



*International Civil Aviation Organization*

**FOURTEENTH MEETING OF THE  
COMMUNICATIONS/NAVIGATION/SURVEILLANCE  
AND METEOROLOGY SUB-GROUP OF  
APANPIRG (CNS/MET SG/14)**



Jakarta, Indonesia, 19 – 22 July 2010

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**Agenda Item 15: Other MET issues**

**2) implementation of QMS**

**REAL TIME QUALITY CONTROL OF THE AERODROME METEOROLOGICAL  
OBSERVATION SYSTEM (AMOS) AND AVIATION METEOROLOGICAL INFORMATION**

(Presented by Republic of Korea)

**SUMMARY**

WMO and ICAO recommend the adoption of a suitable quality control system to ensure the production and provision aviation meteorological information and the quality of information exchanged internationally.

In light of these guidelines, the Korea Aviation Meteorological Agency (KAMA) has developed a programme for inspecting and managing factors that may adversely affect AMOS and the quality of aviation meteorological information (METAR, MET REPORT, TAF, WARNING, SIGMET, AIRMET). This program has been in operation at a total of 13 aviation meteorological offices including Incheon, Gimpo and Jeju since December 2009.

This paper relates to:

**Strategic Objectives:**

- A. Safety
- D. Efficiency

**Global Plan Initiatives:**

- GPI-18 Aeronautical Information
- GPI-19 Meteorological Systems

**1. Introduction**

**1.1. Quality controlled items**

The quality control system covers automatically produced AMOS observational data (automatically transmitted data) and aviation meteorological information (METAR/SPECI, MET REPORT, TAF, SIGMET, AIRMET, WARNING) compiled by the competent personnel.

1.2. Quality inspection is conducted according to Amendment 74 to ICAO Annex 3. Details of any error occurrences are announced through pop-ups so as to minimize the transmission of reports.

- AMOS (Aerodrome Meteorological Observation System);  
Continuity, max/min, interval, stepwise checking
- Aeronautical meteorological information (METAR/SPECI, MET REPORT, TAF, SIGMET, AIRMET, WARNING);  
Timeliness, conformity, typo/omission, observing standard adequacy

## 2. Quality Control Checklist

### 2.1. AMOS

- Continuity checking;  
Checking of reception (or failure thereof) of AMOS data; operational status of sensor.
- Max/Min checking;  
Checking of the maximum and minimum values of AMOS data in comparison with manager- set values (sensor observational limits).
- Interval checking;  
Climate statistics of observed interval values (annual, seasonal, and monthly) for each meteorological parameter.
- Stepwise checking;  
Checking of maximum variable value for each interval (detection of sudden variations)

### 2.2. Aviation meteorological information (METAR/SPECI, MET REPORT, TAF, SIGMET, AIRMET, WARNING)

- Timeliness;  
Checking of timeliness of information production and transmission times against international standards.
- Conformity;  
Checking of compliance with report drafting and communication format specified in ICAO Annex 3.
- Typo/omission;  
Checking for typographical errors or omissions in report.
- Observing standard adequacy;  
Checking of observing standards for each meteorological parameter in light of regulations covering special observations (SPECI, SPECIAL).

3. **Outcome** Contribution to higher-quality aviation meteorological information and efficient operations.



Fig1. Real-time monitoring of AMOS data (alphanumeric and graphic)

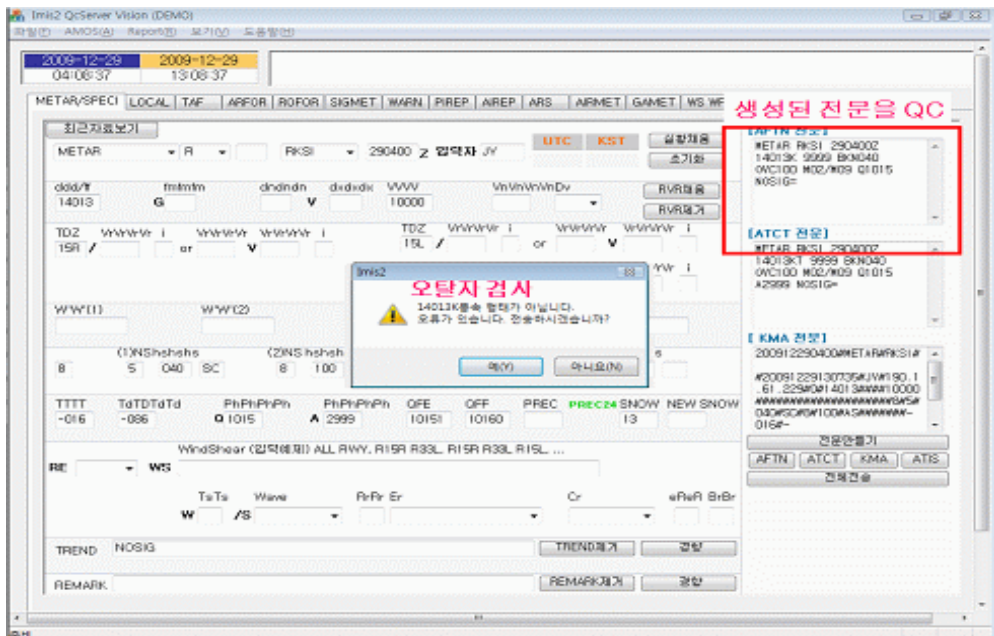


Fig2. METAR/SPECI quality control output; error notification pop-up

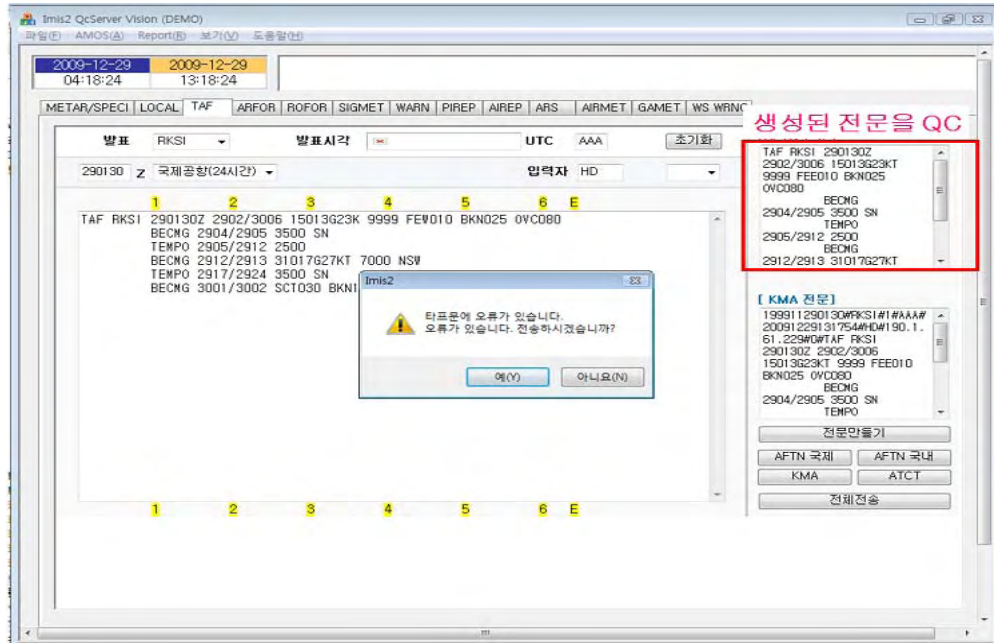


Fig3. TAF quality control output; error notification pop-up

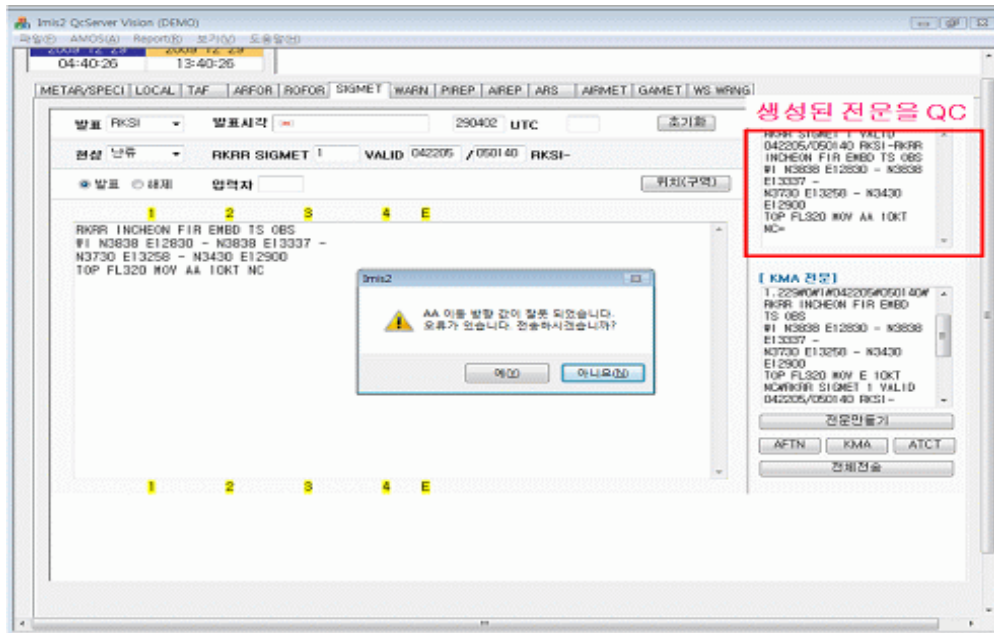


Fig4. SIGMET quality control output; error notification pop-up

4. Action required by the Meeting

The meeting is invited to note the information provided in this paper.

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