



Guide on WARSAW FIR GAFOR area forecast -information for users



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1. Definition

GAFOR - graphic area forecast, dedicated to low-level flights, which is a forecast of visibility, cloud base and significant meteorological phenomena, for the regions in FIR EPWW, issued by the Central Aeronautical Forecasting Office - Meteorological Watch Office.

2. Basic information

2.1 GAFOR area forecast is issued by the Central Aeronautical Forecasting Office - Meteorological Watch Office. It is issued 10 minutes prior to its validity period of six consecutive hours and is updated every 3 hours from sunrise to sunset. The forecast throughout its validity period is constantly monitored.

Forecast validity period

FORECAST TIME UTC	FORECAST VALIDITY PERIOD			
	TOTAL	PERIOD 1	PERIOD 2	PERIOD 3
01.50	02-08	02-04	04-06	06-08
04.50	05-11	05-07	07-09	09-11
07.50	08-14	08-10	10-12	12-14
10.50	11-17	11-13	13-15	15-17
13.50	14-20	14-16	16-18	18-20



Completion date depending on the season of the year (sunrise and sunset)

FORECAST VALIDITY PERIOD	VALIDITY DATES
02-20 UTC	from 24.02 to 03.10
02-17 UTC	from 04.10 to 01.11
05-17 UTC	from 02.11 to 23.02

- 2.2 The forecast is prepared in graphic form using a color scale. It consists of 3 maps, each of which covers every consecutive 2 hours of validity period of a given forecast, for which minimum values of AGL cloud base, visibility and meteorological phenomena are given.
- 2.3 GAFOR is an information on the minimal conditions occurring in a predominant area that a pilot may encounter while flying in a given region. A map of the regions is included in Annex 1 to this guide.



3. Detailed information

- 3.1 On the maps, apart from the color scale, there are symbols of atmospheric phenomena forecasted within a given region. The legend is attached to the maps.
- 3.2 For the assessment of visibility or low cloud bases, the dominant visibility and cloud base and their spatial variabilities were adopted.

red (C - closed)	VIS < 1500m, hs < 500ft
orange (M – marginal)	1500m ≤ VIS < 5000m, 500ft ≤ hs < 1000ft
yellow (D – difficult)	5000m ≤ VIS < 8000m, 1000 ≤ hs < 2000ft
green (O – open)	VIS ≥ 8000m, hs ≥ 2000ft

where: VIS – stands for visibility hs – stands for cloud base AGL

		M	D	O
2000		M	D	D
1000		M	M	M
500				
		1500	5000	8000
		VISIBILITY (M)		

















- 3.3 When forecasting cloud bases, only those of the size of BKN (Broken i.e. 5/8/7/8) and OVC (Overcast i.e. 8/8) are taken into account, and the cloud base is given relative to the Earth's surface (AGL).
- 3.4 When assessing visibility, its reduction by hydro and lithometeors is taken into account at the ground, i.e. at vision (eye) level of the observer.
- 3.5 Wind gusts >25KT.
- 3.6 The forecast also includes the occurrence of the following phenomena or clouds:

- ▶ Stratus
- ▶ snow
- ▶ shower snow
- ▶ blizzard with snow
- ▶ freezing rain
- ▶ snow with rain
- ▶ mist
- ▶ fog
- ▶ freezing fog
- ▶ rain
- ▶ drizzle
- ▶ shower rain
- ▶ thunderstorm with rain
- ▶ thunderstorm with hail
- ▶ wind gusts



3.6.1 To describe phenomena, commonly known graphic meteorological symbols are used.

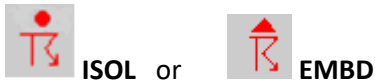
SYMBOL	PHENOMENA	ICAO
	stratus	ST
	snow	SN
	shower snow	SHSN
	bizzard with snow	BLSN
	freezing rain	FZRA
	mist	BR
	fog	FG
	freezing fog	FZFG
	rain	RA
	drizzle	DZ
	shower rain	SHRA
	thunderstorm with rain	TSRA
	thunderstorm with hail	TSGR
	Wind gusts >25KT (resulting only from gradient and not from convection)	GUSTS



- 3.6.2 Within the area of 1 region only 2 phenomena that cause difficulties in flying can be indicated. For many phenomena, phenomena that occur over a larger area and are of greater importance for safety are indicated.
- 3.6.3 In the event of a thunderstorm or a thunderstorm with hail the following symbols will appear in addition to the information:

ISOL	single, isolated (covering less than 50% of a given area)
OCNL	occasional (covering 50-75% of a given area)
FRQ	frequent (covering over 75% of a given area)
EMBD	embedded in other cloud layers

FOR EXAPMLE:





4. GAFOR AMD

- 4.1. GAFOR forecast, during its validity period, is constantly monitored and amended if forecasted conditions differ from those actually occurring.
- 4.2. In case visibility and cloud base thresholds indicated in the table in point 3.2 are exceeded and the phenomena indicated in point 3.6 occur, disappear or are no longer forecasted, then GAFOR AMD forecast is issued.
- 4.3. One should note that GAFOR forecast is a type of forecast in which it is not possible to include all details and weather conditions occurring in small regions. Therefore, some generalization is necessary. Accordingly, all phenomena that occur in less than 15% of a given region are considered local.

5. Contingency situations

- 5.1 In case of contingency situations interrupting the proper functioning of Meteorological Watch Office GAFOR forecast is canceled (CANCEL) until the standard operating mode is restored.



Annex 1

