

RMR Pamphlet 50-1

01 October 2020



Aerospace Education Strategic Plan

FY 21-24



ROCKY MOUNTAIN REGION

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PREFACE

“To provide an organization to- (A) encourage and aid citizens of the United States in contributing their efforts, services, and resources in developing aviation and in maintaining air supremacy.” Source: 36 USC §40302

“Answer America’s urgent needs through aerospace education and leadership development to grow our youth into tomorrow’s dynamic leaders.” Goal 2; CAP Strategic Plan 2020-2024

STEM education is at a critical time in history with the advancement of things like technologically advanced aircraft, the internet of things, and the continuous improvement of higher scale computing while being challenged by real-world conditions of the COVID-19 virus and budget constraints. Rocky Mountain Region is uniquely situated to help lead the effort to bridge the gap to open these opportunities to both our Cadets and Seniors while supporting educators in the community.

OVERVIEW

For Aerospace Education, this plan will provide the long-term planning and goals for the Region program and is realigned beginning in FY21 to the CAP Strategic Plan. The intent is to provide longer term guidance (through 2024) for implementing the mission set throughout the five wings, Colorado, Idaho, Montana, Utah, and Wyoming, while supporting the National CAP goals and balancing with state and local needs.

It is designed to help the Wing Commanders and Directors of Aerospace Education to design, plan, and implement the AE program in support of their Groups and Squadrons through annual Plans of Action and follow up through the eServices reporting process.

This will allow for better support to units throughout the Region through goalsetting and feedback. The command intent is to provide clarity and resources to the units and members throughout the Region while reducing strain on already limited resources for both Internal and External Aerospace Education in serving our communities, states, and nation.

COMMANDER'S EMPHASIS ITEMS

On taking command of RMR in February 2020, I set out a focus for the Region to better support the Wings in every mission and functional area. Aerospace and STEM education are increasingly essential as we face the uncertainties and challenges of the world around us outside of CAP. Especially in this mission set, as Maj Gen Smith states in the CAP Strategic Plan, we need to be the "Resource of Choice" to our states and communities. References given here are to that CAP Strategic Plan in what we need to do to make it happen.

For us to accomplish this in Aerospace Education, these are the items I want all Commanders within Rocky Mountain Region to focus on in their planning and training through to 2024:

1. Aerospace Education Officer development – while many units are compliant with AEO appointments, Commanders need to focus on ensuring that training requirements are being met. We cannot focus on "just being there for the Cadets" without ensuring that our members are qualified and getting the training they need to lead. (Obj. 2.4, 2.5)
2. Aerospace Education Member recruitment – AEMs are an invaluable resource and should be recruited and supported. This is strongly encouraged for both Senior and Composite/Cadet units to allow us the ability to better support them through TOP Flights, in-classroom presentations by pilots, and hands on activities. With COVID-19, teacher resources have become further restricted both in terms of in person ability and financially. We can directly impact that through member support and programs like AEX and STEM kits. (Obj. 2.1, 2.2, 4.1, 5.1)
3. Diversity – Aviation and STEM education have not been just the domain of one group as demonstrated by leaders like Gen Benjamin O. Davis, George Washington Carver, Bessie Coleman, and Jacqueline Cochran. In FY20, CAP began placing expanded focus on incorporating the knowledge and experiences of these leaders in their contributions to aviation, space, engineering, and other technologies to the AE curriculum for both Seniors and Cadets. This will expand beginning in FY21 for RMR. (Obj. 2.1, 4.2)
4. Senior member aerospace education – the first and easiest part to the Aerospace Education Program for Senior Members (AEPsM) is the Yeager Award test. It is online and open-book with no time limit. RMR's average is around 50% completion for seniors (2014-2017; 2019 data). Wings should encourage it to maintain at least a 75% average. (Obj. 2.2, 2.4, 2.6)



Jeffrey L. Johnson
Colonel, CAP
RMR Commander

RMR AEROSPACE EDUCATION COMBINED LINES OF EFFORT

1) Mentorship to Wing Directors of Aerospace Education and Commanders:

(a) Quarterly staff coordination calls conducted by the RMR DCS-AE with the Wing DAEs to provide better access to resources and personnel support from and around the Region.

(b) Mentoring improvements for Wing DAEs and Squadron AEOs by the RMR AE team will be done through contact via calls, during virtual Wing Conferences, and in person during conferences when travel restrictions are lifted.

2) Aerospace Education training is essential beyond the on-the-job elements of the specialty track to foster networking, updates to changes nationally, and collaborating on new ideas.

(a) Two virtual AEO schools annually at no cost to the individual members. FY20 had the first trial AEO school and will provide the baseline for improving the school.

(b) When restrictions from COVID are lifted, an additional weekend in-person conference will be considered as an alternative opportunity within RMR.

(c) At least one AEM online course will be hosted in FY21 to support our Aerospace Education Members and teachers in the communities with more to follow in FY22-24

(d) Similar to the AEM online course, RMR AE will host a similar STEM school at no or low direct cost to help facilitate Cadets earning the STEM badge.

3) Cadet Programs support is a responsibility that has been missed in previous years and will expand for cross leveling functional areas to

(a) The Aerospace Education team will, on request from the DCS-CP, provide personnel support to the Region Cadet Competition. Additionally, the RMR AE team will be available to the Drill, Color Guard, and Cyber Patriot teams that represent RMR at the National level for preparation and training prior to the competition.

(b) The RMR AE team will work with the National CAP Cyber team to support the new Cyber program that to inspire and motivate Cadets to explore possibilities and careers in the technology

4) NHQ/AE is requiring Region level AE teams to have a dedicated website as a resource in accordance with the Strategic Plan (pg. 20). This will be established in FY21 and expanded as an on-demand resource to RMR members, AEMs, and the general public.

5) Enhance the relationship established by Cadet Programs with the Air Cadet League of Canada through the HART program for mutual support for both organizations for STEM education.

INTERNAL AEROSPACE EDUCATION LINES OF EFFORT

1) Aerospace Education Program for Senior Members (AEPSM)/Yeager Award: This is considered a critical element of Senior training.

(a) The overall total for the Region remains at about 55% with little change regardless of encouragement or requests from the Region AE staff to find a method to improve those results.

(b) All Commanders shall work to improve this within their units, including headquarters staff. Being there is no additional cost, and open book if taken online, there is no reason to ignore this award. The book is the same as what is required of Phase III and IV Cadets. Seniors must set the example.

(c) Goal(s):

(1) Maintain 100% of Region assigned staff having completed the Yeager Award.

(2) The annual overall benchmark goal average for the Region (including the Wings) will be 70% or higher.

(3) Wings should have 80% staff completion, including those assigned to Wing staff as additional duty. Units (Group and Squadron) have a goal of 70% or higher completion.

2) Aerospace Education Excellence (AEX) Award: A low/no cost training program. This is geared towards AEOs in Cadet units, but is also available to Seniors for hands on training.

(a) Goal(s):

(1) By the end of FY24, have a minimum of 70% of each Wing's subordinate units participating or completed.

(2) 100% of Cadet Squadrons will utilize the AEX program as an annual metric of their AE program beginning in FY20.

(3) 50% of senior units, applied and completed.

(4) RMR HQ and staff will be given the opportunity to participate in the AEX program via distance learning again for FY21-24 as an annual program.

(b) Ensure that resources are available to help AEOs conduct the AEX program virtually if further events require a return to distance meetings for members.

3) STEM Kits: While not presently reported back to the Region and Wing command by NHQ, STEM kits are a viable and well supported set of tools to introduce a wider variety of concepts by the AEO.

(a) Wing DAEs need to track STEM kit orders/statistics for reporting to the Region.

(b) These kits are no cost to the units or wings. Use of them is strongly encouraged for both internal and external aerospace education, especially as they are selected and sent at no additional cost to the units or members.

(c) Goal: 70% of Cadet units and 20% of Senior units will actively utilize this towards their monthly training program. In addition to Wing DAE tracking, the Squadron AEOs will report use in the annual POA reporting as part of their Above and Beyond comments.

EXTERNAL AEROSPACE EDUCATION LINES OF EFFORT

1) Teacher Orientation Program (TOP) Flights: This is an integrated AE and Operations program by the nature of the guidance in the current program. TOP Flights are Air Force Assigned Missions (AFAMs) for funding and flight priority.

(a) The External AEO is directed to engage Operations at Region and in the Wings to assist with developing and coordinating the TOP Flight program.

(b) Goal(s):

(1) Average an annual minimum of 100 teachers across the Region (20 teachers per state) for TOP Flights.

(2) At least 30% of those teachers (Region wide) from Title 1 schools.

2) AEMs are able to be engaged in CAP for a reduced, one-time fee. Through this they obtain access to all the AE resources for their classrooms at no additional cost to them.

(a) CAP saw AEMs double to 7000 in FY19. This has allowed direct impact to over 700,000 students nationally. Through the Region and Wing efforts, at least an additional 10,000 students in RMR should be able to gain access to these resources through their teachers.

(b) The RMR External AEO will work directly with the Wings, schools (especially Title 1), and STEM related companies throughout RMR to enhance access to these resources.

(c) Goals:

(1) Increase by 300 AEMs annually in schools around the five Wings with roughly 60 teachers (AEMs) per Wing; 30% of new AEMs in Title 1 schools throughout RMR

(2) Each teacher/AEM participating with one STEM kit or with completing the AEX program in their classroom during the fiscal year.

(3) 60% of all AEMs participating in at least one TOP Flight during their first year.

3) AEX and STEM kit coordination: Teachers are eligible to work with CAP (without being AEMs) for certain resources.

(a) As teachers were struggling going into FY20 with funding STEM projects and education in the classroom, the effects of COVID worsened this problem. RMR will work to help teachers to coordinate for AEX to be applied in the classroom both in person as well as for those having to teach virtually.

(b) STEM kits are also available. A plan will be developed to coordinate delivery/participation through the Wing DAEs and as a standalone program conducted by the Region.

(c) Goals:

- (1) 20 teachers (AEM or not) per Wing participating in an on-going AEX program either in person or by distance.
- (2) Identify and place STEM kits in at least 20 schools around the Region. Develop an interactive response for teachers including support resources.

4) Outreach Partnerships: CAP does not exist in a vacuum. In a time where budgets have a tendency to be quickly reduced, this means we must be willing to engage and share resources beyond the normal expectations.

(a) The External AEO is directed to develop a working relationship, along with support from the Wing DAEs and AEOs, with the following organizations in FY21:

- (1) 4H STEM/Aviation focused programs
- (2) Venturing/Boy & Girl Scouts of America
- (3) Experimental Aircraft Association (EAA) Young Eagles
- (4) US Space Foundation
- (5) US Air Force Space Command
- (6) US Space Force Association
- (7) Air Force Association
- (8) Air Force Sergeant's Association
- (9) Any other non-profit, STEM education based organization in RMR

(b) Purpose: Increase outreach through mutual teaching support and resources.

(c) Develop and implement a plan to involve these other organizations through contacts at the Squadron, Group, and Wing level for joint activities. 30% involvement in either a Wing or Region AE school with presentation time and/or working group time to help facilitate connections in support of Wing and unit (Group/Squadron) efforts.

WING LEVEL EFFORTS

In addition to the above listed lines of effort and goals, the five Wings of Rocky Mountain Region are strongly encouraged to identify their own benchmarks based on local needs and Wing Commander decisions. These goals should be published in the form of a Wing Pamphlet or Policy Letter* to reduce approval times for sudden changes in budget or operational/safety needs.

Pamphlets are, by nature not regulatory but will be followed as closely as situation allows. With that, CAP-related pamphlets only require minimal approval and allow the greatest latitude for change, as demonstrated during the early stages of the COVID-19 pandemic in FY20.

For AE Pamphlet approval:

- 1) Wing DAEs in coordination with their Internal and External AEOs will work to develop an annual plan for the fiscal year based on the Region's goals in this pamphlet. Assistance from the RMR DCS-AE, Internal AEO, and External AEO will be provided on request.
- 2) Wing DAEs will obtain Wing Commander approval first. It will then be formally submitted to the RMR DCS-AE for staffing at Rocky Mountain Region.
- 3) If there are corrections, it will be returned to the Wing. If no corrections needed, the DCS-AE will staff it through the RMR Chief of Staff for final review and approval by the RMR Commander.
- 4) On approval, the Wing should post it to the Wing website and ensure that all units have a copy for reference with their goals.
- 5) Wing Plans of Action for the fiscal year should reflect the material presented in the Wing published goals. Annual Reports will serve as the follow up and to drive the goal planning cycle for the following year.

*Policy Letters note: While the Wing Commander may sign and approve the AE goals for the Wing in a Policy Letter, a copy should still be provided to RMR AE staff to ensure Region availability of resources and assets. The letter itself would still need to be reviewed by the RMR Commander for consent.

Appendix 1 Governance

Federal (partial)

36 USC §40301 – Organization

36 USC §40302 – Purposes

Civil Air Patrol

CAPR 50-1 Aerospace Education Mission

CAPP 50-1 Aerospace Education Officer Handbook

CAPP 50-2 Aerospace Education Specialty Track Guide

CAP Strategic Plan 2020-2024

Appendix 2
Strategic Plan Goal Excerpt 1
Annex 1, Goal 2; page 28

	Objectives		Tasks	Metrics
Goal #2	Objectives	Strategies to achieve objectives	Major initiatives to implement our strategy	Measures
<p>Answer America's urgent needs through aerospace education and leadership development to grow our youth into tomorrow's dynamic leaders</p>	Provide increased CAP support to Title I schools	Target teachers and schools to maximize engagement with diverse and underserved communities	<p>Establish a methodology for identifying schools, teachers and students with the greatest need for CAP resources</p> <ul style="list-style-type: none"> • Create benchmark/baseline for diversity and Title I school involvement • Use program evaluations to survey diversity and Title I status • Update member profile to include diversity and Title I information 	Increase percentage of diversity and Title I involvement by 5%
	Motivate CAP units to excel in performing CAP's aerospace education mission		Increase CAP Aerospace Education mission participation by encouraging squadrons to earn the newly established Aerospace Education Achievement Award. This award is similar to what cadet programs successfully uses to encourage excellent cadet mission performance. 2019 was the inaugural year for the AE unit award.	Increase AE unit award recipients by 2%
	Develop a sustainable business model for long term health and impact of the aerospace education program	Build a spend plan for current and anticipated dollars	<p>Establish a methodology to prioritize distribution of AE Products and STEM kits</p> <ul style="list-style-type: none"> • Develop a measurement plan for all resources distributed; gather data on units, schools, teachers, and students/cadets 	Brief the plan to the CEO and obtain approval by 31 Jul 20
	Ensure cadets are supported by adults trained in positive youth development practices	Focus CAP adult volunteers on key performance indicators (KPIs) that correlate with success for the cadet mission	<p>Develop a logic model that is consistent with program evaluation standards; have an outside expert (e.g., Claremont Graduate University) validate our draft. Communicate the KPIs and "theory of change" to the field and ensure they understand "why" they are important to cadets</p> <p>Develop requirements for integration of cadet metrics into the new commander's dashboard for expected release in 2021</p>	Lead 40% or more cadet units toward earning the Quality Cadet Unit Award. (Note: 40% exceeds the Boys and Girls Clubs of America benchmark of 38%)
	Support cadets' career exploration opportunities in STEM and AF-related career fields	Partner with AF and industry to offer a wide variety of career exploration academies (NCSAs)	Operate a full portfolio of NCSAs that meet the objective	Demonstrate cadet learning of career exploration opportunities through pre-course / post-course measures that achieve a median increase of 25% per participating cadet
	Increase cadet learning in two growing career fields: cyber defense and sUAS	Integrate cyber into the core cadet curriculum	<p>Through a mission partner or contractor, produce a draft cyber defense module for "Aerospace Dimensions."</p> <p>Develop or obtain a curriculum for the Cyber Defense Training Academy</p>	<p>Complete a draft cyber defense module, ready for field review and/or beta test</p> <p>Complete a draft cyber defense curricula, ready for NCSA review</p>
		Increase squadron access to sUAS resources		Field at least one sUAS STEM kit in 60% of cadet units

Appendix 3
Strategic Plan Goal Excerpt 2

Indicators of Success; supporting indicators for AE highlighted

Our Indicators of Success



We measure our success on the accomplishments of our members. Present day accomplishments manifest themselves in a variety of ways. After mission completion, did we meet the customer's expectations? Did we get the imagery to the decision maker in a timely fashion? For the young lives that we touch daily, did they get accepted into college or perhaps start a successful career? Did they stay in CAP or return at a later date?

Looking to the future for indicators of success is more challenging. We will measure the success of our strategic vision by successfully completing the accompanying goals and objectives on time and with the intended outcome. As we take this journey, our litmus test will be to ask these questions: will we recognize goal attainment when we get there? Will we properly identify the need for new goals in the face of a changing world? And will we eliminate goals that no longer improve our Civil Air Patrol?

Indicators of Success:

1. CAP delivers on our commitments by successfully accomplishing our three primary missions.
2. Surveys indicate that CAP offers a more fun and rewarding experience.
3. Retention and recruitment efforts increase our membership and our diversity.
4. We add local, state and federal partners to our family.
5. We eliminate hindrances to success.
6. Our auditors proudly recognize us with A+ audit results.
7. Members' commitment to the Safety Management System is reflected in their dedication to the use of Risk Management, taking every available opportunity to mitigate risk to the lowest level reasonably possible.
8. We increase members' confidence that we have the right people with the right skills occupying leadership positions at all levels.
9. We meet our customers' and our members' expectations.
10. Our Cadet and Aerospace Education programs remain progressive in their approach to developing citizens of character and STEM inspired minds.
11. At the end of the day, our members are proud to say they make up One CAP.

What could hold us back? What's beyond our control?

There is no limit to what we can accomplish. Even in the face of adversity, such as limited funding or aging resources, our brilliant members will continue to find a way to serve America, make our Civil Air Patrol better, and achieve success. Building tomorrow's CAP will require solid leadership from top to bottom and the courage of each member to break down longstanding barriers to success and effectively manage the changes necessary to achieve this vision. Together we will all take this journey...

...it's OUR strategic plan!