Non-Federal AWOS A/V Connection to the WMSCR

Presented to:
By:
Date:
FAA Policy on AWOS Connection to WMSCR

• FAA Order 7900.5, Surface Weather Observing
  – Requires a Complete, all Elements Certified METAR (Aviation Routine Weather Reporting) for Long-Line Dissemination of Aviation Weather
  – Mandatory METAR Elements consist of-type of report, station ident, date and time, wind, visibility, sky condition, temperature, dewpoint and altimeter
  – Mandatory METAR Elements = FAA AWOS-III
FAA Policy on AWOS Connection to WMSCR

- Advisory Circular (AC) 150/5220-16, AWOS for Non-Federal Applications
  - ……type certified, commissioned AWOS III and AWOS IV (may) be disseminated by the FAA nationally…..
  - connection type can be via an approved third party vendor or the state approved (e.g. NASAO) interface who provide connection to the Weather Message Switching Center Replacement (WMSCR) for type certified, commissioned AWOS III or IV systems…..
Government Wide Policy

• Federal Meteorological Handbook No.1 (FMH-1), Surface Weather and Reports
  – …the DOT's Federal Aviation Administration (FAA), as the agency responsible for safe operation of aircraft and efficient use of the Nation's airspace system, has the role of establishing requirements for, and disseminating aviation weather data to airspace users.
International Civil Aviation Organization (ICAO)

- FAA is Committed to Complying with ICAO Standards
  - ICAO Annex 3, Meteorological Service for International Air Navigation –
  - 4.3.2 Reports of routine observations shall be issued as:
    - a) local routine reports, only for dissemination at the aerodrome (airport) of origin (intended for arriving and departing aircraft)
    - b) METAR for dissemination beyond the aerodrome (airport) of origin……
### ICAO Annex-3 METAR Template

**Appendix 3**

**Annex 3 — Meteorological Service for International Air Navigation**

Table A3-2. Template for METAR and SPECI

<table>
<thead>
<tr>
<th>Element as specified in Chapter 4</th>
<th>Detailed content</th>
<th>Template(s)</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of the type of report (M)</td>
<td>METAR, METAR COR, SPECI or SPECI COR</td>
<td>METAR, METAR COR, SPECI or SPECI COR</td>
<td>METAR, METAR COR, SPECI or SPECI COR</td>
</tr>
<tr>
<td>Location indicator (M)</td>
<td>ICAO location indicator (M)</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Time of the observation (M)</td>
<td>Day and actual time of the observation in UTC (M)</td>
<td>mmmmmnZ</td>
<td>221630Z</td>
</tr>
<tr>
<td>Identification of an automated or missing report (C)?</td>
<td>Automated or missing report identifier (C)</td>
<td>AUTO or NIL</td>
<td>AUTO NIL</td>
</tr>
</tbody>
</table>

**END OF METAR IF THE REPORT IS MISSING**

- **Surface wind (M)**
  - Wind direction (M): none
  - Wind speed (M): \( \text{[P]} \text{[n][n]} \)
  - Significant speed variations (C)?
  - Units of measurement (M): MPH (or KT)
  - Significant directional variations (C)?

- **Visibility (M)**
  - Prevaling or minimum visibility (M)
  - Minimum visibility and direction of the minimum visibility (C)?

- **RVR (C)?**
  - Name of the element (M)
  - Runway (M)
  - RVR (M)
  - RVR variations (C)?

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**APP 3-23**

18/11/10
ICAO Annex 3

• Does not Set Standards for Certification of Automated Weather Systems by Member States (Nations)
  – Responsibility of Member States

• Does not Designate Names, Categories or Classification of AWOS
  – None of the FAA AWOS Classifications (AWOS-A, A/V, I, II, III, IV, etc) are recognized by ICAO.
ICAO Under Annex 3

• Does Recognize Aviation Weather for Use at the Local Aerodrome (airport)
  – Can be Anything the Member State Has Certified and Designated

• Sets Standards for (Long-Line) Dissemination of Weather Beyond the Local Aerodrome
  – Must be a Complete METAR
  – Complete METAR = FAA Designated, Certified and Commissioned AWOS-III or Greater- AWOS-IIIP, AWOS-IIIT, AWOS-IIIP/T, AWOS-IV