Frequentis facilitates change to weather data model to meet updated ICAO standard

Frequentis smartWeather release 6 fully supports requirements for updated ICAO Meteorological Information Exchange Model (IWXXM)

The International Civil Aviation Organization (ICAO) has mandated that from November 2020 weather information must be provided in ICAO meteorological information exchange model, IWXXM, as well as in traditional alphanumeric code (TAC) format. The machine-readable message format will facilitate information exchange for controller tools and automation systems.

The smartWeather software from Frequentis allows air navigation service providers (ANSPs) who operate air traffic management (ATM) systems to receive timely and accurate weather information for precise flight planning. The mandate to support IWXXM modernises meteorological information in harmonisation with other XML based information exchange models including aeronautical information exchange model (AIXM) and flight information exchange model (FIXM).

In comparison to traditional TAC format text messages, which are human-readable, IWXXM format messages with their XML tag structures are better suited to machine generation and interpretation, allowing a greater degree of automated integration with flight planning and mapping systems. IWXXM messaging is one of the cornerstone components of System Wide Information Management (SWIM).

Frequentis has been working with the IWXXM model since its first release in 2013 and has provided feedback to the model designers during various ICAO workshops and forums. Frequentis smartWeather customer, NAVIAIR Denmark, has been actively exchanging IWXXM format messages with other ANSPs in an ongoing proof of concept test. With Frequentis smartWeather release 6, conversion between TAC and IWXXM formats is supported, along with data aggregation (bulletin generation), configurable levels of message validation, and other key features.

"With the increased digitisation and automation of controller tools it has become necessary for machine-readable message formats to be created. Frequentis smartWeather is designed to support the acquisition and processing of all types of weather data such as TAC, IWXXM, binary and graphics products, from multiple sources and make that data available to users in several standard formats, and through various APIs.", stated John Fort, Managing Director, Frequentis California Inc. "Our customers in Denmark and Latvia will be the first recipients of our new updated smartWeather 6 release."

Amendment 78 ICAO Annex 3 requires that weather information such as aerodrome routine meteorological reports (METAR), aerodrome special meteorological reports (SPECI), terminal aerodrome forecasts (TAF), significant meteorological information (SIGMET), airmen's meteorological information (AIRMET), tropical cyclone advisories (TCA), volcanic ash advisories (VAA) and space weather advisory information (SWX) be provided in IWXXM format. Frequentis smartWeather 6 supports all these message types in the latest industry standard IWXXM 3.0 format. TAC format text messages are expected to remain in use until 2026.

The full Frequentis ATM portfolio is in line with the ICAO global air navigation plan.

About FREQUENTIS

Frequentis, headquartered in Vienna, is an international supplier of communication and information systems for control centres with safety-critical tasks. Such 'control centre solutions' are developed and marketed by Frequentis in the business sectors Air Traffic Management (civil and military air traffic control, air defence) and Public Safety & Transport (police, fire brigade, ambulance services, shipping, railways). As a global player, Frequentis operates a worldwide network of branches, subsidiaries and local representatives in more than 50 countries.

Products and solutions from Frequentis can be found in over 30,000 operator working positions and in approximately 140 countries. Founded in 1947, Frequentis considers itself to be the global market leader in voice communication systems for air traffic control with a market share of around 30%. In addition, the Frequentis Group's AIM (aeronautical information management) and AMHS (aeronautical message handling) systems, as well as GSM-R systems for Public Transport are industry leading global solutions.

The shares of Frequentis AG are traded on the Vienna and Frankfurt Stock Exchange under the ticker symbol FQT (ISIN: ATFREQUENT09). In 2019, the Frequentis Group had about 1,850 employees worldwide and generated revenues of EUR 303.6 million and EBIT of EUR 17.2 million.

For more information, please visit www.frequentis.com

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