

USING AUTOMATED WEATHER

Every system has limitations, and the machines collecting and disseminating automated weather information are no different. Thankfully, most of the “bugs” present in early AWOS/ASOS installations have been resolved and the systems are much more dependable, reliable and—importantly—present consistent, repeatable results. Still, using them to help manage weather-related risks can be something of a challenge for those unfamiliar with their features and limitations.

If you use something like DUAT to come up with a pre-flight weather briefing for a cross-country flight of any length, you’ll likely encounter a list of surface observations, Metars, along the route. An excerpt from a recent DUAT session is reproduced at right. We’ve highlighted in red certain items in these three Metars.

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METAR KHEZ 071435Z AUTO 17005KT 10SM CLR 14/12 A3008 RMK A01
...
METAR KMNE 071355Z AUTO 00000KT 7SM OVC010 15/15 A3005 RMK A02
...
SPECI KBAD 071420Z 18007KT 3SM OVC006 14/14 A3001 RMK A02A SLP163 $
```

In the first two Metars, **AUTO** is highlighted. This means the station is operating in unattended, automatic mode. Later in the Metar sequence, **RMK A01** and **RMK A02** are highlighted. The **RMK** reference, of course, begins the remarks portion of the Metar, in this case specifying the type of automated system producing the report. An **A01** in the remarks section denotes an automated station lacking a precipitation discriminator to distinguish between rain and snow. By contrast, the **A02** in the second Metar references a system including this capability.

The third Metar is the most interesting of these. It begins with the **SPECI** code, rather than **METAR**, like the others. This means the observation is a “special,” triggered either manually or automatically by a weather change, but is otherwise identical to a regularly scheduled Metar observation. Use of the code **AUTO** in the first two Metars means the reports are normally scheduled.

This third Metar also includes additional information in the remarks portion. In this case, **A02A** denotes a system equipped with precipitation discriminators, as discussed above, but the trailing **A** also means the station is attended for this report. Finally, and according to NOAA, the “\$” is used to indicate that maintenance may be needed but does not necessarily mean that the data are erroneous.”

There are other things going on with these three Metars, of course, but decoding it all is well beyond the scope of this article. If you pine for more acronyms and greater knowledge of automated weather, everything you need can be found in NOAA’s *Automated Surface Observing System (ASOS) User’s Guide*, at tinyurl.com/avsafeasos1 [PDF]. Operational tips are found in NOAA’s *ASOS Guide for Pilots*, tinyurl.com/avsafeasos2.