

# California American Legion Teacher Aerospace Program



March 2025



This is an introduction to the proposed

## The Question

How can the California American Legion Aerospace Commission make a difference in our communities in promoting Aerospace, preparing our youth and communities for the aerospace workforce shortages of the future, and ensuring the nation's lead in aerospace technology for national defense?



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We have worked to introduce a low-cost and effective means of supporting Aerospace and STEM (Science, Technology, Engineering, and Math) programs into the schools that are located in the American Legion Communities, and providing the teachers with free support for the rest of their teaching careers.

This program builds on the strength of the American Legion by providing the strong connections we have with our local schools through existing programs. Thus, this is just one more program that we can offer that will directly assist the teachers that offer and prepare the students for our other programs, such as Oratorical, Boys State, Girls State, and American Legion Baseball.

## The Answer

By joining forces with old alliances that have similar goals, and tapping into the strengths and resources of each organization into a unified program that will help the teachers and underfunded schools in our communities to bring STEM (Science, Technology, Engineering, and Math) education into the classroom.



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Although the groups have a different focus on mission and purpose, they all have the same goal of preparing our youth for the science and technology requirements that will be required for a future of American dominance in airpower. This new initiative will put the American Legion at the forefront of bringing aerospace education programs into the classroom.

We can help transform the schools in our communities in preparing students for the technical workforce requirements of the next generation, by providing teachers the tools and support that they need.

# American Institute of Aeronautics and Astronautics (AIAA)

The world's biggest aerospace professional society.

➤ **Mission**

- To promote aerospace collaboration and innovation
- To support aerospace professionals throughout their careers
- To recognize the accomplishments of aerospace professionals

➤ **AIAA's activities**

- Hosting conferences, forums, and expositions
- Developing and maintaining standards
- Advocating for policy issues
- Supporting education at all levels in STEM and Aerospace Technology



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The American Institute of Aeronautics and Astronautics (AIAA) is the largest aerospace professional society in the world, serving a diverse range of nearly 30,000 individual members from 91 countries, and 98 corporate members.

## American Institute of Aeronautics and Astronautics (AIAA)

Came from the merger of the American Rocket Society (1930) and the Institute for the Aeronautical Sciences (1932). The two professional societies merged in 1963 to form the AIAA.

- Professional Society representing the Aerospace Workforce
- Establishes ANSI Aerospace Standards
- Has both local and national scholarship programs
- Members are distributed between industry, academia, & military



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The American Institute of Aeronautics and Astronautics (AIAA) is approaching its centennial, and is the largest and most prestigious professional society in the world representing the aerospace engineering workforce. They are the organization that establishes the standards for the industry with professionals from Academia, Industry, Government, and Military.

## AIAA Local Section K-12 Education Program

➤ From classroom grants, to standards-based projects, to Aerospace Micro-Lessons, AIAA provides tools and resources.

➤ Website: <https://www.aiaa.org/get-involved/students-educators/k-12-teacher-resources>

➤ Professional Sections in California:

- Antelope Valley
- Central Coast of California
- Orange County
- San Gabriel Valley
- San Fernando Pacific
- San Francisco
- China Lake
- Los Angeles
- Point Lobos
- Sacramento
- San Diego
- Vandenberg



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Every Professional Section of the AIAA has a Chair for their K-12 Committee and are prepared to provide speakers for classrooms, invite teachers to local meetings, technical Lectures, and provide local support in STEM education, as well as provide docents for school field trips.

## AIAA Student Branches

The AIAA Student Branches in California also have outreach programs for K-12, with a Committee Chair in each Branch.

- AIAA Student Branches in California:



California State University, Sacramento  
University of California-Berkeley  
University of California-Davis  
Stanford University  
San Jose State University  
Santa Clara University  
University of California-Merced  
California State University, Fresno  
California Polytechnic State University, San Luis Obispo  
California State University, Northridge  
California State University, Fullerton  
California Institute of Technology  
California Polytechnic State University, Pomona  
California State University, Long Beach  
University of California-Los Angeles  
University of Southern California  
University of California-Irvine  
University of California-San Diego  
San Diego State University

### Student to Student Programs



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The AIAA has Student Branches at every major University in California that has an Aerospace Engineering program. Every Student Branch has a professor from the sponsoring school that acts as an advisor, and each Student Branch has a K-12 Committee with programs for peer-to-peer (student) outreach in the classroom. These students whom are studying Aerospace Engineering and other Science majors, can speak to elementary and high school students as role models.

## Civil Air Patrol

California Wing of the Civil Air Patrol (CAP) has over 77 locations

- Founded in 1941 by the first two chairs of the American Legion Aeronautics Commission, Reed Landis and Gill Wilson
- Auxiliary of the USAF
- Well established Aerospace Education program
- Cadet programs across the United States
- Performs 85% of continental U.S. search and rescue
- Works with JROTC programs



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As we approached the outbreak of World War II, the nation desperately needed well-trained young pilots. The American Legion Aerospace Commission took up this cause in the 1930s, and started pilot recruitment and training programs across the United States. They taught ground school in American Legion Posts and high schools, and starting flight schools at local airports. As a part of that effort, to ensure a constant supply of pilots for the national defense, the American Legion started the Civil Air Patrol in 1941.

## Civil Air Patrol

### Aerospace Education

- Part of the CAP Mission since 1946
- Throughout the Cold War expanded its Aerospace Education program
- The Aerospace Education Member program has a onetime \$35 fee
- Teachers have free annual renewal
- Free K-12 books: standards-aligned books are online
- Free K-12 STEM Kits along with:
- Pre/post tests and all associated educational materials



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Civil Air Patrol offers numerous products and programs -- free to enrolled teachers-- in fulfillment of its Aerospace Education mission. The program presents aerospace education to schools. This is accomplished through academic programs within the educational systems and through contacts between CAP members and their communities. CAP personnel will cooperate with schools and other community organizations by promoting aerospace education efforts; providing aerospace education units of instruction; assisting with materials, people and appropriate programs; arranging field trips; etc.

## American Legion

- Supporting aviation for 106-years
- Founded the Civil Air Patrol
- Built many of the early airports across the U.S.
- Developed the first Civil Defense Training Program
- Promoted USAF, navigation, NACA, Air Mail, & commercial air
- Was instrumental in pilot recruitment and training prior to WWII
- Tremendous lobby influence with Congress for Aerospace



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The American Legion has always placed importance on the United States maintaining a primary lead in world aviation as a priority, from its foundation in 1919, to today where the Aerospace Committee still resides under the Commission on National Security.

Right up until war was upon our doorstep in the 1930s the pleas from the American Legion to build our military aviation defense capabilities fell largely on deaf ears in the government. With its membership representing all branches of service, it was one of the few powerful organizations that fully appreciated the dependence of the nation's security upon the strength distributed among the Army, Navy, Marine Corps, Coast Guard, and the Merchant Marine.

## American Legion

- 432 American Legion Posts in California
- Good relationship with local Schools
- Sponsors Oratorical, Boys & Girls State, and Legion Baseball
- Aerospace Commission needs continuing programs to meet its goal of supporting aerospace in the National Defense
- Posts can sponsor a local teacher into an Aerospace Education program that will provide support throughout their teaching career for a one-time fee of \$35 per teacher.



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The key here is that once a teacher is enrolled in the program, neither the teacher nor the American Legion ever has to pay anything further as the resources are made available each year, throughout their teaching career. As technology changes, so does the curriculum and training materials.

With 432 American Legion Posts, 12 Professional Sections and 20 Student Branches of the AIAA, and 77 units of the Civil Air Patrol distributed across the State of California, we are in a position to provide support to any teacher that may need assistance in bringing STEM (Science, Technology, Engineering, and Math) into the classroom.

## American Legion's Integration Role

### American Legion

*Veterans Organization*

- One enrollment,
- Two integrated aerospace education programs,
- Three highly recognized and established organizations

### Civil Air Patrol

*USAF Auxiliary*

### AIAA

*Professional Assoc*



The role of the American Legion will be to be the interface between the two organizations that offer the programs (CAP & AIAA), and the local community schools, by sponsoring the teachers into the programs. We will be asking Legion Posts, Auxiliary units, Squadrons, and Riders, to sponsor teachers into the program for only \$35 per teacher. We are not looking to sponsor every teacher in the state, but seeking a few teachers from the local schools; even if it is one teacher at a time or per year. With the assistance of other organizations and even individual veterans themselves, we can prepare a cadre of STEM educators at no cost to them.

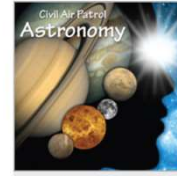
# What do the Teachers Get?

## The Air Force Auxiliary's Civil Air Patrol (CAP)

- Science, Technology, Engineering, and Math (STEM) Kits
- K-12 curriculum materials
- Teacher orientation flight aboard a CAP plane at a local airport



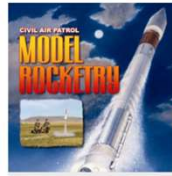
Weather Station STEM Kit



Astronomy



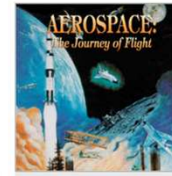
Robotics STEM Kit



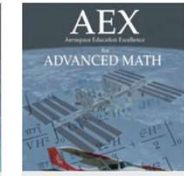
Rocketry



Women in Aviation



Journey of Flight



AEX Advanced Math

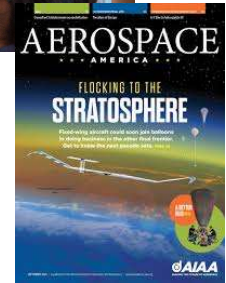


- Over 30 FREE national academic standards-based [aerospace education materials](#) to promote STEM subjects and careers
- Participation in FREE [AE Excellence \(AEX\) Award Program](#), wherein educators incorporate aerospace education into their curricula and earn a free teacher plaque and student certificates
- Eligibility to apply for \$250 [grants](#) for aerospace project and program integration to invigorate the classroom
- Access to myriad online [Aerospace/STEM Education activity](#) and [career resources](#)
- Free [K-6 Aerospace Connections in Education \(ACE\) Program](#)
- Free [Teacher Orientation Program \(TOP\) Flights](#) in CAP aircraft

# What do the Teachers Get?

## The American Institute of Aeronautics and Astronautics

- Aerospace Micro-Lessons
- Careers in Aerospace Materials
- AIAA Foundation Classroom Grant
- Aerospace America Online (Journal of the AIAA)
- Local Section Events
- Free Seminars and Teacher Workshops
- Local AIAA Section and Branch, K-12 Committees staffed with Senior AIAA Members and Students to assist and advise Teachers
- Various Teacher Recognition programs



Local section activities and AIAA forums - provide teachers with the opportunity to network with a community of collaborative and innovative members who are their lifelong link to the aerospace community.

AIAA Journal - visually stunning digital and print membership magazine, Aerospace America, is packed with in-depth insight on the subject matter driving aerospace forward.

K-12 Resources - the tools that teachers need to fuel their students' passion and curiosity with access to countless online educator resources, including Aerospace Micro-Lessons, Careers in Aerospace, and so much more.

### AIAA Foundation Classroom Grant

Meet the educational needs of your students with AIAA Foundation grants that provide funds for STEM project supplies.

### The Global Aerospace Community

Connect with your colleagues and other members of the community online to discuss the latest happenings in aerospace through AIAA Engage.

### Industry Recognition

Showcase your innovative spirit and discoveries by qualifying for AIAA Foundation Educator Achievement Awards.

# Questions ?

<https://calegion.org/aerospace>



California American Legion Teacher Aerospace Program



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If you have any questions, ask your local American Legion Post, or American Legion Area Aerospace Commissioner or District Advisor.

This is an unrealized proposal that is in the organization stages by the California American Legion Aerospace Commission. Please visit our webpages at URL: <https://calegion.org/aerospace>