U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Pilot's Guide to a Preflight Briefing **Date:** 3/15/21 **AC No:** 91-92
Initiated by: AFS-800 **Change:**

1 **PURPOSE OF THIS ADVISORY CIRCULAR (AC).** This AC provides an educational roadmap for the development and implementation of preflight self-briefings, including planning, weather interpretation, and risk identification/mitigation skills. Pilots adopting these guidelines will be better prepared to interpret and utilize real-time weather information before departure and en route, in the cockpit, via technology like Automatic Dependent Surveillance-Broadcast (ADS-B) and via third-party providers. This AC provides guidance for required preflight actions under Title 14 of the Code of Federal Regulations (14 CFR) part 91, § 91.103, which states, "Each pilot in command shall, before beginning a flight, become familiar with all available information concerning that flight." This AC will also encourage pilots to utilize Flight Service in a consultative capacity, when needed. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

2 **AUDIENCE.** This AC applies to all pilots, flight instructors, and operators, with emphasis on operations conducted under part 91.

3 **WHERE YOU CAN FIND THIS AC.** You can find this AC on the Federal Aviation Administration (FAA) website at https://www.faa.gov/regulations_policies/advisory_circulars.

4 **DEFINITIONS.**

4.1 **Automatic Dependent Surveillance-Broadcast (ADS-B).** ADS-B is a foundational Next Generation Air Transportation System (NextGen) technology that uses information from the Global Positioning System (GPS) satellite system to track aircraft in real-time and improve situational awareness. The system architecture is composed of aircraft avionics and a ground infrastructure. Onboard avionics determine the position of the aircraft by using the Global Navigation Satellite System (GNSS) and transmitting this and additional information about the aircraft to ground stations for use by air traffic control (ATC), to ADS-B-equipped aircraft, and to other aviation service providers.

4.2 **ADS-B In.** ADS-B In offers traffic, weather, and flight information on permanently mounted ADS-B In receivers or handheld receivers.

4.3 ADS-B Out. ADS-B Out is a surveillance system that allows ATC to better identify aircraft at lower altitudes compared to radar. This permits flight following at altitudes not previously available, depending on the location of the ADS-B ground station. ADS-B Out provides significantly more accurate position information to ATC because it transmits the aircraft's GPS position (and other flight information) every second.

4.4 Crew Resource Management (CRM). CRM is a concept that involves a pilot's thorough use of all available resources, both inside and outside the cockpit. This includes accessing all weather and aeronautical information relating to flight planning, preflight, flight, and postflight.

4.5 FAA Weather Camera Program. The Weather Camera Program, https://weathercams.faa.gov/, provides web-based accessibility to a network of cameras and supplies aviation professionals with near-real-time imagery and weather information.

4.6 Flight Information Service-Broadcast (FIS-B). FIS-B is available to aircraft that can receive data over 978 megahertz (MHz) Universal Access Transceivers (UAT). FIS-B automatically transmits a wide range of weather products with national and regional focus to all equipped aircraft.

4.7 Flight Service. Flight Service provides aeronautical information and Meteorological Information (METI) and services to pilots before, during, and after flight. Flight Service communicates directly with pilots for pilot briefings, flight plans, in-flight advisory services, Search and Rescue (SAR) initiation, aircraft emergencies, and Notices to Airmen (NOTAM).

4.8 Flight Service Pilot Web Portal. The Flight Service Web Portal, https://www.1800wxbrief.com, allows pilots to receive online preflight briefings, file flight plans, and get automatic notifications and alerts, including flight plan closure reminders. Registering for automatic notifications and alerts keeps pilots informed when new or adverse conditions arise, such as a severe weather forecast or observation, an airport closure, a NOTAM, or a temporary flight restriction (TFR).

4.9 From the Flight Deck. To help reduce the occurrence of wrong surface incidents, runway incursions, and other high-risk events at U.S. airports, the FAA has developed the "From the Flight Deck" YouTube video series, targeted to General Aviation (GA) audiences. Each 4- to 5-minute video focuses on approach, landing, and taxi scenarios at selected U.S. airports. The videos feature high-definition footage from cockpit-mounted cameras, along with professional graphics, animations, runway diagrams, and narration to help identify and illustrate airfield hazards and hotspots. All "From the Flight Deck" videos are available at https://www.faa.gov/airports/runway_safety/videos/.

4.10 IMSAFE Checklist. A self-assessment checklist to assist pilots in determining their physical and mental health as part of planning before a flight. The acronym stands for Illness, Medication, Stress, Alcohol, Fatigue, and Emotion.

4.11 National Oceanic and Atmospheric Administration (NOAA). A scientific agency within the U.S. Department of Commerce that focuses on the conditions of the oceans, major waterways, and the atmosphere.

4.12 National Weather Service (NWS). The NWS is an agency tasked with providing weather forecasts, warnings of hazardous weather, and other weather-related products to organizations and the public. It is a part of NOAA.

4.13 Notices to Airmen (NOTAM). A NOTAM informs pilots of abnormal status, unanticipated or temporary changes to services, components, or hazards in the National Airspace System (NAS). Additionally, NOTAMs advise users of permanent changes or outages until the information is published.

4.14 PAVE. Acronym for a personal minimum and preflight planning checklist that divides the risks of flight into four categories: Pilot in command, Aircraft, enVironment, and External pressures. Using PAVE is part of the risk management process.

4.15 Personal Minimum. A pilot's set of procedures, rules, criteria, and guidelines that help the pilot decide whether and under what conditions to operate or continue operating in the NAS. Personal minimums may change with pilot experience, proficiency, currency, and other factors.

4.16 Pilot Briefing. Pilot briefings are the gathering and translation of weather and aeronautical information into a form usable by the pilot to assist in flight planning and decision making for the safe and efficient operation of aircraft. These briefings include but are not limited to weather observations and forecasts and aeronautical information including but not limited to NOTAMs, military activities, flow control information, and TFRs.

4.17 Pilot Weather Reports (PIREP). PIREPs are a valuable source of in-flight information regarding en route conditions including turbulence, icing, visibility, temperature, and winds aloft. They are actual reports of weather events encountered by pilots while airborne and on the ground that have the potential to prevent accidents and loss of life. Reports of observed adverse weather serve as a warning to other pilots and inform ATC about potential hazards in order to keep pilots clear of weather risks. However, PIREPs are not just for adverse weather and should be submitted when favorable weather is encountered in areas where adverse conditions had been forecast. PIREPs help National Weather Service (NWS) meteorologists identify conditions warranting certain types of weather advisories. The NWS utilizes PIREPs to validate and adjust forecasts. Data obtained from PIREPs is also incorporated into numerical weather models, ultimately improving forecast accuracy and usefulness. They may be submitted to any ATC facility or Flight Service when en route or by telephone after landing or by electronic submission.

4.18 Receiver Autonomous Integrity Monitoring (RAIM). Technology developed to assess the integrity of GPS signals in a GPS receiver system.

4.19 Self-Briefing. A self-briefing uses all means and sources of reporting, including automation, to provide a thorough evaluation of weather and aeronautical information in advance of flight. Available sources are listed in Appendix A.

4.20 Single Pilot Resource Management (SRM). SRM is the art of managing all onboard and outside resources available to a single pilot before and during a flight to help ensure a safe and successful outcome. A part of the risk management process, identification of risk factors, and determination of personal minimums.

4.21 Weather Technology in the Cockpit (WTIC). The WTIC program is an FAA NextGen weather research program that develops minimum weather service recommendations for cockpit weather information and its rendering, pilot weather training, and cockpit weather technology for incorporation into standards, guidance documents, training materials, and technical transfer or Government agencies for implementation. WTIC uses System Wide Information Management (SWIM) and ADS-B to deliver enhanced weather information, presentations and technology for the cockpit.

5 RELATED READING MATERIAL.

5.1 Guidance Materials for Pilots.

1. Leidos Flight Service (the FAA-contracted Flight Service provider/resource): https://www.1800wxbrief.com.

   Note: Pilots are encouraged to establish an online account with Leidos to obtain enhanced weather and aeronautical information and services.

2. Leidos Flight Service Briefing Videos:
   - Preflight Briefing: https://www.youtube.com/watch?v=br2D6Cg9oFg&list=PLJfjhkAOKxKucil-m9ZPLgT9MfM38ibrY&index=1.
   - Adverse Weather Briefing: https://www.youtube.com/watch?v=2BL71Rr0IGY&list=PLJfjhkAOKxKucil-m9ZPLgT9MfM38ibrY&index=3.
   - International Civil Aviation Organization (ICAO) Flight Plan Filing: https://www.youtube.com/watch?v=LZPXpbAKShg&list=PLJfjhkAOKxKucil-m9ZPLgT9MfM38ibrY&index=2.
3. Aeronautical Charts:
   - Visual Flight Rules (VFR) Charts: https://www.faa.gov/air_traffic/flight_info/aeronav/productcatalog/vfrcharts/.
   - Instrument Flight Rules (IFR) Charts: https://www.faa.gov/air_traffic/flight_info/aeronav/productcatalog/IFRCharts/.
4. Aeronautical Information Manual (AIM): https://www.faa.gov/air_traffic/publications/.
5. Aeronautical Information Publication (AIP): https://www.faa.gov/air_traffic/publications/atpubs/aip_html/index.html.

6. Airplane Flying Handbook (FAA-H-8083-3B): https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/airplane_handbook/media/airplane_flying_handbook.pdf.
7. Alaskan Aviation Weather Unit (AAWU): https://www.weather.gov/aawu.
8. AVCAM (Aviation Weather Camera-Alaska/Canada/Colorado): https://weathercams.faa.gov/.
9. Aviation Instructor's Handbook (FAA-H-8083-9): https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/aviation_instructors_handbook/.
10. Aviation Routine Weather Report (METAR)/Terminal Aerodrome Forecast (TAF) Key: https://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/fs/alaskan/alaska/fai/weather/media/METAR_KEY.pdf.
11. Aviation Weather Center: https://www.aviationweather.gov (the Graphical Forecasts for Aviation (GFA) tool gives a comprehensive picture of weather that may impact a flight).
12. Digital-Chart Supplements (d-CS) (formerly Airport/Facility Directories): https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/.
13. FAA NOTAMs Search: https://notams.aim.faa.gov/notamSearch/.
    - International NOTAMs: https://www.faa.gov/air_traffic/publications/international_notices/.
    - Domestic Notices: https://www.faa.gov/air_traffic/publications/domesticnotices/.
    - Airport Construction Notices: https://www.faa.gov/air_traffic/flight_info/aeronav/Aero_Data/Apt_Constr_Notices/.

    Note: The Federal NOTAM System (FNS) will automate the publication of Airport Construction Notices. At that time, the Airport Construction Notices web page will be disabled and users will be redirected to the FNS NOTAM Search web page.
14. From the Flight Deck Videos: https://www.faa.gov/airports/runway_safety/videos/.
15. NWS: https://www.weather.gov/aviation/.
16. NWS Glossary (NOAA): https://www.weather.gov/glossary/.
17. PAVE Personal Minimums Checklist: https://www.faa.gov/training_testing/training/fits/guidance/media/personal%20minimums%20checklist.pdf.
18. Pilot's Handbook of Aeronautical Knowledge (PHAK) (FAA-H-8083-25B): https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/phak/media/pilot_handbook.pdf.
19. Risk Management Handbook (FAA-H-8083-2): https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/risk_management_hb_change_1.pdf.

5.2 ACs. The current editions of the following ACs contain useful weather information for pilots:

1. AC 00-6, Aviation Weather.
2. AC 00-45, Aviation Weather Services.
3. AC 00-63, Use of Flight Deck Displays of Digital Weather and Aeronautical Information.
4. AC 90-114, Automatic Dependent Surveillance-Broadcast Operations.
5. AC 107-2, Small Unmanned Aircraft System (Small UAS).

6 BACKGROUND AND SCOPE.

6.1 Flight Service (https://www.1800wxbrief.com) provides service and value to users of the NAS, leveraging advanced technologies to safely and efficiently deliver Flight Services in the continental United States (CONUS), Hawaii, Puerto Rico, and Alaska. Flight Service provides continuous assessment of Flight Services based on feedback and continued research and development of new aviation technology to enhance efficiency and add value for pilots. Flight Service increases aviation safety by making aeronautical information and METI accessible where and when you need it with the evolution of pilot weather briefings conducted using automated resources.

6.2 The FAA encourages innovation in the delivery of services to pilots. User preferences for automation and new distribution methods make communication with pilots easier and faster. Pilots are encouraged to utilize online automated weather resources to conduct self-briefings prior to contacting Flight Service. Pilots who have preflight weather/risk assessment and risk mitigation skills are better prepared to make in-flight decisions as real-time weather information is consumed. This allows Flight Service to become a consultative resource that can be utilized when needed.

6.3 Developing self-briefing skills helps to identify areas that require closer investigation. The more doubtful the weather, the more information you need to obtain about the route, runway conditions, and destination and alternate airports. The use of all resources, combined with Single Pilot Resource Management (SRM) and Risk-Based Decision Making (RBDM) skills, will help the pilot be better prepared to conduct flights safely in the NAS.

7 GENERAL OPERATING PRACTICES.

7.1 Preflight Actions. As part of the preflight familiarization with all available information concerning a flight, each pilot should review all appropriate sources (including but not limited to Chart Supplements, the AIM, and NOTAMs), for pertinent information on current traffic patterns at the departure and arrival airports, airport environment, routing, departure and approach procedures, NOTAMs, weather, GNSS availability (if required), crew duties, standard cockpit procedures (e.g., transferring aircraft control), protected phrases, potential emergencies and their remedies, alternates and alternative mission options, fuel and timing, and Take Off and Landing Data (TOLD) speeds. Preflight

actions are a rehearsal of the whole flight with contingencies added. Pilots should use a checklist to ensure they do not miss any area of the operation (see Appendix B for a sample preflight checklist). For many GA pilots, the Flight Service Station (FSS) remains an important source of comprehensive weather and aeronautical information. However, most pilots have become more accustomed to performing a self-briefing than calling an FSS. The FAA considers that a self-briefing may be compliant with current Federal aviation regulations. By self-briefing, pilots can often improve their knowledge of weather and aeronautical information. Flight Service personnel are available should a pilot need assistance.

7.2 Types of Briefings.

7.2.1 Standard Briefing. A standard briefing will include conditions and Significant Meteorological Information (SIGMET) that may influence the pilot in planning, altering, or cancelling a proposed route or flight.

7.2.2 Abbreviated Briefing. An abbreviated briefing supplements mass disseminated data or updates a previous briefing, or is limited to specific information.

7.2.3 Outlook Briefing. An outlook briefing should be obtained when the proposed departure is 6 hours or more from the time of the briefing. This type of briefing is provided for planning purposes only.

Table 1. Briefing Types

Briefing Type	Value	Time Frame
Outlook	• Provides weather information that is available in advance • For planning purposes when departure is 6 hours or more from the time of the briefing • Gives you an indication of which weather elements may be a factor for your flight	6–48 hours before flight
Standard	• Provides a complete and detailed depiction of the weather elements for the intended flight • Pilot will have a clear indication of the weather-related risk factors for the flight	• Within 6 hours of flight • Can be obtained multiple times for flights during dynamic weather
Abbreviated	• Provides pilots with updated information for specific weather elements • Focuses on the more dynamic weather elements that may have changed since the standard weather briefing was obtained • Helps pilots focus on the specific risk areas for the intended flight in an efficient manner • Allows pilots to be proactive in reacting to changing weather while in flight	As soon as practical before flight

7.3 Briefing Sources.

Briefing Type	Online (Self-Brief)	Flight Service	In-Cockpit Technology
Outlook	X	X	
Standard	X	X	
Abbreviated	X	X	X

7.3.1 Flight Service offers three basic briefing packages (these may be offered by third-party providers as well):

- Standard (for a comprehensive weather and aeronautical information briefing),
- Abbreviated (to update specific items), and
- Outlook (for flights departing in 6 or more hours).

Note: The following resources and checklists are suggested aids to help pilots conduct a thorough self-briefing and ensure they do not miss any area of preflight preparation.

7.4 Standard Briefing Checklist. Gather all information for the intended flight prior to conducting an initial self-briefing:

- Type of flight planned (IFR/VFR).
- Aircraft identification.
- Aircraft type.
- Departure point.
- Route of flight.
- Destination (alternate airports if needed).
- Flight altitude(s).
- Estimated time of departure (ETD) and estimated time en route (ETE).

7.4.1 Online Sources. Use online sources for weather and aeronautical information to obtain the following data applicable to the proposed flight.

7.4.1.1 Adverse Conditions. Include this element when meteorological or aeronautical conditions are reported or forecast that might influence the pilot to alter the proposed flight, such as:

1. Low-level wind shear.
2. Thunderstorms.
3. Reported icing.
4. Frontal zones along the route of flight.
5. NOTAMs (e.g., airport/runway closures, air traffic delays, and TFRs).
6. Weather advisories:
    - SIGMETs.
    - Airmen's Meteorological Information (AIRMET).
    - Convective SIGMETs.
    - Center Weather Advisories (CWA).
    - Aviation Watch Notification Messages.

7.4.1.2 Online FAA Resources. In addition to other online aviation flight planning services, the following are online FAA resources for adverse conditions:

- Leidos: https://www.1800wxbrief.com.

Note: This is available through a Leidos online account.

- Aviation Weather Center (AWC): https://www.aviationweather.gov.
- National Weather Service (NWS) Storm Prediction Center: https://www.spc.noaa.gov.
- Alaska Aviation Weather Unit (AAWU): https://www.weather.gov/aawu/.

7.4.1.3 Synopsis. Review the type, location, and movement of weather systems and/or air masses that might affect the proposed flight by using surface analysis, weather depictions, radar summary, and constant pressure charts. In addition to other online aviation flight planning services, the following are online FAA resources for synopses:

- Leidos.
- AWC.
- NWS.

7.4.1.4 Current Conditions. Review current observations, including Aviation Routine Weather Reports (METAR), PIREPs, and satellite and radar imagery. Review information at the departure, along the route, and at the destination. This element may be omitted if the proposed time of departure is beyond 2 hours. In addition to other online aviation flight planning services, the following are online FAA resources for current conditions:

- Leidos.
- AWC.

7.4.1.5 En Route Forecast. Review forecast information that may affect the proposed flight (e.g., GFA for CONUS, Caribbean, and Gulf of America users, Area Forecasts (FA) for Alaska users, TAFs, prognosis charts, weather advisories, GNSS, or RAIM predictions). Review information in a logical order (i.e., climbout, en route, and descent). In addition to other online aviation flight planning services, the following are online FAA resources for en route forecasts:

- Leidos.
- AWC.
- NWS.

7.4.1.6 Destination Forecast. Review the destination forecast, including significant changes expected within 1 hour before and after the estimated time of arrival (ETA). Select an alternate airport if needed. In addition to other online aviation flight planning services, the following are online FAA resources for destination forecasts:

- Leidos.
- AWC.
- NWS.

7.4.1.7 Winds Aloft. Review forecast winds aloft for the flight using degrees of the compass. Interpolate wind directions and speeds between levels and stations, noting any large shifts in speeds or direction as a means to identify wind shifts. Check temperature information if needed. In addition to other online aviation flight planning services, the following are online FAA resources for winds aloft:

- Leidos.
- AWC.

7.4.1.8 NOTAMs. Check NOTAM information affecting the flight. This includes:

- Domestic NOTAMs.
- International NOTAMs (when flight extends beyond U.S. airspace).
- Special Use Airspace (SUA) NOTAMs (e.g., restricted areas, aerial refueling, night vision goggles (NVG) operations, military operations areas, military training routes, and warning areas).
- NOTAMs for field conditions (FICON).

7.4.1.8.1 In addition to other online aviation flight planning services, the following are online FAA resources for NOTAMs:

- Leidos.
- TFRs: https://tfr.faa.gov/tfr2/list.html.
- Published NOTAMs (the Notice to Airmen Publication (NTAP) was discontinued effective June 18, 2020): https://www.faa.gov/air_traffic/publications/notices/.

7.4.1.9 Restricted Airspace or Special Use Airspace (SUA). These include Prohibited Areas P-40 and P-56 and the Special Flight Rules Area (SFRA) for Washington, DC. Include these when pertinent to the route of flight.

Note: VFR flight within 60 miles of the DCA very high frequency omni-directional range station/distance measuring equipment (VOR/DME) requires special awareness training, which can be accessed through the FAA Safety Team's (FAASTeam) website at https://www.faasafety.gov/.

7.4.1.10 ATC Delays. Look for any ATC delays and/or flow control advisories that might affect the proposed flight. In addition to other online aviation flight planning services, the following are online FAA resources for ATC delays:

- Air Traffic Control System Command Center (ATCSCC): https://www.fly.faa.gov/flyfaa/usmap.jsp.
- FAA Mobile: https://www.faa.gov/mobile/.
- Aviation Information System (AIS): https://www.fly.faa.gov/ais/jsp/ais.jsp.

  Note: Users would subscribe to this service.

7.4.1.11 Additional Preflight Items to Consider:

- Published SUAs (not included in NOTAMs): https://sua.faa.gov/sua/siteFrame.app.
- Density altitude data.
- Information regarding Air Traffic Service (ATS) and rules, customs and immigration procedures, Air Defense Identification Zone (ADIZ) rules, and SAR.
- Military NOTAMs.
- Special flight data center (FDC) instrument approach procedure changes.
- FDC NOTAMs containing amendments to airways, airports, and facility IFR procedures and general information.
- TFRs.
- Airport construction/runway and taxiway closures.
- Airport/runway hot spots.

7.5 Abbreviated Briefing Checklist. An abbreviated briefing is specific information to update a previous briefing. The following data should be checked even when only specific information is needed:

- Any updates to adverse conditions that are reported or forecast along the route of flight.
- Changes in meteorological and aeronautical conditions since the previous briefing.
- TFR updates since the previous briefing.

7.6 Outlook Briefing Checklist. Review the following items when the departure time is 6 hours or more away:

- Reported or forecast meteorological or aeronautical conditions that might influence or alter the proposed flight. These conditions may include low-level wind shear, thunderstorms, reported icing, frontal zones along the route of flight, and NOTAMs (e.g., airport/runway closures, air traffic delays, and TFRs).
- Weather advisories (SIGMETs, AIRMETs, Convective SIGMETs, CWAs, and Aviation Watch Notification Messages).
- Synopsis. Review the type, location, and movement of weather systems and/or air masses that might affect the proposed flight.
- En route forecast. Review forecast information that will affect the proposed flight (e.g., GFAs, TAFs, prognosis charts, and weather advisories). Review information in a logical order (i.e., climbout, en route, and descent).
- Destination forecast(s). Review the destination forecast, including significant changes expected within 1 hour before and after the ETA. Include an alternate airport forecast if an alternate airport is deemed necessary.

7.7 Additional Tools—NextGen, WTIC, and FIS-B. With the aid of technology (e.g., ADS-B In), pilots can receive weather information in the cockpit. It is important to understand the proper use of METI and the operational shortfalls to enable consistent and effective pilot decision making relative to adverse weather. Next generation weather radar (NEXRAD) is made up of a mosaic of data sets that can be 15 to 20 minutes old by the time they are assembled and displayed in a cockpit. This latency may contribute to a pilot's inability to correlate, interpret, and apply weather information related to VFR into instrument meteorological conditions (IMC) weather factors (e.g., convection, icing, lowered ceilings, quickly emerging weather events, and precipitation), to real-time flight scenarios. However, having current weather and aeronautical information in the cockpit can help pilots plan more safe and efficient flightpaths, and make better strategic decisions during flight to avoid potentially hazardous developing weather. FIS-B is a part of the ADS-B system that automatically transmits a wide range of weather products available in the cockpit through the NWS:

- AIRmen's METeorological Information (AIRMET).
- SIGnificant METeorological Information (SIGMET) and Convective SIGMET.
- Aviation Routine Weather Reports (METAR) and SPECIal Report of Meteorological Conditions (SPECI).

- Next generation weather radar (NEXRAD), regional and national.
- Notice to Airmen (NOTAM).

  Note: FIS-B METI and aeronautical information do not include all of the weather products or NOTAMs. As a result, FIS-B METI and aeronautical information may not include all of the weather products or NOTAMs that a preflight briefing includes. NOTAM information is limited to the past 30 days. TFR NOTAMs and NOTAMs with end dates will not be purged after 30 days.

- Pilot Report (PIREP).
- Special Use Airspace (SUA) Status.
- Terminal Aerodrome Forecast (TAF).
- Winds and Temperature Aloft.
- Traffic Information Services-Broadcast (TIS-B).
- Lightning.
- Turbulence.
- Icing.
- Cloud Tops.
- Graphical AIRMET.
- CWA.

8 SAFETY-RELATED DO'S AND DON'TS.

8.1 Do:

1. Establish personal minimums that reflect your level of proficiency.
2. Plan ahead and obtain an outlook briefing.
3. Obtain a standard briefing as close to your departure time as possible.
4. Obtain an abbreviated briefing just before takeoff if your standard briefing is 1 hour or more old or if the weather is questionable.
5. Allow more margin for weather at night. Clouds and the horizon may be difficult or impossible to see on dark nights. Always stay above the highest terrain until a safe landing is assured.
6. Check PIREPs, NOTAMs, AIRMETs, and SIGMETs.
7. Consider VFR flight following (ATC workload permitting).
8. Consider filing a VFR flight plan.

9. Have a contingency plan for alternates if unexpected circumstances arise.
10. Be familiar with any applicable disclaimers related to the accuracy of the information provided by the subscribed commercial service.

8.2 Don't:

1. Plan flights that exceed your personal minimums or level of proficiency.
2. Plan flights in or near current or forecast convective activity.
3. Fly in or near thunderstorms. Scattered thunderstorms may be safely circumnavigated, but do not try to fly through or under one or closer than 20 nm) from one.
4. Continue VFR into IMC. Instead, wait it out or turn around if you find en route weather lowering below your personal limits.
5. Forget that areas en route, or even near airports, may be below VFR minimums, even though reporting stations are at or near VFR minimums. Be especially cautious when the temperature and dewpoint spread is 3 °C or less: fog may form.
6. Proceed "on top," hoping to find a hole in the clouds at the other end or hoping to get ATC to talk you down if you get caught on top.
7. Fly into areas of rain when the air temperature is near freezing. Ice can form on the windshield, impairing forward vision, and on the wings, which can decrease aircraft performance, as well as other aircraft control, lifting, and nonlifting surfaces (e.g., propellers, tail surfaces, or intakes).

   Remember: Flight into known icing conditions is prohibited for all aircraft not properly certificated for flight in icing conditions or not properly equipped with ice protection equipment.

8. Hesitate to declare an emergency with ATC whenever the safety of flight is at risk.
9. Plan on using cockpit weather displays as a tactical means of navigating through convective weather.

9 AC FEEDBACK FORM. For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

Robert C. Carty
Deputy Executive Director, Flight Standards Service

APPENDIX A. STANDARD BRIEFING ELEMENTS AND RESOURCES

Element	Important Checklist Items	Value to Pilot
1) Adverse Conditions	• Weather Advisories • NOTAMs/FICONs • PIREPs • AIRMETs: o Icing o Turbulence o IFR o Thunderstorms • SIGMET: o Convective Activity o Low-Level Wind Shear	Adverse conditions can be meteorological or aeronautical conditions that are reported or forecast that might influence the pilot to alter the proposed flight (e.g., low-level wind shear, thunderstorms, reported icing, turbulence, frontal zones along the route of flight, and NOTAMs such as airport/runway closures/conditions, air traffic delays, or TFRs).
2) Synopsis	• Frontal System, Location, and Movement • Air Mass • IFR Conditions	Determine when conditions may change based on location, movement, and speed of frontal system. This provides a picture for current and forecast weather conditions and whether VFR flight should be taken.
3) Current Conditions	• Current Weather Reports for Departure, En Route, and Destination • PIREPs	Check the current weather along the route and any PIREPs of actual weather conditions that occurred in flight.
4) Forecast Conditions	• Forecast Weather: o Departure Forecast o En Route Forecast o Destination Forecast	A forecast is information that will affect the entire proposed flight and should be reviewed in logical order (i.e., climbout or departure, en route, and descent or destination). The destination forecast includes significant changes expected within 1 hour before and after the ETA.
5) Winds Aloft	• Winds Aloft Forecast • Temperature at Proposed Altitude	A winds aloft forecast provides winds aloft for the proposed altitude using degrees of the compass. Winds should be averaged or interpolated if flying between reported levels. Temperature information is useful to help determine icing levels.
6) Notices to Airmen (NOTAM)	• Departure • En Route • Destination • Alternate Airport(s)	NOTAMs provide information that may have an impact along any part of the route of flight, such as airport and other aeronautical conditions. Other information to check includes TFRs, SUAs, ATC delays, Airport Construction Notices, and Prohibited Areas P-40 (Camp David) and P-56 (Washington, DC) and the SFRA for Washington, DC, if pertinent to the route.

Source	Description	Adverse	Synopsis	Current Conditions	Forecast Conditions	Winds Aloft	NOTAMs	PIREPs	Products
		1	2	3	4	5	6	7	
https://1800wxbrief.com	Leidos Flight Service—FAA Contract Vendor	Y	Y	Y	Y	Y	Y	Y	Interactive Maps, Flight Planning and Briefings, winds aloft, Airport Information.
https://aviationweather.gov	NOAA/Government website for aviation weather	Y	Y	Y	Y	Y		Y	AIRMET/SIGMET Map, Graphical AIRMET, GFA Tool, Radar, METARs, TAFs, CWA, PIREPs.
https://weathercams.faa.gov	Alaska, Canada, and Colorado			Y	Y			Y	METARs, TAFs, PIREPs/AIRMETs.
https://www.weather.gov/aawu	AAWU	Y	Y	Y	Y	Y			AIRMET/SIGMET Map, Graphical AIRMET, GFA Tool, Radar, METARs, TAFs, CWA, PIREPs.
https://sua.faa.gov	SUAs						Y		Text List and Graphic Maps for SUAs in ATC Centers, States, Airports.
https://www.spc.noaa.gov/	NOAA Storm Prediction Center	Y	Y						Convective Outlook, Storm Reports, National Radar.
https://www.ncep.noaa.gov/	National Centers for Environmental Prediction (NCEP)	Y	Y	Y	Y	Y			AIRMET/SIGMET Map, Graphical AIRMET, GFA Tool, Radar, METARs, TAFs. Note: Link to https://aviationweather.gov.
https://tfr.faa.gov/tfr2/list.html	TFRs	Y					Y		TFR List, TFR Map, TFR Airports, All NOTAMs. Note: Link to https://sua.faa.gov.
https://www.nhc.noaa.gov/	National Hurricane Center (NHC)	Y	Y				Y		The NHC issues forecasts on tropical weather systems.
https://www.wpc.ncep.noaa.gov/	Weather Prediction Center (WPC)	Y	Y		Y				The WPC provides analysis and forecast products on a national scale, including surface pressure and frontal analyses.
https://www.ssd.noaa.gov/VAAC/vaac.html	Volcanic Ash Advisory Centers (VAAC)	Y	Y						NOAA operates two VAACs, which issue forecasts of ash clouds following a volcanic eruption in their area of responsibility.
https://www.weather.gov/hfo/	NWS Forecast Office Honolulu, Hawaii	Y	Y	Y	Y	Y			Provides all weather products, except NOTAMs and PIREPs, for Hawaii.

Source	Description	Adverse	Synopsis	Current Conditions	Forecast Conditions	Winds Aloft	NOTAMs	PIREPs	Products
		1	2	3	4	5	6	7	
https://www.swpc.noaa.gov/	Space Weather Prediction Center (SWPC)	Y	Y						The SWPC provides alerts, watches, warnings and forecasts for space weather events (e.g., solar storms) affecting or expected to affect Earth's environment.
https://notams.aim.faa.gov/notamsearch/	Federal NOTAM System (FNS)	Y					Y		Provides airport and runway closures and all other NOTAMs.
https://tfr.faa.gov/tfr2/list.html	TFRs						Y		
https://www.faa.gov/air_traffic/publications/notices/	Published NOTAMs (the Notices to Airmen Publication (NTAP) was discontinued effective June 18, 2020)						Y		
https://www.fly.faa.gov/flyfaa/usmap.jsp	Air Traffic Control System Command Center (ATCSCC)						Y		ATC delays and/or flow control advisories.
https://www.faa.gov/mobile/	FAA Mobile						Y		ATC delays and/or flow control advisories.
https://www.fly.faa.gov/ais/jsp/ais.jsp Note: Users must subscribe to this service.	Aviation Information System (AIS)						Y		ATC delays and/or flow control advisories.
https://sua.faa.gov/sua/siteFrame.app	Published SUAs						Y		Additional information on SUAs not included in NOTAMs.
https://www.faa.gov/air_traffic/flight_info/aeronav/Aero_Data/Apt_Constr_Notices/	FAA Airport Construction Notices	Y					Y		Visual depictions of airport construction NOTAMs on the affected airport diagram. Note: The Federal NOTAM System (FNS) will automate the publication of Airport Construction Notices. At that time, the Airport Construction Notices web page will be disabled and users will be redirected to the FNS NOTAM Search web page.

Source	Description	Adverse	Synopsis	Current Conditions	Forecast Conditions	Winds Aloft	NOTAMs	PIREPs	Products
		1	2	3	4	5	6	7	
https://www.faa.gov/airports/runway_safety/videos/	FAA From the Flight Deck Videos						Y		Additional information on airport hot spots and other safety concerns.
https://sapt.faa.gov/default.php	Service Availability Prediction Tool (SAPT)						Y		Provides availability of ADS-B, ADS-B Deviation Authorization Pre-Flight Tool (ADAPT), and RAIM.

APPENDIX B. SAMPLE PREFLIGHT CHECKLIST

B.1 Outlook Briefing Elements (more than 6 hours until departure). Check for reported or forecast meteorological or aeronautical conditions that might influence or alter the proposed flight.

- ☐ Weather advisories (SIGMET, AIRMET, convective SIGMETs, CWAs, and Aviation Watch Notification Messages)
- ☐ Synopsis (type, location, and movement of weather systems and/or air masses)
- ☐ En route and destination forecast (alternate if needed)
- ☐ NOTAMs (e.g., airport/runway closures, air traffic delays, and TFRs)

B.2 Standard Briefing Elements.

- ☐ Adverse conditions (e.g., weather advisories, low-level wind shear, thunderstorms, icing, and frontal zones)
- ☐ Synopsis
- ☐ Current weather
- ☐ En route, destination, and alternate forecasts
- ☐ Winds aloft
- ☐ NOTAMs, TFRs, and PIREPs
- ☐ P40 (Camp David) and P56 (Washington DC); Washington, DC SFRA (if applicable)
- ☐ ATC delays

B.3 Abbreviated Briefing Elements (update on changes, up to 2 hours prior to flight).

- ☐ Check updates to adverse conditions (reported or forecast) along the route of flight
- ☐ Check for any changes in meteorological and aeronautical conditions

B.4 Non-Weather-Related Checklist Items.

- ☐ IMSAFE
- ☐ PAVE
- ☐ Personal minimums
- ☐ Fuel requirements
- ☐ Alternate airports
- ☐ Traffic delays
- ☐ Takeoff and landing distance information for airports
- ☐ Aircraft performance items (e.g., airport elevation, runway slope and conditions, and Weight and Balance)
- ☐ RAIM check

Advisory Circular Feedback Form

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by contacting the General Aviation and Commercial Division (AFS 800) at 9-AFS-800-Correspondence@faa.gov or the Flight Standards Directives Management Officer at 9-AWA-AFB-120-Directives@faa.gov.

Subject: AC 91-92, Pilot's Guide to a Preflight Briefing

Date: _____

Please check all appropriate line items:

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:

_____

_____

☐ In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

_____

_____

☐ Other comments:

_____

_____

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____