

Beginning July 2007, we made major changes in the sky cover verification. First, we switched from verifying the traditional point MOS categorical forecasts found in the MAV text bulletins to using Gridded MOS at points. We use the Gridded MOS forecasts at the gridpoints closest to verifying observation sites. The same gridpoint is used when extracting gridpoint values from NDFD, HPC, and Gridded MOS grids. Second, we changed the forecast category definitions for computing the Heidke Skill Score and percent correct. We began computing those scores based on a 5-category system (see the table below). The previously-used 3-category system was designed in the early days of the NDFD verification effort. At the time, it was the only reasonable way to define categories that were common to all three data sources, namely, NDFD opaque sky cover forecasts, point MOS total sky cover categorical forecasts, and total sky cover observations. Now, since all gridded opaque sky cover forecasts are continuous, we can define the category breakpoints to coincide with official sky cover definitions (except for B1 and B2, which are combined into one category). And lastly, we began using observations of opaque sky cover rather than total sky cover. MDL computes these observations by combining information from the METAR observations and the Satellite Cloud Product (SCP). We use information from the SCP to complement ASOS observations above 12,000 ft, as well as to determine the opacity of the clouds.

Table 1. Category definitions and breakpoints for opaque sky cover verification. Values in red are defined by MDL for internal processing purposes.

	From ASOS User's Guide % sky cover	From ASOS User's Guide oktas	From NWSI 10-503	NDFD/HPC/ GMOS (%)	METAR Complemented with SCP
CLR and SKC	0 to $\leq 05$	0	0 to $\leq 05$	$< 5.5$	0 or 1
FEW	$> 05$ to $\leq 25$	$> 0$ to 2/8	$> 05$ to $\leq 25$	$\geq 5.5$ to $< 25.5$	2
SCT	$> 25$ to $\leq 50$	$> 2/8$ to $\leq 4/8$	$> 25$ to $\leq 50$	$\geq 25.5$ to $< 50.5$	3
BKN	$> 50$ to $\leq 87$	$> 4/8$ to $< 8/8$	$> 50$ to $\leq 87$	$\geq 50.5$ to $< 87.5$	6
OVC (includes partial and total obscuration)	$> 87$ to 100	8/8	$> 87$ to 100	$\geq 87.5$	8 (9 and 10)