



South Dakota Wing Roundup



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*COVER PHOTO: Cessna-172 "Glasshawk" -
South Dakota Wing's Newest Search and Rescue
Aviation Asset.*

CESSNA-172 FROM “SKYHAWK” TO “GLASSHAWK”

South Dakota Wing’s Newest Search and Rescue Aviation Asset

*By Maj. Bruce Kipp, CAP
Wing Public Affairs Officer*

In September of 2014, the South Dakota Wing received some good news. CAP National Headquarters gave its approval for a complete overhaul, modernization and upgrade of one of our Cessna-172 “Skyhawk” aircraft to the Technologically Advanced Aircraft (TAA) Standard. Many thanks to Wing Maintenance Officer Maj. E. W. Filler of the Big Sioux Composite Squadron in Brookings who worked closely with NHQ Logistics to get the aircraft into refurbishment.

On 17 September 2014, Capt. Josh Hall and Lt. Ryan Jones, both of Rushmore Composite Squadron in Rapid City, took off in the Cessna-172 headed to Carson City, NV to drop off the airplane at the upgrade depot. After dealing with

an unexpected runway closure, the two pilots delivered the aircraft to Carson City Air Services. The work on our Cessna-172 was expected to take up to a year to complete.

Our aircraft underwent a complete makeover. It received a new paint job, a new interior, and an all-new Garmin G500 “glass” avionics suite, and more. The Garmin G500, much like its big brother G1000 avionics found in our Cessna-182s, features primary and multifunction displays, coupled with a new Garmin GTN-650 GPS/NavCom that allows for more exacting navigation, complex instrument flight rules procedures, autopilot linkage and increased situational awareness for aircrews.

Almost one year later, on 31 August 2015,



(L-R) Capt. Neil Schmid, Maj. E.W. Filler and Lt. Col. Rick Larson.



Capt. Kurt Johnson and his crew depart on a proficiency/familiarization training flight.

Wing Vice Commander Lt. Col. Rick Larson and Capt. Neil Schmid of the Sioux Falls Composite Squadron went to Carson City to retrieve our newly refurbished Cessna-172, Registration Number N97947. The aircraft will be assigned to the Sioux Falls Composite Squadron and based there.

Although the official name of the aircraft is the Cessna-172 “Skyhawk”, Lt. Col. Larson informally dubbed the refurbished aircraft the “Glasshawk” in recognition of the instrument panel change from the old gauges to the new flat panel displays.

The three pilots trained on the new “Glasshawk” systems before they flew the aircraft back to Sioux Falls. The TAA upgrade will require proficiency and familiarization training for South Dakota Wing aircrew. The initial training took place from



Cessna-172 Glasshawk’s new instrument panel.

4 to 6 September when CAP aircrew members from Sioux Falls Composite Squadron took to the skies to put the aircraft through its paces.

The refurbished Cessna-172 “Glasshawk” will add another technologically advanced search and rescue asset to South Dakota Wing’s two Garmin G1000-equipped Cessna-182s.



Navigational display on the Cessna-172 Glasshawk’s Garmin G500 system.



Cessna-172 Glasshawk’s advanced navigational display.



Commander's Corner

*By Col. John Seten, CAP
South Dakota Wing Commander*



When I received the reminder that my article for this magazine was due soon I realized that I was a short timer in the position of Wing Commander for SD. I assumed command in June of 2012 and will have completed my four year term this coming June. It's hard to believe it's been that long. Time truly flies when you're having fun. What a great group of people I've gotten to work with.

It's been a busy summer in the SD Wing. Just when it seems like things are going to slow down, something new pops onto our RADAR screen and we're off and running once again.

We've been honored to have found more recipients for the Congressional Gold Medal that Congress awarded to Civil Air Patrol members that served in CAP during World War II. We continue to follow leads on eligible past members and are busy scheduling two more ceremonies to be held at Sioux Falls and Rapid City. It's fun to talk to the recipients and their families and to hear the stories of how they helped during the war. We look forward to finding a few more that are eligible for the medal so we can properly honor them as well.

We worked hard for the State of SD Game Fish and Parks as well as the South Dakota State University as we flew their trackers around the state and assisted them with finding the various animal species that they are studying. Deer, Elk, Mountain Lion, Mountain Sheep and Bobcats as well as a few other species that I'm probably forgetting about. We thank them for their business and enjoy working with them. It is estimated that we flew over 35,000 nautical miles supporting the animal mission in FY 15. Wow!!

We also completed successful Low Level Route Survey missions and air intercept missions for both the SD Air National Guard and Ellsworth Air Force Base covering approximately 13,000 nautical miles in FY 15. These missions bring a great sense of pride to all that participate as we know that it makes a difference in the protection of our nation's skies.

It was South Dakota's turn to host the Joint Dakotas Encampment and we did so at the wonderful Camp Rapid National Guard facilities. We had a good turnout and some very meaningful training during the encampment. I can always tell when an encampment goes well by both the feedback I receive afterwards and the amount of mishap reports I have to process. Feedback was positive and mishap reports were to a minimum.

We've been informed that an interim budget has been approved in congress so we can continue with our training events right away after 1 October. We've already received an allocation of funds for pilot proficiency flying and cadet orientation flights. Let's take advantage of these great programs and also our upcoming training exercises.

I could go on and on with all of the accomplishments that our wing has experienced throughout the past few years. Our members are the best there are. While we are not a large wing, we are a very productive wing and don't think what we're doing goes unnoticed. Those working for the National HQ know who we are and they appreciate all that we do. Keep up the good work and I look forward to leading you for another few months. ✪

CAP CONGRESSIONAL GOLD MEDAL UPDATE

South Dakota Wing Honors Two More Recipients

*By Maj. Bruce Kipp, CAP
Wing Public Affairs Officer*

The Civil Air Patrol Congressional Gold Medal (CGM) became law on 14 May 2014 when the bill authorizing the award was signed by President Obama. The CGM recognizes and honors the service and sacrifice of more than 120,000 men, women and teens who joined the Civil Air Patrol immediately before or during World War II.

Wartime CAP members helped guard our coastlines to protect our nation's vital shipping lanes, patrolled our borders, watched for forest fires, conducted search and rescue missions and disaster relief tasks, operated an extensive military air courier service, helped train military personnel and carried out a wide variety of important domestic military and civil defense missions. By the end of 1943, CAP had flown over 86,000 missions totaling over 244,000 hours and more than 24 million miles. The missions were not without risk. 74 CAP coastal patrol planes crashed into the sea with the loss of 26 CAP personnel.

The initial presentation ceremony took place in Washington, DC on 10 December 2014. Speaker of the House John Boehner presented the medal to CAP National Commander Major-General Joseph Vazquez and former U.S. Representative Lester Wolff who himself was a WWII member of the



CAP. Attending the presentation ceremony were the majority and minority leaders of the House and Senate. That evening a gala celebration was held where Maj. Gen. Vazquez personally presented CGMs to more than 100 WWII CAP veterans or to family members of those no longer with us.

After the national ceremony each CAP Wing was tasked to continue to seek out individuals eligible for the CGM. To date South Dakota Wing has identified nine individuals. The family of one



Front of the bronze replica of the CGM.



Back of the bronze replica of the CGM.



Pauline Hanson Brehe in her CAP uniform in 1944.



Gov. Daugaard presents the CGM to Pauline Hanson Brehe.

South Dakota CAP veteran received his CGM at the national ceremony. Five South Dakota WWII CAP veterans have been presented their CGM at in-state ceremonies by dignitaries such as Governor Dennis Daugaard, U.S. Senator Mike Rounds, and U.S. Representative Kristi Noem.

Most recently presentation ceremonies were held for Lois Marco Schmidt and Pauline Hanson Brehe. More than 70 years ago, two young women from South Dakota decided they wanted to do something to help their country during World War II. Pauline Hanson Brehe of Pierre and Lois Marso Schmidt of Agar were part of a small group of women who served in the South Dakota Civil Air Patrol during the war; something most girls weren't doing in the 1940s. A lot has changed in the past seven decades, but their service hasn't been forgotten. On 24 August, Gov. Dennis Daugaard presented bronze replicas of the Congressional Gold Medals to Pauline and Lois for their WWII CAP service.

Lois and Pauline were founding members of the Pierre Composite Squadron and among the first women in not just South Dakota but the United States to become CAP members.

Pauline joined the Civil Air Patrol in 1942. For her it was a way to help her country during



Gov. Daugaard presents the CGM to Lois Marso Schmidt.

a time of war. She served as an adult member of the Pierre Squadron as an administrative officer with the grade of First Sargent. "We had to learn to identify all the aircrafts - our own, German and Japanese. So in case they flew over we would know what they were," she recalled. In March 1945, she enlisted in the U.S. Army to serve as a Medical Surgical Technician. The day after the CGM ceremony Pauline celebrated her 88th birthday.

Lois joined the Civil Air Patrol, Pierre Squadron, as a Cadet at the age of 16 in 1943. She returned to CAP in the 1969 and attained the rank of Lt. Colonel, which she holds today. Lois says it was her love of airplanes that led her to join CAP. "It was all study at that time. I still have my Civil Air Patrol book," she said.

Governor Daugaard said during the ceremony at the state Capitol that he was glad to honor the women for helping create a great legacy of service to the nation.

Presentation ceremonies are currently being planned for Walter Wilson and Thomas Roberts. We are especially pleased to present the CGM to the family of CAP Lieutenant Colonel Roberts. He was the first commander of the South Dakota Wing from its formation in 1 December 1941 throughout the war until 15 October 1945. 🇺🇸

1943 Advertisement for Jacob's Aircraft Engines featuring the Civil Air Patrol



SUBMARINE BELOW--- **FLASHES THE CIVIL AIR PATROL PLANE**

The indistinct shadow beneath the water means little to the untrained eye—but, the C.A.P. Pilot and his Observer instantly recognize the outline of a lurking enemy submarine preparing for destruction and death. The Pilot's depth charge is soon on its way—the location radioed to the Army, Navy and Coast Guard. The destruction of the raider is imminent. Former commercial and pleasure fliers who volunteered their services and their airplanes, the men of the Civil Air Patrol have been risking their lives daily since Pearl Harbor in the grim, relentless search for Axis submarines off our shores. Many ships have been saved from torpedoing—many already-shipwrecked seamen rescued—thanks to their ceaseless patrol. To them belongs no small share of the credit for driving the enemy undersea raiders away from our coasts.

We salute them for the courage, ability and self-sacrifice with which they do their job—and we are proud that many of the planes in which they perform this service to the Nation are Jacobs-powered.

 **JACOBS** AIRCRAFT
Engines 
POTTSTOWN, PENNSYLVANIA, U. S. A.

SOUTH DAKOTA WING ON SOUTH DAKOTA PUBLIC TELEVISION

*By Maj. Bruce Kipp, CAP
Wing Public Affairs Officer*

March 29, 2105 was a special day for SDWG. That afternoon several members of the wing were interviewed on camera by a crew from South Dakota Public Broadcasting for the television program “Dakota Life”. Paul Ebsen, an associate producer from SDPB is very enthusiastic about CAP and interested in our Wing’s history. Wing Commander Col. John Seten addressed CAP’s aviation, missions, funding, and history. Wing Chaplain Lt. Col. Gary Rae, dressed in his WWII-era CAP uniform, addressed CAP’s WWII history and current cadet programs. Capt. Neil Schmid, of the Sioux Falls Composite Squadron also addressed aviation and CAP operations. Wing Historian and Government Relations Advisor Maj. Todd Epp who arranged and coordinated the event also spoke about the history of the CAP and of the South Dakota Wing. The Sioux Falls based Cessna-172 and “glass cockpit” Cessna-182 were in the hangar for filming. Later Maj. Todd Epp commented, “This is a great opportunity for the Wing to get some excellent exposure and celebrate what we have done and what we do.”

In addition, Chaplain Rae spoke about his dad, John “Jack” Rae Jr., who was a WWII era CAP sub-hunter from Pennsylvania. He flew patrol missions out of CAP’s base in Atlantic City. On his father’s behalf Chaplain Rae was presented a Congressional Gold Medal from South Dakota’s U.S. Representative Kristi Noem at the wing conference in April posthumously recognizing his father’s courage. The segment SDPB shot in Sioux Falls aired on Dakota Life at 8 p.m. on 2 April on SDPB-1. It is available online at sdpb.org.



Wing Commander Col. John Seten gets set for his interview with SD Public Television.



Capt. Neil Schmid, a member of the Sioux Falls Composite Squadron, gives an overview of CAP flight operations.



Wing Chaplain (Lt. Col.) Gary Rae, dressed in his World War II era CAP uniform, prepares to be interviewed.

EXERCISE “CONSTANT WATCH-15”

*By Capt. Jerry Gabert, CAP
Wing Communications Officer*

The South Dakota Wing participated in the Civil Air Patrol’s National Communications Exercise “Constant Watch 15” on Friday and Saturday, the 15th and 16th of May. This exercise is held annually to test CAP’s ability to pass messages throughout the nation on long-range high frequency (HF) radio. This year we were also allowed to pass messages from HF operators to other units over short range very high frequency (VHF) radios. The South Dakota Wing’s portion of the exercise was organized and directed by Capt. Jerry Gabert, Wing Director of Communications.

The overall exercise began on the afternoon of 15 May Friday. Several SDWG radio operators participated on Friday afternoon and evening. Capt. Jerry Gabert and Lt. Rob Hinkhouse of Sioux Falls Composite Squadron, checked in on an HF radio in Sioux Falls. Lt. Todd Dravland of Pierre Composite



Squadron checked in on his HF radio in Pierre. SM Jeff Shawd of Sioux Falls Composite Squadron operated his HF radio in Valley Springs and took several Whiskey Tango (numerically encoded) messages and successfully entered them into the CAP computer system. Lt. Col. Dave Jefferies of Rushmore Composite Squadron in Rapid City checked in from his mobile HF radio and took



Whiskey Tango messages while also volunteering with the Red Cross at Delmont, SD. The weather conditions were not conducive for HF reception due to the thunderstorms passing through the western part of the state but we still managed to successfully pass some messages.

Capt. Gabert and Lt. Hinkhouse were also busy on Friday night planning messages to send on Saturday. They made up a practice decoder to simulate sending coded messages and then formulated several coded messages.

On Saturday morning the exercise was expanded to include an airborne radio signal repeater. The airborne repeater was carried in the Sioux Falls Composite Squadron’s Cessna-182 piloted by Capt. Neil Schmid with Maj. Elliott Filler as the Mission Observer. Through the airborne radio signal repeater we were able to establish communications from Sioux Falls to Brookings, from Brookings to Valley Springs, from Valley Springs to Sioux Falls, and from Pierre to Delmont.

SDWG members that participated on Saturday were Lt. Col. Mark Huntington, Lt. Rob Hinkhouse, Capt. Jerry Foy, Capt. Jerry Gabert and Cadet Eric Ortega and Cadet Airman Oscar Holmberg at the Sioux Falls Mission Base, Capt. Shannon Hofer, Cadet Lt. Col. Joshua Klosterman and Cadet Capt. Tyler Gross at the Brookings Mission Base, Lt. Col. Tam Gatje and Lt. Todd Dravland in Pierre, SM Jeff Shawd in Valley Springs and Lt. Col.

Continued on page 23 . . .

3,000 HOURS, AN AVIATION MILESTONE

*By Maj. Bruce Kipp, CAP
SDWG Public Affairs Officer*

Civil Air Patrol pilot Lt. Col. Greg Lair, a resident of Sioux Falls and member of the Sioux Falls Composite Squadron of CAP's South Dakota Wing, achieved a significant aviation milestone. In his day job, Greg is USAF Colonel Lair, Operations Group Commander of the 114th Fighter Wing of the SDANG.

In March he and USAF Lt. Col. Eric Knutson, completed 3,000 career flight hours in the F-16 Fighting Falcon when they landed after a training sortie at Joe Foss Field in Sioux Falls. Upon landing they were met by family members, friends and SDANG colleagues who congratulated them. Firefighters from the 114th Fighter Wing gave the pilots a traditional "wetting down" by spraying them with water from their fire trucks.

According to the Public Affairs Office of the 114th Fighter Wing, so far only 260 military pilots have reached 3,000 flying hours in the F-16 fighter jet. In addition to Col. Lair and Lt. Col. Knutson, the commander of the 175th Fighter Squadron, Lt. Col. Todd Sheridan, is the only other current



Lt. Col. Knutson (left) and Col. Lair (right) pose following their milestone flight.

member of the SDANG to have reached this milestone.

"The South Dakota Wing of the Civil Air Patrol is honored to have Lt. Col. Lair as a member. His experience as an Air Force pilot is of great value to our organization," said Colonel John Seten the Wing Commander for the SD Civil Air Patrol.

When not on duty with the South Dakota Air National Guard or flying for the Civil Air Patrol, Greg Lair is a pilot for United Airlines. USAF Lt. Col. Eric Knutson is Chief of Safety at the SDANG 114th Fighter Wing.



Col. Lair and daughter Julia, currently a CAP Cadet Senior Master Sgt., who assisted in the wetting down ceremony for her father.



Lt. Col. Knutson (left) and Col. Lair (right) congratulate each other after landing.

FILL 'ER UP, SIR?

Son Refuels Dad's Fighter Jet 23 Years Later

*By Senior Member Ronald Evenson, CAP
Sioux Falls Composite Squadron*

From 1992 to 1993, I was a U.S. Air Force Captain stationed at Kunsan Air Base in the Republic of Korea. I had an F-16 assigned to me. In keeping with tradition my name was painted on the canopy frame as pilot. The aircraft tail number was 86-0322.

Sometime after I left South Korea my F-16 was transferred to Eielson Air Force Base in Alaska. There it was assigned to the 18th Aggressor Squadron of the 354th fighter Wing and repainted in colors that mimic Russian fighter jets. The Aggressor Squadron flies in the style of foreign air forces to train USAF combat pilots and joint and allied aircrews



USAF Captain Evenson poses with his father's former F-16 at Eielson AFB, Alaska.



Then USAF Captain Ron Evenson poses with his F-16 at Kunsan Air Base, South Korea.



Then USAF Captain Ron Evenson poses with his F-16 at Kunsan Air Base, South Korea.

Fill 'er up, Sir

Continued . . .

through challenging, realistic threat scenarios.

A few months back in 2015, my middle son, currently an Air Force Captain and pilot of a KC-135R tanker, was on temporary duty at Eielson AFB. While there he flew a mission that included refueling Aggressor Squadron F-16, Tail Number 0322, not knowing it previously was my jet.

My son happened to call to me during his temporary duty at Eielson AFB. Knowing that my F-16 had been transferred there I told him to keep an eye out for my former jet. He shuffled through some paperwork then remarked that he had refueled "my" F-16 a few days earlier.

He was able to coordinate with the base photo shop and they took some pictures of him next to the jet on the ramp.

A thousand of miles apart and 23 years in the making, my jet with my son next to it, encountered on a chance visit. What were the odds?

I retired from the Air Force as a Lieutenant Colonel. When I joined CAP they counted much of my military service and assigned me a joining date of December 1997. Based on my prior military experience I expect shortly to be appointed to the grade of CAP Lieutenant Colonel. All three of our sons currently serve in the military and all three have been in the Civil Air Patrol. 🇺🇸

FROM CAP CADET TO NAVY SEAMAN

*By Lt. Col. Linda Buechler, CAP
Wing Director of Cadet Programs*

Lt. Col. Linda Buechler and family attended her grandson's (Brandon Purkapile) graduation from Great Lakes Naval Training Center, Chicago, Ill, on Friday, September 4, 2015. Seaman Recruit Purkapile was a cadet member of Sioux Falls Composite Squadron from 2008-2009 with the rank of Cadet Airman. Brandon said CAP training through encampment, cadet curriculum, and the physical training helped him prepare for training with the Navy and military life.

After some additional training Brandon will go to the fleet for a month to decide what his military occupational specialty will be. Currently he is thinking of training as a Gunner's Mate. The training focuses on the operation, maintenance, and troubleshooting of naval guns, missile launchers and torpedoes as well as a strong emphasis on basic explosives, guidance and tracking systems, small arms, Naval ammunition classification, and safety. Upon completion of this training, seamen often continue on to a specialized school, where they learn a particular weapons system. 🇺🇸



U.S. Navy Recruit Brandon Purkapile poses with his Grandmother, CAP Lt. Col. Linda Buechler.

“Let’s Fly Mom”

*By Capt. Karla West, CAP
Sioux Falls Composite Squadron*



Cadet Maj. Brandon West. Photo by Joe Ahlquist/Argus Leader Media.

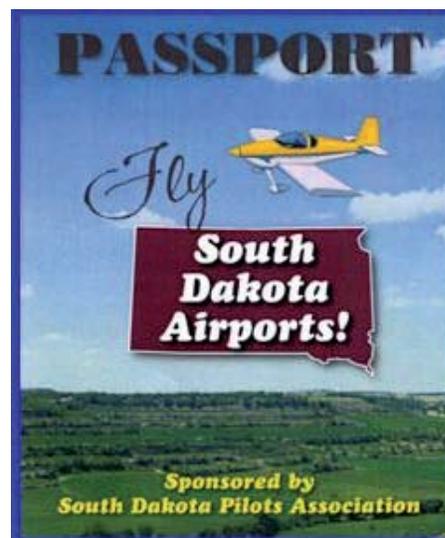
While other teenagers were learning how to drive, Brandon West was learning to fly. Now, the Brandon Valley High School graduate is on a quest to fly to all 72 public-use airports in South Dakota. Only five pilots have completed that feat since the South Dakota Pilots Association started its “FLY South Dakota Airports!” award program in 2010. “He would be by the far the youngest person to complete it,” said Steve Hamilton, executive director of the South Dakota Pilots Association. The average time it takes to complete the program is three to four years.

West isn’t flying alone. His mother, CAP Capt. Karla West, has been along for every takeoff and landing. They were introduced to Civil Air Patrol when Brandon was thirteen years old. He went to his first meeting and was hooked. According to Karla, “As we both learned more about this unique organization

that trained its members in search and rescue, we jumped in with both feet.”

Each Civil Air Patrol cadet is offered 10 orientation flights before he or she turns 18. Most cadets spread their flights over several years, but Brandon, who was 13 at the time, took much less time. Within the first month Brandon flew on his first orientation flight in a small airplane and was hooked on flying.

The subject of flying lessons came up after that first flight but it was not until his second year of high school that he actively began to pursue this dream. We went to Legacy Aviation, a flight school in Tea, SD to learn more about flying lessons. There is no minimum age required for flight lessons, but the Federal Aviation Administration



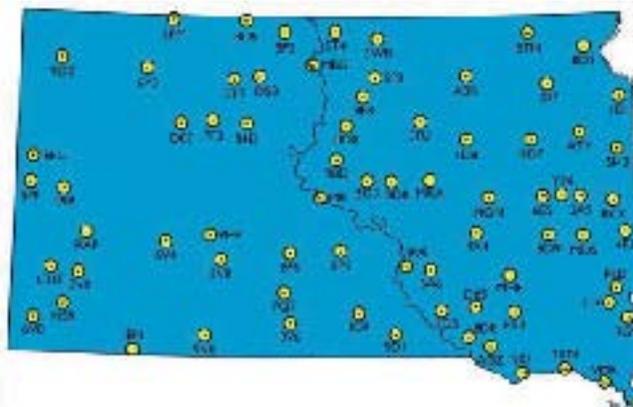
The South Dakota Pilots Association FLY South Dakota Airports! Passport (Logbook).



Brandon has already earned the FLY South Dakota Airports! Patch with 20 Airports Tab.



Brandon’s next goal, the FLY South Dakota Airports! Patch with 40 Airports Tab.



Map showing the location of all public-use airports in South Dakota.

does require students to be at least 16 before taking solo flights and at least 17 before getting a private pilot's license. Brandon began training for his private pilot's license in June 2013 at age 16, thanks in large part to a CAP flight scholarship.

His flight instructor, Jordan Hall, said he was the first person to give Brandon an orientation flight in the Civil Air Patrol. After receiving his private pilot's license in September 2013, Brandon went to work for Hall at Legacy Aviation in Tea, where he still works.

Earning a private pilot's license was only the first step for Brandon. Having just passed his instrument rating he is now looking forward to getting his commercial rating.

As the mom who sat at the airport observing his every take-off and landing, I was honored, but a little scared, to be the first passenger with him after he received his license. I was amazed to see him in the pilot's seat; he was not the typical teenager, but a serious young man - a pilot who understood the responsibility that comes with being in control of an aircraft.

Next was his goal of being certified to fly for the Civil Air Patrol. He completed the numerous requirements to become qualified to fly CAP aircraft. After 100 hours of flying he qualified as a CAP transport mission pilot. Now he is looking forward to qualifying as a CAP Search and Rescue Mission Pilot.

Working at Legacy Aviation and being in CAP has given Brandon opportunities that many young people never experience. Many of the pilots he met at work have offered him invaluable advice, and some have even trusted him to fly their planes. One such adventure stands out: after an afternoon of flying, we went to chat with some of his mentors at the airport, and they offered us a ride in their Beechcraft A36 Bonanza (the Cadillac of the skies). Not being one to pass up a ride in a plane, Brandon eagerly accepted. As we were getting in the plane, the owner stopped Brandon and said, "You're pilot-in-command." Never have I seen a bigger smile on his face than when his friend gave him such an awesome experience.

As most Moms can tell you, finding things to do together with a teenage boy is not easy; most teenagers want to spend as little time with their Mom as possible. I am proud to say that my son is not that typical teenager. For my birthday he bought me a pink flying headset and said "let's fly Mom."

As his High School graduation approached, we struggled to decide what to get him knowing all he wanted was to fly. I had heard about the "Fly South Dakota Airports" program from a fellow CAP member who had just completed it and it sounded interesting. The program is sponsored by the South Dakota Pilots Association. The program has three levels: Bronze for landing at 20 airports, silver for landing at 40 airports, and gold for landing at all 72 of South Dakota's public-use airports. In addition there are requirements for attendance at FAA aviation safety seminars and visits to South Dakota museums that have aviation themed displays. A stamp and signature is entered into a logbook called a "passport" at each airport, seminar and museum.

As graduation rolled around, he decided to set forth on the journey to complete the program. We took a major trip to the west side of the state this past summer landing at 13 airports all over the Black Hills. The most interesting airport was the small one inside Custer State Park. Landing with herds of buffalo just to the side of us was an amazing experience. At the time I write this, we have landed at 39 airports. One more and Brandon qualifies for the Silver Level Award.

Brandon has been very lucky in realizing his dream, thanks in large part to the support system in CAP and working at a job that gives him access to numerous aviation learning opportunities as well as the money to spend on his passion. "I absolutely love it," Brandon said.

He hopes to inspire other young people to never give up on their dream of taking to the skies. The hobby of flying does take a tremendous amount of time and money but it is well worth the effort. ✈



Cadet Maj. Brandon West stands next to a CAP Cessna-182. Photo by Joe Ahlquist/Argus Leader Media.

“MOUNTAIN FURY”

South Dakota CAP Trains in Mountain Search Flying

*By Maj. Bruce Kipp, CAP
Wing Public Affairs officer*

In mid-September, eleven Civil Air Patrol pilots from across the South Dakota Wing participated in “Mountain Fury”, CAP’s Mountain Search Pilot Course. The purpose of the course was to train CAP Mission Pilots to be mountain-qualified CAP Mission Pilots. The activity was directed by Maj. Craig Goodrich, Commander of the Rushmore Composite Squadron in Rapid City. Day one and part of day two were spent in classes on the physics, skills, techniques and perils of mountain flying. The classroom training was at the Crazy Horse Composite Squadron Headquarters in Custer. Classroom instruction was held on high altitude flying by Capt. Josh Hall, mountain weather by Maj. Craig Goodrich, mountain flying by Col. Mike Beason and mountain searching by Capt. Matt Meert.

The rest of day two and day three were spent flying training sorties. Flight operations were at

Mountain Fury aircraft undergoing pre-flight checks.



Two CAP pilots prepare for a Mountain Fury training flight.

the Custer County Airport at Custer. Each mission pilot flew four mission training sorties. Although the elevation of the Black Hills of South Dakota do not provide the kind of mountainous terrain that other mountain states provide, many of the



Mountain Fury *Continued . . .*



Col. Mike Beason prepares a Mountain Fury training flight.

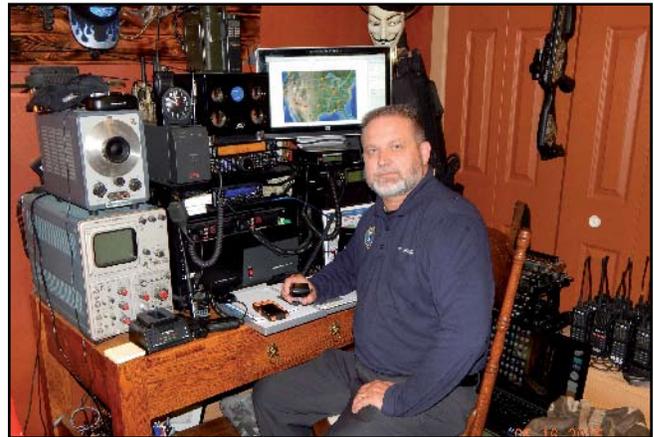
sorties were flown at 10,000 feet with reduced power settings to simulate “real” mountain flying. Plus, Custer County Airport and Custer State Park Airport are no walk-in-the-park - a pilot must be thinking about mountain flying to safely operate in and out of these challenging airports. A total of 25 sorties were flown during the training with seven of the pilots earning or renewing their Mountain Flying Certification.

Capt. Kurt Johnson of the Sioux Falls Composite Squadron, one of the mission pilots that went through the training said, “I personally gained a great deal of experience and respect for operating safely in “hot and high” environments. Our aircraft take on a whole new set of flight characteristics under these conditions. As pilots, we all read about this...but, the practical experience provided in this clinic was priceless! I feel no mission pilot should fly in mountainous terrain without this training and practical experience!”

Maj. Goodrich remarked, “Everyone stepped in to help with meals, cleanup, sortie management, and watching over safety. I especially want to thank the First Baptist Church of Custer, who operates Camp Victory, across the road from the airport, for their hospitality in allowing us to use their facilities for lodging and meals. The nearly perfect weather, camaraderie, and storytelling around the campfire each night helped make this weekend a great event.” 🇺🇸

Constant Watch-15

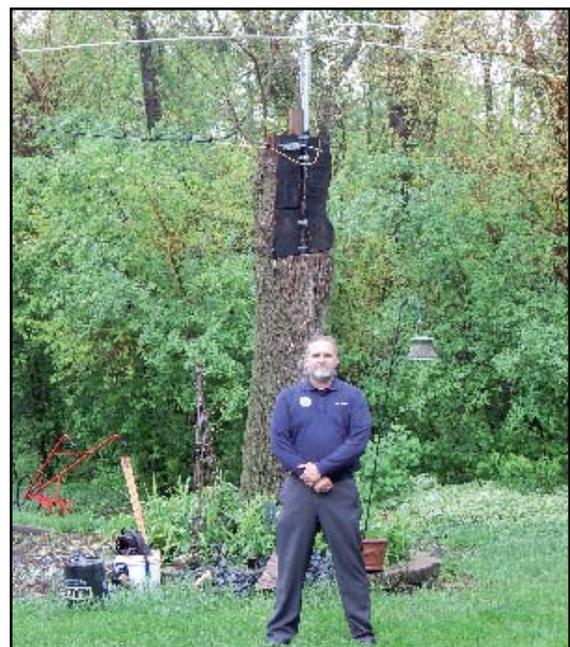
Continued from page 13 . . .



Dave Jefferies in Delmont.

Many practice coded messages were sent between Sioux Falls, Brookings and Valley Springs. The messages were then deciphered by the receiving station and verified by the sending station.

Overall this was a very successful communications exercise. There were a few unexpected obstacles we needed to work around such as the stormy weather, a few technical difficulties, and one of our key HF operators being called for Red Cross disaster duties. Lt. Col. Jefferies found a way around that by operating the mobile HF radio in his vehicle when he was not on his Red Cross duty shift. Thanks to all who participated and hope to expand our participation in the Constant Watch exercise next year. 🇺🇸



NATIONAL CADET SPECIAL ACTIVITY

Engineering-Technology Academy (Robotics)



*The logo of CAP's
NCSA Engineering-
Technology Academy.*

*By Cadet Chief Master Sgt. Josiah Huntington, CAP
Sioux Falls Composite Squadron*

From 26 July 26 to 2 August, I was at U.S. Marine Corps Base Camp Pendleton, California attending the Engineering-Technology Academy in Robotics, one of CAP's National Cadet Special Activities (NCSA) emphasizing where science, technology, engineering and mathematics (STEM). This is the first year that this robotics NCSA has existed; it was set up by Activities Director CAP Lt. Col. John DiGiantomasso. The purpose of the activity was to learn the basics of robotics, programming, construction and support.

I arrived at the airport where there were senior members waiting to pick up cadets as they showed up. Once we got to Camp Pendleton we were given

our NCSA t-shirts and assigned to one of six teams (each consisted of four students and one team lead, an experienced cadet mentor).

Over the course of the week we:

Explored techniques to engineer solid and durable structures

Built custom bridges that optimized load capability and weight, and tested them to point of failure

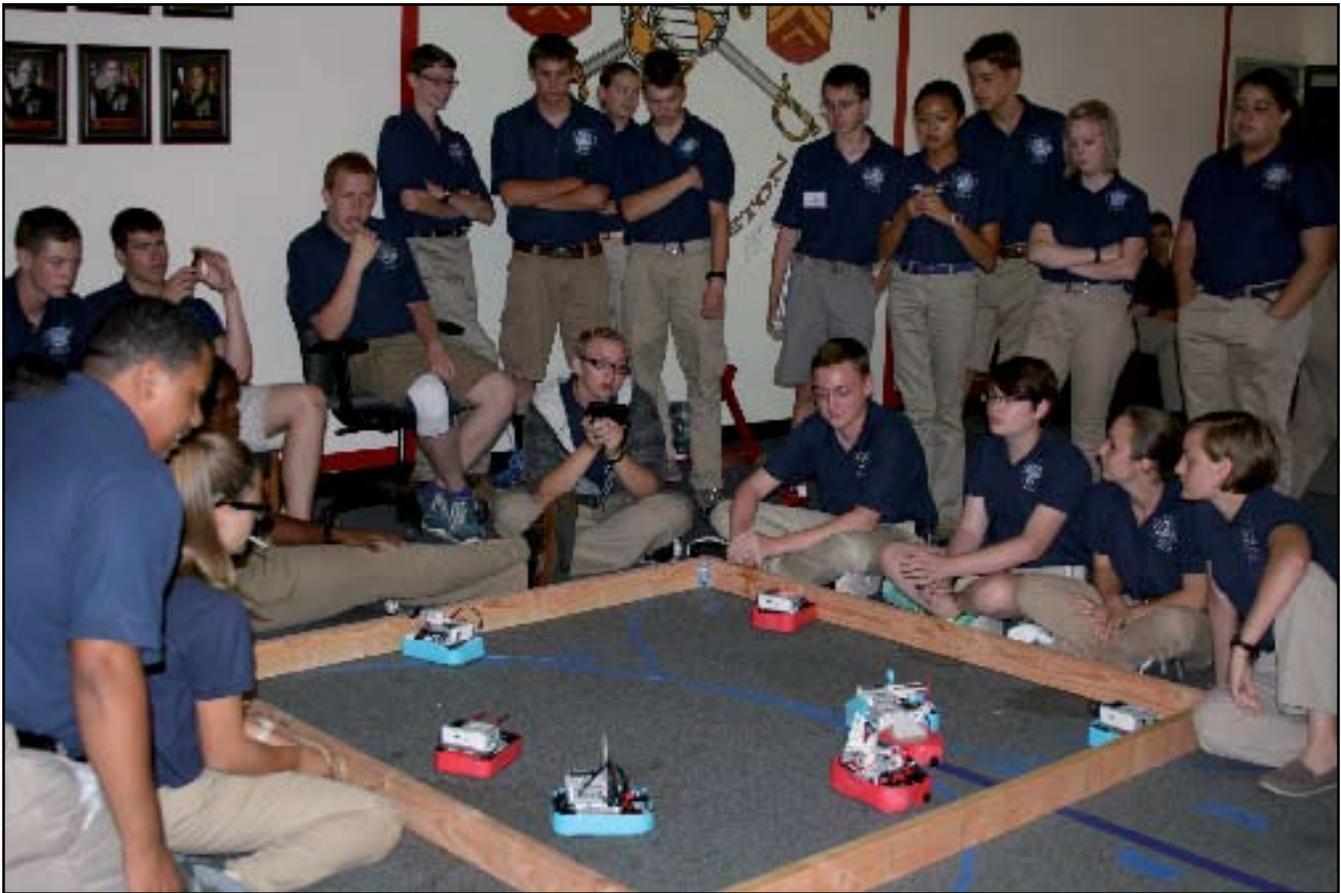
Experimented with gearing for torque and speed

Constructed linkages to convert motion from one form to another

Adapted a common robotic platform to per-



2015 E-Tech (Robotics) Students and Staff tour a Navy LCAC.



Each team battles for victory in robot wars.

form multiple tasks

Utilize Computer Aided Design software to experiment, prototype, and document our work

Engineered and constructed our own remote controlled racing robot

Wrote programs allow our bot to operate fully autonomously and interact with others at a

“Robot Party”

Designed and built a robotic fly-by-wire airplane cockpit demonstrator

Engineered, constructed, and operated a “Combat Robot” to try to defeat all our rivals in the ring

The first activities that we did included learning about origami and building balsa wood bridges.

After that each team received an identical set of state-of-the-art “Mindstorms EV3” components to create several different robots throughout the week. Each project consisted of a quick presentation of information that we would need to know, and then we had a few hours to come up with a design and build it. We would then have a competition comparing the design, function, and overall looks of our creations. There was also a week-long creative project where we were free to design and build a robot that did something amazing to impress the other teams. Every member of



Brainstorming to create the ultimate robot.

Continued on page 27 . . .

Heraldry of the **SHIUX FALLS COMPOSITE SQUADRON**

*By Maj. Bruce Kipp, CAP
Assistant Wing Historian*

The Sioux Falls Composite Squadron, CAP designation NCR-SD-050, is located in Sioux Falls, SD. It is one of six squadrons in the South Dakota Wing.

The squadron is named after the city where it is located. The squadron is one of the oldest in the South Dakota Wing and can document its lineage to 1950 and, anecdotally to 1942, when it was the location of one of the eight Area Group Commands in the South Dakota Wing.

The squadron's distinctive unit patch is in the traditional shape of a shield with a scroll at the bottom bearing an abbreviated form of the squadron's name. The patch is outlined in white. At the top of the shield is a horizontal black bar bearing the Civil Air Patrol motto "Vigilant Always" in Latin in white. Below the black bar is a nose-on view of a Cessna aircraft in Civil Air Patrol colors flying

through the vivid hues of a South Dakota evening. Below the aircraft is an abbreviated form of the squadron's CAP designator. Horizontally, just below the center of the shield is a depiction of the Sioux Falls skyline. The brown and blue area below the skyline represents the waterfall on the Sioux River. At the bottom of the shield is a composite of an older version of the Civil Air Patrol's winged logo over stylized Air Force style wings. This symbolizes that the Civil Air Patrol is the official auxiliary of the U.S. Air Force.



The squadron patch was designed in 2006 by Lt. Col. Rick Larson and the then Squadron Public Affairs Officer Lt. Shawn Anderson. It was approved for wear shortly thereafter.

NCSA

Continued from page 25 . . .

every team gained hands-on experience in designing, testing, building, operating, and documenting their robotic builds throughout the week.

The robots we created include a candy grabbing robot, remote controlled racing robots, an airplane with a functioning cockpit and control surfaces (but it didn't fly), a fully autonomous party robot, and a remote control wrestling robot.

During the week we did have some fun activities outside of the class room. We were able to get a tour of NASA's Jet Propulsion Laboratory (the center for robotic exploration of space), then we visited the Griffith Observatory. We were also able to tour the U.S. Navy's Landing Craft Air Cushioned (LCAC) base nearby, and we spent an evening at the beach (including a beach BBQ).

Over all it was an amazing week, we learned about robots, we built robots, we were able to have some fun activities outside of the classroom, and



Turning a design concept into reality.

we were able to meet Civil Air Patrol people from all around the US (we even had a cadet from Puerto Rico). If you are a cadet reading this who hasn't yet attended a NCSA, I would strongly urge you to check them out and try to go to one next year (you will have to attend one encampment before you can attend a NCSA). Also, if you are interested in robotics, engineering, or just STEM in general, I suggest checking out E-Tech Robotics. 🚀

STARLAB INFLATABLE PLANATARIUM

*By Capt. Karla West, CAP
Sioux Falls Composite Squadron*

Staff Sgt. David Stockinger, the Sioux Falls Composite Squadron's Aerospace Education Officer, arranged a cool Aerospace Education activity for the unit. Mr. Paavo Rasmussen from the Siouxland Heritage Museum brought a portable planetarium to the squadron meeting.

The Siouxland Heritage Museum's website describes the Starlab experience – Gaze into the night sky in our portable planetarium and discover the secrets of the seasonal constel-



The winter night sky over Sioux Falls projected on Starlab's stardome.



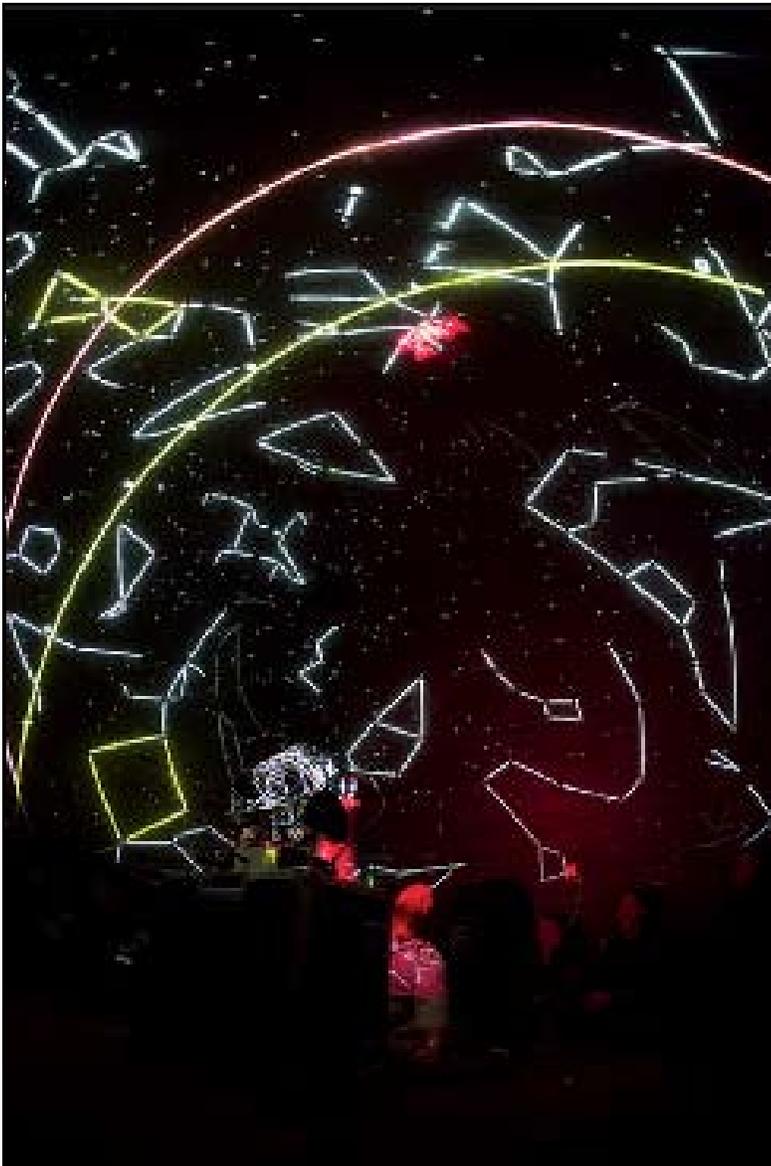
Members of Sioux Falls Composite Squadron and guests about to experience the wonders of Starlab.

lations. Starlab gives viewers the tools to begin their own sky exploration. Starlab encompasses astronomy and mythology.

Some 40 squadron members and guests were transported through the universe as Mr. Rasmussen guided us through the stars of the Northern Hemisphere as they appear at this time of year. We were introduced to Greek mythological characters as we explored how heroes of the past can be found



The portable Starlab planetarium is set up in the hangar under the squadron's headquarters.



The stardome shows the position of the constellations as seen from Sioux Falls in winter.

in the night sky as we learned to identify stars and constellations.

Squadron Commander, Capt. Jason Erickson said, "What a great thing to have right at our squadron. It will help me remember how to identify the constellations and how they came about".

The squadron thanks Mr. Rasmussen for transporting, erecting and operating the Starlab and for his expert navigation and explanation of the heavens. 🇺🇸

2015 JOINT DAKOTAS ENCAMPMENT

*By Maj. Bruce Kipp, CAP
Wing Public Affairs Officer*

*With input from Maj. Nick Gengler, Encampment Commander
and Staff Sgt. David Stockinger, Encampment PAO*



*“Omnia Vincit Animus”
(Courage Conquers All).*

It was South Dakota’s turn to host the 2015 Joint Dakota Encampment from 10-19 July at the Camp Rapid National Guard facilities in Rapid City, SD. The encampment’s motto was “Omnia Vincit Animus” (Courage Conquers All). The theme for the encampment was “Cadet Leadership”.

Under the supervision of Encampment Commander Maj. Nick Gengler and his staff

of senior members, the cadet staff, from Cadet Commander down to the Flight Sergeants and supernumeraries, planned and conducted the encampment. The focus was on Cadets leading and teaching cadets.



Confidence Course exercise.



Cadets learn small arms marksmanship on the simulator.

Some of the subjects covered were military customs and courtesies, drill and ceremonies, physical fitness, firearms training simulator, and night field training maneuvers. The cadets did some great



Confidence course exercise.



Tactical problem solving exercise.



Marching in formation.



Tactical problem solving exercise.



Participants tour an SD National Guard helicopter.

team building exercises at the Leadership Reaction Courses at Camp Rapid West. Classroom and field training on the skills and techniques of leadership were also some of the activities at the encampment. Although the encampment was a high-intensity experience for the cadets, fun frequently broke out to enhance the experience. The facilities in which the cadets got a taste of military life such as barracks and a mess hall were simply outstanding.

Maj. Gengler reports 81 members attended the encampment: 22 Senior Members (3 from North Dakota Wing and 19 from South Dakota Wing), and 59 cadets (16 from North Dakota Wing, 1 each from Missouri Wing, Idaho Wing and Minnesota Wing, and 40

from South Dakota Wing). Wing Commander Col. John Seten and Wing Vice Commander Lt. Col. Rick Larson travelled to Camp Rapid for a briefing on Encampment operations and met and spoke with the staff and participants.



Wing Commander Col. John Seten talks to encampment staff members.

Highlights of the encampment was the tour of SD Army National Guard Helicopters at the Army Aviation Support Facility at the Rapid City Regional Airport, a visit to the Air and Space Museum outside Ellsworth AFB, and observing live training at the Officer Basic Course going on at Camp Rapid West for NCOs that the Army National Guard selected to train as Officers.

The 2015 Joint Dakota Encampment ended with a



Field training exercise.



Physical fitness activity.

banquet and awards presentation at Ellsworth AFB. We were pleased to that 20 guests show up to view the graduation of the cadets. The overall assessment of the encampment by the staff and participants, seniors and cadets, was that it was successful and everyone had a great time. Wing Commander Seten said, “We had a good turnout and some very meaningful training during the

encampment. I can tell when an encampment goes well by both the feedback I receive afterwards and the number of mishap reports I have to process - feedback was positive and mishap reports were few.”

Attendance at an encampment qualifies cadets to participate in more advanced summer opportunities such as aircraft, glider and hot air balloon flight academies as well as a wide variety National Cadet Special Activities. Of course, this year’s general encampment attendees will have the opportunity to return next year as cadet staff/instructors.

The South Dakota Wing expresses it grateful thanks appreciation to the South Dakota National Guard for the use of their exceptional facilities and for the cooperation, support and assistance of their personnel. We offer a special thanks to the staff of the dining facility who kept our always-hungry teenagers well fed. 🇺🇸



Night maneuvers.



Learning military courtesies.



Wing Vice Commander Lt. Col. Rick Larson speaks with encampment attendees.



I WANT YOU

**TO JOIN SOUTH DAKOTA WING
OF THE CIVIL AIR PATROL**



The Civil Air Patrol, official auxiliary of the U.S. Air Force, is an all-volunteer organization serving our communities, counties, states and the nation.

Our Core Missions Are

- **Emergency Services (search and rescue, disaster relief, humanitarian assistance, and homeland security)**
- **Aerospace Education (aviation, aerospace sciences and space exploration)**
- **Cadet Programs (leadership, self-discipline, confidence, good citizenship)**

COME AND JOIN US

Rushmore Composite Squadron in Rapid City meets every Thursday at 6:30pm.
Contact Maj. Craig Goodrich at 605-787-8230 or by email at: craig.goodrich@sdcap.us

Pierre Composite Squadron in Pierre meets every Tuesday at 7:00pm.
Contact Capt. Richard Helton at 605-682-1420 or by email at: Richard.helton@sdcap.us

Sioux Falls Composite Squadron in Sioux Falls meets every Thursday at 6:45pm.
Contact Capt. Jason Erickson at 605-321-3298 or by email at: jason.erickson@sdcap.us

Lookout Mountain Composite Squadron in Spearfish meets every Thursday at 6:30pm.
Contact Maj. Bill Collister at 605-920-0895 or by email at: bill.collister@gmail.com

Big Sioux Composite Squadron in Brookings meets every Thursday at 7:00pm.
Contact Capt. Shannon Hofer at 605-366-6402 or by email at: shannon.hofer@sdcap.us

Crazy Horse Composite Squadron in Custer meets every Thursday at 7:00pm.
Contact Capt. Kris Bierwirth at 605-673-4816 or by email at: kris.bierwirth@sdcap.us