

215 SPECIALTY TRACK STUDY GUIDE Aerospace Education Officer (AEO)

INTRODUCTION

Upon completion of Level I training, Civil Air Patrol (CAP) senior members may select from numerous specialty tracks designed to prepare them to take on leadership responsibilities in CAP. Aerospace Education (AE) is one approved leadership specialty track. CAP has been a leader in aerospace education since its inception in 1946. CAP is, by US Congress direction, responsible to provide aviation education and training especially to its senior and cadet members; to encourage and foster civil aviation in local communities...." Those who bear the specific responsibility for executing this portion of CAPS mission, from the squadron level up to and including the national level, are the aerospace education officers (AEOs). The 215 specialty track for aerospace education has been developed to prepare members to be effective aerospace education officers. No aerospace education background or experience is required. Only the desire to promote and perform the aerospace education mission of CAP is required.

Aerospace education in CAP is divided into two programs: internal and external. The internal program provides aerospace education to the CAP membership, especially senior and cadet members. The external program provides the general public with the aerospace education necessary to ensure the continuing development of aerospace and aerospace supremacy.

The CAP recognizes the intertwining relationship between the internal and external aerospace education programs. Hence, at region, wing, and group levels, a three-person staff team of aerospace education officers directs and conducts the internal and external aerospace education programs. At the cadet or senior squadron level, a single aerospace education officer conducts the aerospace education program. In composite squadrons, there are two aerospace education officers one conducts the cadet aerospace education program and one conducts the senior member aerospace education program. Squadron AEOs carry the responsibility of conducting aerospace education both internally and externally in the community, which hosts the squadron, The 215 specialty track is constructed to allow a senior member to be a key and effective contributor in the internal and external aerospace education programs at the local level! or to progress into AEO positions with broader responsibility at the group, wing, and region levels.

PROGRAM CONTEXT

The progression for a 215 specialty track aerospace education officer is: (1) study the CAP aerospace education program and materials, (2) do the activities and programs, and (3) grow from a novice to an accomplished master.

Supersedes CAPP 215T, 1 March 1989; CAPP 215S, 1 March 1991; and CAPP 215M, 1 March 1989.

OPR: ET

Distribution: In accordance with CAPR 5-4; additional copies are Purchase item only.

For the novice, the 215 Technician (215T) candidate, the best place to learn and practice CAP's aerospace education program is in the squadron and in the local community, among friends, and with access to known resources. The squadron is the normal beginning for the 215T candidate. In special circumstances, the 215T candidate may work and learn at the group, wing, or region level. When the 215T requirements have been successfully completed and commander certified, award of the 215 technician rating occurs. The unit presents an Aerospace Education Specialist Technician certificate (CAPC 215). Wear of the *Aerospace Education Badge* is authorized. (See CAPP 15, *Aerospace Education Officers Handbook*, for record keeping and award procedure.)

At the middle level, the 215 Senior (215S) candidate performs repetitions of activities, accepts an official CAP aerospace education staff position, and actively advocates doing more aerospace with more groups in the local community. Repetition and practice improves the 215S candidate's aerospace education skills. It tests leadership skills, commitment, and reveals the magnitude and difficulty of building an effective local aerospace education program. The 215S candidate normally can and should work anywhere from the squadron to the wing level. The 215S candidate may also work and learn at the region level. When the 215S requirements have been successfully completed and commander certified, award of the 215 Senior rating occurs. The unit presents an *Aerospace Education Specialist Senior* certificate (CAPC 215). Wear of the Aerospace Education Badge with Bronze Star is authorized. (See CAPP 15 for record keeping and award procedure.)

At the highest level, the 215 Master (215M) candidate's extensive study and practical experience allows creation or expansion of aerospace education programs and activities, recommendations on aerospace education policy to the unit commander, and fusion of many communities or organizations to do aerospace education. The future of aerospace education in CAP rests with the work of the masters. The 215M candidate may work anywhere from the squadron to the region level. When the 215M requirements have been successfully completed and commander certified, award of the 215 Master rating occurs. The unit presents an *Aerospace Education Specialist Master* certificate (CAPC 215). Wear of the Aerospace Education Badge with Gold Star is authorized. With presentation of the commander's certification to HQ CAP/ETA, the A. Scott Crossfield Award (CAPC 15) will be issued, (See CAPP 15 for record keeping and award procedure.)

PROGRAM OBJECTIVE

The objective of the 215 specialty track is to produce trained, highly motivated AEOs who can and will conduct and promote effective aerospace education in both the internal and external programs.

The 215 specialty track phases are constructed so every phase contains similar key ingredients; however, the knowledge, quality of performance, and sphere of responsibility expands. In each phase, the 215-specialty track candidate learns information and participates in activities/duties/programs in CAP's aerospace education program .

Phase I – The Technician rating (215T) deals primarily with implementing aerospace education activities and duties involving cadets, seniors, Aerospace education members (AEMs), community, and schools in the local environment. It prepares an AEO for duty at the squadron level. This Technician rating may fulfill one requirement for completing CAP Level II, Senior Member Training Program.

Phase II – The Senior rating (215S) deals primarily with implementing aerospace education activities/duties and accepting a leadership role by holding an AE staff position, developing materials/activities , and promoting aerospace education programs for the local community. It prepares AEOs for positions from the squadron to the wing level. This Senior rating may fulfill one requirement for completing CAP Level III, Senior Member Training Program.

Phase III -- The Master rating (215M) deals primarily with implementing aerospace education activities and duties, and accepting a leadership role and providing aerospace education policy

recommendations to the commander and developing programs which enhance CAP aerospace education in many communities. It prepares AEOs for positions from the squadron to the region level. This Master rating may fulfill one requirement for completing CAP Level IV, Senior Member Training Program.

PHASES AND POSITIONS RELATIONSHIPS

Understanding the relationship of the 215 T, S, & M phases to the AEO positions held by an individual is key for an effective program. A senior member can complete all three 215 specialty track phases and remain at the squadron level. However, the higher up the command hierarchy an AEO serves, the greater the desirability for the member to have a higher 215 specialty track rating. Groups and wings require planning and integration over larger areas and with more people. This implies greater aerospace education knowledge and experience. Therefore, it is desirable to fill these positions with 215 Senior or Master ratings. At the region level, policy decisions and program integration require great coordination and can have far reaching consequences; so, 215 Master ratings are most desirable for these AEO positions. Getting the right people in the right positions can make, or break, CAPS aerospace education program in a squadron, group, wing, or region. A mismatch of 215 specialty rating and position should be the exception rather than the rule.

SPECIALTY TRACK REQUIREMENTS

General requirements apply in all phases of the track. General requirements apply to varying degrees of depth depending on the phase being completed. Specific requirements apply only in the stated phase of the specialty track. Specific requirements include: (1) knowledge requirements and (2) performance requirements. Specific requirements must be completed by the 215 specialty track rating candidate and certified by the unit commander before a 215 specialty track rating is awarded.

GENERAL REQUIREMENTS

1. Complete the Aerospace Education Program for Senior Members (AEPsM). (May be accomplished any time before or while in the 215 specialty program.)
2. Understand and be able to explain the duties and tasks associated with CAP's squadron, group, wing, and region levels aerospace education positions and programs.
3. Be familiar with the aerospace education teaching materials and programs made available to educators and organizations by CAP.
4. Understand and be able to explain the Aerospace Education Membership Program.

SPECIFIC REQUIREMENTS ----- TECHNICIAN RATING

Knowledge Requirements. To achieve the Technician rating, the candidate must demonstrate basic knowledge of CAPS internal and external aerospace education programs. Knowledge verification will be done by written examination. At a minimum, a 215 Technician should know the following.

1. The definition of aerospace education.
2. Basic aerospace education subject matter that cadets and seniors study.
3. The operation of the internal aerospace education program at the unit level.
4. The relationship of aerospace education to both cadet and senior activities at the unit level.
5. The aerospace education reports required from the unit to higher echelons.
6. The forms, directives, and evaluation instruments associated with the internal aerospace education program at the unit level.
7. The certification, recording, and award procedures for the internal program at the unit level.

8. All CAP aerospace education awards (internal and external) and the submission process.
9. The Aerospace Education Membership Program.
10. The CAP aerospace educational material available to teachers and educators.

Performance Requirements. Performance requirements are measured in two categories: (1) activities to be performed and (2) position experience. Performance verification will be certified by the unit commander. The following items fall into these categories and are the minimums for the 215 Technician rating.

Activities: During the training period, the 215P candidate will do the following:

1. Prepare one or more aerospace bulletin boards and/or aerospace displays for the unit.
2. Conduct at least two unit aerospace current event discussions.
3. Conduct an aerospace lesson or activity for the unit using necessary visual aids or props to achieve desired objective.
4. Inform local educators of available CAP aerospace education materials, include discussion of the Aerospace Education Member (AEM) Program and National Congress on Aviation and Space Education.
5. Provide input to one of the following: unit goals and objectives, unit plan of action, or unit reports to wing director of aerospace education (DAE).

Position Experience: During the preceding year, each 215 Technician candidate must have served a minimum of 6 months in one of the areas listed below:

1. Unit aerospace education officer (AEO)
2. Assistant to unit AEO conducting one of the following:
 - a. Unit Assistant - AE Counselor to Cadets
 - b. Unit Assistant - AE Activity Program
 - c. Unit Assistant - AE Awards Program
 - d. Unit Assistant - AE Reports Program
 - e. Unit Assistant - AE Resource Materials Program
 - f. Unit Assistant - AE Community Outreach Program
 - g. Unit Assistant - AEPSM Program (if member has earned AEPSM)

SPECIFIC REQUIREMENTS-----SENIOR RATING

Knowledge Requirements. To achieve the Senior rating, the candidate must have earned the 215 Technician rating; demonstrated an advanced knowledge of CAP's internal and external aerospace education programs; and, be prepared to operate at a supervisor level while conducting aerospace education at the application level. Knowledge verification will be done by written examination. At a minimum, the 215 Senior candidate should know the following:

1. How to develop and implement aerospace education lessons and activities.
2. How to develop and write an aerospace Education Plan of Action for a unit.
3. How to promote and present an aerospace education program to students and teachers within the local community.
4. The role of aerospace education workshops and the guidelines for conducting them.
5. How to integrate aerospace education into CAP activities in and above the squadron level.

Performance Requirements, Performance requirements are measured in two categories: (1) activities to be performed and (2) position experience. Performance verification will be certified by the unit commander. The following items fall into these categories and are the minimum requirements for the 215 Senior rating.

Activities: During the training period, the 215S candidate will do the following:

1. Develop and implement an aerospace education activity that will support the learning objectives of cadets and/or senior members.
2. Write and submit a Unit Plan of Action.
3. Promote and present an aerospace education program to students and teachers within the local community.
4. Attend a wing or region aerospace education conference, aerospace education workshop, or National Congress on Aviation and Space Education.
5. Develop and maintain a collection of aerospace education resources to support cadets, senior members, and the community.

Position Experience: During the preceding 18 months, the 215 Senior candidate must have served a minimum of 6 months each in two unit AE positions or 6 months in a unit AE position, and participate in performing a major aerospace education task listed below.

Positions:

1. 215T "Position Experience" completion in last 18 months
2. Region DCS/AE or region internal AEO or region external AEO
3. Wing DAE or wing internal AEO or wing external AEO
4. Group AEO or group internal AEO or group external AEO
5. Cadet squadron AEC)
6. Senior squadron AEO
7. Composite squadron - AEO for cadets or AEO for senior members

Tasks:

1. Develop cadet or senior member aerospace education materials.
2. Present at or direct an aerospace education workshop or conference.
3. Register and participate in CAP approved college or university aerospace education workshop.
4. Make an aerospace education presentation in a school classroom.
5. Present at or direct the aerospace education portion of a cadet encampment.
6. Serve at unit, wing, or region level as aerospace education advisor for the Cadet Competition Team.
7. Prepare and submit a Brewer Award nomination package.
8. Recruit and train a senior member through successful completion of the 215T rating.

SPECIFIC REQUIREMENTS ----- MASTER RATING

Knowledge Requirements. To achieve the Master rating, the candidate must have earned the 215 Senior rating, demonstrated in-depth knowledge of CAPS internal and external aerospace education programs, and be prepared to recommend aerospace education policy to commanders, as well as be able to actually present aerospace education material to both internal and external audiences. At a minimum, a 215 Master candidate should know the following:

1. All aspects of CAP's Internal and External Aerospace Education Programs including CAP's educational materials, testing and evaluation forms, award requirements, record keeping, and performance certification procedures.
2. How to develop a comprehensive plan of action for units above the squadron level.
3. How to acquire and maintain a variety of aerospace education materials
4. Aerospace education staff positions, job descriptions/responsibilities, and staff relationships within CAP.

5. Procedures, responsibilities, and restrictions regarding DoD airlift support to CAP's aerospace education programs.
6. Aerospace Education Membership Program and its importance to the CAP mission.

Performance Requirements. Performance requirements are measured in two categories: (1) activities to be performed and (2) position experience. Performance verification will be certified by the unit commander. The following items fall into these categories and are the minimums for the 215 Master rating.

Activities: During the training period, the 215M candidate will do the following. (NOTE: It is desirable for the candidate to accomplish all 10 activities. BUT, as the opportunity for accomplishing each activity may be limited, the AEPSM plus a minimum of four of the remaining nine listed activities must be successfully completed.)

1. Successfully complete the AEPSM (may be accomplished any time before or while in the 215 specialty program).
2. Plan and conduct an Aerospace Day or Weekend (minimum 4 hours aerospace education programs/activities).
3. Plan and conduct an aerospace event in conjunction with an airport activity.
4. After consultation with the commander, RDAE, and the wing liaison officer/noncommissioned officer, plan, request, and implement airlift to an aerospace education activity.
5. Prepare and submit Civil Air Patrol Aerospace Education Activity Report.
6. Arrange for an AEM (classroom teacher) to do an aerospace education presentation/activity in a CAP unit and reciprocate by presenting an aerospace education activity/presentation in an AEM's classroom.
7. Arrange for non-classroom AEM to do a presentation/activity in a CAP unit and reciprocate by presenting an aerospace education activity/presentation to the AEMS organization.
8. Attend in some combination (same or mixed) a minimum of two events total from the following aerospace education areas: CAP wing or region aerospace education conferences. aerospace education workshops, or National Congresses on Aviation and Space Education.
9. Conduct an aerospace education presentation at a Wing or Region Conference or at a Wing or Region Aerospace Education Officer Conference.
10. Lead a unit through successful completion of the Aerospace Education Excellence Award Program.

Position Experience: During the preceding 18 months, the 215 Master candidate must have either served a minimum period in one of the listed AEO unit positions and participated in one major aerospace education task listed below or participated in two of the major aerospace education tasks listed below.

Positions:

Six months as:

1. Region DCS/AE or region internal AEO or region external AEO
2. Wing DAE or wing internal AEO or wing external AEO
3. Group AE or group internal AEO or group external AEO

Twelve months as:

1. Cadet squadron AEO
2. Senior squadron AEO
3. Composite squadron - AEO for cadets or AEO for senior members

Tasks:

1. Compile, review, submit recommended revisions to AEPSM examination to the region director of aerospace education.

2. Develop and conduct instruction program of aerospace education officer training.
3. Develop and implement an Aerospace Education Promotion Plan for local community.
4. Develop and implement an aerospace education mentor and instructor program for cadets in Phases III and IV.
5. Develop and implement an instruction program to prepare an AEO for the aerospace education portion of a higher headquarters conducted inspection.

EVALUATION REQUIREMENTS

The 215 Specialty Track Study Guide has written examination requirements for the 215 Technician and 215 Senior ratings. There is no written examination for the 215 Master rating. CAP Test 46, Examination for Aerospace Education Officer Phase I-Technician Rating, is the examination for the Aerospace Education Officer Phase I, Technician Rating. CAP Test 47, Examination for Aerospace Education Officer Phase II-- Senior Rating is the examination for the Phase III Senior Rating. The examinations for the Technician and Senior ratings consist of multiple choice, true or false, and matching questions. Tests are ordered from HQ CAP/MSA using 6AP Form 8, Requisition for Publications and Blank Forms. Tests are controlled, administered, scored, and results recorded in accordance with CAP Regulation 50-4, Test Administration and Security. All examinations are open reference, no time limit with a minimum score 80%, corrected to 100%. The examinations are designed to continue the education and training process of the candidate.

The Commander's Evaluation and Rating Certification Checklist provides written verification by the commander of activities performed, tasks performed, positions held, knowledge possessed, and program familiarity acquired by the 215 candidate. It is the responsibility of the 215 candidate to inform the commander of achievement of evaluation items and, if required by the commander, to provide proof of performance.

The Commander's Evaluation and Rating Certification Checklist when completed, signed, and dated by the commander will serve as the basis for award of the 215 Technician, Senior, or Master rating. Completed Commander's Evaluation and Rating Certification Checklist will be retained in CA\$ Form 45h, Senior Member Training Record. A copy of the completed, signed, and dated Commander's Evaluation and Rating Certification Checklist will be forwarded to wing director of aerospace education.

STUDY BIBLIOGRAPHY

Candidates in the 215 specialty track must be familiar with the references listed in this bibliography. Some publications listed here should be read completely; others should be studied to the point where the candidate has a clear idea of where to locate information on appropriate issues. The following publications should be read in their entirety: CAPR 280-2, CAPP 15, CAPP 215, and CAPR 50-4. Both CAPM 50-16 and CAPM 50-17 should be studied in detail in these sections relating to CAP membership participation in aerospace education programs, activities, awards, and achievements.

Regulations, Manuals, and Pamphlets:

CAPR 0-2, *Numerical Index of CAP Regulations, Manuals, Pamphlets, and Visual Aids*

CAPR 0-9, *Numerical Index of CAP Forms, Test Materials, and Certificates*

CAPR 5-4, *Publications and Blank Forms Management*

CAPR 39-3, *Award of CAP Medals, Ribbons, and Certificates*

CAPR 50-4, *Test Administration and Security*

CAPR 76-1, *Travel of Civil Air Patrol Members via Military Aircraft and Use of Military Facilities and Vehicles*

CAPM 280-2, *Civil Air Patrol Aerospace Education Mission*

CAPM 20-1, *Organization of Civil Air Patrol*

CAPM 39-2, *Civil Air Patrol Membership*

CAPM 50-1, *Introduction to Civil Air Patrol* (Purchase Item Only)

CAPM 50-16, *CAP Cadet Training Program*

CAPM 50-17, *CAP Senior Member Training Program*

CAPM 50-201 *CAP Model Rocketry Program*

CAPM 190-1, *Civil Air Patrol Public Affairs Program*

CAPP 6, *Civil Air Patrol Oral History Self-Study Guide* (Purchase Item Only)

CAPP 11, *An Introduction to the Literature of Flight* (Purchase Item Only)

CAPP 14, *Staff Duty Analysis Guides* (AE portion) (Purchase Item Only)

CAPP 15, *Aerospace Education Officer's Handbook*

CAPP 215, *215 Specialty Track Study Guide, Aerospace Education Officer(AEO)* (Purchase Item Only)

CAPB, *Constitution and Bylaws of the Civil Air Patrol* (Purchase Item Only)

Aerospace. The Flight of Discovery (textbook, instructor guides, and other support material) (Purchase Items Only)

Aerospace: The Challenge (textbook, instructor guides, and other support material) (Purchase Items Only)

CAP-USAF/IG, CAP Wing Assessment Guide and CAP Wing Liaison Office Assessment Guide

Booklets :

CAP - Bookstore Catalog

CAP Supply Depot Aerospace Education Classroom Materials Catalog

Aerospace Education Teaching Materials

Educator's Guide to DoD Aerospace Resources

Aerospace 2000 Activity Booklets, Volumes 1, 2, 3, and 4

CAP Certificates (refer to CAPR 0-9):

CAPC 15, A. Scott Crossfield Award
CAPC 17, Senior Member Certificate of Proficiency
CAPC 28, Charles E. Yeager Aerospace Education Achievement Award
CAPC 28, Carl A. Spaatz Award
CAPC 30, Amelia Earhart Award
CAPC 31, Billy Mitchell Award
CAPC-32, Ira C. Eaker Award

CAP Forms:

CAP Form 8, Requisition for Publications and Blank Forms
CAP Form 13, CAP Aerospace Education Membership Application
CAP Form 17, Application for Senior Member Activities
CAP Form 23, Civil Air Patrol General Purpose Answer Sheet
CAP Form 241 Application for Senior Program Awards
CAP Form 31, Application for CAP Encampment or Special Activity
CAP Form 45, Senior Member Master Record
CAP Form 45b, Senior Member Training Record
CAP Form 55a, Request for Examination
CAP Form 66, Cadet Master Record
CAP Form 95, Application for Civil Air Patrol Scholarships
CAP Forms 123 through 127 forms related to the AEQSM AE Examination Program

Test Materials:

CAPT 46, Examination for Aerospace Education Officer, Phase I - Technician Rating
CAPT 46a, Answer Key for Technician Rating Examination
CAPT 47, Examination for Aerospace Education Officer, Phase II - Senior Rating
CAPT 47a, Answer Key for Senior Rating Examination
CAPT 62, Aerospace Education Achievement Tests - Aerospace: The Flight of
Disco very
CAPT 62a, Answer Key for Aerospace Education Achievement Tests, CAPF 62
CAPT 64, Test for the General Billy Mitchell Award
CAPT 64a, Answer Key for the General Billy Mitchell Award Test
CAPT 65, Test for the Amelia Earhart Award
CAPT 65a, Answer Key for the Amelia Earhart Award Test

CAPT 67-1, General Carl A. Spaatz Award - AE Test 1
CAPT 67-1a, Answer Key General Carl A. Spaatz Award - AE Test 1
CAPT 67-2, General Carl A. Spaatz Award - AE Test 2
CAPT 67-2a, answer Key General Carl A. Spaatz Award - AE Test 2
CAPT 67-3, General Carl A. Spaatz Award - AE Test 3
CAPT 67-3a, Answer Key General Carl A. Spaatz Award - AE Test 3
AEPSM: AEE Examination Code 19891 (Test A) with Answer Key
AEPSM: AEE Examination Code 19892 (Test B) with Answer Key

Visual Aids:

CAPVA 49, Civil Air Patrol Cadet Program Achievement Specifications and Awards
CAPVA 176, Senior Member Progress Chart
CAPVA 177a, Cadet Progress Chart thru Mitchell

CAPVA 177b, Cadet Officer Progress Chart thru Spaatz

Miscellaneous Publications:

Current aviation and space periodicals and journals

Home-state laws or rules of the Department of Education relating to aerospace education teacher certification, and aerospace education course initiation and approval

States public and private school curricula as relates to aerospace education

CAP aerospace education teaching resource materials (single concept posters, activity books, learning kits)

Teacher notes for all CAP supplied teaching resource materials

COMMANDERS EVALUATION AND RATING CERTIFICATION CHECKLIST

Candidate for _____ Candidate's Name: _____

CAP Grade: _____ CAP Mbr No: _____ Unit Charter No: _____

Current Position Title: _____ (Refer to CAPM 20-1)

Evaluation Items	Date Start & End	Cmdr Initials
1. Familiar (at appropriate Level) with CAP squadron, group, wing, region Aerospace Education positions and programs		
2. Familiar (at appropriate level) with aerospace education teaching materials made available to educators and organizations by Civil Air Patrol.		
3. Familiar (at appropriate level) with Aerospace Education Membership Program.		
4. "Knowledge" requirements have been achieved through successful completion of written examination (215T and 215S rating phases only)		
5. "Activities" Performance requirements have been successfully accomplished.		
6. "Position" and "Task" (215s or 215M phases only) requirements have been successfully completed.		
7. *AEPSM Examination successfully completed (any time prior to award of 215S Master Rating)		

*CANDIDATE MUST COMPLETE EVALUATION ITEMS 1 THRU 6 BEFORE 215T OR S RATING CAN BE AWARDED. CANDIDATE MUST COMPLETE EVALUATION ITEMS 1 THRU 7 BEFORE 215M RATING CAN BE AWARDED.

Commander comments:

Commanders Signature _____

Date _____

(Use back of checklist for additional commander's comments)

(This checklist may be reproduced locally.)