NATIONAL WEATHER SERVICE POLICY DIRECTIVE 10-8
MAY 29, 2023

Operations and Services
AVIATION WEATHER SERVICES

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SUMMARY OF REVISIONS: Supersedes NWSPD 10-8, *"Aviation Weather Services"* dated November 7, 2016. Changes include: Removed mention of National Weather Service (NWS) meteorologists at the Federal Aviation Administration (FAA) Academy. Added paragraph 2.2 and subordinate paragraphs, which describe how the NWS Office of Planning and Programming for Service Delivery and its portfolios support the NWS Aviation Weather Services Program. Added Appendix 1, References and Supporting Information, to list aviation policy implementing directives and describe the foundation of aviation weather services in the NWS.

1. The objectives of the NWS Aviation Weather Services Program (AWSP) are to provide quality weather forecast information and services to the aviation community for the protection of life and property, and to increase the efficiency of the National Airspace System.

2. This directive assigns the following authorities and responsibilities:

2.1 The Analyze, Forecast and Support Office (AFSO) is responsible for:

a. Preparing policy and procedural directives;
b. Collecting and validating requirements and policies associated with the programmatic management of each NWS National Service Program, including the AWSP;
c. Driving scientific, technical, and service improvements by working collaboratively with external partners, other NOAA line offices, and NWS offices that support service delivery to ensure programs are aligned and sufficiently scoped and defined to deliver required improvements;
d. Collaborating with the NWS Office of the Chief Learning Officer to identify AWSP training needs are met;
e. Managing standard system programs; and
f. Consolidating and analyzing performance and effectiveness indicators.

2.2 The Office of Planning and Programming for Service Delivery (OPPSD) manages the ongoing support and evolution of NWS aviation products and services, primarily through its subordinate portfolios, described below.

2.2.1 The NWS Office of Observations (OBS) is responsible for the collection and management of atmospheric and space environmental data needed to support the AWSP. Observations for the AWSP include, but are not limited to, radar, radiosonde, and surface weather data, as well as data leveraged from national mesonets, profilers, aircraft, satellites, and partner/commercial data. OBS coordinates requirements, observational policy, systems maintenance, and technical solutions with the NWS AWSP and other Federal agencies, including the FAA, as applicable.

2.2.2 The NWS Office of Dissemination (ODISS) is responsible for ensuring that NWS policy, procedures, and systems sustain operational collaborative and dissemination capabilities to support the AWSP. ODISS policy, procedures, and systems support domestic and international exchange of aviation Operational Meteorological (OPMET) data, including real-time operations and maintenance for nationally-delivered Aviation applications.

2.2.3 The NWS Office of Central Processing (CP) is responsible for providing system engineering, software management, facilities engineering, communications, maintenance, and logistical services to sustain operational systems supporting the AWSP. CP also provides real-time operational support and maintenance for nationally-delivered Aviation applications.

2.2.4 The NWS Office of Science and Technology Integration (OSTI) plans, develops, demonstrates, and integrates scientific techniques and system capabilities that support the AWSP. OSTI analyzes international and MDC-approved requirements for NWS AWSP improvements in close coordination with AFSO, and develops scientific and technological solutions to address these requirements through coordination with organizations within NOAA, other federal agencies, and the external research community.

2.3 NWS regions are responsible for:

a. Ensuring field offices are organized, trained, and equipped to fulfill AWSP obligations;
b. Providing technical assistance to field offices;
c. Overseeing regional aviation weather service outreach efforts; and
d. Evaluating performance and effectiveness of the AWSP within their region.

2.4 Weather Forecast Offices (WFO) are responsible for:

a. Providing weather forecast information and services for aviation operations across their area of responsibility;
b. Provide management and oversight of assigned Center Weather Service Units; and
c. Conduct outreach with local aviation product users, such as meetings, workshops, air shows, or familiarization visits as part of the WFO's outreach program.

2.5 Center Weather Service Units are responsible for providing meteorological information and services consistent with Federal Aviation Administration (FAA) agreements and applicable aviation procedural directives.

2.6 The Spaceflight Meteorology Group is responsible for providing worldwide weather support to the National Aeronautics and Space Administration at the Johnson Space Center.

2.7 The Aviation Weather Center (AWC), Alaska Aviation Weather Unit, and WFO Honolulu, as Meteorological Watch Offices for the International Civil Aviation Organization, are responsible for providing en route and terminal domestic and international forecast information and services consistent with relevant international and FAA agreements. The AWC also provides forecast information for the Washington World Area Forecast Center.

2.8 The National Centers for Environmental Prediction (NCEP) are responsible for producing numerical weather prediction guidance; discussions and outlooks; and, forecasts, advisories, and warnings to support the AWSP and the Washington World Area Forecast Center.

2.9 The Washington and Anchorage Volcanic Ash Advisory Centers provide advisories and guidance to aviation users on volcanic ash for their designated areas of responsibility.

3. All NWS AWSP components will ensure aviation services and products are standardized and consistent.

4. The NWS measures the effectiveness of the AWSP using ceiling/visibility forecast thresholds, and thunderstorm forecast criteria of probability of detection and false alarm rates.

5. The References and Supporting Information listed in Appendix 1 implement this policy as needed and determined by the Director of the Analyze, Forecast, and Support Office.

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Appendix 1

REFERENCES AND SUPPORTING INFORMATION

Procedural Directives:

- NWS Instruction 10-801, *Airport Weather Warnings*
- NWS Instruction 10-803, *Support to Air Traffic Control Facilities*
- NWS Instruction 10-806, *World Area Forecast System*
- NWS Instruction 10-807, *International Service Agreements*
- NWS Instruction 10-811, *En Route Forecasts and Advisories*
- NWS Instruction 10-812, *Aviation Wind and Temperature Aloft Forecasts*
- NWS Instruction 10-813, *Terminal Aerodrome Forecasts*
- NWS Instruction 10-814, *Center Weather Service Unit Site Review Program*
- NWS Instruction 10-815, *Aviation Forecaster Training and Competencies*

Supporting Information:

1. The Aviation Weather Services Program constitutes the collective activities of National Weather Service (NWS) Headquarters, NCEP, Regional Headquarters, and field and operating offices, to include the NWS Anchorage Volcanic Ash Advisory Center and the National Environmental Satellite, Data, and Information Service (NESDIS) Washington Volcanic Ash Advisory Center, to support the nation's commerce by producing and delivering consistent, timely, and accurate aviation weather information for a safe, efficient, and environmentally sound National Airspace System (NAS) in accordance with applicable national and international Standards and Recommended Practices (SARPs).

1.1 The United States, as a signatory to the Chicago Convention of 1944, is a member of the International Civil Aviation Organization (ICAO). To the extent possible, the United States complies with the requirements and SARPs of ICAO Annex 3, *Meteorological Service for International Air Navigation*. The Federal Aviation Administration (FAA) files differences with ICAO for any U.S. aviation surface weather observing or aviation forecast products and services that differ from ICAO Annex 3 requirements. U.S. differences will typically exceed ICAO requirements, to ensure a safer and more efficient NAS.

1.2 Per ICAO Annex 3 Chapters 1 and 2, the FAA is the U.S. Meteorological Authority and the NWS is the aeronautical weather information provider. 49 U.S. Code § 44720 - *Meteorological services* requires in Section (a), "The Administrator of the Federal Aviation Administration shall make recommendations to the Secretary of Commerce on providing meteorological services necessary for the safe and efficient movement of aircraft in air commerce. In providing the services, the Secretary shall cooperate with the Administrator and give complete consideration to those recommendations." Section (b) includes additional tasks for the Secretary, including observing, measuring, and studying atmospheric phenomena, and maintaining international exchanges of meteorological information for safe and efficient air navigation.

1.3 ICAO Annex 3 levies requirements for surface weather observing as well as Advisories warning aviation interests about space weather, tropical cyclones, and volcanic ash. The AWSP works with the FAA and these communities inside NOAA to ensure international aviation requirements are satisfied.