

NATIONAL WEATHER SERVICE INSTRUCTION 10-1304

July 2, 2010

Operations and Services

Surface Observing Program (Land), NWSPD 10-13

CERTIFICATION OF OBSERVERS

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>.

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SUMMARY OF REVISIONS: This directive procedure replaces NWSI 10-1304 “Certification of Observers” dated January 25, 2008. Changes include:

1. Changes in information and figures to reflect changes in FAA CBI testing procedures.
2. Added requirement for supervisors of candidates for observers to certify the individual meets the vision standards and removed requirement for NWS employee to test vision of non-NWS employees. Included instructions for vision testing in new Appendix.
3. Incorporated the original Appendix into directive and removed duplicative information.
4. Deleted reference to printed certificates and included guidance for electronic versions of the certificates. Printed certificate forms are still available for use until depleted or become obsolete.
5. Reworded the section pertaining to “Rover” observers to clarify the guidance and address the issue of a contract weather observer working for more than one vendor.
6. Changed references for time limits regarding Tower Visibility exams from 2 hours to 1 hour.
7. Reorganized paragraphs to follow the steps in the procedures as they normally occur.
8. Minor word changes for clarification of information.

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June 18, 2010

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Date

Director, Office of Climate,
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Certification of Observers

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1. **General.** This directive prescribes the methods, assigns the responsibilities, and delegates the authority for the National Weather Service (NWS) observer certification program. Certification is the means employed by the NWS to officially sanction the upper air, aviation weather, and visibility-only observations used in the preparation of forecasts and warnings, and the support of aviation operations.

2. **Applicability.** All individuals who take or validate officially sanctioned upper air, aviation, or visibility-only observations must possess a valid Certificate of Authority. In the context of this program, a certified observer supervising an observer trainee assumes full responsibility for the validity of the observation taken by the trainee.

3. **Exemptions.** NWS Certificates of Authority are not required for the following classes of weather observations although the NWS also considers the observations official.

- a. Weather observations taken by military or their civilian contract personnel. They may be required to be certified by their respective agencies.
- b. Cooperative program observations, including supplementary data, river, rainfall, snowfall, snow depth, climatological observations, and severe storm reporting networks.
- c. Coastal marine and cooperative merchant ships.
- d. Pilot reports of in-flight weather conditions.

4. Program Responsibilities:

4.1 Office of Climate, Water, and Weather Services. The Office of Climate, Water, and Weather Services (OCWWS) establishes certification standards and develops certification examinations, with the exception of the Tower Visibility examinations.

4.2 NWS Regions. The Regional Directors or designate will administer the certification program in their area, issue Certificates of Authority to take official weather observations, and maintain accountability for each certificate issued. The Meteorologists-in-Charge (MICs) may be delegated the responsibility for the observer certification program within their County Warning Areas (CWAs).

4.3 MIC of the NWS Office at the Federal Aviation Administration (FAA) Academy. The individual assigned to this position will administer the tower visibility observation certification program for all FAA and FAA contract Tower Controllers, and maintain accountability for each certificate issued.

4.4 Field Supervisors. Supervisors in charge of weather observation stations or facilities taking weather observations determine individual observer training needs, determine observer proficiency, recency of experience, and ensure only certified observers possessing a valid Certificate of Authority take or validate official upper air, visibility only, and aviation weather observations.

5. Qualifications. An individual must meet the vision standards, demonstrate skills proficiency, and attain a passing score on a certification examination for each type of weather observation program to attain certification. An upper air observer who also takes aviation weather observations must be certified for both the upper air and the aviation observation programs.

5.1 Vision. All certified observers and all candidates for certification must have distant vision, corrected if necessary, of not less than 20/30 in the better eye. If an observer must wear corrective lenses to meet the minimum eyesight standard, the observer must also wear corrective lenses while taking official observations. The supervisor certifies that the candidate meets the vision standards when requesting the exam. (See Appendix A.)

5.2 Training. The NWS has no responsibility or obligation to provide aviation weather observer training outside the NWS. Private industry, such as the SAWRS program, should provide training for its own personnel. Training schools in aviation weather observing are available through the private sector.

Recommended forms of training for certification are:

- a. FAA Computer Based Instruction (CBI). The FAA developed CBI software which integrates training and testing for its personnel and for FAA contractor personnel.
- b. Training Guide in Surface Weather Observations. Training may be given in classes, on the job with a certified observer, or by self-study. The "Training Guide in Surface Weather Observations" is the only training material available within the NWS. The training guide is available at <http://www.weather.gov/om/forms/resources/SFCTraining.pdf>

5.3 Demonstrated Skills Proficiency. Before taking the written examination, individuals will demonstrate to the satisfaction of their supervisor or other designated certificated observer, the ability to take, record, encode, and disseminate timely and accurate weather observations in accordance with the practices and procedures established in the appropriate observing documents, e.g., FAAO 7900.5 or Handbook #8.

- a. Aviation. The assessment of a candidate's ability to take and record an observation, including reading instruments and identifying distant objects for visibility, should be accomplished on an individual basis with the evaluator. The candidate will be taken outside to evaluate real-time weather elements and is expected to properly encode the observed elements on the MF1M-10C form, Surface Weather Observations (METAR/SPECI). Drawing pictures or illustrations of cloud layers and/or giving the candidate different weather scenarios to encode is acceptable only during clear weather days. However, these aids are to supplement the practical demonstration not replace it. All candidates are expected to evaluate and encode real-time weather elements. Where applicable, the candidate must also demonstrate the ability to operate automated observing equipment and interfaces. For those offices lacking a full complement of weather instrumentation (hygrothermometer, sling psychrometer, wind sensor, and altimeter), the candidate may be presented with simulated data for those elements.
- b. Upper-Air. The assessment of a candidate's ability to take and record an upper-air observation should be accomplished on an individual basis with the evaluator. The candidate should demonstrate the ability to follow proper balloon inflation procedures, safety requirements, radiosonde preparation and pre-release procedures, along with editing and archiving of flight data. Candidates should know how to do comparisons and complete routine upper-air forms and documentation required for each site.

- c. Supplementary Observations (NWS Only). Certification testing is not required for taking, encoding, or disseminating supplementary climatological data (SCD) observations or supplementary data observations (SDO). Observers should have an assessment and demonstrate their practical ability to take supplementary observations. The Regional Headquarters (RH) may issue a Certificate of Authority to Take Weather Observations, but the certificate will be annotated on the back for SCD/SDO observations.
 - d. Synoptic Observations. Certification testing is not required for taking, encoding, or disseminating synoptic observations. Observers designated to generate manual synoptic observations should have an assessment and demonstrate their practical ability to take synoptic observations. The RH may issue a Certificate of Authority to Take Weather Observations, but the certificate will be annotated on the back for Synoptic observations.
6. Requesting the Examination. Field supervisors should request the appropriate examination from the appropriate source. See Table 1 for details of who may request and/or proctor examinations.
- 6.1. Examination Series. The following describes the types of examinations available and to whom the request should be sent.
- a. Aviation. There is no specific examination for a particular surface aviation observing program. The examinations are generic and are to be used for all surface aviation programs, e.g., SAWRS, LAWRS, Non-Federal Observers (NF-Obs), etc.
 - (1) There is one series of paper examinations for surface aviation certification. Request these from the NWS RH or designated WFO.
 - (2) The CBI exam has been approved by the NWS as a substitute for the traditional paper examinations.
 - (3) Request the Tower Visibility examinations from the MIC of the NWS Office at the FAA Academy.
 - b. Upper-Air. There are four series of paper examinations for upper-air certification. The examinations include generic questions along with questions pertaining to the radiosonde type used at a given location. Request these from the NWS RH or designated WFO.

OBSERVATION STATION	REQUESTED BY	PROCTORED BY
WFO*	WFO*	WFO* (as directed by MIC)
NWS Contract*	Contractor or Site Supervisor*	WFO* (as directed by MIC)
FAA Staffed Tower/AFSS (no CBI)	FAA Facility Manager	FAA Facility (as directed by Facility Manager)
FAA Staffed Tower/AFSS (with CBI)	N/A	FAA Facility (as directed by Facility Manager)
FAA Contract or Contract Tower (no CBI)	Site Supervisor, Contractor, or FAA Facility Manager	WFO or FAA Facility
FAA Contract or Contract Tower (with CBI)	N/A	FAA Facility or Contract Tower Manager
NF-OBS/SAWRS/Paid A	Station Manager	WFO
* Aviation and/or Upper-air		

Table 1. Authorized Requestors and Proctors for Aviation or Upper-Air Examinations

6.2 Submitting the Request. Certification examinations will only be given to individuals whose duties include taking weather observations with the exception of certain NWS and FAA personnel who are involved in training or managing the observers or the program. The individual must meet vision and proficiency standards before the examination is requested.

The person who requests an examination for an applicant should notify the appropriate source by letter, fax, e-mail, or phone. All requests for examinations and certification changes should allow at least two weeks from the date of request to the desired examination date for the request to be processed and the examination delivered. All requests must include the following:

- a. Name, location, phone number, and title of requester.
- b. Name (complete name including middle initial as it should appear on the certificate) of the candidate. **(DO NOT SEND SOCIAL SECURITY NUMBERS.)**
- c. The date the candidate is scheduled to take the examination.
- d. The location identifier and station name where the candidate will take the examination.

- e. The four-letter site identifier (SID) and station name where the candidate is scheduled to take observations.
- f. The address to which the certificate is to be mailed, if different from the requester.
- g. An e-mail address, if available. Some certificates may be sent as an email attachment in place of being mailed.
- h. A statement that the candidate meets the vision and proficiency requirements.

6.3 Examination Locations. Certification testing for observer candidates should be administered at the supervising WFO. However, if more convenient and agreeable to the office manager, candidates may be administered the examination outside the supervising WFO provided the candidate's employer has requested the examination. FAA personnel (contract or Government employees) may be tested at an FAA facility.

6.3.1 Administering Examinations to Personnel outside the Region's Area of Responsibility. Individuals within the Region's area of responsibility may be given the examination and/or issued a certificate. Exceptions may be granted to allow administering the examination to individuals outside a region's area of responsibility if it benefits the Government.

7. Examination Handling. The certifying examinations are administratively restricted. The Data Acquisition Program Manager (DAPM) or Observing Program Leader (OPL) of the forecast office, the RH, or the FAA facility manager or training official will usually be assigned the examination custodian duties. Custodians are responsible for ensuring the documents or CBI software are stored in a secure place and protected at all times. Custodians will not provide the answer keys to anyone other than NWS personnel grading the examinations at the forecast office or RH. Custodians will never give examinations or answer keys to any contract personnel for them to administer. Examinations administered to contract personnel must be administered by either NWS or FAA personnel. Examination questions, answer sheets, and keys will be controlled by the designated NWS/FAA custodian.

Precautions will be taken to ensure the security of the certification examination. No portion of the examination will be copied without prior approval of NWSH or the MIC of the NWS Office at the FAA Academy.

7.1 Examinations Sent to an FAA Facility. Examinations sent to an FAA facility will be sent in two envelopes, one inside the other. The examination along with the blank answer sheet will be sealed in the inner envelope and marked "Facility Manager's Eyes Only." A cover memorandum (Figure 1, <http://www.weather.gov/om/forms/resources/Certification%20Examination%20Request.doc>) will be included on the outside of the sealed envelope, detailing the duties and responsibilities of securing and administering the examination. The material must be administered within ten days of receipt.

MEMORANDUM FOR: Federal Aviation Administration
Facility Manager

FROM: {Insert Your Name and Title}

SUBJECT: Certification Examination Request

Attached is the requested weather certification examination to be administered under your personal supervision or under the personal supervision of your training officer. This material is administratively restricted. All examination material must be maintained in a secure location until it is mailed back to this office. The completed answer sheet may be copied but must be destroyed upon notification the original was received at this office.

The individual being tested is required to demonstrate an ability to take and record an accurate and timely observation prior to taking the examination. If the individual fails to demonstrate this ability, a written examination will not be administered until such time as additional training is given and another practical demonstration is administered and successfully completed.

Assistance of any type, other than clarifying the intent of a question, is not permitted during the examination. Discussion of questions after the examination is also not permitted. No reference to the agency's handbook (FAA Order 7900.5) is permitted. However, a blank observation form along with scratch paper is permissible. Instruct the applicant to circle the selected answers on the provided answer sheet. A set of proctor instructions is also included with each examination.

Once the examinations are complete, all examination material including scratch paper and scratch MF1M-10 forms will be returned to this office for grading. A certificate will be issued if the score is 80 percent or higher and the Examination Answer Sheet is properly completed. The examination date must be included on the answer sheet or a certificate will not be issued. If the examination cannot be administered within 10 days of receipt, you must return all the material or call this office to request an extension.

An enclosed "NWS Examination Custodian Statement" form is provided and must be signed and dated by you, the FAA Facility Manager. If the proctor of the examination does not hold a current weather certificate and there is not a weather certified Government employee available for the applicant to demonstrate observing ability, the contract weather supervisor or another contract observer may verify the applicant's ability to take a weather observation provided that person holds a valid weather certificate. The contract weather supervisor/observer will need to complete the "Certificate Qualification Statement" located at the bottom of the NWS Answer Sheet. The individual also needs to include his/her certificate number in the space provided below the "Title" block. Failure to provide the required signatures on the completed answer sheet and any other required form will delay or may suspend the certification process.

Figure 1. Memorandum to FAA Facility Manager

7.1.1 Securing the Examination Material at an FAA Facility. All examination material must be maintained in a secure location until it is returned to the issuing NWS office, or RH. The inner envelope will remain sealed until immediately before the examination is administered. The completed answer sheet may be copied by the Facility Manager but must be maintained in a secure location and destroyed upon notification that the original answer sheet was received by the NWS. If testing is delayed beyond ten working days, all examination material must be returned in the original sealed inner envelope to the issuing NWS office. An extension beyond

the ten working day period may be granted upon request.

7.1.2 Examination Custodian Statement. All examination material mailed to an FAA facility must include an "Examination Custodian Statement" (Figure 2, <http://www.weather.gov/om/forms/resources/Examination%20Custodian%20Statement.pdf>). The completed statement must be signed and returned with the completed examination material. The completed "Examination Custodian Statement" should be retained by the NWS for at least one year. A copy of the "Examination Custodian Statement" is included with each paper examination.

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Examination Custodian Statement

The **EXAMINATION CUSTODIAN STATEMENT** is completed whenever weather certification examination material is mailed to a Federal Aviation Administration (FAA) facility.

EXAMINATION CUSTODIAN STATEMENT

I, _____, certify that the enclosed weather
(FAA Facility Manager's Name)
examination material was administratively restricted and controlled while in my possession. At no time was the examination material ever compromised.

(FAA Facility Manager's Signature)

(Date)

Failure to include the required signature on this statement will delay or may suspend issuing the applicant's "Certificate of Authority to take Weather Observations".

Figure 2. Examination Custodian Statement

8. Administering the Examination. All examinations are to be taken closed book and field supervisors will designate responsible persons as proctors. When observers have current certification in Upper Air, and technology changes, the Upper Air tests will be open book. The

time limit for all examinations is two hours, except one hour for the Tower Visibility Test, and the examinations will be completed at one sitting.

Each answer sheet must be completed, including the date. The proctor will sign the answer sheet whether the examination is passed or failed. Scrap paper and a blank copy of MF1M-10C may be used during the examination.

8.1 Certificate Qualification Statement. Unless an individual has demonstrated proficiency, the examination will not be administered. A "Certificate Qualification Statement" (Figure 3, <http://www.weather.gov/om/forms/resources/Certificate%20Qualification%20Statement.pdf>) from the employer is sufficient for this purpose. A certified observer will also sign the examinee answer sheet to indicate the demonstrated proficiency of the examinee is satisfactory. The observer also needs to include his/her weather certificate number in the space provided. Proficiency will also be demonstrated to the proctor if the proctor is certified. A copy of the "Certificate Qualification Statement" is included with each paper examination.

If the proctor is an FAA official who is also a current certified observer, that person will also evaluate the candidate's ability to accurately take the requested type of observation. If the FAA official proctoring the examination is not a certified observer and there is not a weather certified Government employee available for the candidate to demonstrate his/her observing abilities, then the Contract Weather Supervisor or his/her designate may verify the candidate's ability to take a weather observation provided that person holds a valid weather certificate. The Contract Weather Supervisor or his/her designate will need to complete a "Certificate Qualification Statement" (Figure 3).

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Certificate Qualification Statement

The **CERTIFICATE QUALIFICATION STATEMENT** is completed when an applicant has satisfactorily demonstrated ability (to a certified observer) to properly take weather observations. The Certificate should be used by those individuals who will be taking the written examination at a location other than their own facility. The Certificate should be given to the proctor of the written certification examination. A certified observer's name and Weather Certificate Number is required if the supervisor is not the certified observer to whom the trainee demonstrated observer proficiency. The Certificate should be attached to the answer sheet by the proctor of the examination.

CERTIFICATE QUALIFICATION STATEMENT

_____ is under my supervision and is assigned to
(Print test applicant's name)
 take aviation weather observations at _____.
(Print test applicant's duty station)

His/her eyesight meets the vision standards specified in NWS Instruction 10-1304, Certification of Observers, section 5.1.

He/she has demonstrated the ability to take and record accurate and timely weather observations. I consider him/her fully qualified to perform these duties.

(Supervisor's Signature and Date)

(Weather Certificate Number)

(Certified Observer's Name)

(Weather Certificate Number)

Failure to include the required name/signature and certificate number on this form will delay or may suspend issuing the applicant's "Certificate of Authority to take Weather Observations".

Figure 3. Certification Qualification Statement

8.2 **Proctor Instructions.** Administer the examination under close supervision to ensure proper security. Do not allow copying or discussion of examination questions. A question may be discussed to clarify its intent. However, it is not appropriate to discuss questions in such a manner to divulge answers. No person has the authority to say to the candidate that a particular question is inappropriate or that a question does not have to be answered. All examinations will be equally administered and persons retaking an examination must be given a different examination.

- a. NWS Facility. An examination may be administered at the RH by any member of the staff, including administrative or technical support staff. Examinations at all other NWS facilities may be proctored by any member of the WFO staff designated by the MIC including administrative or technical support staff. In most cases, the proctor will be the DAPM, OPL, or a Hydrometeorological Technician (HMT).

- b. FAA Facilities. Examinations given at FAA facilities and/or by FAA personnel must be proctored by the FAA Facility Manager requesting the examination or by his/her designee. Individuals who are not Federal employees are not authorized to proctor examinations except for FAA contract or FAA contract tower facilities using the computer-based instruction (CBI). Examinations proctored by unauthorized personnel will be invalid, and no certificate will be issued. The individual proctoring an NWS certification examination need not be a certified observer. Proctor instructions are included with all aviation examinations (Figure 4, <http://www.weather.gov/om/forms/resources/Proctor%20Instructions.pdf>).

PROCTOR INSTRUCTIONS

- Unless an individual has demonstrated proficiency and meets the vision standards, the examination will not be administered.
 - A “Certificate Qualification Statement” from the employer is sufficient for this purpose.
 - A certified observer may also sign the examinee answer sheet to indicate that the demonstrated proficiency of the examinee is satisfactory.
 - Demonstrated proficiency may also be made to the proctor if the proctor is certified. In this case, the proctor’s certificate number is required.
- Collect any “Certificate Qualification Statements.”
- All examinations are to be taken closed book.
- Blank observation form and scratch paper are permissible. Form and scratch paper will be turned over to the proctor at completion of the examination.
- There is a 2 hour time limit for surface and upper air exams and a 1 hour time limit for Tower Visibility exams.
- Examinations will be completed in one sitting.
- Use multiple examinations when more than one person is being tested.
- Each person taking an examination must show a picture identification unless the proctor knows the individual, i.e., make sure the person taking the examination “is who they say they are.”
- Ask each examinee if they have ever taken this examination or another NWS aviation test before.
 - If an examination has been taken during the past two weeks, do NOT administer the examination.
- Instruct the examinee to place a circle around the selected answer.
- Ensure each answer sheet is properly completed.
 - The name of the examinee will be printed as it will appear on the observing certificate.
 - The Test Series is either 2000(1), 2000(2), 2000(3), etc.
 - Station name is to be complete.
 - Four-letter station identifier is not sufficient; include the type (SAWRS, LAWRS, etc.), name, city, and state.
 - If multiple locations, make sure this information is included.
 - Ensure the “date” of the examination is complete. This is necessary as a record to determine when another examination can be administered.
- Persons taking the examinations will not be allowed assistance during the examination except to possibly clarify a question’s intent.
 - The clarification must be accurate and not mislead the examinee.
 - The discussion will be in such a manner not to divulge the answer.
 - Discussion of the questions after the examination is not permitted.
 - Remember, keep in mind the purpose of the examination is certification rather than training.
- The proctor will sign the answer sheet whether the examinee passed or failed.

Figure 4. Proctor Instructions for Aviation Examinations

9. FAA Returning Examination Material to the NWS. The manager or training officer at FAA facilities using NWS examination material must return all material immediately after its administration to the NWS office that issued the examination. Material to be returned includes the scratch paper, the MF1M-10C form used during the examination, and the original answer sheet.

Question and answer sheets, when mailed, are to be sent in two envelopes. The inner envelope is to be marked "FOR OFFICIAL USE ONLY." The appropriate NWS region, WFO or the MIC of the NWS Office at the FAA Academy, in case of tower visibility examinations, will grade the exams.

10. Examination Grading and Results. Depending on regional requirements, an examination may be graded either at the RH or the WFO. If the grading is done at the WFO, the DAPM/OPL/HMT should be delegated this responsibility.

- a. No office employee has the authority to change answers on any examination for any reason. Questions and/or answers not consistent with Federal Meteorological Handbooks or agencies' handbooks will be brought to the attention of NWS Headquarters, OCWS, Observing Services Division (W/OS7) through or by the Regional office.
- b. Examinations will be graded in a restricted area away from the candidate. Mark all incorrect answers in RED, double checking to ensure accuracy.
- c. An 80 percent or higher score is a passing grade on all examinations. The candidate can be provided the results of the examination in terms of the number of missed questions and general area of needed improvement, but not the specific questions missed. Notify the candidate's supervisor or other designated official as soon as possible of the results (pass or fail only) of the written examination and status of the certification.
- d. Once the candidate has completed and passed all certification requirements, the candidate can begin taking observations. The candidate does not have to wait for the actual certificate to arrive at the station.

11. FAA Computer-Based Instruction (CBI). The CBI platform may be used by FAA employees, FAA Contract employees and (resources permitting) by other non-government employees, e.g., SAWRS cooperator employees. The use of the CBI platform by an individual is dependent on FAA policy. The candidate will complete the CBI program in accordance with FAA directives. Contract managers who have the CBI at their facility are to proctor the CBI examination and follow the same procedures as if the CBI examination was administered at an FAA facility. Once completed, the Facility Manager will contact the RH or the supervising NWS office depending on regional requirements requesting an observing certificate. The request must have the following information:

- a. Facility name and the four-letter identifier.

- b. Observer's name as it should appear on the certificate. **(DO NOT SEND SOCIAL SECURITY NUMBERS.)**
- c. The score from the examination that is included in the CBI printout.
- d. The computerized record of the testing of each individual (Figure 5). The testing information may be sent as a PDF file or mailed as a hard copy printout. No certificate will be issued without the testing record.
- e. A "Certificate Qualification Statement" (Figure 3) should be completed and signed by the facility manager. If the facility manager is a certified observer, he/she must include his/her weather certificate number in the space provided. If the facility manager is not a certified observer, the statement must include the signature and weather certificate number of a current certified observer. (Note: A copy of the "Certificate Qualification Statement" is provided with each manual examination. Although it was designed to be used for manual examinations, it may be used and revised locally to be used for CBI testing. No certificate will be issued without the required documentation, signature/s, and weather certificate number.) If the "Certificate Qualification Statement" (Figure 3) is not available at an FAA facility using the CBI, a written statement from the facility manager containing the same "Certificate Qualification Statement" information is acceptable.

Progress Report For Course L-57511001 NWS LAWRS Certification Exam

Student Name	Enroll Date	Start Date	Completion Date	Score	Status	Number of Accesses	Total Time [min]
guest, guest	12/17/2009	12/17/2009	12/17/2009	92	2	3	102

Status: 0 = Not started. 1 = Started but not completed. 2 = Completed. 3 = Completed and extracted.

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Figure 5. CBI Record of Testing

12. Re-examination. Individuals who fail an examination must wait two weeks from the day they took the previous examination before another examination can be administered. After the second failure, it may be necessary to extend the time until administering the next examination beyond the minimum two-week period to allow for additional training and study time. Discretion in determining the waiting period after a second failure will be left up to the office administering the examination, but must not be less than two weeks. If an observer holding a valid certificate is re-examined and fails, the validity of the observer's certificate will be suspended until the observer has made a passing grade on a subsequent certificate examination. To request a re-examination, follow the procedures in Section 6.

13. Disposition of Aviation Examination Answer Sheets. All original answer sheets will be retained by the RH for five years, in accordance with the National Oceanic and Atmospheric Administration (NOAA) Records Disposition Handbook, chapter 100-12. Tower Visibility examinations are administered using internet-based testing and the PDF question and answer file will be retained by the MIC NWS, W/SR64 at the FAA Academy for five years, in accordance with the National Oceanic and Atmospheric Administration (NOAA) Records Disposition Handbook, Chapter 100-12.

14. Certification. NWS Regional Directors or a designated representative, or the MIC of the NWS Office at the FAA Academy, will certify all observers who meet the qualifications.

14.1 WS Form 10-13-1 or WS Form 10-13-2. WS Form 10-13-1, "Certificate of Authority to Take Weather Observations," (Figure 6) or WS Form 10-13-2, "Certificate of Authority to Take Tower Visibility Observations," (Figure 7) for visibility observations will be issued to those persons authorized to take weather observations.

The certificates may be transmitted electronically, only as PDF files, to sites that have the capability to receive them.

- a. If a paper copy is being scanned, the following guidelines apply:
 - (1) The certificate should be signed with blue ink to easily identify the original from a photocopy.
 - (2) The signed certificate should be scanned and converted to a PDF file.
 - (3) The original signed certificate will be retained at the RH and the PDF file should be sent electronically to the supervisor.

If the certificate does not arrive at the observing facility within 45 days of the employee passing the examination, the supervisor should contact the appropriate WFO to determine the reason for the delay. The field supervisor will keep all certificates readily available for inspection. Certificates may be maintained electronically if they are easily accessible for inspections or other activities that require verification of observers' certification.

14.2 Certification Endorsements. The endorsement for each specific location and type(s) of observations the observer is qualified to take (e.g., Aviation, Upper Air, and Synoptic) will be annotated on the WS Form 10-13-1 (Figure 6). Initial issuance of the WS Form 10-13-1 will be

endorsed by the RH. Additional endorsements required to document the individual's certificate during an inspection may be accomplished by the supervising WFO at the discretion of the Regional office and provided the RH is notified of the changes.

14.3 Station Assignment Certification. To meet the flexibility requirements of weather cooperators and/or contractors may have relief or mobile (i.e., Rover) observers who are certified as observers at more than one location. In cases where an observer works for more than one cooperator or contractor, a primary certificate will be issued to the location where the observer worked first (considered the primary location). The second location will be considered a "Rover" location.

- a. Each location where the "Rover" observers are certified to take observations should be provided with a duplicate certificate. The duplicate certificates will be clearly marked as "Rover Duplicate" below the certification number on the WS Form 10-13-1 and should list all locations where the Rover observer is certified to take observations. The "Rover" observer may be provided with a copy of the duplicate certificate. The currency requirements for these observers remain unchanged.
- b. In general, the observer's certificate is only valid within the region that issued the certificate. However, each region will honor and accept observing certificates for Rovers issued outside the region provided the certificate is current and proper notification is given.
- c. The companies or contractors that employ "Rover" observers must submit through the supervising WFO a notification letter to the RH by the first of January and of July each year identifying those observers. Proper written notification from a company or contractor will prevent unintended decertification of their "Rover" observers.
 - (1) The letter will include individual names, certificate numbers, and locations where the observers will be working.
 - (2) Interim additions and/or deletions to the company's "Rover" list will require follow-up notification, as necessary, to keep the RH up to date on the status of these observers.

14.4 Validation. These are administrative actions designed for use by the issuing authorities to ensure only qualified individuals are assigned official observing duties. Types of validation actions are:

- a. Validation upon transfer provides the field supervisor the means to evaluate the job proficiency of newly assigned observers and provides the issuing authority the means to account for certificates. Validation must be completed within 45 consecutive days from an employee's arrival date at the new duty station, otherwise the certificate lapses.

- b. Special validation ensures that observers maintain recency of experience. Whenever issuing authorities determine that a special review of new weather reporting procedures or refresher training is needed, they may institute a special validation action for personnel in their area. This validation will be documented as directed by the issuing authority.
- c. Validation for multiple locations certifies relief observers, mobile observers, and special project observers for a group of stations. The certificate may be validated for several types of observations provided the observer is so qualified.
- d. Annual validation applies to FAA personnel certified to take tower visibility observations. FAA field supervisors will provide at least annual refresher training in visibility procedures to all certified observers. Records of annual validations will be documented in the individual's training record.

14.5 Starting Observations. The individual will be allowed 60 days after passing the examination to begin taking observations. After 60 days, no certificate will be issued without re-examination.

If the observation location is outside the NWS region, the region will record the date the individual took and passed the examination. Any contractor or individual requesting a certificate based on the fact they took and passed an examination outside the region will be told a certificate will be issued within 60 days from the examination date. Requests outside the 60-day period will not be honored.

U.S. DEPARTMENT OF COMMERCE
 National Oceanic and Atmospheric Administration
 National Weather Service - Region

Certificate No. _____ Date _____



Certificate of Authority to take Weather Observations

This is to certify that

is qualified and authorized to take weather observations subject to the conditions stated in the National Weather Service Policy Directives.

(name)
 Director, Region
 National Weather Service


 John L. Hayes
 NOAA Assistant Administrator for Weather Services, and
 Director, National Weather Service

IMPORTANT:

1. A certificate shall remain valid provided:
 - a. The observer maintains proficiency.
 - b. The observer takes, encodes, and records on the official station log the type of observation for which the certificate is valid and with the frequency stated in NWSI 10-1304.
 - c. The observer possesses the visual acuity required by NWSI 10-1304.
 - d. The field supervisor requests revalidation or recertification within 45 days of change of station.
2. Failure to comply with the above automatically causes the certificate to lapse. An individual cannot take an official weather observation with a lapsed certificate.
3. A certificate is cancelled if lapsed for 60 consecutive days for surface observations, or 120 consecutive days for upper air observations.

CERTIFICATES MUST BE READILY ACCESSIBLE FOR INSPECTION AT ALL TIMES

DATE	LOCATION	TYPE OF OBSERVATION	INITIALS

WS Form 10-13-1 (03/10) (Previous edition in stock at NLSC may be used.)

Figure 6. WS FORM 10-13-1 – Certificate Authority to take Weather Observations

UNITED STATES OF AMERICA -- DEPARTMENT OF COMMERCE



CERTIFICATE OF AUTHORITY TO TAKE
TOWER VISIBILITY OBSERVATIONS

Name: _____ Grade: _____
ATCT Facility: _____ Completion Date: _____
Certificate Number: _____

This document certifies that

_____ is qualified and authorized to take tower visibility observations subject to the conditions stated in the National Weather Service Directives.

Date of Issuance: _____ MIC NWS FAA Academy

CERTIFICATE OF AUTHORITY

IMPORTANT:

1. A certificate shall remain valid at the above location provided:
 - a. The observer maintains proficiency as outlined in NWSI 10-1304.
 - b. The field supervisor requests revalidation or recertification within 45 days of change of station.
2. Failure to comply with the above automatically causes the certificate to lapse. An individual cannot take an official tower visibility observation with a lapsed certificate.
3. A certificate is cancelled if lapsed for 90 consecutive days.
4. Local training shall be conducted in accordance with NOAA/FAA Agreement.

Facility Manager

Date

By signing this form, the facility manager certifies that the above named person has demonstrated knowledge and techniques that are sufficient to warrant being certified to take tower visibility observations as prescribed by National Weather Service Instruction 10-1304.

WS Form 10-13-2 supersedes version 12/06 (version 01/10)

Figure 7. Certificate of Authority to Take Tower Visibility Observations, WS Form 10-13-2
15. Maintaining Proficiency. Certified observers must maintain proficiency and demonstrate

recency of experience in their assigned duties as listed below.

- a. Aviation (NWS and FAA) and LAWRS. An observer will take at least one complete weather observation every 60 days. Observers signed-on to an automated observing system satisfy this requirement. LAWRS observers unable to sign-on to an automated observing system must take and record at least one practice observation each month on NWS Form MF1M-10C. Practice observations are not mailed to the National Climatic Data Center (NCDC).
- b. Non-Federal Observations (NF-Obs). Observers performing air traffic controller responsibilities will take at least one complete weather observation every 60 days. Observers signed-on to an automated observing system satisfy this requirement. NF-Obs observers not performing air traffic controller responsibilities will follow the same requirements for SAWRS.
- c. Supplementary Aviation Weather Observations (SAWRS, BSAWRS, SAWRS-II). Each certified observer must take and record at least five complete weather observations (official or practice) each month on NWS Form MF1M-10C. Practice observations will be on a separate MF1M-10C from official observations. Practice observations are not mailed to the NCDC.
- d. Upper Air Observations. An observer will take at least one complete upper air observation every 120 days.
- e. Tower Visibility Observations. All FAA personnel certified for visibility observations must receive at least annual refresher training in visibility reporting procedures.

15.1 Recency of Experience. Certified observers must demonstrate recency of experience in their assigned observing duties. If this standard is not met, the observer's certificate will lapse. An observer with a lapsed certificate cannot take official weather observations. Further, a certificate lapsed for 90 days is automatically canceled and will be returned to the issuing authority.

- a. Recency of Experience Exceptions. Whenever the following individuals' duties require the taking or daily use of weather observations or the immediate supervision or training of personnel to take official weather observations, they are exempt from the recency of experience requirements as long as they continue in any of the duties for which they are certified:
 - (1) NWS personnel who are directly involved in the training of observers, the creating of observing handbooks and training material, administering and managing upper air and surface programs including ASOS; AWSS; and AWOS, and development of the certification examinations.
 - (2) FAA Academy instructors in surface observing.

- (3) FAA field supervisors and training personnel.

15.2 Proficiency Quality Control. Any person holding an observing certificate issued by the NWS to take official weather observations may be asked at any time to demonstrate proficiency in taking the type of observations for which certified.

- a. Any NWS or FAA inspector or facility manager/supervisor is authorized to make such a request.
- b. An NWS inspector may perform proficiency checks of any observer at any location.
- c. Contract supervisors may perform proficiency checks at their respective facilities only.
- d. Authority to temporarily suspend an observer's certificate due to poor performance and/or threat to aviation safety may be granted to non-NWS inspectors provided they first discuss the situation with the supervising WFO. If the supervising WFO concurs with the recommendation, then the non-NWS inspector may temporarily suspend the observer's certificate, placing the certificate in a lapsed state. An observer with a lapsed certificate may not take official weather observations.

15.3 Lapsed Certificate. A lapsed certificate is a temporary suspension of the certificate's validity caused by failure to revalidate the certificate upon transfer, failure to maintain recency of experience, or poor observer performance. A lapsed certificate may be reinstated by the local supervising WFO whenever the conditions causing the temporary suspension have been corrected. The determination that the observer has corrected the deficiencies causing the certificate to lapse may be based on a personal evaluation of the observer's abilities to take an observation by a certified NWS employee or a signed written recommendation from the observer's immediate supervisor stating actions taken to clear the deficiencies (i.e., number of additional training hours, number of observations taken with a certified trainer including the trainer's certificate number, etc.) The immediate supervisor may document the reinstatement on the back of the certificate or in the FAA training record for tower visibility. An observer with a lapsed certificate may not take official weather observations.

15.4 Canceled Certificates. Canceling certificates revokes their validity. Certificates are canceled when:

- a. Observers transfer from the jurisdiction of the issuing authority.
- b. Observers terminate employment and are not re-employed as observers within 90 consecutive days.

- c. A certificate has lapsed for 90 consecutive days.
- d. An observer fails to maintain the certification qualifications stated in this instruction.

16. Changes in Employment of Observer. The supervisor at the local observing site is responsible for notifying the supervising WFO or RH, or the MIC of the NWS office at the FAA Academy when there is a change in location of certified weather personnel with 45 calendar days.

16.1 Transfers. Upon transfer to a new duty station, an observer's certificate lapses after 45 days from arrival unless the certificate is validated by the issuing authority to include the new station. To avoid any delays in validation, transferee's certificates should either be hand carried or promptly mailed to the field supervisor of the new duty station. The field supervisor at the new duty station should ensure that the transferee meets the qualifications in Section 5.3 before requesting validation from the issuing authority serving his/her station. A memorandum or e-mail may be used for this purpose. The field supervisor should retain a duplicate copy on station to serve as temporary certification authority until the action is completed. If the transfer involves different issuing authorities, i.e., transfer between NWS regions, then a new certificate will be issued and the old certificate will be returned to the originator for cancellation. If the local supervisor or contractor does not notify the NWS within 45 calendar days from an employee's arrival or departure date, the certificate becomes lapsed. An observer with a lapsed certificate cannot take official weather observations until the certificate is reinstated. Failure to notify the NWS within 90 calendar days from an employee's arrival or departure will result in the cancellation of the observer's certificate. Canceled certificates will be returned to RH, or the MIC of the NWS office at the FAA Academy.

16.2 FAA Transfers of Certified Observers to Tower Visibility Stations. If the transferee holds a tower, LAWRS, or aviation weather observer's certificate, it must be reissued or validated to include the new station within 45 days of arrival.

- a. Validation of observer certificates to take Tower Visibility observations is the responsibility of the transferee's new supervisor. The new supervisor will ensure that the transferee meets the qualifications in Section 5.3 before certifying the transferee is proficient to take tower visibility observations at the new station.
- b. As transfers occur, certificates will be reissued on WS Form 10-13-2 (Tower Visibility Observations).
- c. If the transferee's certificate is on a WS Form B-19, WS Form B-61-1, WS Form B-61-2, WS Form 10-13-1, WS Form 10-13-2, or AC 3000-36, then the new supervisor will forward the certificate to the MIC of the NWS Office at the FAA Academy. The NWS office at the FAA Academy will issue a Tower Visibility Observation Certificate for the new station on WS Form 10-13-2, return the WS Form 10-13-1, WS Form B-61-1, or WS Form B-19 to the NWS issuing office for cancellation, and update the Tower Visibility Observation Certification database.

16.3 Validating WS Form 10-13-2. After the transferee has demonstrated Tower Visibility Observation proficiency at the new station, the supervisor will certify this fact by:

- a. signing and dating the lower half of WS Form 10-13-2 which validates the Tower Visibility Observing certificate,
- b. entering this proficiency certification information in the appropriate section of the transferee's training file,
- c. filing the validated Tower Visibility Observing Certificate in the employee's training file, and
- d. annually validating the Tower Visibility Observation Certificate in accordance with Section 15. e.

16.4 FAA Transfers of Non-Certified Observers to Tower Visibility Stations. There are two groups of non-certified employees: (1) trainees from the FAA Academy who passed the tower visibility certification examination in residence, and (2) employees who need to pass the certification examination as part of the qualifications.

- a. For trainees who passed the Tower Visibility Certification examination administered by the NWS at the FAA Academy, WS Form 10-13-2 will be sent to the field facility from the NWS Office at the FAA Academy. The WS Form 10-13-2 will be validated in accordance with the procedures described in section 16.3.
- b. For trainees who need to pass the Tower Visibility Certification examination, the trainee's supervisor will request a certification examination from the MIC of the NWS Office at the FAA Academy. When the individual attains a passing score, WS Form 10-13-2 will be sent to the field facility from the NWS Office at the FAA Academy. The WS Form 10-13-2 will be validated in accordance with the procedures described in section 16.3.

Note: If the trainee did not pass the examination administered by the NWS Office at the FAA Academy as part of a resident course, the procedures are the same as any other non-certified employee who needs to pass the Tower Visibility Certification examination.

16.5 Retirements, Resignations, and Dismissals. When a certified weather observer terminates his/her employment as an observer, the field supervisor will annotate the observer certificate with the reason employment was terminated and the effective date of termination. The annotated certificate will be returned to the issuing authority for cancellation. Canceled certificates due to termination of employment may be reinstated provided the time period between employments is less than 90 days, and the observer has demonstrated observation proficiency at the new location. If the observer meets these two requirements, the supervisor will validate the information in a letter to the supervising NWS Office and request a certificate.

16.6 Record of Canceled Certificates. Unless litigation is pending for which an observer's certificate may be required, the issuing authority will retain a record of canceled certificates for two years before destroying the record. In the event of litigation, the certificate or record will be retained for an additional two years after the completion of the litigation before it is destroyed.

17. Certificate Accountability. NWS Regions and the NWS office at the FAA Academy will establish a system to account for each certificate issued.

17.1 Contents. Minimally, the accountability system will include:

- a. Name of holder,
- b. Type(s) of observation(s) for which certified,
- c. Location(s) for which certified,
- d. Assigned certificate number and,
- e. Date of issue.

17.2 Certificate Numbers. Whenever possible, number the certificates consecutively using the block of numbers listed below. The NWS office at the FAA Academy may establish its own numbering system for Visibility-Only certificates if so desired. Once a number has been used, do not repeat it on any subsequent certificates. If additional numbers are needed, prefix a "1" before the block assignment. Example: Eastern Region 110,000, 110,001....

Eastern Region	Numbers 10,000 through 19,999
Southern Region	Numbers 20,000 through 29,999
Central Region	Numbers 30,000 through 39,999
Western Region	Numbers 40,000 through 49,999
Alaska Region	Numbers 50,000 through 59,999
Pacific Region	Numbers 60,000 through 69,999

18. FAA Approval. These procedures have been reviewed and approved by the FAA.

APPENDIX A - Options for Determining Visual Acuity

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1. Purpose. The Federal Meteorological Handbook No. 1 (FCM-H1-2005) requires that an observer candidate should have distant vision of 20/30 (Snellen) in at least one eye, corrected if necessary.

2. Options. The following methods may be used to determine if an observer candidate meets the standard:

a. The observer candidate may provide a copy of a report for an eye examination conducted within the previous 12 months by an optometrist or ophthalmologist that indicates the observer candidate’s visual acuity meets the standard.

b. The certifying official may use a Snellen Eye Chart to evaluate the observer candidate’s vision.

(1) The correct procedures provided with the eye chart must be followed. In general, the procedures include:

- (a) The chart must be adequately illuminated and 20 feet from the person being tested.
- (b) Each eye must be examined separately while the other is covered with an opaque shield.
- (c) The numerator is always 20; e.g., 20/20, 20/30, 20/40.
- (d) The row of smallest letters read by the person determines the denominator of the fraction used to grade visual acuity.
- (e) If no more than two letters are missed in a line, the visual acuity will be graded as of that line.

(2) Snellen Eye Charts may be purchased or printed from online Internet sources.

(a) If printing the chart from an online site, care must be taken to ensure the printed version is the correct size. The chart should include information for the size of one of the letters, and this index letter should be measured after printing.

(b) One online source is:
http://en.wikipedia.org/wiki/File:Snellen_chart.svg When printed on standard letter size paper, the “E” on line one will be 88.7 mm tall. Eyesight is measured based on the smallest line that can be

read when the chart is viewed at a distance of 20 ft. *See*, 2.1.e, above.