.75–3.0 m/s (350–600 ft/min) and/or moderate turbulence is observed or forecast.
7. AIRMET information on icing and turbulence associated with TS, CB or TCU should not be included, as TS, CB and TCU imply these phenomena. However, hail will be included in AIRMET on TS.
8. CANCELLATION of AIRMET: The abbreviation CNL will be used.
9. These notes are complemented with the notes of GAMET.

### EXAMPLE 1

#### AIRMET FOR REDUCTION OF VISIBILITY

At 04:55 UTC a reduction of visibility is observed less than 5000 m and it was not included in the current GAMET. For this reason, an AIRMET is issued including this phenomenon, which is hazardous for low level flights.

LECM AIRMET 1 VALID 280500/280900 LEVA-

LECM MADRID FIR/1 SFC VIS 3000M RA OBS AT 0455Z N OF N4310 AND E OF W00720 STNR NC=

First message AIRMET from 0001 UTC issued by the meteorological watch office LEVA for area 1 of Madrid FIR. The message is valid from 0500 UTC to 0900 UTC on 28<sup>th</sup> of the month. At 0455 UTC a reduction of visibility of 3000 m was observed, due to rain at north of 43°10' N and east of 7°20' W. Stationary visibility and no changes in intensity are forecast.

### EXAMPLE 2

CNL AIRMET (cancellation of the previous AIRMET)

At 0600 UTC the visibility is greater than 5000 m. So, in that moment the AIRMET is cancelled.

LECM AIRMET 2 VALID 280600/280900 LEVA-

LECM MADRID FIR/1 CNL AIRMET 1 280500/280900=

### EXAMPLE 3

#### AIRMET FOR MODERATE MOUNTAIN WAVES

At 06:31 UTC moderate mountain waves are observed in the Barcelona FIR . As they are no forecast in the current GAMET an AIRMET is issued.

LECB AIRMET 1 VALID 040631/040900 LEVA-

LECB BARCELONA FIR MOD MTW OBS AT 0631Z WI N4101 E00059 - N4013 E00021 - N4029 W00025 - N4113 E00012 - N4101 E00059 060/100 WKN=

First AIRMET message issued by the meteorological watch office LEVA for Barcelona FIR. The message is valid from 0631 UTC to 0900 UTC on the 4th of month. Moderate mountain waves are observed within the indicated polygon. They will weaken.

See MET Guide for more information.

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