Low level significant weather chart

One of the duties of Hungarian Meteorological Service is to regularly provide general aviation with area forecasts in chart form (hereafter referred to as LL SIGWX), covering the airspace below FL100 over the central parts of Europe.

The charts contain weather fronts, areas of different types of weather, significant weather phenomena and wind forecast for the standard isobaric level of 850 hPa (\sim 1500 m) in case of winds stronger than 7 m/s.

The LL SIGWX charts are issued three times a day:

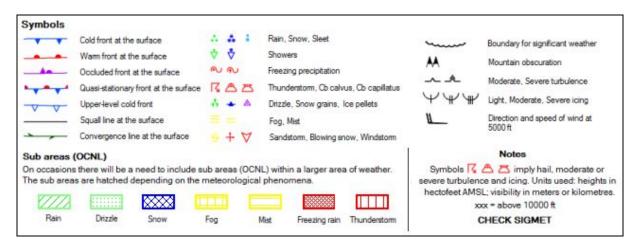
Validity

- 06 UTC
- 12 UTC
- 18 UTC

In a separate text box are included visibility, forecast weather phenomena, the expected amount, the types, the bases and the tops of clouds, besides the level of 0°C and the intensity of icing and of turbulence expected in the different areas are also indicated.

Areas, subareas and symbols used

In the charts symbols, coloured areas and lines are used to describe relevant weather characteristics:



1. Separating areas

The aim is to define areas the weather characteristics of which are expected to significantly differ from each other. The separated areas are named as **A**, **B**, **C** etc, starting in the north-west and ending in the south-east, and the borders of them are indicated by black curved lines. Example: AREA A.

2. Separating areas

Within a given area hatched polygons are used to separate regions in which adverse weather conditions like hazardous precipitation, thunderstorms or banks of fog are expected to occur in huge spatial extent (OCNL or FRQ). VFR weather conditions are usually not met in these subareas. The subareas are indicated as **a1**, **a2**, etc or **b1**, **b2** etc in the chart, and as SUBAREA a1, SUBAREA a2 etc or SUBAREA b1, SUBAREA b2 etc in the text box right below the main area.

Coloured polygons are not used to refer to showers of OCNL or FRQ frequency in the chart but they are mentioned in the text box instead. Example: OCNL SHRA. Unlike OCNL or FRQ showers thunderstorms of OCNL or FRQ frequency are indicated by coloured polygons in the chart in order to underline that thunderstorms in the given area probably cannot be avioded, because they are expected to be too close to each other.

3. Usage of symbols

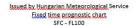
a) Fronts, objects

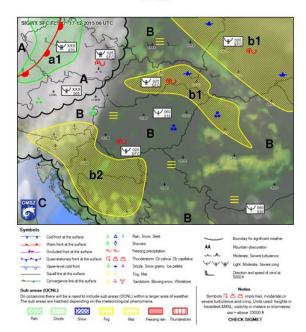
If the weather situation requires the symbols of fronts or lines of instability or of convergence on the surface are put on the chart.

b) Symbols

In case of phenomena of ISOL/LCA frequency only symbols are used indicate them in the chart.

4. How to interpret an LL SIGWX





Issued by Hungarian Meteorological Service Fixed time prognostic table SFC - FL100

VARIANT	VIS	WEATHER	CLOUD, TURBULENCE, ICING		0°C
AREAA	7	NIL	BKN Sc Ac As 025/XXX	ΛY	060-070
ISOL	4	-RA BR	BKN/OVC St Sc As 010/XXX	MAY	
ISOL E PART	1.5	-FZRA BR	OVC St Ns 005/XXX	мЖ	SFC
SUBAREA a1	3	-RA BR	OVC St Ns 010/XXX	MAY	5
ISOL	1	RADZ BR	OVC St Ns 002/XXX	MAY	
AREA B	5	BR	BKN/OVC St Sc 015/045	м Ч	SFC /W 060
ISOL E PART	1.5	-SN BR	OVC St Sc 005/060	мЖ	
ISOL W PART	2	DZ BR	OVC St Sc 005/080	MY	
ISOL	600 m	-FZDZ FZFG	OVC St Sc SFC/040	MY	
ISOL N PART	8	NIL	SCT Sc 020/040		
ISOL IN MT	10+	NIL	NO CLOUDS BELOW FL100	8	9
SUBAREA b1	2	BR	BKN/OVC St Sc 005/030	м	SFC
ISOL	400 m	-FZDZ -SN -SG FZFG	OVC St Sc 002/045	мЖ	
SUBAREA b2	800 m	FG FZFG	BKN St 002/015		SFC /070
ISOL	100 m	FZFG	BKN/OVC St SFC/015		
ISOL	2	BR	FEW/SCT St 005/015		
AREA C	10+	NIL	NO CLOUDS BELOW FL100		065-080
ISOL	7	NIL	FEW/SCT Sc Ac 065/XXX		
ISOL	3	MIFG BR		4	
	_		1	+	+

Date: 17 December 2015, time: 06:00 UTC. Weather conditions were not really favourable for general aviation because due to an anticyclon over the central parts of Europe huge areas were veiled in mist or fog, and the sky was packed with lots of very low clouds. The western areas were affected by a warm front, and its thick clouds provided the Czech Republic and Austria with rain.

- In AREA A weather conditions are determined by a warm front, resulting in widespread rain, besides moderate or severe incloud icing or icing in freezing close to the borderline of the area may be encountered.
 - In SUBAREA b1 rain is expected in a large spatial extent because of the warm front. There is no VFR weather conditions because of the low visibility and low cloud base.
- The sky over AREA B is almost totally covered with low level stratiform clouds, and either only smaller areas within this area may have favourable conditions for (local) flights or mountainous areas might be out of clouds.
 - In SUBAREA b1 visibility is generally poor, ceiling is very low, besides huge parts may have snow, snow grains or freezing drizzle.
 - In SUBAREA b2 visibility is generally very poor because the presence of huge banks of fog, but the Stratus is thinner than in SUBAREA b1, and no precipitation is expected to occur.
- In AREA C weather conditions are expected to be favourable for general aviation in general, though patches of mist or of shallow fog may also occur.