



South Dakota Wing Roundup



CIVIL AIR PATROL • SPRING 2017 • UNITED STATES AIR FORCE AUXILIARY



South Dakota Wing's "Team Big Sioux", the cyber-defense team of the Big Sioux Composite Squadron in Brookings, competes in Round Three of CyberPatriot-IX, the nation's premier annual cyber-security competition for high-school age youth.



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The Civil Air Patrol is a non-profit volunteer organization federally chartered by Congress under 36 U.S.C. §§201-28, which is dedicated to emergency services, aerospace education and motivation of America's youth to the highest ideals of leadership and public service. Funds received by the advertising sales are used to support this publication and to support various CAP activities throughout the state of South Dakota.

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CyberPatriot-IX (2016-2017)

A Tale of Two Teams

By Lt. Col. Bruce Kipp, CAP

2nd Lt. Mimi Klosterman, CAP, and 1st Lt. Tyler Gross, CAP

The annual “CyberPatriot” cybersecurity competition is a unique educational competition that challenges teenagers to resolve real-life cybersecurity situations faced by industry professionals. Created in 2009 by the Air Force Association as an annual event, the CyberPatriot competition provides students with hands-on learning about securing computer networks while educating, and motivating them toward careers in science, technology, engineering, and mathematics, disciplines critical to the nation’s future.

Civil Air Patrol teams compete in the “All Services Division” which consists of teams from Army, Air Force and Marine Corps Junior ROTC units, the Naval Sea Cadet Corps, and CAP. In the “All Services Division” only the top two teams from each service and a wildcard team win an all-expenses paid trip to Maryland for the to the national finals.

For the 2016-2017 CyberPatriot-IX competition the “All Services Division” consists of 923 teams, 528 of which are Civil Air Patrol teams.

During online qualification rounds teams face realistic computer network threats at their home location seeking out weaknesses in simulated online networks and defending those networks from threat scenarios. A Cisco networking challenge is also a part of the competition. Each team is scored according to how quickly and effectively



Logo of the Air Force Association’s “CyberPatriot”, the premier annual national cyber-defense competition for high school age youth. In 2015, a division for middle school age youth was established.

they established and maintained the secure networks. In the state round and the regional round the teams are faced with similar but more complex and sophisticated online computer network threats. In the “All Services Division” out of 923 teams only the top 12 teams advance to the National Finals.

For the 2016-2017 CyberPatriot-IX competition the South Dakota Wing fielded two teams; “Team Big Sioux” from the Big Sioux Composite Squadron in Brookings, and Team “Stonewall Spartans” from the Sioux Falls Composite Squadron in Sioux Falls.

Round One was held 11-13 November 2016. Team Big Sioux got off to a great start by scoring in the top 25%. The Stonewall Spartans placed 510th out of 919 teams which put them in the top 55% of all the teams.

Round Two was held 9-11 December 2016. There were three systems to secure (Windows-8, Windows Server 2008 and Ubuntu-14) as well as a Cisco Packet Tracer exercise and a networking quiz. Out of 930 teams in the All Service division, Team Big Sioux ranked number 151. Out of the 261



The “Stonewall Spartans” cyber-defense team of the Sioux Falls Composite Squadron for CyberPatriot-IX. Front row: Cadet Staff Sgt. Isaiah Klosterman (Brandon), middle row: Team Captain Cadet Master Sgt. Chris Schuppan (Sioux Falls) and Cadet Tech. Sgt. David Willison (Sioux Falls), back row: Team Co-Captain Cadet Airman 1st Class Samuel Moser (Sioux Falls), Cadet Senior Airman Peter Willison (Sioux Falls), Cadet Airman Hunter Zimmerman (Brandon). The team is coached by 2nd Lt. Mimi Klosterman and mentored by 1st Lt. Michael Klosterman (both of Brandon).

CAP teams in the division, Team Big Sioux ranked number 38. The Stonewall Spartans ranked number 209th of 360 teams. Of the 261 CAP teams in the division they ranked number 134. At this point the teams, based on their aggregate scores, are sorted into three tiers; silver, gold and platinum. Team Big Sioux's score put the team into the Platinum Tier which means state and regional rounds will be just against others in that tier. The Platinum Tier tops out at the national finals. Team Stonewall Spartans score put the team in the Gold Tier which tops out at the regional round.



Team Big Sioux of the Big Sioux Composite Squadron in Brookings hard at work in the third on-line qualification round. The team consists of: Cadet 2nd Lt. Jaden Petersen (Brookings), Cadet Chief Master Sgt. Graham Dinnel (Lake Benton, MN), Cadet Tech. Sgt. Andrew Sweebe (Brookings), Cadet Master Sgt. Annabelle Klosterman (Brandon), Cadet Master Sgt. Mariel Klosterman (Brandon) and Cadet Senior Airman Austen King (Volga). The team is coached by 1st Lt. Tyler Gross (Volga) and mentored by Cadet Lt. Col. Joshua Klosterman, Cadet 2nd Lt. Chris Dinnel and Cadet Tech. Sgt. Chase Lucas, all former CyberPatriot competitors.

State Round was held 13-15 January 2017. Team Big Sioux competed in the Platinum Tier and scored 57th out of the 293 teams in the tier and 15th out of 82 CAP teams. They won the 1st Place Air Force Association State Award. Team Stonewall Spartans competed in the Gold Tier and scored 166th out of 360 teams and 42nd out of the 100 CAP teams in the tier. Unfortunately, this was not high enough to advance them to the Regional Round. The team did win 2nd Place in the Air Force association State Award. This was this team's first time in the competition and the members are to be commended for their hard work and dedication preparing for CyberPatriot-IX. Each team member received participation awards including the certificate and commemorative coin shown below.

Regional Round was held 3-5 February 2017. Once again Team Big Sioux defended computer networks from attack. When the dust had settled the team came in 75th of the 82 teams in the Platinum Tier and was 20th among CAP teams. Unfortunately, this was not high enough to advance them to the National Finals.

The Air Force Association (AFA), the sponsoring organization, is a non-profit, independent, professional military and aerospace education association. Its mission is to promote a dominant United States Air Force and a strong national defense, and to honor Airmen and our Air Force Heritage. AFA has 200 chapters nationally and internationally representing more than 100,000 members. Visit AFA at www.afa.org.

The annual CyberPatriot competition greatly benefits from the support and technical expertise of its presenting sponsor, the Northrop Grumman Foundation. Other sponsors include Cyber Diamond Sponsors, AT&T Federal, Cisco, Microsoft, Raytheon, USA Today, the Department of Homeland Security, the Office of the Secretary of Defense, Cyber Gold Sponsors URS, Splunk, Symantec Corporation, Cyber Silver Sponsors Air Force Research Laboratory, Embry-Riddle Aeronautical University, Leidos, MIT's Lincoln Laboratory, and University College of the University of Maryland. For more information about CyberPatriot, go to www.uscyberpatriot.org.



CyberPatriot certificate and commemorative coin presented to participants in addition to any other gifts, awards and prizes their team may have won.

CAP Legislative Day at the State Capitol

*By Major Karla West, CAP
Sioux Falls Composite Squadron*

In the early morning hours of Wednesday, 8 February seventeen members of the South Dakota Wing gathered at the state capitol building for a day of learning and spreading the word about Civil Air Patrol.

Our opportunity to meet the legislators and staff members who passed through the halls began around 0700 as they were heading off to committee meetings. Officers and cadets greeted them with fresh bagels, cream cheese, assorted fruit and conversation about who we are and what we do for both cadet training and our service to state and local agencies. Almost everyone we talked to had at least heard of Civil Air Patrol but were not quite sure what we did. They were surprised and impressed by the vast array of services and training we offer our members. Representative Charles Turbiville was so impressed by the professionalism of Cadet Airman 1st Class Sydnie Cloutier that he invited her to join him on the floor of the house when the session started. She pulled up a chair next to Turbiville and visited with him for over an hour while they were in session, an opportunity not given to many young people.

The hero of Civil Air Patrol's day at the capitol goes to our very own Lt. Manny Steele. As a former legislator himself, Steele knows everyone in the building and is allowed on the floor of both the house and the senate with full access to every legislator. He spent the entire day running around visiting with those legislators he had already signed up to be



Gov. Dennis Daugaard visits with SDWG members on the grand staircase of the Capitol Rotunda.

a member of Wing Legislative Squadron and signing up numerous new members. Maj. Karla West commented, "Being out on the floor with Manny to see him in action with his devotion to spreading the word about CAP was a pleasure for me."

Wing commander Col. David Small commented, "Inviting legislators, who ultimately provide a good deal of our Wing's funding, to have hands on experiences in our aircraft and with members is a real boost to CAP. Legislators can see the value that we provide for tax payer dollars and they can see the commitment and competence of our members who live in communities throughout the state."

As we held down the fort at the capitol a small legion of members escorted a few legislators to



Legislative Squadron members State Sen. Jack Kolbeck and Rep. Lana Greenfield pose with Capt. Jon Becker (center) prior to their orientation flight over Pierre.



Cadet Airman 1st Class Sydnie Cloutier sits with State Rep. Charles Turbiville at his desk during the house session.

Legislative Day

Continued . . .

the local airport for a ride in a CAP plane. They were given a bird's-eye-view of Pierre and the surrounding area by Capt. Jon Becker, commander of the Pierre Composite Squadron.

During the day the cadets were given an opportunity to take a guided tour of the tunnels that run under the capitol building. Maj. Karla West's father worked in the capitol building in the State Emergency and Disaster Office. She recalls, "As a kid growing up I used to look at the capitol building as my playground. I would run all over the building and through the tunnels with my friends, having the best games of hide and seek and tag. For many years now the tunnels have been closed off to the general public so being given an opportunity to visit my old stomping grounds was extremely fun."

After visiting with numerous legislators all morning, we stood as a group in the back of both the house and senate as they started their day. We were introduced as "the state's best kept secret," receiving a standing ovation by not only the legislators but everyone in attendance.

That afternoon we hosted a "snack break" for the legislators with the famous Civil Air Patrol cupcakes and assorted veggies and dip and bottled water. Officers and cadets got some good contact time talking with the representatives and senators that are important to our well-being as an organization.

Later that afternoon Governor Dennis Daugaard met the visiting Wing members on the Grand Staircase of the Capitol Rotunda for a brief chat and a group picture.

For many of the officers and cadets this was their first visit to the state capitol building and to legislative day. Cadet 1st Lt. Blake Hayden said, "It was an honor to be recognized by the men and women who play a pivotal role in the function of our state's government." This day of visiting our state's capitol and legislators is one that every member should experience.

It takes a large number of people to organize and execute an event like this. The SD Wing command and staff thank everyone who took part in making this Legislative Day a success. 🇺🇸

The "Friends of CAP" Program

*By Brigadier General Larry Myrick, CAP
CAP National Vice Commander*

Become a Friend and Supporter of Civil Air Patrol!

We have developed a "Friends of CAP" Program, which is a new way for all citizens to be able to support the Civil Air Patrol (CAP) and is totally separate from our normal membership categories.



Your membership in the Friends of CAP program supports a wide variety of Civil Air Patrol activities.

The Civil Air Patrol supports America's communities with emergency response, diverse aviation and ground services, youth development, and promotion of air, cyber and space power. Do you want to support CAP's missions but don't have the time for commitment as a member? Become a Friend of CAP!

Friends of CAP pay \$35.00 as an annual tax deductible gift to further support the Civil Air Patrol without any volunteer membership obligations. Friends will receive the Civil Air Patrol's Volunteer magazine twice a year, as well as periodic emails with updates from our national staff and development office. Friends are eligible to take advantage of member benefits and discounts from our corporate partners.

The IRS has designated the Civil Air Patrol as a 501(c)(3), nonprofit organization.

You can become a member of the Friends of CAP program by going to the following website and filling in the requested info: <https://gocivilairpatrol.z2systems.com/np/clients/gocivilairpatrol/membershipJoin.jsp>



Commander's Corner

*By Col. David G. Small Jr., CAP
South Dakota Wing Commander*

As many of you know I can get very passionate about Civil Air Patrol. It is in that context that I let you know that a few years ago I got very worked up over a new CAP regulation that I thought onerous and burdensome to our wing. A few days later I was having lunch with an attorney friend of mine and I asked him how CAP could do such a thing and what kind of trouble I would get in if I disregarded a directive.

He looked at me kind of oddly and said “isn’t this an organization that you volunteer for?”, of course I said “yes”. His response to my question was simple, “if you don’t like the rules then you can quit”.

That kind of stopped me cold in my tracks. I was ready to take on all of CAP, 50,000 strong, but it never crossed my mind to quit.

Organizations have rules. Rules, regulations, guidelines, pamphlets, forms exist to help define the structure of the organization and keep its members all pointing in the same direction. If we didn’t have all of the “CAPRs” we would kind of be like the mother who proudly pointed out that her son was the only one in the whole band who

was marching in step – all of the other band members were out of step.

I remember the first SUI (Subordinate Unit Inspection) that I went through as a new squadron commander. I was absolutely positive that all of those “wing” members descending on Spearfish had only one objective in mind – to shut my squadron down. With the luxury of a little hindsight, and now being part of the IG staff, I realize how ridiculous that idea was. Nothing is further from the truth. All inspection members and all Wing Staff want nothing more than a squadron to shine and blow the SUI away.

CAP places a lot of trust in its unit commanders and members. There is no “enforcement” police to ensure that we follow rules and uphold CAP values. CAP trusts its leaders and members to do that, inspections only happen every few years. Now that the South Dakota Wing is to be inspected by higher echelons in the coming months, I try to convince myself that the same reasoning applies. Everyone from Gen. Vazquez and Col. Tyynnismaa (CAP-USAF Commander) down want



all of our wings and units and members to succeed.

Just in case you were wondering, yes, there are CAP regulations that I don’t understand and, yes, some that I flat out disagree with (no, I’m not going to tell you which ones). At times I may run even an inquiry up the chain of command.

As an officer entrusted with a leadership position in CAP I don’t pick and choose which regulations I and our wing follow. I am trusted by CAP to uphold all regulations and I will do my best to honor that trust and do so with a good attitude. I expect the same of all of our members.

Our volunteers, adhering to CAP values, and yes, regulations, is what keeps our organization going after 75 years. I hope that today’s cadets who are around in 75 years will proudly celebrate CAP’s 150th anniversary and recognize the values that we inherited from generations past.

Thank you for your service to CAP.

New Cadet Commander at Lookout Mountain Composite Squadron

*By Maj. William Collister, CAP
Commander, Lookout Mountain Composite Squadron*

On 19 January, Cadet Chief Master Sgt. Ryan Harris assumed command of the Lookout Mountain Composite Squadron cadet corps from Cadet First Lt. Jared Doyle. In a time-honored, traditional, change-of-command ceremony Cadet Chief Master Sgt. Harris accepted the squadron's flag from Cadet 1st Lt. Doyle symbolically transferring cadet command authority. The ceremony was held at the squadron headquarters at the Black Hills Airport, also known as Clyde Ice Field, in Spearfish. Squadron Commander Maj. William Collister presided over the ceremony as the other squadron members look on.



Distinctive squadron patch of the Lookout Mountain Composite Squadron in Spearfish.

Cadet Chief Master Sgt. Harris led new cadets in the physical fitness test for award of their first stripe on 11 February. While doing so he passed his own physical fitness test, com-



Cadet Chief Master Sgt. Harris (left) holds the squadron flag he has just accepted from Cadet First Lt. Doyle (center) as a symbol of the transfer of authority. Squadron commander Maj. William Collister is at right.

pleting the last requirement for award of the milestone General Billy Mitchell Award. In recognition thereof he was promoted to the rank of Cadet Second Lieutenant.

Cadet command is the ultimate challenge for a cadet officer or NCO. It is an enormous test of leadership skill, especially the ability to articulate a vision and point all cadets toward meaningful goals. The position stands at

the center of a squadron: The cadet commander is the most visible cadet, a role model for the entire cadet corps, and the liaison between the senior staff and the cadet staff. In small squadrons, the cadet commander may need to assume flight commander and even first sergeant duties. In large squadrons, his or her main task is to direct and coordinate a team of cadet officers and NCOs.

Australia Day Celebration at Rushmore Composite Squadron

*By Cadet Tech. Sgt. Brandon Spence, CAP
Rushmore Composite Squadron*



Cadet Tech. Sgt. Brandon Spence, wearing an Australian Army camouflage uniform, gives his presentation on Australia Day to members of the squadron.



Cadet Spence explains his family's connection to Australia.



Brandon's mom, Lara, and Grandma, Loraine, cook up Australian Burgers, side dishes and bake historic World War One-era ANZAC cookies for dessert.

On the 26 January, members of the Rushmore Composite Squadron in Rapid City came together to celebrate Australia Day. Being Australian, I wanted to have a cultural experience and allow others to join in and learn about Australia Day. Coincidentally, the 26 January fell on a Thursday, allowing the weekly meeting to be a time of celebration and learning for both the cadets and officers. With some help from friends, family, and the squadron, I was able to pull it off. The night started out with the usual drill followed with my presentation on Australia's history and why people celebrate 26 January as Australia Day. The squadron meeting concluded with a cook out;

"Aussie burgers" and ANZAC Cookies. Overall, the night was a huge success and a lot of fun. Many thanks to the friends and family who helped make this night a success. A huge "thank you" to the Rushmore Composite Squadron for allowing this event, and assisting in the catering.

An "Aussie burger" is meat, cheese, fried egg, fried onions, beetroot, tomato, fresh pineapple dipped in coconut flakes, and lettuce with condiments. ANZAC (Australia-New Zealand Army Corps) cookies are cookies that ladies made during World War One and sent to ANZAC soldiers abroad.

[Editor's Note: According to Wikipedia, Australia Day is celebrated on 26 January each year to commemorate the landing in Australia by the British. In October 1786, Captain Arthur Phillip was assigned to transport British settlers and convicts to the continent. He commanded a fleet of 11 ships with 1,500 passengers, including 700 prisoners. In January 1788, the fleet landed at Botany Bay to set up a penal colony and an agricultural work camp. Botany Bay, however, proved unsuitable so Phillip took the fleet north, landed at Sydney Cove on January 26, 1788, and founded a colony there.

The colony got off to a rocky start as the soil was poor and the settlers didn't know how to farm. The settlement was on the verge of starvation for several years. However, under Governor Phillip's leadership, they persevered. By 1792, when Phillip returned to England, the colony was prospering. The colonists took great pride in what they had accomplished and a fierce patriotism developed. The new Aussies considered 26 January as their founding day.

In 1818, 26 January was declared a legal holiday, marking the 30th anniversary of the British settlement in Australia. Over the next 80 years, the population steadily increased, and five additional self-governing colonies were created. On January 1, 1901, all six colonies united to form the Commonwealth of Australia. The name "Australia" was first suggested by Captain Matthew Flinders, an English navigator and surveyor. He was the first explorer to sail entirely around Australia and identify it as a continent. "Australia" means "southern" in Latin. The continent was officially christened "Australia" in 1824.]

Flying a Search and Rescue K9 Team

*By Lt. Col. Myra Christensen, CAP, Lt. Col. Craig Goodrich, CAP,
and Col. David Small, CAP, South Dakota Wing*

On 21 January, the South Dakota Wing held a winter Search and Rescue Exercise (SAREX) with the Incident Command Post (ICP) in Rapid City and a Staging Area in Pierre. Due to low ceilings and icing in the central and eastern part of the state air search operations were held in the Black Hills and ground search operations were held in Pierre. A total of 39 members from five of the Wing's six squadrons participated in the SAREX. The Incident Commander for the exercise, Lt. Col. Craig Goodrich, ran the SAREX from Wing Headquarters in Rapid City. This provided many challenges as part of his command staff were operating remotely. Usually everyone is in the same place.

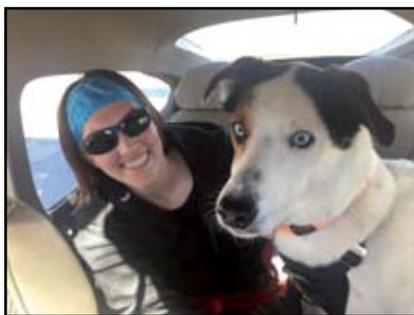


Pennington County Search and Rescue member Tammy Stadel and her search and rescue dog "Loki" pose next to a South Dakota Wing aircraft prior to Loki's first airplane ride.

One of the objectives of the SAREX was to fly a new Search and Rescue K9 team in a CAP airplane to ensure that there would be no issues when SDWG is called upon to transport the dog in the future. Ms. Tammy Stadel from Pennington County Search and Rescue took her dog Loki on a flight with Lt. Col. Goodrich as mission pilot aboard a South Dakota Wing Cessna-182/G1000. The pooch got a bit nervous when there was some turbulence, but that only lasted a minute or so before Loki settled down and relaxed for the rest of his first airplane ride.

Flying a search and rescue dog is just one aspect of the Civil Air Patrol's Emergency Services mission of search and rescue, disaster relief and humanitarian aid. It helps to familiarize the dog with the situation, and acquaint its handler and the pilot with the special requirements of having a dog on board a small aircraft. Practice such as this helps ensure that the South Dakota Wing can fly a Search and Rescue K9 Team to any part of the state quickly and safely.

Ground search operations in Pierre were based out of the Community Bible Church. This demonstrated that SDWG can set up a staging area just about anywhere there is electrical power and internet connectivity. Three ground teams were sent out in some fairly harsh weather to practice their skills in locating a practice beacon that simulated an Emergency Locator Beacon that was active due to a (simulated) powered paraglider crash in Farm Island State Park outside of Pierre. In all, some 14 vehicle sorties took place.



Tammy Stadel and her search and rescue dog "Loki" in the back seat of a South Dakota Wing aircraft.

Wing Commander Col. David Small and Incident Commander Lt. Col. Craig Goodrich thank all who took part in this training event. We were pleased to have a visit from Greg Maier, Assistant Director of Operations of the CAP-USAF North Central Liaison Region, who visited us at Pierre. They also thank the staff of Pierre Community Bible Church for their generosity in allowing us to use their facilities.

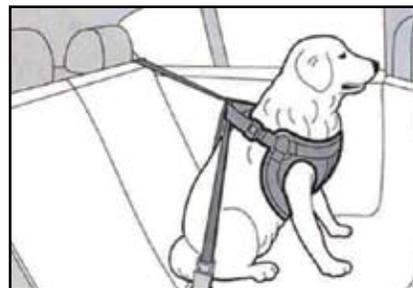


Diagram showing how the aircraft's seat belts link to the dog's harness to provide safety during a flight.

Goodbye 9929L

*By Major Karla West, CAP
Wing Director of Administration*

As of 11 January 2017, South Dakota Wing is no longer the base of operations for the 1986 Cessna-172P “Skyhawk”, tail number N9929L. For the past seven or more years South Dakota Wing has called this airplane “ours”. The Civil Air Patrol (CAP) owns the largest fleet of single-engine aircraft in the nation, approximately 535. Over the past few years, CAP national headquarters has been in the process of downsizing their fleet of aircraft and replacing older planes.

When South Dakota Wing Aircraft Maintenance Officer Maj. Justin Johnson was notified a few months ago that 9929L was going on the auction block, he developed a plan of action working with national headquarters to get the plane ready for the sealed-bid auction. This process turned into a complex maze of events for Maj. Johnson. He fielded numerous phone calls from potential bidders with specific questions. He also made special trips to Sioux Falls to personally show the aircraft to people from all over the country. Additionally, he arranged to have all CAP markings and CAP-specific equipment removed. Johnson also tracked down and acquired the aircraft’s missing logbooks.

After working countless hours on this project, Johnson explained how helping to manage the sale



Cessna-172P, tail number N9929L sitting on the tarmac at Sioux Falls Regional Airport.

of the airplane “was a very enjoyable experience.” Pilots from all over gave Johnson the opportunity to not only talk about 9929L, but also flying in general. This is the kind of shop-talk any pilot can have for hours. One of the most memorable bidders Johnson worked with was a gentleman who a few years ago had his plane go down in a grove of trees and was found by a CAP team. Johnson said that this guy just wanted to “own a piece of Civil Air Patrol”.

The opening bid on 9929L was \$31,225.00. After the auction closed the final sale price was \$57,900. Three of the bidders who had looked at other CAP planes around the country credit this price to the fact that South Dakota maintains their aircraft to an exceptionally high standard.

The aircraft will find its new home in St. Louis, Missouri with pilot Kevin Boker. The aircraft will be leased to a flight school to be used for pilot training and rental. Boker said, “The school is extremely excited to have the plane; students are waiting for it to arrive.” Boker was so pleased with the aircraft quality and the experience of dealing with CAP that he is looking forward to the next round of sales to hopefully acquire a Cessna-182 from CAP.



Sold! Maj. Johnson (right) congratulates Mr. Boker on his purchase of 9929L and hands him the keys.

I Model Civil Air Patrol Aircraft

*By Chaplain (Lt. Col.) Gary Rae, CAP
South Dakota Wing Chaplain*

I make model airplanes. This year I wanted the challenge of making a Cessna-172 “Skyhawk” and painting it in the current and tricky CAP color scheme. For my project I chose to model South Dakota Wing’s Cessna-172, registration number N97947, referred to hereafter simply as 947.

Why that airplane? Well, 947 has been in South Dakota Wing for a long time! It is the oldest aircraft currently assigned to us. A Cessna model 172P, it was built in 1984 and assigned to us 31 years ago on 30 June 1986. It originally cost \$46,000.00! When 947 was first assigned to us it looked like any other Cessna. Those were the days when CAP aircraft did not have a distinctive paint job.

As the aircraft aged it received more facelifts than a Hollywood movie star. The airframe has been totally “renovated” at least twice. In 2004 and again in 2013 it was given a new engine. In 2015, it was equipped with the Garmin G500 digital glass panel avionics suite, causing the Wing Vice Commander at the time to dub it the “Glasshawk”. At the same time 947 received an overall interior cabin refurbishment and its second distinctive CAP paint job.

Currently the venerable 947 is assigned to the Sioux Falls Composite Squadron. Other planes come and go, but 947 is our oldest and longest assigned plane in the Wing.

We need to respect our elders. So I chose 947 for my model building project. I started a year ago getting close up photos of our aircraft, then searching in hobby stores for the right paint shades of red, blue and grey. I then studied CAP regulation 66-1, CAP Aircraft Maintenance Management, which specifies how a CAP aircraft is to be painted and I followed the regulation as closely as I could on painting, decals, etc. A friend of mine in the Commemorative Air Force made up the decals for the CAP registration letter and numbers. I found roundels with the CAP emblem in a Google search a couple of years ago from a company in Greece!

This is a 1/10th scale, balsa (stick) model I built. The model kit had no cockpit, so I built one with its four seats and control panel. Such kits always have some design flaws that need to be overcome and modified, if possible. For this model it was the wheel pants (aerodynamic fairings that fit over the landing gear wheels). Though the first CAP Cessna aircraft came with wheel pants, they have not been on our current aircraft for decades. The model kit made it hard to remove them, so I left them on.

The aircraft has a 35-inch wingspan. The wings are covered with a synthetic monocoque filament skin

which is very strong, but also difficult to paint over! I wanted to be challenged in painting the difficult paint scheme used by CAP. The discerning eye will see how CAP modified the wing letters from the standard Arial black bold font; a change too difficult to make on a 1/10 scale model. It’s far from a perfect job...unless viewed from 6 feet away.

Semper Vigilance – Lt. Col. Gary Rae



The real N97947 on the flight line in Sioux Falls in September 2015 preparing for a training flight.

ORIENTATION FLIGHT IMPRESSIONS

Editor's Note: The Civil Air Patrol's cadet orientation flight program introduces cadets to the excitement of flying. Every CAP cadet under age 18 is eligible for five flights as co-pilot in a powered aircraft (usually a single-engine Cessna), five flights in the front seat of a glider aircraft, and an unlimited number of backseat flights when missions allow. The comprehensive instructional syllabus teaches cadets about aircraft design, the aerodynamics of flight, weather effects, communications and aircraft in-flight maneuvers to name a few of the topics. Aviation summer camps and flight scholarships are available to take cadets to the next level of working towards their private pilot's license.

By Cadet Matthew Schwarz, Sioux Falls Composite Squadron: The Day I Touched the Clouds. On 4 February I was privileged to go on my first cadet orientation flight, commonly called an "o-ride". I was as excited as I could be on the day of the o-ride as it would be my very first time to fly in an airplane. My father and I arrived at the airport at 0800. There I learned that my flying partner for the day was Cadet Airman Peter Willison. Our flight had to be delayed for a while because the wind that morning exceeded the maximum allowable for takeoff. While we waited for the wind to die down our pilot, Capt. Matt Meert, taught us about the aerodynamic basics of flying, about pre-flight checks of the aircraft and about the types of measurements performed by the aircraft's instruments. In my excited state it seemed like it took forever for the wind to drop to safe levels.



Cadet Lawrence concentrates on his instruments while flying the aircraft.

When in the plane, it is like being in a small car, but headsets are needed to communicate with each other and with the control tower. After a safety briefing and fastening our seatbelts we taxied out to the take-off runway. For the first part of the o-ride Peter was the co-pilot and I was the passenger. I then heard the roar of the propeller getting louder and louder until we started moving forward and up. Peter and I were flying in an airplane for the very first time!

As the ground fell away below us I saw a breathtaking view of the city of Sioux Falls. It

was amazing! The experience of flying is like a on a Ferris wheel and a rollercoaster mixed in one. Capt. Meert Matt then taught Peter to fly the airplane while scanning the sky for other aircraft, keeping an eye on the instruments and making small adjustments to the control yoke as we flew to Madison, SD. Capt. Meert landed the plane at Madison so Peter and I could switch places. In the right front seat I saw the runway stretch out before us and suddenly we were airborne again as Capt. Meert smoothly launched us into the sky.

As the co-pilot, I was nervous and worried I would mess up on some small detail. Then Capt. Meer told me to take over the controls. As soon as I took over the stick, I felt like I was the pilot controlling the plane! Controlling the plane was fun and I made sure I made small, subtle movements when turning and going up and down.

During our flight back to Sioux Falls Capt. Meert commented on how well we both were doing flying! At one point, I was talking about "what if the plane tipped upside-down?" Capt. Meert told me to let go of the stick. The plane then did a nosedive. Peter wasn't too thrilled at this. Capt. Meert then took over control of the plane and trimmed all the settings. He then had me take over control again. After a moment or two he told me to let go of the controls again. When I did, the plane flew itself! We then flew over our houses and landed. At the end of my first o-ride, I felt like I had done something life-changing, which I did. I can't wait for my next o-ride.

By Cadet Airman 1st Class Sydnie Cloutier, Sioux Falls Composite Squadron: Recently, I took part in a Cadet Orientation Flight. Although I have been flying through Europe, Asia and Australia since I was four years old, this experience was a

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Teamwork is the Mission

*By Maj. Karla West, CAP
Search Aircraft Aircrew Member, Sioux Falls Composite Squadron*

Teamwork is defined as the coordinated effort on the part of a group of people acting together in the interest of a common cause.

The average person most likely has no idea how many volunteers are required to perform a search and rescue mission for Civil Air Patrol (CAP). Numerous positions must be filled, and personnel must have a significant amount of training to be qualified to participate in a mission. Hopping in a plane or van and heading out to look for someone does not begin to cover the hours of volunteer time required for preparation and execution of a search and rescue mission.

Every mission starts with the call for assistance. As everyone in CAP is a volunteer, each mission requires a large pool of qualified members to draw from in order to accommodate civilian jobs and family responsibilities. Each mission, whether in the air or on the ground not only has the crew on the actual search, it also has a legion of people providing invaluable support at the mission base, often referred to as the Incident Command Post. This base of operations is comprised of diverse areas of responsibility. At the top of this chain of command is the Incident commander (IC), the person responsible for all aspects of the mission. The IC will line up an extensive list of team members including air and ground crews, a safety officer and a public relations officer to handle media questions. Additionally, each mission requires a team to handle communications both with the search crew members and with the government officials involved. When every member of the team involved in a mission is trained to do their job it helps the entire mission run smoothly.



One of the search aircraft's aircrew; Maj. Karla West (left), Cadet Maj. Brandon West (right) and 2nd Lt. Manny Steele (rear).



Computer flight tracking display of a search aircraft using the "expanding square" search grid.

This was evident on the afternoon of 5 January 2017 when CAP was placed on alert to help tribal officials search for a man missing on the Cheyenne River Sioux Reservation. An aircrew and ground support team from Rapid City was dispatched for a full day of searching. Aircrews on the east side of the state were placed on standby. After no success locating the missing man on the first day, air support from Sioux Falls and Pierre were dispatched Friday and Saturday. After completion of the necessary pre-flight paperwork, checking the aircraft, loading equipment and a quick mission briefing the aircrew can finally take to the sky.

Flight time to the search grid is utilized in the best possible manner, programming the navigation system with the search and rescue grid patterns, preparing the camera equipment, checking communications for updated information and reviewing the mission objectives.

Teamwork

Continued . . .

Once the search grid is reached, checking in with mission base is important to establish a communication channel. The aircrew informs mission base when they begin their search. This particular day a search pattern called the “expanding square” was utilized. Civil Air Patrol has several grid patterns available to cover a search area in the most efficient way. The pattern is programmed into the aircraft’s navigation system and the crew began the search. The pattern started with a small square, and expanded out 1 mile at a time. Other flight crews followed on Saturday and Sunday with different search patterns to cover the most amount of ground.

After four days of air and ground support, the Air Force Rescue Coordination Center determined that CAP’s service were no longer needed and closed the air search mission. Local ground searching continued for weeks. The body of the young man was found on 31 January 2017, bringing peace to the family. In total, the South Dakota Wing flew 14 flights that encompassed over 40 hours in the air that covered approximately 4,400 miles of territory. Including the ground support personnel, some 23 CAP volunteers devoted some 200 hours to the search. Even though the CAP crews were unable to locate the missing man, every mission is considered a success if the job was executed properly and safely. 🇺🇸

Orientation Flight Impressions

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whole lot different than anything else. When I traveled, I have flown a lot on the commercial jets, never been on a small aircraft before. I was a little surprised how much of a different experience it was to fly in the smaller craft. It seemed to me that the smaller plane moved around a little more on the air currents and the view from the inside took a little getting used to. After a while I felt I was able to relax a little and to enjoy the view. The ride was a positive experience for me that I am sure I will not forget. With Maj. E.W. Filler as my pilot, I felt like I trusted him with my life. For sure next time when I have an opportunity to fly, I will fly high and enjoy it more.



Cadet Hannah Becker solos at the North Central Region Joint Flight Academy at Mankato, MN.

By Cadet Airman Basic Andrew Smith, Sioux Falls Composite Squadron: It was Saturday and I was going on my first orientation flight. I was both excited and nervous that morning. I had been in a commercial airplane before, but never in a small propeller plane. After breakfast, we drove to Signature Flight Support in Sioux Falls. There, we went into a room for a safety briefing where they told us what to expect on the flight. Then we went out to the plane where I sat in back and the other cadet sat in the co-pilot’s seat. We went over the safety checklist, put on our headsets, and the pilot started the engine. It was really loud, but it didn’t bother me since we had our headsets on. The day was sunny and just a little windy. We taxied to the runway and lined up for take-off. The propeller started going really fast. We lifted off the ground before I knew it, using less than half the runway. We went up pretty fast, it was really cool. Then we were on our way to Brookings. It took about 25 minutes to get there. We were going about 115mph, but it didn’t feel that fast. I enjoyed seeing the farms and cows, which looked like little dots in the fields. When we landed at Brookings airport, we got out for a short break. Then the other cadet and I switched places, so I got to be in the co-pilot seat. All the dials on the display looked really cool. I wasn’t tall enough to see out very well, so I sat on a booster seat. We taxied to the runway and took off. It was cool seeing everything the pilot was doing during takeoff. I was expecting the turbulence to make the flight pretty bumpy, but it wasn’t too bad. Once landing back at the Sioux Falls airport, we were able to get our picture taken in front of the plane. It was a really fun day. I can’t wait until my next O-flight. 🇺🇸

Heraldry of the **SOUTH DAKOTA WING PATCH**

*By Lt. Col. Bruce Kipp, CAP
Assistant Wing Historian*

The South Dakota Wing Headquarters, CAP designation NCR-SD-001, is located near the Rapid City Regional Airport in Rapid City, SD. One of 52 Wings in the Civil Air Patrol it is subordinate to the North Central Region. The Wing is named after the state where it is located. It was formed at the same time the Civil Air Patrol was formed on 1 December 1941. The earliest specific mention of the South Dakota Wing is in a South Dakota newspaper article dated January 1942.

The Wing Headquarters has moved three times since it was formed. From December 1941 to February 1950 it was located in Pierre. From March 1950 to June 2006 it was in Sioux Falls and from June 2006 to present it is located near the Rapid City Regional Airport.

There are two known variants of the South Dakota Wing patch. They are very similar in appearance to each other. Variant-1 is believed to have come into existence in 1951. No record has been found as to when Variant-1 was superseded by Variant-2. However, anecdotally, Variant-2 was in wear in the early 1980s. However, Lt. Col. Lois Schmidt states that it was worn as early as 1968.

Variant-1: The patch, edged in dark blue, is in the shape of a circle, banded in dark blue, with a banner above and below. The upper banner bears the name of the Wing in red on a white field. The lower banner bears the organizational name in red on a white field. The field of the circle is white. In the center is a solid outline of the state of South Dakota in light blue. Superimposed over the state outline is a crude representation of the four faces on Mount Rushmore in white and light and dark blue surrounded by dark blue that represents the mountain. At the bottom center of the circle is an older version of the Civil Air Patrol emblem; stylized light blue wings with central light blue circle edged in dark blue containing a white triangle with a red, three-blade propeller. This Variant-1 patch is from the Lt. Col. Dick Forman Collection.

The representation of Mount Rushmore is poorly executed and the wings at the bottom have a straight line top edge.



The representation of Mount Rushmore is much better and the wings at the bottom have a more rounded top edge and are stubbier.

Variant-2: The patch, edged in medium blue, is in the shape of a circle, banded in medium blue, with a banner above and below. The upper banner bears the name of the Wing in red on a white field. The lower banner bears the organizational name in red on a white field. The field of the circle is white. In the center is a solid outline of the state of South Dakota in light blue. Superimposed over the state outline is a representation of the four faces on Mount Rushmore in white and light blue with touches of darker blue below and to the right representing the mountain. At the bottom center of the circle is an older version of the Civil Air Patrol emblem; stylized light blue wings with central light blue circle edged in darker blue containing a white triangle with a red, three-blade propeller.

The primary differences on Variant-2 are that the depiction of Mount Rushmore is much more precise and that the wings at bottom center are slightly different in shape.

No record has been found as to who designed the South Dakota Wing patch. Nor has any record been found as to who initially manufactured the Variant-1 design.

The 1980 uniform sales catalog for the “CAP Bookstore” (1980-2000) did not have a photo of the patch so it is not known if it was Variant-1 or Variant-2. The “CAP Bookstore” was replaced by “CAPMart” (2000-2006). Their catalogs also did not have a photo of the patch. Vanguard Industries began manufacturing the Variant-2 design in 2006 when they acquired the contract from “CAPMart”.

An argument can be made that when the “CAP Bookstore” took over the marketing of the South Dakota wing patch from the previous manufacturer(s) they, or their subcontractor for patches, used computer design software to clean up the original pattern. If this is the case it would explain how the Variant-2 patch was anecdotally being worn by South Dakota Wing in the early 1980s.

REDCAP - Missing Person Search

*By Lt. Col. Bruce Kipp, CAP
Wing Director of Public Affairs*

During the early afternoon of 5 January, the South Dakota Wing (SDWG) of the Civil Air Patrol was placed on alert. At the request of Cheyenne River Sioux tribal officials the Air Force Rescue Coordination Center (AFRCC) at Tyndall AFB, Florida activated SDWG to assist in the search for Tom Traversie Jr. who had been reported missing in the vicinity of Eagle Butte on the Cheyenne River Sioux Reservation. A CAP aircraft based in Rapid City flew the initial aerial search during the afternoon of 5 January but did not find the individual. The search continued on the 6th with CAP aircraft based in Pierre, Rapid City and Sioux Falls flying over the search area northeast of Eagle Butte. In addition, a SDWG control party drove to the Incident Command Post in Eagle Butte early on the 6th to liaise directly with Eagle Butte Police Chief Joe Wick who headed up search operations. Ground search activity in the area was hampered by temperatures as low as -21F and snow drifts up to 10 feet deep. The South Dakota Wing resumed aerial search activity during daylight on 7 January.

On Sunday evening, 8 January, the AFRCC terminated CAP's participation in the search effort for the missing Eagle Butte man. After four days of air and ground support, five CAP aircraft flew 40 hours of flight time over the search area with roughly 100 man hours devoted to aerial search. Fourteen air search sorties were flown that added up to approximately 4,400 miles crisscrossing the



A variety of vehicles were used in the search for the missing Eagle Butte man. Our CAP van is in the background.

search area. Three South Dakota Wing members liaised on the ground with tribal authorities. In all, 23 Wing members, officers and cadets, from five of the Wing's six squadrons, devoted some 200 hours to the search. As of Sunday evening the missing person had not been found. Tribal officials continued the ground search over the next several weeks with local personnel.

SDWG Commander Col. David Small expressed his appreciation, "I want to thank all of our members who volunteered their time for this. I know that some of you have worked all four days - thank you! Also thanks to those who were not called out but made themselves available if needed."



Field Mobile Incident Command Post near Eagle Butte. Our Civil Air Patrol van is on the right.

UPDATE: On 31 January, Radio Station KCCR in Pierre reported that the body of Tom Traversie, a rural Eagle Butte man, was found that day. Traversie had gone missing early in January during a blizzard. The body of his girlfriend 23-year-old Megan High Bear, also of Eagle Butte, was found during the initial search. Apparently Traversie and High Bear were traveling in a remote area northeast of Eagle Butte on 1 January when their vehicle went off the road. They decided to walk out in the extreme winter weather conditions to get help and both froze to death.

Winter Survival Training

*By Lt. Col. Craig Goodrich, CAP
Director of Operations, South Dakota Wing*



PCSAR and SDWG participants gather for an operations briefing.



Preparing for a training mission.

From 17-19 February 2017, a combined Winter Survival Training Exercise (WINTEX) and a Search and Rescue Exercise (SAREX) was held in the Black Hills near Nemo, a tiny mountain town on the edge of the Paradise Valley. Nearly forty members from every squadron participated in the exercise. What made this even more special was that this was a joint exercise with the Pennington County Search & Rescue organization (PCSAR). A portable generator and mobile

signal repeater placed high up on a nearby mountain ridge kept radio communications going. Mission paperwork was old school, on paper.

Air operations were run out of Rapid City Regional Airport.

If you have any doubt about the enthusiasm present at the exercise ask a cadet who participated to show you a picture of their bivouac. There were no snow caves as the daytime temperature was in the 60's but there was some very creative

use of dead-fall timber and survival blankets.

A special thank you to Capt. Patrick Nowlin and to Lt. Col. Craig Goodrich for pulling everything together, they spent dozens of hours working with PCSAR to coordinate everything then hauling supplies and equipment to the remote campsite.

We thank PCSAR for providing funding for meals. There's nothing like keeping a horde of active adults and teenagers fed in an outdoor environment.



Part of the fairly large tent camp.



CAP aircraft overhead on a search and rescue mission.



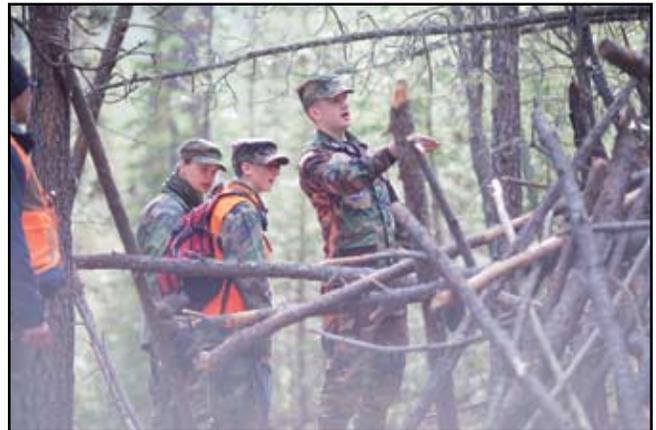
Burgers on the barbie helped keep the hungry participants fed.



Assembling radio-direction-finding gear for a search mission.



Training on evacuating a casualty from difficult terrain.



Out on a search mission.



Part of the Rapid City staging base crew.



Rapid City aircrew members get a mission briefing.



Constructing a hasty shelter using emergency blankets.



A hasty shelter built mostly from dead-fall timber.

Civil Air Patrol Helped Defend South Dakota During World War II

*By Maj. Todd Epp, CAP and Lt. Col. Bruce Kipp, CAP
South Dakota Wing Historians*

Seventy Two years ago civilian volunteer pilots of the Civil Air Patrol's South Dakota Wing helped defend the state against an aerial onslaught of Japanese balloon-bombs that posed a serious threat to the Black Hills.

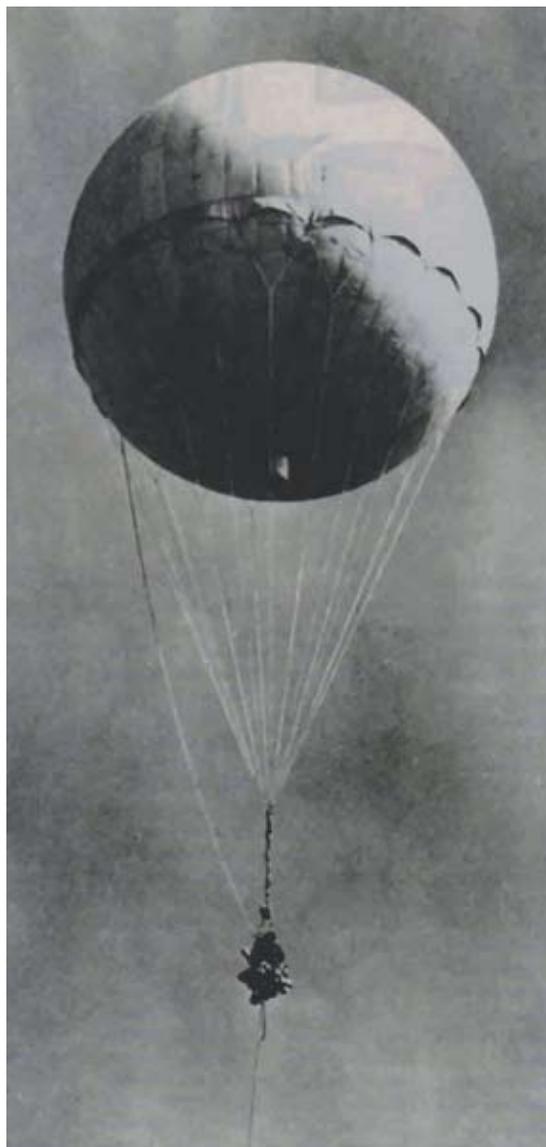
During the waning months of World War II in the Pacific the Japanese developed a weapon that could reach North America. They released large balloon-bombs, called Fu-Go, into the jet stream over Japan. The Fu-Go, which flew at about 30,000 feet, could reach America in just three days.

The Fu-Go were 70 feet tall and 33 feet in diameter when fully inflated with hydrogen. They carried a payload of incendiary and high-explosive bombs to Canada and the United States. As the balloon slowly drifted downward a sensor would trigger release of the bombs. The balloon itself would also explode to kill people, destroy buildings, and start forest fires. From November 1944 until April 1945, the Japanese launched over 9,300 Fu-Go against North America. Some 350 of them were observed or found in the United States.

The Civil Air Patrol (CAP) National Headquarters reported that CAP pilots in the western and central United States were on alert to look for Fu-Go and report them to the authorities. CAP pilots on aerial fire watch in the Black Hills were not content to just report them to the authorities; some pilots carried shotguns to shoot them down. It is not known if any South Dakota Wing pilot shot down a Fu-Go but several of the balloon-bombs did reach the state. Fu-Go were spotted or found near Belle Fourche, Big Stone City, Buffalo, Cheyenne River Indian Reservation, Marcus, Philip, Rapid City, Ree Heights/Wolsey and Red Elm. Some Fu-Go were spotted near Omaha and elsewhere in Nebraska, and it has been reported that one Fu-Go supposedly made it all the way east to Detroit.

Although the Fu-Go's potential for destruction and fires was large they proved to be ineffective and caused little damage. Nevertheless, to keep the Japanese from learning whether their balloon-bombs were effective, and concerned about the psychological impact on the American people, the U.S. government's policy was to limit reporting about the Fu-Go assault on America.

As the Civil Air Patrol celebrated its 75th Anniversary in December 2016 the historians on the staff of the South Dakota Wing have been researching the Wing's early days and the role it played during World War II.



Captured Fu-Go balloon bomb.