

CIVIL AIR PATROL 2018 REPORT TO CONGRESS



70 YEARS
As U.S. Air Force Auxiliary



Overview

61K

VOLUNTEERS

\$165

FLIGHT HOUR COST

1,442

UNIT LOCATIONS

158

LIVES SAVED

560

AIRCRAFT

4:1

COST SAVINGS



Since 1948, Civil Air Patrol has served the nation as the Auxiliary of the Air Force and today it is part of its **Total Force**.

CAP is also a **congressionally chartered nonprofit**. America benefits from this dual status, giving CAP the

ability to conduct **cost-effective** missions for the government as well as communities and states.

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Contact John Swain at jswain@capnhq.gov for more information concerning this Report to Congress for Fiscal Year 2018. A related CAP Financial Report will be available in June 2019 and forwarded to all congressional offices.

Through its cadet program, CAP instills the organization's **core values** of integrity, volunteer service, excellence and respect in its youth. Cadets are drug-free role models in their communities and schools.

Cadet Programs

26,222

RISING LEADERS

82 PERCENT ACHIEVE B'S OR
BETTER IN SCHOOL

35,316

CADET ORIENTATION FLIGHTS

2,137

ATTENDED NATIONAL CAREER
EXPLORATION ACTIVITIES

6,026 ATTENDED ENCAMPMENTS

28 PERCENT RECEIVED FINANCIAL
ASSISTANCE TO ATTEND

98

ACADEMIC/FLIGHT
SCHOLARSHIPS AWARDED



The Youth Aviation Initiative recently started by Civil Air Patrol is designed to **identify young pilots and help fund their flight training** through accessible programs that allow

diversity and disadvantaged youth participation. One million dollars in U.S. Air Force-generated funds has been set aside for CAP's new "Take Off" program, which will fund flight

training for cadets, reducing their cost of attending CAP's flight academies and providing funding for scholarships to allow them to earn their private pilot certificates.



Another \$400,000 in Youth Aviation Initiative funding is expected to generate a 156 percent increase in Air Force ROTC and JROTC orientation flights in CAP planes and gliders in 2019. This follows increases in both powered and glider flights in 2018, which totaled over 35,000. The additional funds for the coming year will lead to an estimated 3,500 **more flying hours** for CAP and over 3,000 orientation flights for Air Force ROTC and Air Force Junior ROTC cadets.

Each summer, CAP's cadet program offers more than 1,500 members in-depth **leadership** training through National Cadet Special Activities like Cadet Officer School and the Civic Leadership Academy. The training cadets receive at these weeklong activities, which often includes STEM-based initiatives like the one seen here, enables them to become real leaders in their home squadrons, their schools and their communities.

Physical fitness and well-being are the primary goals of CAP's new Active Cadet Fitness initiative, which is aligned with the Presidential Youth Fitness Program. Through the program, cadets are **motivated** to develop a lifelong habit of regular activity.

Adult members and cadets **hone their disaster relief, search and rescue and survival skills** at the National Emergency Services Academy. Here, participants tighten the cords on a portable antenna, which is used for remote communications.

Through its National Cadet Special Activities as well as numerous field trips in their communities, CAP cadets annually **explore careers** in a wide variety of fields, including military service, aerospace and aviation. Thanks to this exposure, many CAP youth choose to pursue related careers after they leave the cadet program.

CAP's fleet of 53 gliders, located at squadrons throughout the U.S., **introduces many cadets to flight**. The glider program is led by the organization's dedicated pilots, who made over 2,600 orientation flights in 2018. Their work helps cadets learn how to fly, playing a vital role in the future of American civilian and military aviation.

aviation

Aerospace Education

320,000

CADETS/STUDENTS ANNUALLY
IMPACTED BY 15 STEM KITS

80%

CADETS/STUDENTS MORE INTERESTED IN
AE/STEM CAREERS AFTER USING STEM KITS

4,200

TEACHER MEMBERS USING CAP
CURRICULA TO REACH 400,000
STUDENTS IN THEIR CLASSROOMS

34,000+

STUDENTS IN 210 SCHOOLS PARTICIPATING
IN CAP'S AEROSPACE CONNECTIONS IN
EDUCATION K-6 PROGRAM



Led by coaches like Maj. Bill Blatchley, standing right, CAP cadets are leaders in the Air Force Association's national high school **CyberPatriot program**.

His Colorado Springs team has reached the competition's national finals eight straight years, winning the All Service Division title in 2012 and 2017.

Last year, Blatchley was chosen by AFA as CyberPatriot X Coach of the Year.

STEM



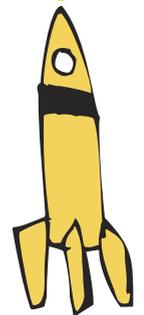
Youth interested in aerospace and aviation can become immersed in CAP's **rocketry and model aircraft** programs. Cadets build rockets and fly model planes, learning about the hobby and the science of both while earning specialty badges.

Civil Air Patrol's aerospace education/STEM curricula, which include more than 40 booklets, lesson plans, textbooks and other products, provide students and educators alike with **fun activities for the classroom**. Here, a teacher at Hillsboro Charter Academy in Virginia helps her students track the moon's craters with CAP's Bee Bot grid mat.

CAP's aerospace education program is investing additional funding in aviation-related products like these **flight simulators** to influence future pilots among its ranks, thereby helping the U.S. Air Force address the nation's ongoing pilot shortage. Through this expansion, CAP hopes to influence at least 150,000 more youth each year.

Aerospace Education Members who join Civil Air Patrol's ranks participate in the **Teacher Orientation Program**, getting an opportunity to fly in one of CAP's signature red, white and blue Cessnas. It's an experience they can share with their students throughout the year. The number of CAP's AEMs grew significantly in the past year — from 3,100 to 4,200, a 36 percent increase.

With its 15 hands-on STEM Kits, CAP's aerospace education program is encouraging over 320,000 youth annually to consider **careers in America's technical workforce**. Here, students in California work with the robotics kit, while others in Alabama, at right, try their hand at hydraulic engineering. Other kits available are Astronomy, Bee Bots, Flight Simulator, Middle School Math, Model and Remote-Control Aircraft, Quadcopter, Raspberry Pi, Ready-to-Fly Quadcopter, Renewable Energy, Rocketry, Snaptricity, Sphero and Weather Station.



Missions

654/1,293

654 FLIGHTS FOR GREEN FLAG
EXERCISES, ACCUMULATING
1,293 HOURS OF AIR TIME

1,030

1,030 FLIGHT HOURS PROVIDED
IN RESPONSE TO HURRICANES
FLORENCE AND MICHAEL

\$187 million+

2018 VALUE OF CAP MEMBERS'
SERVICE TO AMÉRICA IS \$187,202,536



CAP-trained Point of Distribution (POD) teams from North Carolina, Maryland and Virginia **distributed bottled water** and other emergency supplies like ice and tarps to Hurricane Florence victims.

Wigilant



Civil Air Patrol's highly trained aircrews, consisting of nearly 7,000 pilots and other aircrew members, amassed nearly **90,000 hours aloft** in 2018.

Last fall, CAP's air and ground crews responded en masse to two powerful Category 4 storms — Hurricane Florence in the Carolinas and then Hurricane Michael in the Florida Panhandle and south-west Georgia. Nearly 500 sorties were flown in 68 CAP aircraft in support of both responses. One of the CAP aircrews documented this damage from Michael with new **WaldoAir technology**.

CAP aircrews provide **key airborne escort and monitoring** required for training of the military's RPA (Remotely Piloted Aircraft) pilots. This mission allows military units to provide critical training needed to qualify at least 25 percent more RPA operators.

CAP's **Chaplain Corps — one of the largest in the world**, with more than 450 chaplains and over 600 character development instructors — has launched a partnership with the Air Force Chaplain Recruiting Office that now includes CAP in the Air Force's chaplain recruiting materials.

Recently, CAP celebrated a partnership with American Airlines, which presented the organization with a **\$25,000 grant to inspire and train** CAP cadets to be among the nation's next generation of aviators.



In advance of Hurricane Florence’s arrival, South Carolina Wing aircrews prepare a Cessna 182 used for **aerial photography and observation missions** after the Category 4 storm made landfall. Aircrews used CAP planes like this one to take nearly 12,000 images of Florence’s destruction.

North Carolina Wing members work through the **flight planning process** even before Hurricane Florence moved away from the wing’s mission base in Burlington. Seven hundred and eighty-nine CAP members from 20 wings ultimately became involved in the response.

Despite damage to his family home from Hurricane Florence and a lengthy evacuation, North Carolina Cadet Tech Sgt. Corbin Endre **helped ensure storm and flood victims received much-needed disaster relief** supplies at the POD site in Wilmington. Here, the CAP cadet loads a box of MREs (Meals Ready to Eat) for a family waiting in line.

CAP ground teams helped **measure post-storm flooding** in Hawaii and South Carolina. They were tasked with identifying mud or silt lines and noting debris lines or debris snags and downloading the data to emergency managers via a FEMA app.

On 251 missions in 2018, CAP personnel served as targets of interest for **air defense intercept training and evaluations**, flying 1,635 hours on 861 sorties.

In 2018, the organization’s 34,000-plus emergency **responders supported 97 disaster relief** and other state-requested missions across the country, from small storms to major events like hurricanes, tornadoes, wildfires and even volcano eruptions. Most often, CAP’s responders were tasked with taking aerial damage assessment photos.



Technology

95%

CAP-DEVELOPED RADAR/CELL PHONE
FORENSICS SOFTWARE USED
IN 95 PERCENT OF 1,012
SEARCH AND RESCUE MISSIONS

28,000+

TOOK 28,091 AERIAL IMAGES
TO HELP DOCUMENT
HURRICANE DAMAGE

89,773

89,773 HOURS WERE FLOWN IN CAP'S
FLEET OF MOSTLY CESSNA AIRCRAFT



The popularity of **miniature drones** has led to the formation of CAP's sUAS (small Unmanned Aerial Systems) program to enhance its existing mission capabilities. Quadcopter and

hexacopter kits, tested during the past year to allow for longer-duration imagery collection, will soon be available to nearly 40 CAP wings. CAP is working to implement options for night

operations and beyond visual line of sight as members acquire enough experience to gain FAA approval, in addition to bringing operational sUAS capabilities to the remaining 12 wings.



CAP maintains advanced **Surrogate Remotely Piloted Aircraft sensor technology** for training U.S. military and coalition forces before they deploy overseas.

These CAP aerial images show the flood-damaged Sanford Dam in Boiling Spring Lakes, North Carolina. They were taken by a Surrogate RPA aircrew tasked with flying over critical infrastructure in areas affected by Hurricane Florence.

CAP's national Cell Phone Forensics Team conducted its 1,500th mission in 2018. Since 2006, the team has assisted in finding over 700 people and saving nearly 500 lives

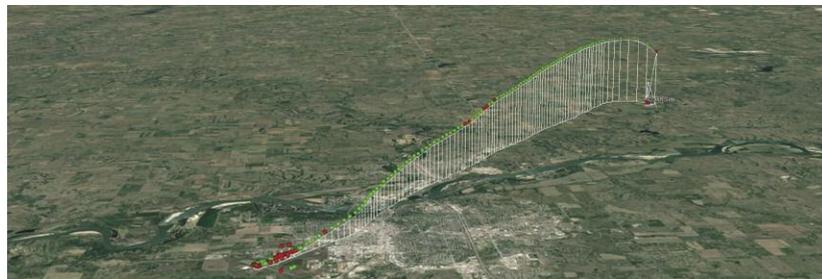
nationwide. The team uses **software developed by CAP members** to narrow down search sites like the one seen here.

ICARUS, an aircraft detection and alerting near-real-time system developed by CAP's National Radar Analysis Team, features this Mission Sandbox showing the eye of Hurricane Michael. This response tool helps CAP incident teams **watch where search aircraft are flying in real time.**

high-tech



Civil Air Patrol's Cessna 172s and 182s make up most of the Air Force auxiliary's **560-plane fleet**, which is recognized as one of the world's largest fleets of single-engine piston aircraft.



A Google Earth screen capture shows National Radar Analysis Team tracking that helped lead searchers to a Medevac crash site in North Dakota. Using **radar data forensics** in

collaboration with cell phone data forensics, the CAP teams pinpointed the crash site.



CAP's **air and ground crews are in constant contact** with each other through CAP's multimillion-dollar communications network.



Over 250 of CAP's powered planes are equipped with technically advanced glass cockpits, which enhance aircrew effectiveness and safety. Another advance in avionics already available on 75 percent of the fleet is the latest ADS-B (Automatic Dependent

Surveillance-Broadcast) technology. It allows CAP pilots to **see advanced traffic and weather on Garmin portables and tablets** using Garmin Pilot and ForeFlight Mobile apps.



CAP aircrews tested a new **WaldoAir XCAM Ultra50 sensor** pod system in 2018, producing high-resolution images for disaster relief.

Community Service

337

SQUADRONS

CAP MEMBERS FROM 337 SQUADRONS HELPED
PLACE NEARLY 2 MILLION WREATHS
ON VETERANS' GRAVES

47 / 2

PEOPLE/AIRCRAFT
FOUND

LIVES
SAVED

NATIONAL RADAR ANALYSIS TEAM
CREDITED WITH 47 FINDS AND 2 SAVES IN 2018.

50+

YEARS

FOR OVER 50 YEARS NATIONAL BLUE BERET
HAS PROVIDED CADETS THE OPPORTUNITY
TO PARTICIPATE IN THE WORLD'S
LARGEST AIR SHOW.



Cadet Airman 1st Class Michael Pereira of the New York Wing's Putnam County Composite Squadron carries out a dessert tray from the kitchen during the **Putnam County Veterans Chow Down**, held annually to honor those who served.

heart



Every year, Wreaths Across America is Civil Air Patrol's signature community service mission, with members across the U.S. stepping up to obtain sponsorships for **memorial wreaths** placed on veterans' headstones nationwide. Among the thousands participating last year was this Stanton Composite Squadron cadet saluting a veteran's grave in Minnesota's Fort Snelling National Cemetery.

Civil Air Patrol members can be counted on to **salute veterans receiving Honor Flights** in tribute to their service to the U.S., whether they're taking off on a flight for Washington, D.C., or returning from such a visit to the nation's capital.

Hawaii Wing members stepped up to help ensure the success of the Kids4CPR/AED Institute's campaign to provide **hands-on training for youth** attending Child/Youth Day at the Capitol in Honolulu. Among those participating was Cadet Master Sgt. Braden Pascua of the Maryknoll Cadet Squadron, who demonstrated proper placement of Automated External Defibrillator pads to one young visitor.

CAP members' support for the military extends beyond the ranks to include service members' families. In New Hampshire, members of the Seacoast Composite Squadron participated in the **Salute to Troops Family Day** in Portsmouth. Cadets ran games and rides for the children.

Among the skills cadets develop as part of their training is flight marshaling — a **skill that can be counted on** at air shows, including the world's largest such event — EAA AirVenture Oshkosh in Wisconsin.

In addition to Wreaths Across America observances in December, Memorial Day provides a prime opportunity for CAP members to **pay tribute to those who served**. Cadet Staff Sgt. Matt McCaskill of the Arizona Wing's Falcon Composite Squadron 305 paused for a moment of reflection as he placed one of hundreds of flags on veterans' gravesites in Mesa.

national data

2018 STATISTICS



MEMBERSHIP

34,844 Adult Members
26,222 Cadets
61,066 Total Members
6,859 Aircrew Personnel
34,732 Emergency Responders
1,442 Squadrons

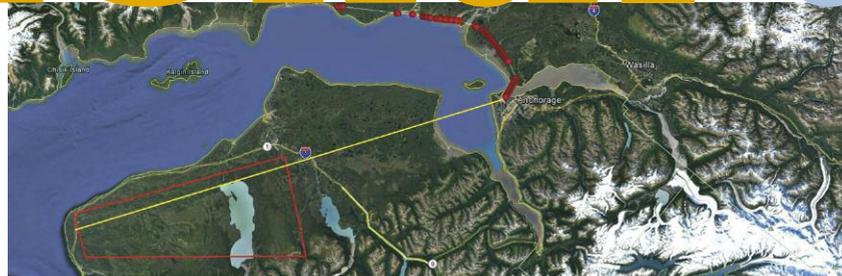
EQUIPMENT

Aircraft
560 Airplanes
53 Gliders
2 Hot Air Balloons

Vehicles
1,076 Vehicles

Communications Equipment
9,857 VHF/FM Stations
739 Repeaters
1,987 HF Stations

2018 VALUE OF CAP MEMBERS' SERVICE TO AMERICA
\$187,202,536



MISSION FLIGHT ACTIVITY

Search and Rescue

1,012 Missions	940 Sorties	1,640 Hours
430 Wing Finds	282 Cell or Radar Finds	712 Total Finds
20 Lives Saved By Wings	138 Cell or Radar Lives Saved	158 Total Lives Saved

Disaster Relief

28 Missions	854 Sorties	1,345 Hours
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Counterdrug & Drug Interdiction/Homeland Security

5 Missions	1,447 Sorties	3,540 Hours
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Air Defense/Homeland Defense

251 Missions	861 Sorties	1,635 Hours
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Cadet Orientation Flights

302 Missions	18,171 Sorties	15,626 Hours
31,836 CAP Cadets Flown	1,043 AFROTC Cadets Flown	2,437 AFJROTC Cadets Flown
35,316 Total Cadets Flown		

Maintenance

65 Missions	7,738 Sorties	7,993 Hours
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Training

1,101 Missions	19,217 Sorties	24,507 Hours
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Other Air Force Support/Homeland Defense

68 Missions	8,029 Sorties	8,264 Hours
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Other State Support

69 Missions	1,103 Sorties	1,793 Hours
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All Other Operations

374 Missions	17,953 Sorties	23,425 Hours
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Total

3,245 Missions	74,248 Sorties	89,773 Hours
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BOARD OF GOVERNORS

Civil Air Patrol's 11-member Board of Governors generates strategic policies, plans and programs designed to guide and support the volunteer service of the organization's 52 wings. CAP's national commander and chief executive officer, the organization's chief operating officer and the CAP-USAF commander serve as advisors to the Board of Governors.

Air Force-Appointed Members

Lt. Gen. Judy Fedder, USAF (Ret), Chair
Maj. Gen. Sandra (Sandy) Finan, USAF (Ret)
Brig. Gen. Ken Ekman, USAF Vice Commander, CONUS NORAD Region, 1st Air Force (AFNORTH)
Robert E. Corsi Jr., USAF (Ret)

Civil Air Patrol-Appointed Members-At-Large

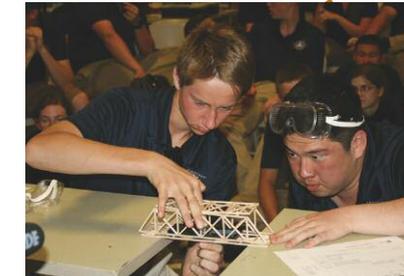
Col. J. Bradford Lynn, CAP, Vice Chair
Col. Jayson Altieri, CAP
Col. Dale Newell, CAP
Lt. Col. Thomas S. Vreeland, CAP

Industry, Government & Education Appointed Members

CDR George M. Perry, USN (Ret), Aviation Safety Advocate, Author and Speaker, United Parcel Service
Maj. Gen. Teresa Marné Peterson, USAF (Ret), Board of Directors, National Order of Daedalians
Stacey Bechdolt, Vice President, Safety & Operations Regulatory Counsel, Regional Airline Association

Advisors to the Board of Governors

Maj. Gen. Mark Smith, CAP National Commander/CEO
Col. Michael D. Tynismaa, USAF Commander, CAP-USAF
John Salvador, Executive Secretary/Chief Operating Officer, CAP



FUNDING

Federal Funding

\$30.8 Million Operations & Maintenance
\$10.6 Million Aircraft Procurement
\$1.7 Million Vehicle Procurement

In-State Funding Received by CAP Wings

\$3,026,928



CONTACT INFORMATION

National Commander/CEO

Maj. Gen. Mark E. Smith
msmith@cap.gov

Director, Government Relations

Col. John Swain
703-887-1749
jswain@capnhq.gov

CAP National Headquarters

105 S. Hansell St., Bldg. 714
Maxwell AFB, AL 36112-5937
877-227-9142
www.gocivilairpatrol.com



Mission Statement

Supporting America's communities with emergency response, diverse aviation and ground services, youth development and promotion of air, space and cyber power.

gocivilairpatrol.com





Cadet Airman Basic Noah Young, age 12, of Granbury Composite Squadron enjoys his first flight aboard a KC-135 Stratotanker.

STEM Kits provided through CAP's national aerospace education program for training and presentations.

Cadet programs enriched 432 cadets in winter and summer encampments, with 217 cadets attending the Texas Cadet Training and Education Program's leadership week-ends. Thirty cadets completed flight academies. Participation in the Air Force Association's CyberPatriot national cyber security competition continues to increase each year as well.

In 2018, 37 units earned CAP's National Quality Cadet Unit Award. Pilots provided 1,920 cadet orientation flights.

The wing was also honored on the national level, receiving the Col. Dion E. Decamp Ground Team of the Year award for the third year in a row, the Disaster Relief Award and the AFNORTH Commander's Award for the 2017 Most Meritorious Civil Air Patrol Mission — the wing's response to Hurricane Harvey.

more than 117 members in its two weeklong schools, achieving 5,214 new and renewed emergency service qualifications.

The wing's commitment to aerospace education resulted in an increase in the number of senior members — 904 — who earned CAP's Charles E. "Chuck" Yeager Aerospace Education Achievement Award. The wing's AE program consists of 292 aerospace education members, 180 Aerospace Education Excellence (AEX) educators, nine AEX units and seven AEX schools.

In addition, 38 units participated in CAP's Rocketry Program. Members conducted aerospace workshops throughout the state, making use of 97

The Texas Wing's 3,400 members distinguished themselves and exceeded expectations in 2018 by carrying out more than 5,316 flights totaling 6,176 hours. That included 783.4 hours of counterdrug and 283.3 hours of homeland security operations, along with 906.4 hours in search and rescue training locating 27 assigned targets, 732.7 hours of proficiency flying and 144.2 hours of search and rescue and disaster relief. Disaster relief support included 43 flights as part of the response to flooding in the Rio Grande Valley. Members also drove a total of 278,529 miles in support of these missions.

The Lone Star Emergency Services Academy trained



TX WING

2018 STATISTICS

Volunteer Members

1,622 adult members
1,777 cadets
413 aircrew personnel
2,329 emergency responders

Squadrons

73 locations statewide

Aircraft

33 single engine
3 gliders

Vehicles

49 vehicles

Interoperable Communications

32 VHF/FM repeaters
508 VHF/FM stations
95 HF stations

Missions

38 search and rescue missions
35 finds*
* Includes lives saved and finds credited with national team support
2 counterdrug and drug interdiction missions
1 air defense intercept training and evaluation mission
5 CAP, AFROTC & AFJROTC cadet orientation flight missions
1 other Air Force support mission
29 training missions
2 other state support missions
3 other missions in support of

partner agencies and organizations or local municipalities

Significant Events Supported in Fiscal Year 2018

Joint Task Force-North Border Operations; 111th Attack Squadron RPA Escort Operations (Ellington); Fort Worth Joint Reserve Base Low Level Route Surveys; 301st Fighter Wing Target of Interest Training; Air Defense Artillery Missions, Battalion and Culmination Training Exercises

Cadet Flying

1,920 CAP, AFROTC & AFJROTC cadet orientation flights

Total Hours Flown

6,176

Financial

\$10.3 million value of wing's volunteer hours

Wing Commander

Col. Sean Crandall
scrandall@txwgcap.org

Gov. Relations Advisor

Col. Brooks A. Cima
brookscima@gmail.com

Wing Info

553 Terry Crawford Drive
Nacogdoches, TX 75964-2468
936-205-9013

Website

www.txwgcap.org

INTERESTING FACTS

- » Quality Cadet Unit Awards achieved by 37 units.
- » Wing conducts two flight school and two encampments yearly.

70 YEARS



As U.S. Air Force Auxiliary



Texas Wing Civil Air Patrol Past Mission Information



Civil Air Patrol Texas Missions: Past 3 years (additional years available upon request)

	FY18	FY17	FY16
Flight Hours	6,337.8	7,878.8	5,182
Mission Sorties	5,134	5,617	5,144
Total Missions	100	116	127
Missions with Finds	28	35	29
Miles Driven within Texas on missions	278,529	223,175	155,264
Operational Days per year	340	353	351
Counter Drug Mission:			
West Texas (3 days a week)	48 Weeks a year	48 Weeks a year	48 Weeks a year
South Texas (3 days a week)	48 Weeks a year	48 Weeks a year	48 Weeks a year
Cadet/JROTC/ROTC Orientation Flights	1,594	1,263	1,178
Aerospace Education Members	292	242	232
Membership (Cadet/Senior)	3,399	3,293	3,362
Financial *Millions of dollars	10.3*	10,234,158*	10.*

(Value of Texas Members Volunteer hours)

Government Savings: CAP FY18 volunteer hours are valued at \$187 million nation wide, and \$10.3 million in Texas. In addition, CAP saves the government tens of millions of dollars when supporting critical missions with its own aircraft that average \$165 per hour (versus thousands for military aircraft). Overall, CAP’s return on the government’s investment is more than 4 to 1, an extraordinary value.

CAP’s Unique Value: As the Air Force Auxiliary performing missions for government agencies and a non-profit helping states and communities, CAP is an organization of “national interest” to Congress. FY18 was a record year for CAP with 158 lives saved and over 89,000 hours flown on a wide range of missions including emergency response and disaster relief, homeland defense and homeland security, support for state and local programs, and youth orientation flights.



HURRICANE HARVEY

626 CAP members from 44 wings and regions flew 71 aircraft on 757 sorties and took 376,000 photos.



This aerial view shows CAP planes at Ellington Field Joint Reserve Base during the response to Hurricane Harvey.

POC for Questions, Funding Details, and Assistance

Sean Crandall, Col., CAP, Texas Wing Commander at Scrandall@cap.gov or (956) 456-3590

Brooks Cima, Col., Texas Wing Government Relations Advisor at Brookscima@gmail.com or (281) 513-3974

Robert Beeley, Lt Col., CAP Texas Wing Asst. Government Relations Advisor at b_beeley@earthlink.net or (713) 306-9999