U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Air Traffic Organization Policy

ORDER NUMBER JO 7220.4B

Effective Date:
04/16/2021

SUBJ: FAA Certification of Pilot Weather Briefer

This order prescribes procedures and responsibilities for the Federal Aviation Administration Pilot Weather Briefer Certification Program. Evaluators are required to be familiar with the provisions of this order and to exercise judgment if they encounter situations not covered by it.

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Table of Contents

Chapter 1. Introduction

Section1. General

Section 2. Terms of Reference

Section 3. Roles and Responsibilities

Section 4. Flight Service Testing and Certification Website

Chapter 2. Pilot Weather Briefer Certification

Section 1. General

Section 2. Quality Control

Section 3. Certificates of Authority

Appendices

Chapter 1. Introduction

Section 1. General

1-1-1. PURPOSE OF THIS ORDER

This order is the governing document for the Federal Aviation Administration (FAA) certification of all pilot weather briefers (PWB). It details procedures and responsibilities for the FAA PWB Certification Program. The FAA Air Traffic Organization (ATO), Flight Service Safety and Operations Group (FSSOG) authorizes Federal Certified Professional Controllers (CPC) at Flight Service Stations (FSS) in Alaska and Federal Contract Flight Service (FCFS) Specialists in the contiguous U.S. (CONUS) to perform preflight and inflight pilot weather briefings.

1-1-2. AUDIENCE

This order applies to all ATO personnel and anyone using ATO directives.

1-1-3. WHERE TO FIND THIS ORDER

This order is available on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices/.

1-1-4. WHAT THIS ORDER CANCELS

This order cancels the following:

- FAA Order JO 7220.4A, FAA Certification of Pilot Weather Briefing dated November 2, 2015
- FAA Form 7220-4, Qualification Report
- International Pilot Weather Briefing Checklist

1-1-5. EXPLANATION OF CHANGES

This revision provides a new format to this order, updates quality control procedures, brings up-to-date references to weather information, and revises grading guidelines for consistency. It also updates FAA Form 7220-2, FAA PWB Practical Exam Evaluation Sheet, and the PWB Certificate example. Additional details may be found in the Explanation of Major Changes for the 7220.4B section of this order.

1-1-6. RECOMMENDATION FOR PROCEDURAL CHANGES

The contents of this order will be periodically reviewed and updated, as required by the Flight Service Directorate. Proposed changes to this order must be submitted electronically to the FSSOG correspondence mailbox at 9-AJR-FSSOG@faa.gov. The submission should include a description of the recommended change and the proposed language to be used in the order.

a. FSS facility personnel should submit recommended changes in procedures to the FSS Air Traffic Manager (ATM).

b. Recommendations from other sources should be submitted through appropriate FAA, military, or industry/user channels.

1-1-7. DISTRIBUTION

This order is distributed to selected FAA offices in Washington headquarters, regional offices, service center/area offices, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, all air traffic field facilities, international aviation field offices, and interested aviation public.

1-1-8. RELATED PUBLICATIONS

- FAA Order JO 7110.10, Flight Services, is the source document for the provision of pilot weather briefings
- Advisory Circular 00-45, Aviation Weather Services, is the source document for the use and interpretation of aviation weather products
- FAA Order JO 3120.4, Air Traffic Technical Training, is a source document for certification/recertification requirements
- FAA Order JO 7210.3, Facility Operation and Administration, is the source document for the day-to-day operations
- FAA Order JO 7210.634, Air Traffic Organization (ATO) Quality Control, is the source document for quality control requirements

1-1-9. FORMS

- FAA Form 7220-2, FAA Pilot Weather Briefer Certification Practical Exam Evaluation Sheet (sample in Appendix B)
- FAA Form 7220-5, FAA Certificate of Authority for Pilot Weather Briefer (sample in Appendix C)

Section 2. Terms of Reference

1-2-1. WORD MEANINGS

As used in this order:

a. “Must” means a procedure is mandatory.

b. “Should” means a procedure is recommended.

c. “May” or “need not” means a procedure is optional.

d. “Will” means futurity, not a requirement for application of a procedure.

e. “Must not” means a procedure is prohibited.

f. Singular words include the plural.

g. Plural words include the singular.

h. “Aircraft” means the airframe, crew members, or both.

i. “Altitude” means indicated altitude mean sea level (MSL), flight level (FL), or both.

j. “Feet” means MSL unless otherwise stated.

k. “Flight Plan Area (FPA)” is the geographical area assigned to an FSS for the purpose of establishing primary responsibility for services that may include search and rescue for visual flight rules aircraft, issuance of Notices to Airmen, pilot briefings, inflight services, broadcast services, emergency services, flight data processing, international operations, and aviation weather services. Consolidated FSS facilities may combine FPAs into larger areas of responsibility (AOR).

l. “Miles” means nautical miles unless otherwise specified and means statute miles in conjunction with visibility.

m. “Time,” when used for air traffic control operational activities, is the hour and the minute(s) in Coordinated Universal Time (UTC). Change to the next minute is made at the minute plus 30 seconds, except time checks are given to the nearest quarter minute. The word “local” or the time zone equivalent must be stated when local time is given during radio and telephone communications. The term “ZULU” may be used to denote UTC.

1-2-2. NOTES

Statements of fact or of an explanatory nature and relating to the use of directive material have been identified and worded as “NOTE.”

1-2-3. EXAMPLES

Any illustration used which serves to explain subject material is identified as an “EXAMPLE.”

1-2-4. PHRASEOLOGY

Phraseology depicted in this order is mandatory and is identified as “PHRASEOLOGY.”

1-2-5. ABBREVIATIONS

Abbreviations authorized for use in the application of the procedures in this order are those contained in FAA Order JO 7340.2, Contractions.

Section 3. Roles and Responsibilities

This section describes roles and responsibilities as they relate to the PWB Certification Program. Additional details on the roles and responsibilities associated with technical training may be found in FAA Order JO 3120.4, Air Traffic Technical Training.

1-3-1. FLIGHT SERVICE DIRECTORATE PERSONNEL

a. FSSOG Manager. The FSSOG holds authority over the FAA's PWB Certification Program. The FSSOG manager may delegate some, or all, of the following tasks to other groups within the Flight Service Directorate. The FSSOG manager must:

(1) Establish standards and quality control methods for all aspects of the PWB Certification Program.

(2) Apply the procedures in this order, except when other procedures are contained in a letter of agreement or other appropriate FAA documents, provided they only supplement this order and any standards they specify are not less than those in this order.

(3) Provide and grade the weather analysis, satellite, and weather radar tests and the PWB Certification Practical Exam, hereafter called the practical exam.

(4) Administer, maintain, and support the Flight Service Testing and Certification Website.

(5) Issue Certificates of Authority (CAs) to certified PWBs.

(6) Use the Flight Service Testing and Certification Website to maintain the official database for all CAs.

(7) Maintain a working knowledge of FSS operations, training, and certification programs and requirements.

(8) Confer with FCFS and FAA Flight Service personnel at national levels on proposed changes and updates to the PWB Certification Program.

b. FSSOG Designee. The FSSOG designee(s) must perform the tasks delegated by the FSSOG manager as described above. Additional tasks may be delegated as needed to ensure the quality of the program.

c. Evaluator. An evaluator is an FSSOG designee delegated to administer and grade practical exams and proficiency checks, in addition to the tasks above. The evaluator must:

(1) Be familiar with the provisions of this order and to exercise judgment if they encounter situations not covered by it.

(2) Ensure the practical exams and proficiency checks test the ability to gather all pertinent weather and aeronautical data and present it to the pilot in a logical, concise, and easily-understood manner.

(3) Conduct a debriefing with the candidate after the conclusion of the practical exam or proficiency check. If the evaluation results in a failure, the evaluator must discuss the problem area(s) with the candidate and FSS ATM or designee(s).

(4) Record results of all evaluations on the Flight Service Testing and Certification Website.

NOTE—
See Section 4, Flight Service Testing and Certification Website, for web address and details.

1-3-2. FACILITY PERSONNEL

All facility personnel involved in technical training must maintain a comprehensive working knowledge of the procedures and guidelines outlined in this order and the applicable national and local training directives.

a. FSS ATM. The FSS ATM must ensure:

(1) A training program is established for certification and is described in the facility training directives.

(2) The training program is administered in accordance with FAA Order JO 3120.4, Air Traffic Technical Training, local directives, and instructional program guides.

(3) All training information, including national and local orders and directives, is made available to all facility personnel.

(4) A training team and training plan are established for each PWB candidate.

(5) Individuals who conduct classroom and on-the-job training (OJT) and/or develop lesson plans are certified in accordance with FAA Order JO 3120.4, Air Traffic Technical Training.

(6) Notification to the FSSOG manager or designee is made immediately if there are any changes to PWB certificate records including name changes, separation from duty, retirements, and changes in FPA/AOR.

(7) If certification is unsuccessful, action is taken in accordance with human resources guidance, collective bargaining agreements, and/or other directives.

(8) Any reported extenuating circumstances that may impede the certification of the candidate are addressed.

b. Facility Designee. Facility designee(s) must perform tasks delegated by the FSS ATM in regards to technical training in accordance with each facility's SOP and training directives. Facility designee(s) also must:

(1) Schedule certification tests and practical exams.

NOTE—
See Section 1-4-2, Scheduling, for scheduling requirements.

(2) Proctor the certification tests.

(3) Ensure candidates have passed all three certification tests and qualification training has been completed prior to requesting a practical exam.

(4) Make sure the practical exam is recorded.

(5) Ensure qualification records are accurate and complete.

c. Operational Supervisor. Each operational supervisor may serve as the facility designee, if appointed by the FSS ATM, and must:

(1) Act as the training team leader.

(2) Direct training by modifying the training plan as required; document changes.

(3) Ensure OJT is accomplished in accordance with FAA Order JO 3120.4, Air Traffic Technical Training and facility training directives.

(4) Facilitate training team functions and seek support of facility management and staff personnel when necessary.

(5) Ensure training reports are properly completed and maintained.

(6) Review all training documentation and consider input from all training team members.

(7) Make the final determination to amend a candidate's training plan.

(8) Assess if the PWB candidate demonstrates the knowledge and skill level necessary to be certified.

d. Training Staff. Training staff may serve as the facility designee, if appointed by the FSS ATM, and must:

(1) Administer the facility training program.

(2) Ensure the facility training program is planned, conducted, assessed, and revised on a continuous basis.

(3) Ensure local course materials, visual aids, and control scenarios are developed, properly labeled, and continually updated to ensure technical accuracy.

(4) Maintain training documentation.

e. OJT Instructor (OJTI). The OJTI may serve as the facility designee, if appointed by the FSS ATM, and is responsible:

(1) To teach, coach, and demonstrate techniques to apply Flight Service procedures. OJT instruction must be based on handbook requirements and procedures. It must also provide guidance on control judgement.

(2) To ensure that OJT includes preferred methods of teaching through a combination of instruction, demonstration, and practical application.

(3) To document and discuss/debrief each training session.

f. PWB Candidate. The PWB candidate must:

(1) Demonstrate a working knowledge of the geography, terrain, and the location of the surface observations and forecasts within the FPA/AOR.

(2) Be receptive to training performance feedback.

(3) Immediately advise the FSS ATM of any extenuating circumstance(s) that might impede certification.

(4) Successfully pass a practical exam prior to performing pilot weather briefing duties under general supervision.

g. Training Team. The FSS ATM must establish a training team for each PWB candidate. In order to meet individual and/or facility needs, the specific individuals on this team may change as the PWB candidate training progresses. The training team must:

(1) Consist of:

(a) The employee's operational supervisor.

(b) At least two, but no more than three, OJTIs.

(c) The PWB candidate.

(d) Other person(s), as assigned by the ATM or designee.

(2) Develop and review the training plan.

(3) Recommend modifications to the PWB candidate's operational supervisor, as needed, to provide the candidate with every opportunity for success.

(4) Facilitate the training of the PWB candidate by continuously assessing training progress and providing feedback.

(5) Make recommendations on the training progress and readiness for certification based on training history and observation of performance during OJT.

h. Pilot Weather Briefer. A PWB may also be referred to as a CPC/specialist in this order and must:

(1) Have a valid PWB certificate issued by the National Weather Service (NWS) or the FAA Flight Service Directorate to perform preflight and inflight pilot weather briefings under general supervision.

(2) Have a sufficient understanding of the primary FPA/AOR in order to efficiently and safely provide pilot weather briefing services.

(3) Be ready at any time to receive a request for weather information which may affect the safe outcome of a flight.

(4) Obtain and maintain weather situational awareness.

(5) Be skilled in quickly reviewing large amounts of weather data and accurately summarizing and interpreting this data verbally to a pilot.

(6) Understand the strengths and limitations of weather data sources.

1-3-3. FLIGHT SERVICE ACADEMY

a. FAA Flight Service Academy

(1) The FAA Flight Service Academy supports the administration of the Flight Service initial technical training (i.e., preparation for field qualification training) in Alaska.

(2) Academy staff may serve as FSSOG designee, if appointed by the FSSOG manager.

(3) Academy staff may also serve as facility designee, if appointed by the FSS ATM.

b. FCFS Academy

(1) The FCFS Academy supports the administration of the Flight Service technical training in the CONUS.

(2) Academy staff may serve as facility designee, if appointed by the FSS ATM.

(3) Academy staff may also serve as FSSOG designee, if appointed by the FSSOG manager.

(a) Some restrictions may apply to what tasks the FSSOG manager may delegate to the FCFS Academy staff; this is based on the scope of the contract.

(b) The FSSOG manager must consult the contracting officer for guidance.

Section 4. Flight Service Testing and Certification Website

1-4-1. MAINTAINING FILES

The Flight Service Testing and Certification Website, https://fsspwbcert.faa.gov/, includes all evaluation scores and results of proficiency checks. It is the official database of all PWB certificate numbers, dates, and actions (e.g., issuance, suspensions, cancellations, disposition, and restoration) relative to each CA.

1-4-2. SCHEDULING

a. To schedule an online test, the facility designee must use the Flight Service Testing and Certification Website.

(1) The request must contain the candidate's name, evaluation type (weather analysis, satellite or weather radar), and date and time.

(2) Prior to the test, the facility designee must obtain a passcode for each candidate. The passcode will be active for two hours and each user will have 90 minutes to finish the test from when the test is started.

b. To schedule a practical exam, the facility designee must send a request to the FSSOG via the Flight Service Testing and Certification Website.

(1) Requests must be made at least one week in advance.

(2) The request must include the candidate's name, evaluation type, date and time, and a point of contact (name, email and telephone).

c. In case of a Flight Service Testing and Certification Website outage or other technical issue, the facility designee must send a request to the FSSOG at 9-AJR-FSSOG@faa.gov to schedule a certification test or practical exam.

(1) Email requests for certification tests and practical exams must be made at least one week in advance.

(2) The request must include the candidate's name, evaluation type, date and time, and a point of contact (name, email and telephone).

Chapter 2. Pilot Weather Briefer Certification

Section 1. General

2-1-1. QUALIFICATION TRAINING

PWB candidates receive their initial qualification training from either the FAA or the FCFS provider. This training must be successfully completed before the candidate attempts to pass the practical exam. Candidates must receive training at the preflight position at their facility before taking the practical exam. See FAA Order JO 3120.4, Air Traffic Technical Training, for position certification requirements.

NOTE—
Additional prerequisites may be established by the FSS ATM and must be identified in the facility's training directives.

2-1-2. FLIGHT PLAN AREA/AREA OF RESPONSIBILITY

The FSSOG requires PWBs to have a sufficient understanding of their primary FPA/AOR in order to efficiently and safely provide pilot weather briefing services. Candidates must demonstrate a working knowledge of the geography, terrain, and the location of the surface observations and forecasts within the FPA/AOR.

2-1-3. PWB CERTIFICATION TESTS

a. PWB candidates must successfully pass certification tests for weather analysis, satellite, and weather radar prior to attempting the practical exam.

(1) The minimum passing grade for each test is 70 points.

(2) Each test may be retaken a maximum of two times in accordance with FAA Order JO 3120.4, Air Traffic Technical Training. If certification is not achieved, the FSS ATM or designee must take action in accordance with that facility's SOP and training directives.

b. The facility designee must:

(1) Proctor the certification tests.

(2) If a candidate fails any of the certification tests, the facility designee must reschedule the failed exam through the Flight Service Testing and Certification Website.

NOTE—
See Section 1-4-2, Scheduling, for scheduling requirements.

(3) Ensure candidates have passed all three certification tests prior to requesting a practical exam.

c. In case of a Flight Service Testing and Certification Website outage or other technical issue, the facility designee may administer an offline certification test.

(1) The offline test may be a printed adaptation or a downloaded version to a data storage device (e.g., flash drive, external hard drive, DVD).

(2) Each test must be scored following each facility's training directives and the results are recorded on the Flight Service Testing and Certification Website as soon as possible.

d. Test results are indefinitely maintained on the Flight Service Testing and Certification Website.

2-1-4. PWB CERTIFICATION PRACTICAL EXAM

a. PWB candidates must successfully pass a practical exam prior to performing pilot weather briefing duties under general supervision.

b. The practical exam must be completed within two years of passing the certification tests for weather analysis, satellite, and weather radar.

c. The FSS ATM or designee must ensure a candidate has received sufficient OJT with one or more OJTIs, who are certified PWBs, within the six month period prior to the exam.

d. The practical exam must be administered by telephone or at the duty station.

e. While a facility designee is allowed to listen during the practical exam, no help may be provided to the candidate.

f. The practical exam must be recorded by the candidate's facility and may be reviewed by another FSSOG designee for quality control and improvement of the PWB Certification Program.

g. FAA Form 7220-2, FAA PWB Certification Practical Exam Evaluation Sheet (sample in Appendix B), must be used to determine the practical exam grade.

h. The evaluator must ensure the practical exam tests the candidate's ability to gather all pertinent weather and aeronautical data and present it to the pilot in a logical, concise, and easily-understood manner.

i. For each briefing, the candidate must clearly provide pertinent current and forecast adverse conditions, current and forecast weather, and applicable aeronautical information. The exam will also assess the candidate's radar and satellite interpretation skills.

j. At any point during the exam, or the following debriefing, the evaluator may terminate, nullify, and reschedule the exam.

k. The practical exam consists of one low-level (below FL 240) and one high-level (FL 240 and above) briefing.

(1) Each flight will be at least 200 miles long and evaluated in three general areas: background information, briefing content, and quality factors.

(2) Both of the briefings will be for flights departing from airports within the candidate's FPA/AOR. However, the destination airport may be any airport.

(3) Candidates with international AORs, including Miami AOR, will have at least one briefing within the international area.

l. To ensure objective quality control, validation, and standardization, the practical exam requires that all selected routes be impacted by adverse conditions. This ensures a uniform level of difficulty and makes the score a reliable indicator of individual performance. Adverse conditions are described in Appendix A of this order.

m. The minimum passing score is 70 points.

n. The practical exam may be retaken a maximum of two times in accordance with FAA Order JO 3120.4, Air Traffic Technical Training. If certification is not achieved, the FSS ATM or designee must take action in accordance with that facility's SOP and training directives.

o. The evaluator must provide verbal feedback during the debriefing. At a minimum, the evaluator must identify the reason(s) for any deduction(s) taken.

p. If the candidate fails the practical exam, the evaluator must discuss the problem area(s) with the candidate and facility designee(s) before scheduling a retake.

q. If the candidate fails the practical exam, training will be conducted in accordance with the training team's recommendation before a retake is scheduled.

r. The FSSOG must maintain documentation/files on all failures until the candidate passes.

NOTE—
The Flight Service Testing and Certification Website maintains permanent files on all practical exam scores regardless of pass/fail status.

Section 2. Quality Control

The FSSOG must establish standards and quality control methods for all aspects of the FAA's PWB Certification Program. Facility External Compliance Verification (ECV) visits, scheduled or random, identified or anonymous proficiency checks, and reviews of recorded preflight or inflight pilot weather briefings are all ways to accomplish quality control.

2-2-1. PROFICIENCY CHECKS

FAA evaluators are authorized to perform PWB proficiency checks that may result in loss of a PWB CA.

NOTE—
The following requirements only apply to proficiency checks performed by FSSOG or its designee(s). Additional requirements may be applicable for proficiency checks performed internally by individual FSSs and will follow each facility's standard operating procedures (SOP) and training directives.

a. Proficiency checks are conducted for any of the following reasons:

(1) A PWB CA holder is assigned to a new FPA/AOR where the terrain or prevailing weather patterns are significantly different and/or when the new FPA/AOR has international pilot weather briefing responsibilities.

NOTE—
The facility designee must contact the FSSOG manager immediately when a briefer is assigned to a new FPA/AOR. The FSSOG manager or designee will make a determination if a proficiency check is required.

(2) A PWB CA holder has not provided a pilot weather briefing for more than one year (e.g., temporary assignment, extended illness). In this situation, a PWB proficiency check must be passed before the CA holder is allowed to brief without the direct supervision of a current PWB CA holder. Facilities must also comply with the provisions for recertification as described in FAA Order JO 3120.4, Air Traffic Technical Training.

(3) As deemed necessary or pertinent by the FSSOG manager or designee for quality control and continual improvement.

b. Proficiency checks may be conducted by telephone or at the duty station during ECVs.

c. Proficiency checks may be scheduled by FAA evaluators, FSS ATMs or facility designees, or conducted at random by anonymous telephone calls to FSSs.

d. Proficiency checks will consist of one low-level (below FL 240) or one high-level (FL 240 and above). However, if in the evaluator's assessment one briefing is not sufficient (e.g., lack of weather, return from an extended absence), a second briefing may be requested to ensure a complete evaluation. If a second briefing is required, the proficiency check will consist of one low-level (below FL 240) and one high-level (FL 240 and above).

e. FAA Form 7220-2, FAA PWB Certification Practical Exam Evaluation Sheet (sample in Appendix B), is used to determine the score for a proficiency check. Results are recorded in the Flight Service Testing and Certification Website.

f. The minimum passing score is 70 points.

g. A PWB proficiency check failure results in the suspension of the briefer's PWB CA. While the briefer's PWB CA is suspended, the briefer must not provide any pilot weather briefings at the preflight or inflight positions without the direct supervision of a person holding a valid CA.

NOTE—
If the briefer is returning from a long absence and fails the proficiency check, the CA remains in an inactive state and will follow the same procedures described in Section 2-3-3, Suspending a Certificate of Authority. For absences longer than two years, see Section 2-3-6, Restoration of a Certificate of Authority, for details.

(1) Remedial training must be conducted in accordance with FAA Order JO 3120.4, Air Traffic Technical Training, and applicable facility training directives before a follow-up proficiency check is conducted.

(2) The FSSOG manager or designee enters a new score in the briefer's qualification records, which removes the suspension or reactivates the CA, if the briefer passes a follow-up proficiency check.

(3) If recertification is not achieved, the FSS ATM or designee must take action in accordance with that facility's SOP and training directives.

2-2-2. INTERNATIONAL PWB PROFICIENCY CHECKS

a. Briefers assigned to provide services outside of U.S. airspace (excluding Canada and Mexico) are required to have an international PWB proficiency check. This includes Miami and Hawaii AORs.

b. This responsibility only requires supplemental training (including AOR packet and OJT) and no additional certification is required.

c. FAA Form 7220-2, FAA PWB Certification Practical Exam Evaluation Sheet (sample in Appendix B), is used to determine the score for an international PWB proficiency check. Results are recorded in the Flight Service Testing and Certification Website.

d. The minimum passing score is 70 points.

e. Successful completion of the international PWB proficiency check is also noted in the briefer's qualification records.

2-2-3. RECORDINGS

The FSSOG manager or designee may request pilot weather briefing recordings from any FSS. When the request is received, the recordings should be provided to the FSSOG manager or designee within five working days. The FSSOG manager or designee must provide feedback to the facility designee within two weeks after receipt of the recordings.

Section 3. Certificates of Authority

The Flight Service Testing and Certification Website is the official repository for all FAA PWB CAs. Backup copies of these certificates are kept on file at the appropriate FSS.

2-3-1. ISSUING A CERTIFICATE OF AUTHORITY

a. The FSSOG manager or designee issues a PWB CA after the candidate has successfully passed the weather analysis, satellite, and weather radar certification tests and the practical exam.

b. The certificate number and issue date must be entered in the PWB CA database, which resides on the Flight Service Testing and Certification Website.

c. The FSSOG manager or designee must issue the appropriate certificate within 10 working days. The certificate must show the date the candidate passed the practical exam.

d. Briefers are officially authorized to perform preflight pilot weather briefing duties under general supervision after passing the practical exam and having been certified by the FSS ATM or designee. Additional training is required to qualify and certify the candidate for inflight position duties.

e. A copy of each certificate must remain on file at the CPC/specialist's facility and be readily available for inspection by FAA personnel. The facility designee may provide a copy of the certificate to the briefer, if requested. When a briefer is reassigned to a new FSS, the corresponding CA must be on file at the new facility.

f. Certification numbers will use the following naming convention (FPYYXXX):

(1) F, for "FAA"

(2) P, for PWB certificates

(3) YY, the 2-digit year

(4) XXX, numbered sequentially, beginning with 001 each calendar year

EXAMPLE–
FP21001

2-3-2. SUSPENDING A CERTIFICATE OF AUTHORITY

a. The PWB CA is suspended if a briefer's qualification records indicate a failed proficiency check (score less than 70 points).

b. While the briefer's PWB CA is suspended, pilot weather briefings must not be provided at the preflight or inflight position without the direct supervision of a person holding a valid CA.

c. Remedial training is mandatory if the briefer's PWB CA has been suspended as a result of a failed proficiency check.

(1) The training team will identify the methods to be used in the remedial training.

(2) The FSS ATM and/or facility designee may obtain remedial training recommendations from the FSSOG.

d. A follow-up proficiency check may be scheduled after remedial training is conducted in

accordance with FAA Order JO 3120.4, Air Traffic Technical Training, and applicable facility directives.

NOTE—
See Section 1-4-2, Scheduling, for scheduling requirements.

e. The FSSOG manager or designee enters a new score in the briefer's qualification records, which removes the suspension, if the briefer passes the follow-up proficiency check.

f. The briefer is authorized to perform pilot weather briefing duties under general supervision after passing the follow-up proficiency check and has been certified by the FSS ATM or designee.

g. If recertification is not achieved, the FSS ATM or designee must take action in accordance with that facility's SOP and training directives; the FSS ATM or designee may obtain recommendations from the FSSOG.

2-3-3. DEACTIVATION OF A CERTIFICATE OF AUTHORITY

a. When a CA holder retires, terminates employment for any reason, or goes on a long absence (e.g., temporary assignment, extended illness), the FSS ATM must promptly notify the FSSOG manager or designee and initiate a request to deactivate the PWB CA.

b. The applicable qualification record in the Flight Service Testing and Certification Website must be placed in the inactive user file and the briefer's record must be retained for two years after it becomes inactive.

2-3-4. REACTIVATION OF A CERTIFICATE OF AUTHORITY

Reactivation of a CA must be in accordance with requirements described in FAA Order JO 3120.4, Air Traffic Technical Training.

a. If the certificate has been inactive for two years or less, then:

(1) The CPC/specialist must successfully complete a practical exam in accordance with requirements described in Section 2-1-4, Pilot Weather Briefer Certification Practical Exam, of this order. Facility designees must contact the FSSOG manager or designee via the Flight Service Testing and Certification Website to schedule this exam.

NOTE—
See Section 1-4-2, Scheduling, for scheduling requirements.

(2) The evaluator uses FAA Form 7220-2, FAA PWB Certification Practical Exam Evaluation Sheet (sample in Appendix B) to determine the briefer's score.

(3) If a passing score of 70 points is achieved, a new CA is issued and placed in the CPC/specialist's qualification records.

b. If a PWB certificate has been inactive for more than two years, then:

(1) The CPC/specialist must pass all PWB certification tests (weather analysis, satellite, and weather radar) in accordance with requirements described in Section 2-1-3, Pilot Weather Briefer Certification Tests, of this order and a practical exam in accordance with requirements described in Section 2-1-4, Pilot Weather Briefer Certification Practical Exam, of this order. Facility designees must use the Flight Service Testing and Certification Website to schedule these

exams.

NOTE—
See Section 1-4-2, Scheduling, for scheduling requirements.

(2) The evaluator uses FAA Form 7220-2, PWB Certification Practical Exam Evaluation Sheet (sample in Appendix B) to determine and document the briefer's score.

(3) If a passing score of 70 points is achieved on each certification test and the practical exam, a new CA is issued and placed in the CPC/specialist's qualification records.

Appendix A. Pilot Weather Briefer Certification Practical Exam Standards

Section 1. General

A-1-1. PURPOSE

This appendix describes the method for conducting a pilot weather briefer (PWB) certification practical exam hereafter called the practical exam.

A-1-2. AUTHORITY

The Federal Aviation Administration (FAA) Flight Service Directorate, Flight Service Safety and Operations Group (FSSOG) authorizes Federal Certified Professional Controllers at Flight Service Stations (FSS) in Alaska and Federal Contract Flight Service Specialists in the contiguous U.S. (CONUS) to perform preflight and inflight pilot weather briefings. Briefers must have a valid PWB Certificate of Authority (CA) issued by the National Weather Service (NWS) or the FAA Flight Service Directorate to perform these duties under general supervision.

The FSSOG holds authority over the PWB Certification Program and may delegate some, or all, of the tasks to other groups within the Flight Service Directorate.

A-1-3. PREREQUISITES

a. The candidate must have passed the NWS or FAA weather analysis, weather radar, and weather satellite certification tests within the past two years.

b. The candidate must have had on-the-job training (OJT) with one or more OJT instructors, who are certified PWBs, within the past six months.

c. The FSS Air Traffic Manager (ATM) or designee must request the practical exam through the Flight Service Testing and Certification Website and acknowledge that the candidate is prepared to take the evaluation.

A-1-4. SCHEDULING THE PRACTICAL EXAM

a. To schedule a practical exam, the facility designee must send a request to the FSSOG via the Flight Service Testing and Certification Website.

(1) Requests must be made at least one week in advance.

(2) The request must include the candidate’s name, evaluation type, date and time, and a point of contact (name, email and telephone).

b. In case of a Flight Service Testing and Certification Website outage or other technical issue, the facility designee must send a request to the FSSOG at 9-AJR-FSSOG@faa.gov to schedule the practical exam.

(1) Email requests for practical exams must be made at least one week in advance.

(2) The request must include the candidate’s name, evaluation type, date and time, and a point of contact (name, email and telephone).

A-1-5. FORMAT OF THE PRACTICAL EXAM

a. The practical exam will consist of two preflight standard weather briefings.

(1) One briefing will be for a Visual Flight Rules (VFR) or Instrument Flight Rules (IFR) flight below FL 240.

(2) One briefing will be for an IFR flight above FL 240.

b. Both of the briefings will be for flights departing from airports within the candidate's FPA/AOR. However, the destination airport may be any airport.

c. Candidates with international AORs, including Miami AOR, will have at least one briefing within the international area.

d. The candidate will summarize when appropriate and interpret weather data and forecasts rather than read information verbatim.

e. The horizontal limit of pertinent weather (meteorological) and aeronautical information is considered to be 25 miles on either side of the proposed route. However, when determining the pertinence of information, the candidate should take into account the dynamic aspect of weather, aircraft performance, and type of flight. Conditions occurring or expected to occur more than 25 miles from the route must be provided if there is a potential for safety of flight to be compromised.

f. The vertical limits of pertinent weather (meteorological) and aeronautical information are considered to be:

(1) The climb out and approach paths.

(2) For flights below FL 180: from the surface to 5000 feet above the proposed en route altitude.

(3) For flights at or above FL 180: from 5000 feet above and below the proposed en route altitude.

g. The candidate will follow a logical sequence:

(1) Gather all the required background information.

(2) Provide an international cautionary advisory if appropriate.

(3) Provide all pertinent adverse conditions.

(4) Provide a VFR Flight Not Recommended (VNR) statement if appropriate.

(5) Provide a synopsis.

NOTE—
The sequence of items 3-5 (adverse conditions, VNR statement, and synopsis) may be adjusted for emphasis or logic in accordance with FAA Order JO 7110.10, Flight Services.

(6) Provide current weather conditions.

(7) Provide forecast weather conditions, including the variance between forecasts and current conditions.

(8) Provide winds and temperatures aloft.

NOTE—
Temperatures may be omitted if, in the briefer's assessment, they do not have an impact on the safety of the flight.

(9) Provide pertinent Notices to Airmen (NOTAMs).

(10) Request pilot reports (PIREPs) when conditions meet criteria for solicitation of PIREPs in accordance with FAA Order JO 7110.10, Flight Services.

NOTE—
This element may be combined with any other element (e.g., adverse conditions, forecast) for emphasis.

A-1-6. WEATHER SITUATIONAL AWARENESS

Weather situational awareness is obtained and maintained by regularly reviewing PIREPs, air-reports (AIREPs), weather radar products, satellite images, weather observations and forecasts. PWBs must:

a. Be ready at any time to respond to a request for weather information which may affect the safe outcome of a flight.

b. Be skilled in quickly reviewing large amounts of weather data and accurately summarizing and interpreting this data verbally to a pilot.

c. Have a working knowledge of the operational interpretation of weather radar and satellite images and must understand the strengths and limitations of all weather data sources and NWS forecasts.

d. Be able to filter weather data, forecasts, and hazardous weather information and not give irrelevant data to the pilot.

A-1-7. POST-EXAM CONFERENCE (DEBRIEF)

a. Approximately one hour after the conclusion of the practical exam, the evaluator will call the facility and conduct a debriefing. The debriefing may be with the candidate, and/or facility designee depending upon their availability.

b. The FSS ATM, facility designee, and/or candidate may listen to the recording of the practical exam prior to the debriefing.

c. The debriefing will be conducted by the evaluator(s) participating in the practical exam. Additional representatives, to include other FAA Flight Service personnel, may take part in the debriefing.

d. The debriefing must include:

(1) A statement that the candidate passed or failed the practical exam.

(2) A review of the two briefings including departure airport, altitudes, routes, destinations, estimated time of departure, estimated time of arrival, questions asked, etc.

(3) A review of what the candidate did well and what areas need improvement.

(4) A summarization of the procedures to follow after a passing or failing score.

Section 2. Grading Guidelines

A-2-1. GENERAL GRADING GUIDELINES

a. The minimum passing score is 70 points.

b. The practical exam may be retaken a maximum of two times in accordance with FAA Order JO 3120.4, Air Traffic Technical Training. If certification is not achieved, the FSS ATM or designee must take action in accordance with that facility's SOP and training directives.

c. If a passing score of 70 points or greater is achieved on the practical exam then:

(1) The FSSOG manager or designee must enter the results in the briefer's qualification records on the Flight Service Testing and Certification Website.

(2) An FAA CA will be issued.

(a) CAs must be made available on the Flight Service Testing and Certification Website for facility designees to view and print.

(b) The CA may be sent electronically to the FSS ATM or designee.

(3) Briefers are officially authorized to perform preflight pilot weather briefing duties under general supervision after passing the practical exam, the debriefing, and having been certified by the FSS ATM or designee. Additional training is required to qualify and certify the candidate for inflight position duties.

NOTE—
Additional procedures may be applied to comply with each Flight Service facility standard operating procedures.

d. If a failing score of fewer than 70 points is achieved on the practical exam then:

(1) The FSSOG manager or designee must enter the results in the briefer's qualification records on the Flight Service Testing and Certification Website.

(2) The candidate will not be certified to perform pilot weather briefing duties and must continue in a training status.

(3) Training will be conducted to the FSS ATM's satisfaction before the candidate retakes the exam. A retake may not be scheduled sooner than three business days following the date of failure, unless approved by the FSSOG manager.

e. Table 1 presents the grading point distribution for each performance task. The specifics are detailed in the following sections.

Table A-1. Grading Point Distribution

Background Information	5
Adverse Conditions	25
Synopsis	5
Current Conditions	20
Forecast Conditions	20
NOTAMs	5

Request for PIREPs	5
Quality Factors	15

A-2-2. BACKGROUND INFORMATION

a. The following background information must be obtained:

(1) Type of flight – IFR or VFR

(2) Aircraft identification

(3) Aircraft type

(4) Departure airport

(5) Estimated time of departure

(6) En route altitude/flight level

(7) Route of flight

(8) Destination airport

(9) Estimated time en route or arrival at the destination

b. For briefings with international departures, arrivals or routes of flight, the candidate must issue the following international cautionary advisory:

PHRASEOLOGY—
CHECK DATA AS SOON AS PRACTICAL AFTER ENTERING FOREIGN AIRSPACE, AS OUR DATA MAY BE INACCURATE OR INCOMPLETE.

c. Grading guidelines:

(1) No points are deducted if all background information is obtained by the candidate for both briefings.

(2) No points are deducted when an applicable international cautionary advisory is given.

(3) One (1) point is deducted for each background information item not obtained by the candidate up to a maximum of five (5) points.

(4) Five (5) points are deducted if an international cautionary advisory is applicable, but is not given.

(5) Up to five (5) points are deducted if the international cautionary advisory phraseology is incorrect.

A-2-3. ADVERSE CONDITIONS

a. VNR Statement

(1) Exhibits knowledge of the hazard of attempting VFR flight into Instrument Meteorological Conditions (IMC).

(2) Exhibits sound briefer judgment when a VFR flight is planned and gives a VNR statement when flight under VFR is doubtful. Essentially, when VFR flight is proposed and sky conditions or visibilities are present or forecast, surface or aloft, that in the briefer's judgment

would make flight under VFR doubtful, the briefer describes the conditions, affected locations, and advises the evaluator that VFR flight is not recommended.

PHRASEOLOGY–
V-F-R FLIGHT NOT RECOMMENDED

(3) Correctly uses the following, when appropriate, to determine current and forecast areas of IMC along the proposed route of flight:

- Airmen's Meteorological Information (AIRMET) SIERRA or Graphical AIRMET (G-AIRMET) for IFR conditions or mountain obscuration
- Center Weather Advisories (CWAs) for conditions at or approaching low IFR or for heavy and extreme precipitation
- Low-Level Significant Weather (SIGWX) Prognostic Charts
- PIREPs
- Meteorological Aerodrome Reports (METARs)/Special Weather Reports (SPECIs)
- Satellite
- Radar
- Terminal Aerodrome Forecasts (TAFs)

(4) For international AORs, provides a VNR statement in the Caribbean based on ceilings less than 1500 feet and/or visibilities less than five (5) statute miles.

(5) Does not provide a VNR statement when conditions along the route are expected to be marginal VFR or better.

(6) If possible, provides VFR alternatives when a VNR statement is issued.

(7) Grading guidelines:

(a) No points are deducted when an applicable VNR statement is given.

(b) Twenty-five (25) points are deducted when data indicated VFR flight was doubtful and a VNR statement was not given.

(c) One to five (1-5) points are deducted if a VNR statement was given, but data indicated VFR flight was likely.

(d) Up to five (5) points are deducted if a VNR statement was given, but no alternate VFR routing or time were provided.

(e) Up to five (5) points are deducted if the VNR statement phraseology is incorrect.

b. IFR Conditions

(1) Exhibits knowledge of the meteorological conditions where IFR is most likely to occur.

(2) Exhibits knowledge of the hazard of attempting VFR flight into IFR areas and the increased hazard to IFR flights operating in IMC.

(3) Correctly uses the following, when appropriate, to determine current and forecast areas of IFR conditions along the proposed route of flight:

- AIRMETs SIERRA or G-AIRMETs for IFR conditions
- CWAs for conditions at or approaching low IFR or for heavy and extreme precipitation
- Low-Level SIGWX Prognostic Charts
- PIREPs
- METARs/SPECIs
- Satellite
- Radar
- TAFs

(4) For flights below FL 180: provides applicable IFR adverse condition information for departure, en route, and destination.

(5) For flights above FL 180: provides applicable IFR adverse condition information for climb out and approach path.

(6) Correctly provides complete and accurate information on IFR conditions along the proposed route of flight, including:

- Location
- Time
- Horizontal extent
- Trend (past and forecast)

(7) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate information on the IFR conditions applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide the existing or forecast IFR conditions applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the IFR conditions was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the IFR conditions was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

c. Mountain Obscurations

(1) Exhibits knowledge of the meteorological conditions where mountain obscuration is most likely to occur.

(2) Exhibits knowledge of the hazard of flying VFR or IFR in areas where the mountains are obscured by weather.

(3) Correctly uses the following, when appropriate, to determine areas where mountains are obscured along the proposed route of flight:

- AIRMETs SIERRA or G-AIRMETs for mountain obscurations
- CWAs for conditions at or approaching low IFR or for heavy and extreme precipitation near the mountainous area
- PIREPs
- METARs
- Satellite
- Radar
- TAFs

(4) Correctly provides complete and accurate information on mountain obscurations along the proposed route of flight, including:

- Location
- Time
- Horizontal extent
- Trend (past and forecast)

(5) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate information on the mountain obscuration(s) applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide the existing or forecast mountain obscuration(s) applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the mountain obscuration(s) was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the mountain obscuration(s) was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

d. Thunderstorms

(1) Exhibits knowledge of the meteorological conditions conducive to thunderstorm development.

(2) Exhibits knowledge of thunderstorm types, structure, development, movement, and associated aviation hazards.

(3) Correctly uses the following, when appropriate, to determine current and forecast

areas of thunderstorms along the proposed route of flight:

- Significant Meteorological Information (SIGMETs) for thunderstorms
- Convective SIGMETs

NOTE—
Convective SIGMETs are issued for the CONUS instead of SIGMETs for thunderstorms.

- Convective Outlook
- CWAs upgrading a thunderstorm advisory to include severe thunderstorms or defining a line of thunderstorms within a larger area covered by the advisory
- Severe Thunderstorm/Tornado Watches and Warnings
- Surface Prognostic Charts
- Mid and High-Level SIGWX Prognostic Charts
- PIREPs
- METARs
- Satellite
- Radar/lightning data
- TAFs
- Graphical Forecast for Aviation (GFA), where available

NOTE—
The GFA may be gridded data or static images.

- Area Forecasts (FAs), where available

(4) Correctly provides complete and accurate thunderstorm information applicable to the proposed route of flight, including:

- Coverage
- Trend (past and forecast)
- Type (e.g., embedded, widespread, squall line, isolated)
- Intensity
- Tops
- Movement

(5) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate thunderstorm information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast thunderstorm information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the thunderstorms was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the thunderstorms was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

e. Icing Conditions

(1) Exhibits knowledge of the meteorological conditions conducive to icing.

(2) Exhibits knowledge of icing as a hazard to aircraft and the effect of icing on aircraft in flight.

(3) Correctly uses the following, when appropriate, to determine icing intensities and locations, as well as current and forecast horizontal and vertical extent of ice-producing clouds and precipitation:

- SIGMETs for severe icing
- AIRMETs ZULU or G-AIRMETs for moderate icing
- CWAs for moderate or greater icing or freezing precipitation
- SIGWX Prognostic Charts
- PIREPs/AIREPs
- METARs
- Satellite
- Radar
- TAFs
- GFA, where available

NOTE—
The GFA may be gridded data or static images.

- FAs, where available
- Correctly uses the following, as appropriate, to supplement current and forecast icing information:
  - Current and Forecast Icing Product (also known as CIP/FIP), if available
  - Freezing level graphics

(4) Correctly provides complete and accurate icing information applicable to the proposed flight, including:

- Freezing level(s)
- Temperature

- Intensity
- Vertical extent/altitudes
- Horizontal extent
- Trend (past and forecast)
- Time

(5) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate icing information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast icing information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the icing was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the icing was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

f. Turbulence

(1) Exhibits knowledge of the meteorological conditions conducive to turbulence development.

(2) Exhibits knowledge of turbulence as a hazard to aircraft and its effects on aircraft in flight.

(3) Correctly uses the following, when appropriate, to determine turbulence intensities and locations, as well as current and forecast horizontal and vertical extent of turbulence producing phenomena:

- SIGMETs for severe or greater turbulence
- AIRMETs TANGO or G-AIRMETs for moderate turbulence
- CWAs for moderate or greater turbulence
- SIGWX Prognostic Charts
- PIREPs/AIREPs
- METARs
- Satellite
- Radar
- TAFs
- GFA, where available

NOTE—
The GFA may be gridded data or static images.

- FAs, where available

(4) Correctly uses the following, as appropriate, to supplement turbulence information:

- Graphical Turbulence Guidance

(5) Correctly provides complete and accurate turbulence information applicable to the proposed flight, including:

- Type (e.g., chop, clear-air)
- Intensity
- Location
- Vertical extent/altitudes
- Horizontal extent
- Trend
- Time

(6) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate turbulence information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast turbulence information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the turbulence was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the turbulence was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

g. Volcanic Ash

(1) Exhibits knowledge of the hazards to aircraft flying in and around volcanic ash and its effects on aircraft in flight.

(2) Correctly uses the following, when appropriate, to determine volcanic ash intensities and locations:

- SIGMETs for volcanic ash
- CWAs for volcanic ash
- SIGWX Prognostic Charts
- Volcanic Ash Advisories
- PIREPs

- METARs/SPECIs
- Satellite
- Radar
- TAFs
- ATCCC messages

(3) Correctly provides complete and accurate volcanic ash information applicable to the proposed flight, including:

- Location
- Vertical extent
- Horizontal extent
- Movement
- Time

(4) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate volcanic ash information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast volcanic ash information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the volcanic ash was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the volcanic ash was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

h. Dust/Sand Storm

(1) Exhibits knowledge of the meteorological conditions conducive to dust/sand storm development.

(2) Exhibits knowledge of the hazards to aircraft flying in and around dust/sand storms and the effects on aircraft in flight.

(3) Correctly uses the following, when appropriate, for information regarding dust/sand storms:

- SIGMETs for widespread dust/sand storms
- CWAs for dust/sand storms
- SIGWX Prognostic Charts
- PIREPs
- METARs/SPECIs

- Satellite
- Radar
- TAFs

(4) Correctly provides complete and accurate dust/sand storm information applicable to the proposed flight, including:

- Location
- Vertical extent
- Horizontal extent
- Time
- Intensity (only moderate or heavy intensity is assigned for dust/sand storms)

(5) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate dust/sand storm information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast dust/sand storm information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the dust/sand storm was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the dust/sand storm was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

i. Tropical Cyclone

(1) Exhibits knowledge of the meteorological conditions conducive to the development and persistence of tropical cyclones.

(2) Exhibits knowledge of the hazards to aircraft flying in and around tropical cyclones.

(3) Correctly uses the following, when appropriate, to determine the position, horizontal extent, and movement of tropical cyclones and associated hazards:

- Convective SIGMETs

NOTE—
Tropical cyclone information will be added to the remarks section of a CONUS Convective SIGMETs when appropriate.

- SIGMETs for tropical cyclones

NOTE—
These non-convective SIGMETs are only available outside the CONUS.

- CWAs for conditions meeting Convective SIGMET criteria or other conditions associated with tropical cyclones and not covered by other advisories

- Tropical Cyclone/Hurricane Advisories
- SIGWX Prognostic Charts
- Surface Prognostic Charts
- PIREPs
- METARs/SPECIs
- Satellite
- Radar
- TAFs
- GFA, where available

NOTE—
The GFA may be gridded data or static images.

- FAs, where available

(4) Correctly provides complete and accurate tropical cyclone information applicable to the proposed flight, including:

- Position
- Movement
- Intensity
- Horizontal extent
- Time

(5) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate tropical cyclone information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast tropical cyclone information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the tropical cyclone was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the tropical cyclone was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

j. High Density Altitude

(1) Exhibits knowledge of the meteorological conditions conducive to high density altitude.

(2) Exhibits knowledge of the hazard to aircraft flying in high density altitude conditions with lower than standard atmosphere altimeter settings (29.92) and higher than standard

atmospheric temperatures.

(3) Exhibits knowledge that aircraft service ceilings are based on density altitude when briefing aircraft flying over mountains or through mountain passes.

(4) Exhibits knowledge of increased runway lengths required for takeoffs and landings and decreased climb performance with high density altitude conditions.

(5) Correctly uses the following, when appropriate, to determine locations affected by density altitude:

- PIREPs
- METARs
- TAFs
- Temperature aloft forecast

(6) Provides high density altitude information and other information to minimize the threat. Table 2 provides high density altitude versus standard atmosphere information based on field elevation (in mean sea level [MSL]) and temperature thresholds [in Celsius]).

Table A-2. High Density Altitude vs. Standard Atmosphere

High Density Altitude		Standard Atmosphere	
Field Elevation (MSL)	Temperature Threshold (Celsius)	Altitude (MSL)	Temperature (Celsius)
2000 -2999	29 or higher	2000	11
3000 -3999	27 or higher	3000	9
4000 -4999	24 or higher	4000	7
5000 -5999	21 or higher	5000	5
6000 -6999	18 or higher	6000	3
7000 -7999	16 or higher	7000	1

(7) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate high density altitude information applicable to the proposed flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast high density altitude conditions.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the high density altitude conditions was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the high density altitude conditions was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

k. Low-Level Wind Shear

(1) Exhibits knowledge of the meteorological conditions conducive to low-level wind shear (LLWS).

(2) Exhibits knowledge of the hazards to aircraft departing or landing in strong LLWS conditions.

(3) Correctly uses the following for information on LLWS:

- AIRMETs TANGO or G-AIRMETs for LLWS
- CWAs for LLWS (surface to 2000 feet)
- Surface Prognostic Charts
- Velocity Azimuth Display (VAD) Wind Profiles
- PIREPs/AIREPs
- Satellite
- Radar, base reflectivity (0.5 degree) products
- TAFs

(4) For flights below FL 180: provides LLWS information for departure, en route and destination as appropriate.

(5) For flights at or above FL 180: provides LLWS information for departure and destination.

(6) Correctly provides complete and accurate LLWS information applicable to the proposed flight, including:

- Location
- Vertical extent
- Time

(7) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate LLWS information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast LLWS information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the LLWS was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the LLWS was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

l. Strong Low-Level Winds

(1) Exhibits knowledge of the meteorological conditions conducive to strong low-level winds (30 knots sustained or greater).

(2) Exhibits knowledge of the hazards to aircraft departing or landing in strong low-level wind conditions.

(3) Correctly uses the following, when appropriate, to determine the threat of strong low-level winds:

- AIRMETs TANGO or G-AIRMETs for strong low-level winds
- CWAs for surface wind gusts at or above 30 knots
- Surface Prognostic Charts
- VAD Wind Profiles
- PIREPs/AIREPs
- METARs/SPECIs
- Satellite
- Radar, base reflectivity (0.5 degree) products
- TAFs
- GFA, where available

NOTE—
The GFA may be gridded data or static images.

- FAs, where available

(4) For flights below FL 180: provides strong low-level wind information for departure, en route and destination, and for all altitudes below the proposed altitude.

(5) For flights at or above FL 180: provides strong low-level wind information for departure and destination.

(6) Correctly provides the following information on the strong low-level winds:

- Location
- Horizontal extent
- Vertical extent
- Time

(7) Grading guidelines:

(a) No points are deducted if the candidate provides complete and accurate strong low-level wind information applicable to the proposed route of flight.

(b) Twenty-five (25) points are deducted if the candidate fails to provide existing or forecast strong low-level wind information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the strong low-level wind was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the strong low-level wind was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

m. Adverse Aeronautical Information

(1) Provides NOTAMs that could influence the evaluator to alter the proposed flight, e.g., airport/runway closures.

(2) Provides air traffic delays/airspace restrictions that could influence the evaluator to alter the proposed flight; e.g., Temporary Flight Restrictions, Restricted or Prohibited Areas, Special Flight Rules Zone.

(3) Grading guidelines:

(a) No points are deducted if the adverse aeronautical information is completely provided.

(b) Twenty-five (25) points are deducted if the candidate fails to provide adverse aeronautical information applicable to the proposed route of flight.

(c) Ten to twenty (10-20) points are deducted if partial or inaccurate information concerning the adverse aeronautical information was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(d) Up to 10 points are deducted if partial or inaccurate information concerning the adverse aeronautical information was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

A-2-4. SYNOPSIS

a. Exhibits sound meteorological knowledge of:

- Fronts
- Air mass types
- Pressure patterns at surface and aloft

b. Correctly uses the following, when appropriate, to summarize weather information to the evaluator:

- Surface Analysis Charts
- Satellite
- Radar
- GFA, where available

NOTE—
The GFA may be gridded data or static images.

- FA synopsis, where available
- Surface Prognostic Charts
- SIGWX Prognostic Charts
- Aviation Forecast Discussion
- Upper-Air Analyses

c. Provides an accurate overview of weather features impacting the route of flight, including:

- Location and movement of fronts
- Air mass type, including moisture and stability
- Pressure patterns, surface and aloft

d. Grading guidelines:

(1) No points are deducted if the candidate provides complete and accurate synopsis information applicable to the proposed route of flight.

(2) Five (5) points are deducted if the candidate fails to provide the evaluator with a synopsis for either of the briefings.

(3) One to five (1-5) points are deducted if the candidate provides incomplete or inaccurate synopsis information.

A-2-5. CURRENT CONDITIONS

a. Exhibits sound meteorological knowledge of weather data for providing current conditions applicable to the proposed route of flight.

b. Correctly uses the following, as appropriate, to provide current conditions along the route of flight.

- PIREPs/AIREPs
- METARs
- Satellite
- Radar

c. Correctly provides the departure airport METAR, closest available METAR, or webcam conditions.

d. Correctly provides an accurate and concise summary, when appropriate, of the following current/recent past en route weather conditions:

- Clouds
  - Coverage
  - Trend
  - Tops
  - Type

- Visibilities and associated restrictions/weather
- Precipitation
  - Coverage
  - Trend
  - Tops
  - Type
  - Intensity
  - Movement

e. Correctly provides the destination airport METAR, closest available METAR, or webcam conditions.

f. Grading guidelines:

(1) No points are deducted if the candidate provides complete and accurate information on current conditions applicable to the proposed route of flight.

(2) Twenty (20) points are deducted if the candidate fails to provide the evaluator with current conditions for either of the briefings.

(3) Five to fifteen (5-15) points are deducted if partial or inaccurate information was given which may, in the evaluator's assessment, have an impact on the safety of the flight.

(4) Up to five (5) points are deducted if partial or inaccurate information was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

A-2-6. FORECAST

a. Exhibits sound meteorological knowledge of forecast products.

b. Correctly uses the following, as appropriate, to provide forecast conditions along the proposed route of flight:

- TAFs
- GFA, where available

NOTE—
The GFA may be gridded data or static images.

- FAs, where available
- Surface Prognostic Charts
- SIGWX Prognostic Charts

c. Correctly provides the departure airport TAF, or applicable forecast, including forecast conditions for climb out.

d. Correctly provides an accurate and concise summary, when appropriate, of the following elements forecast along the proposed route of flight:

- Clouds

  - Coverage
  - Trend
  - Tops
  - Type
- Visibilities and associated restrictions/weather
- Precipitation
  - Coverage
  - Trend
  - Tops
  - Type
  - Intensity
  - Movement

e. Correctly provides the destination airport TAF or applicable forecast, including forecast conditions for descent.

f. Correctly provides winds and temperatures aloft.

NOTE—
Temperatures may be omitted if, in the briefer's assessment, they do not have an impact on the safety of the flight.

g. Provides, when appropriate, the variance between forecasts and current conditions.

h. Grading guidelines:

(1) No points are deducted if the candidate provides complete and accurate information on forecast conditions applicable to the proposed route of flight.

(2) Twenty (20) points are deducted if the candidate fails to provide the evaluator with forecast conditions for either of the briefings.

(3) Five to fifteen (5-15) points are deducted if partial or inaccurate information was given which may, in the evaluator's assessment, have an impact on the safety of the flight. This may include the omission of temperatures aloft.

(4) Up to five (5) points are deducted if partial or inaccurate information was given but the information would not, in the evaluator's assessment, have an impact on the safety of the flight.

A-2-7. NOTAMs

a. Correctly provides pertinent NOTAMs for the departure, en route, and destination.

NOTE—
NOTAMs that could influence the evaluator to alter the flight will be evaluated under adverse conditions.

b. Grading guidelines:

(1) No points are deducted if the candidate provides complete and accurate NOTAM information applicable to the proposed route of flight.

(2) Up to five (5) points are deducted if partial or inaccurate NOTAM information is provided.

A-2-8. REQUEST FOR PIREPs

a. Solicits PIREPs when conditions meet the criteria for solicitation in accordance with FAA Order JO 7110.10, Flight Services.

NOTE—
This element may be combined with any other element (e.g., adverse conditions, forecast) for emphasis.

b. Grading guidelines:

(1) No points are deducted if the candidate requests PIREPs when conditions over the departure, proposed route of flight or destination meet the criteria for solicitation.

(2) One to four (1-4) points are deducted if PIREPs are requested with a generic statement when criteria for solicitation is not present.

(3) Up to five (5) points are deducted if the candidate does not request PIREPs when conditions over the departure, proposed route of flight or destination meet the criteria for solicitation.

A-2-9. QUALITY FACTORS

a. The candidate conveys competence; possesses and projects comprehensive knowledge that includes but is not limited to:

(1) Principles of meteorology

(2) Aviation weather products

(3) Weather impact on aircraft operations

(4) NAS operations

(5) Aircraft types and associated flight characteristics

b. The candidate uses an adequate pace and voice.

(1) An adequate pace varies according to the information being provided. Speech rate when describing fronts and pressure systems may be faster than the rate when reading specific observations upon request.

(2) An adequate voice is loud enough to be easily understood, yet does not cause the listener to hold the phone away from the ear.

c. The candidate is courteous and professional.

(1) Uses polite and respectful language

(2) Uses standard phraseology

d. Follows a logical sequence.

(1) Section A-1-5, Format of the Practical Exam, provides a logical sequence in accordance with FAA Order JO 7110.10, Flight Services.

(2) The sequence of the first three items (adverse conditions, VNR statement, and synopsis) may be adjusted for emphasis or logic in accordance with FAA Order JO 7110.10, Flight Services.

e. The candidate provides an accurate weather picture.

(1) Weather symbols and textual contractions are correctly decoded and explained

(2) Geographic features and political boundaries are correctly described

f. The candidate conveys information clearly.

(1) Differentiates between above ground level and mean sea level when appropriate

(2) Standard phraseology and meteorological terms are used

(3) Slang and informal speech are avoided

g. The candidate conveys information concisely.

(1) Translates, interprets and summarizes

(2) Information provided only relates to the route, altitude, and duration of flight

h. The candidate anticipates the evaluator's needs for specific weather information. These needs vary with:

(1) Evaluator experience

(2) Aircraft capabilities and equipage

(3) Flight rules

i. The candidate correctly answers the evaluator's questions.

j. The candidate exhibits knowledge of the topographic effects on weather.

(1) Effect of water surfaces on development of precipitation and low clouds

(2) Upslope winds and adiabatic cooling

k. Grading guidelines:

(1) No points are deducted if all of the quality factors are met.

(2) One to fifteen (1-15) points are deducted based on the number and severity of the quality deficiencies demonstrated by the candidate.

Appendix B. Example of FAA Form 7220-2, FAA Pilot Weather Briefer Practical Exam Evaluation Form

Briefer:		Date/Time:	Final Score:
Type of Evaluation (select one):	☐ Certification	☐ Proficiency Check	☐ International Proficiency Check
Evaluator:		Facility POC:	
FPA/AOR:	Workstation:	Debrief Phone #:	
Route – Low Level		Route – High Level	

1. Background Information	Max Score	Score	2. Briefing Content	Max Score	Score	3. Quality Factors	Max Score	Score
Type of flight Aircraft ID Aircraft type Departure point Route of flight Destination Altitude Time of departure Time en route International Cautionary Advisory	5 pts		Adverse Conditions	25 pts		Conveys competence Adequate pace and voice Courteous and professional Logical sequence Ability to provide accurate weather picture Information conveyed clearly and concisely Ability to anticipate pilot's needs Answers evaluator's questions Topographic effects and weather	15 pts	
			Synopsis	5 pts				
			Current Conditions	20 pts				
			Forecast Conditions	20 pts				
			NOTAMs	5 pts				
			Request for PIREPs	5 pts				
Score	5 pts		Score	80 pts		Score	15 pts	
MINIMUM PASSING SCORE = 70 points						TOTAL SCORE FOR THIS EXAM		

1. BACKGROUND INFORMATION

☐ Type of flight

☐ Aircraft identification

☐ Aircraft type

☐ Departure airport

☐ Estimated time of departure

☐ En route altitude

☐ Route of flight

☐ Destination airport

☐ Estimated time en route

International cautionary advisory, if applicable

☐ *PHRASEOLOGY–*

CHECK DATA AS SOON AS PRACTICAL AFTER ENTERING FOREIGN AIRSPACE, AS OUR DATA MAY BE INACCURATE OR INCOMPLETE.

Background Information Max Score 5 pts

1. Background Information Total Score ____

2. BRIEFING CONTENT

Adverse Conditions

☐ VNR Statement – In the Caribbean, provides a VNR statement based on ceilings less than 1500 feet and/or visibilities less than five (5) statute miles.

PHRASEOLOGY–

V-F-R FLIGHT NOT RECOMMENDED

☐ IFR Conditions

☐ Mountain Obscurations

☐ Thunderstorms

☐ Icing Conditions

☐ Turbulence

☐ Volcanic Ash

☐ Dust/Sand Storms

☐ Tropical Cyclone/Hurricane

☐ High Density Altitude

☐ Low-Level Wind Shear

☐ Strong Low-Level Winds

☐ Adverse Aeronautical Information (e.g., Notices to Airmen (NOTAMs) or air traffic delays/airspace restrictions that could influence the evaluator to alter the proposed flight)

Adverse Conditions Max Score 25 pts

Adverse Conditions Actual Score ☐

Synopsis

☐ Fronts and Air Mass Types

☐ Pressure Patterns at Surface and Aloft

Synopsis Max Score 5 pts

Synopsis Actual Score ☐

Current Conditions

☐ Meteorological Aerodrome Reports (METARs)

☐ Satellite

☐ Radar

☐ Weather cameras, where available

☐ Pilot Reports / Aircraft Reports (PIREPs / AIREPs)

Current Conditions Max Score 20 pts

Current Conditions Actual Score ____

Forecast Conditions

☐ Summary of Graphical Forecast for Aviation (GFA), where available

☐ Area Forecast (FA), where available

☐ Terminal Area Forecasts (TAFs)

☐ Winds and Temperatures Aloft

Forecast Conditions Max Score 20 pts

Forecast Conditions Actual Score ____

NOTAMs not included in Adverse Conditions

☐ Departure

☐ En Route

☐ Destination

NOTAMs Max Score 5 pts

NOTAMs Actual Score ☐

Request for PIREPs

☐ Solicits PIREPs when conditions meet the criteria for solicitation in accordance with FAA Order JO 7110.10, Flight Services. This may be combined with any other element (e.g., adverse conditions, forecast) for emphasis.

Request for PIREPs Max Score 5 pts

Request for PIREPs Score ☐

Briefing Content Max Score 80 pts

2. Briefing Content Total Score ☐

3. QUALITY FACTORS

☐ Conveys competence

☐ Adequate pace and voice

☐ Courteous and professional

☐ Logical sequence

☐ Ability to provide accurate weather picture

☐ Information conveyed clearly and concisely

☐ Ability to anticipate pilot's needs

☐ Answers evaluator's questions

☐ Topographic effects on weather

Quality Factors Max Score 15 pts

3. Quality Factors Total Score ____

MINIMUM PASSING SCORE = 70% **TOTAL SCORE FOR THIS EXAM** ____

DEBRIEFING NOTES

Appendix C. Example of FAA Form 7220-5, FAA Certificate of Authority for Pilot Weather Briefer

Certificate of Authority
For
Pilot Weather Briefer

This document certifies that

_____

is authorized to conduct pilot weather briefing duties in accordance with Federal Aviation Administration directives.

Certificate Number _____

Issuance Date _____

_____
Kathleen Edic
Director, Flight Service

_____
Michael Helwig
Manager (A), Flight Service Safety & Operations Group

FAA Form 7220-5
January 2021

Electronic Form

SAMPLE