155th COMMUNICATIONS FLIGHT

LINEAGE
Activated, 9 Jun 1966
155th Communications Flight

STATIONS
Lincoln, NE

ASSIGNMENTS

COMMANDERS
Maj William G. Birdsall, #1981
Maj. Spencer D. Hansen

HONORS
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM
On a disc Azure, a globe per pale Celeste and Sable, edged and gridlined Or, issuing from base a stylized silhouette of five humans in chevron of the third, edged of the fourth, entire group surmounted by an electronic signal symbol fesswise throughout Gules, all within a narrow border Yellow. Attached above the disc, a Blue scroll edged with a narrow Yellow border and inscribed "DILIGENTIA ARS VICTORIA" in Yellow letters. Attached below the disc, a Blue scroll edged with a narrow Yellow border and inscribed "155TH COMMUNICATIONS FLIGHT" in Yellow letters. Ultramarine blue and Air Force yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The globe represents the unit's worldwide

scope. The silhouetted group of individuals represents diversity, flexibility and capabilities of the unit. The electronic signal symbol represents communication through all mediums and the continuation to serve. The Latin motto, "DILIGENTIA ARS VICTORIA," translates in English to "Diligence Skill and Victory."

MOTTO

NICKNAME

OPERATIONS

On 9 June 1966, the 155th Communications Flight was activated. Command of the flight was assumed by Captain Harry J. Myers and Air Force Communications Service (AFCS) advisory support was provided by the 1911th Communications Squadron, Offutt AFB. Supervision within the Nebraska ANG was delegated to the deputy commander for maintenance, LtCol C. R. McDonald.

The mission of the 155 CF is to support the 155TRG with: base communications center operations, telephone operations, intra-base radio systems, a public address system, varied ground-to-air radio systems, and a military affiliated radio station (MARS).

In 1967, a base cable plant was installed. This included all internal building wiring and buried cables that provide signal lines for telephone, intercom and other "special feature" point-to-point systems.

In 1969, the flight was one of five selected to install an AUTODIN as a "test bed". This test bed was to determine the feasibility of AUTODIN reporting from computers being installed in the supply and finance functions. After one year, the Air Force began installing UNI VAC DCT 1000 AUTODIN terminals throughout the ANG. Ours was installed in May 1972.

In late 1974, the AUTODIN system had outgrown its capabilities and a high speed CDT 9000 system was installed. This system was capable of printing 400 words per minute and processing 80-column punched cards at over 100 cards a minute. In 1979 this system was replaced by a military version of the UNIVAC BC-7 office computer. It features a "floppy disc" programming capability and message storage for recall.

Personnel of the 155CF have participated in several deployments. In 1977, they augmented the 104th Comm Fit (Colo ANG) for REFORGER 1977 with nine personnel. This deployment was to Soellingen AB, Germany. In 1979 two per-onnel went to England to augment the 132nd TFW, Iowa ANG. Also in 1979, Captain James Everts went with the 123TRW, Kentucky ANG, to the WINTEX exercise in Germany. In 1980, the flight supported two exercises for the 155TRG: Empire Glacier 80 at Niagara Falls, NY, and Coronet Cannon at Eskisehir, Turkey. In 1980, the flight also augmented a combat support element at Gulfport, MI in support of an active TAC/MAC ORI.

What most don't realize is that "behind those closed doors" across the hall from the 155th Communications Flight at the Nebraska National Guard air base in Lincoln exists a major

fortification in the digital battle against cyber-hackers and computer viruses. Here's something else that most people probably don't know: the Nebraska National Guard air base is home to one of just six Air National Guard Regional Operations Security Centers (more commonly known as ROSCs.) The ROSC is essentially the result of an Air Force directive that ordered Air National Guard units to solve a nationwide computer security problem, said Maj. Carl Tesch, commander of the 155th Communications Flight in Lincoln, Neb. Tesch said the Air Force went to a security system in the 1990s, built around the powerful Combat Information Transport System (CITS), which was put at the network control centers at each active duty base. At the same time, the 92 Air National Guard flying wings essentially built individual systems designed to suit their individual needs. The Air Guard solution, however, was not up to the standards the Air Force wanted to achieve in the field of computer and messaging security. It directed the Air National Guard to comply with the increased security needs. Considering that each CITS equipment suite cost approximately $250,000, the expense was too much for the Guard to handle. "It would've cost a lot of money to put it at 92 different Air National Guard flying wings," said Tesch. Instead, the Air National Guard decided to set up a series of regional centers that each of the Air Guard organizations could tie into. Initially envisioned as 10 separate ROSCs, the system has since been downsized to six centers located in regional locations across America. Tesch said the ROSC works somewhat like an internet provider. "All their traffic for the (Local Area Network), e-mail and web — anything they do that traverses through the network — comes through this regional center for security purposes," said Tesch. "We're like their internet service provider on a medium to large scale." The system essentially acts as a filtering system for both incoming or outgoing messages. Viruses and cyber attacks are kept from entering their Air Guard network. Outgoing mail and messages are scanned for security violations. Tesch said that the Lincoln ROSC provides support to 14 separate upper midwestern flying wings located in South Dakota, North Dakota, Iowa, Minnesota, Wisconsin, Illinois and Indiana. "What we do is provide them with another level of boundary protection," said Tesch. "We protect them from hackers coming into the system." The Lincoln ROSC is essentially a partnership between the military and civilian contractors. According to Master Sgt. Hubert "H.J." Brunk, Region 4 ROSC manager, the center staff consists of three contract civilian employees and four fulltime military members. The civilians – employed by the Digital Support Corporation – are responsible for maintaining the security equipment that protects the region's classified communications system. The military members are responsible for maintaining the equipment that protects all unclassified traffic. Tesch said that a by-product of the Air Guard system – which was conceived to save money – is a higher level of security. "The active duty system is a two-tier system in which each base is supporteddirectly by the Network Operations Security Center (NOSC)," said Tesch. "The Air Guard system is a three-tier system, with each base supported by a regional ROSC, which in turn is directly connected to the NOSC." The result, Brunk said, is a system that can operate quickly and efficiently at less cost than the larger, bulkier Air Force system. "Prior to the regional concept, we had more than 90 bases that had to be notified whenever there was a problem or a possible attack on the system," said Brunk. "Now we've only got six locations that you have to call. You can quickly prevent a virus from going bonkers on the system." "You can quickly get a hold of the network and prevent a virus from taking over the network," he added. "It's a very positive thing for the Air National Guard." So positive, said Tesch, the Air Force's Air Combat Command and Air Mobility Command recently announced that they want to take a closer look at the ROSC system. Tesch said the ROSC setup enabled the Air National Guard to upgrade its entire computer network system at a fraction of the cost it would've in the past. For example, he added, by concentrating the main costs at six

regional bases, the Guard has been able to not only pay for expensive hardware and software upgrades to the ROSCs, it has also enabled it to pay for smaller upgrades at each of the Guard's individual bases. That means that every Air National Guard base has seen a significant increase in the amount of bandwidth available to it. In the past, Tesch said, bases typically got by with 256 kilobyte circuits, which meant that it took a lot more time to upload or download from the computer network. Now, bases have newly installed T-1 circuits that have the capacity to move 5 megabytes of information every second. The customers – those bases served by the Lincoln ROSC – seem more than satisfied by the level of support they've received. "From talking to my peers at some of the other installations, my personal opinion is that it's worked very well," said Chief Master Sgt. Paul Kessler, information systems chief for the Minnesota Air National Guard's 133rd Communications Flight. "They've done a very professional job for us." "I'm actually surprised how well it's worked," he added. Kessler said that the new regional concept is much better than the system Minnesota used in the past in which they essentially linked through an active duty base. "We were just glomming on to the side of this other base," he said. "We were really left on our own. We didn't have much support." That's definitely not the case with the ROSC. "It's worked," Kessler said. "The services have been excellent and they continue to grow." "When we call up and we have a particular problem, we're talking to people that we know…that we've talked to before," he added. "They know us. They know what our set up is. We already have that rapport built up so it makes working through an issue that much quicker and very straight-forward." Brunk said that personal support is probably one of the biggest benefits of the system. Not only do ROSC personnel get to know their customers, they're also able to give them training on up-to date software or hardware upgrades as they occur. Most recently, that means replacing the old "Raptor" firewalls with the Air Force standard "Sidewinder" enterprise firewall system and providing training on the systems to the various air base staffs. It all adds up to a system that is much easier and cheaper to run, and much more capable to adapt to the computerized threats of today and tomorrow. "This equipment is kind of the frontlines protection for the bases that are behind us," he said. Tesch agreed. "The Air Guard found a cheaper and smarter way to do it," he said. "And it's working."2003

Approximately 40 members of the Nebraska Air National Guard as they kicked off their Feb. 20 -March 3 annual training on the Hawaiian Island of Oahu. "I'm enjoying the fact that there's no snow and that I can get from point A to point B without a whole lot of thought," said Tech. Sgt. Kenneth Matthews, an information assurance specialist with the 155th Communications Flight who traveled to the islands to help members of the Hawaii Air Guard's 154th Comm. Flt. install security patches on hundreds of computers during his stay at Hickam Air Force Base. "It's always beautiful here. I just love the beauty of the island." According to Master Sgt. Barb Gossage, unit noncommissioned officer in- charge, this year's annual training was designed to give the Nebraska Airmen an opportunity to learn more about their individual career fields in a real, working environment. The training is extremely important, she added, especially considering the fact that quick-notice, overseas deployments are now very much a constant part of life in today's Air National Guard. "The basic goal on any of our deployments is, number one, to learn how to deploy as a flight because we constantly have new people coming into the flight who have never deployed with us before," said Gossage. "And once we get to our location, we go right to work with our counterparts, picking up ideas and sharing our ideas, problems and solutions," she said. "We come here to help the host unit, but we also come to learn from them as well." For the vast majority of the Guardsmen, that meant jumping

into the fray almost immediately. Master Sgt. Lisa Wentzel, noncommissioned officer-in-charge of the Network Control Center, said that she and the other members of her shop were immediately put to work helping the 154th Comm. Flt. solve a massive problem. "They have about two-and-a-half times the amount of computers that we support in Nebraska," said Wentzel. "And they need every one of those systems touched to begin their remote client install service." "We're trying to assist them." It's a huge job. Unlike Nebraska, the Hawaii Air National Guard flies three separate aircraft with three completely distinct missions: fighters, tankers and transports. That equates to an organization that's essentially three wings in one. And each of those wings needs computers. Complicating that problem is the fact that the 154th Comm. Flt. supports nine geographically separate units — called GSUs — spread out throughout the Hawaiian Islands chain with a staff that is roughly the same size as Nebraska's 155th Comm. Flt. "I was really surprised to see how many computers they're responsible for compared to the Nebraska Air National Guard. They basically have three times as many computers as we do and about the same amount of people as we do to maintain them," said Senior Master Sgt. Leo Kreifels, information systems branch chief. "Our goal while we are here is to help the NCC with anything that they have issues with or haven't been able to get to." This included such things as updating workstations, helping out with the installation of new computer servers, building and maintaining broken computers and radios and dozens of other jobs that needed to be completed. Kreifels said the training actually had a dual effect. "We learn and they learn," he said. "We exchange information." The help was definitely appreciated, said Staff Sgt. Joseph Sayre, a 154th Comm. Flt. member who works at the NCC at Hickam. "They're fitting in great," said Sayre about the visiting Cornhuskers. "They're up to speed on everything that we're doing and it sounds like we're pretty much up to speed with what they're doing." Sayre said that many Air Guard units from the mainland United States often spend annual training working and training at Hickam. For instance, during Nebraska's stay, airmen from the Minnesota, Tennessee and Oregon Air Guard were also on the base. Sayre added that it's interesting to find out that members of the different Guard units aren't as different as one might expect. "We talk about the same woes," he said, adding that by comparing notes, the Guard units are able to solve Air Guard-wide problems together while also gaining confidence in each other's ability to get the job done right the first time. That's a particularly important thing to learn, considering the fact that many of these same Guardsmen could work with each other again in a far different environment, said Kreifels. "I don't know that this is quite the same as if we had to deploy someplace like Southwest Asia or some other location," he said. "But it is important that we are coming to a place that we're not familiar with and we're learning how to integrate with what's here. I think that's a big benefit." "It will help us in any situation," he added. Other Nebraska Guardsmen agreed. "Hawaii is almost like a whole different country," said Tech. Sgt. Kenneth Matthews, a 155th Comm. Flight information assurance technician. "It's good to meet people from all over and share what our common goal is: to protect the country," Matthews added. "(Annual training) gives us experience on how other shops do their job and how effectively we can integrate in case of a scenario where we are deployed." Matthews said that annual training, like the one in Hawaii, are an essential tool in preparing for future aerospace expeditionary force missions. "We're seeing how well that 'whole team' concept works when you work with an active duty or Guard unit," he said. "It's excellent to see how well we can come all the way to Hawaii from Nebraska, not knowing the people, and integrating." Gossage said she learned that there are several keys to making the total team integration work. "You have to be adaptable to do things

with the unit here," said Gossage. "You have to learn how to work cohesively." She added that there are some definite unit benefits as well. "It builds team spirit. It allows our flight members, who only see each other on the weekend, to get to know each other a little better," she added. "It provides great leadership training for our part-time supervisors and (noncommissioned officers) to lead and supervise." One of those gaining valuable leadership experiences was the deployment commander, 2nd Lt. Chris Ganshert. Having just received his commission, Ganshert had planned on learning more about his new unit by shadowing the flight's commander, Maj. Carl Tesch. Two days before the trip, though, Ganshert learned that Tesch was going to be unable to travel to Hawaii. So, instead of spending the annual training learning, Ganshert was propelled into the role of commander. He said that leading the unit seemed a little overwhelming at first. "It's not too bad," he said. "I've been with Comm. Flight for about three to four drills, so I'm still learning a lot. I didn't really know what to expect…but I really haven't had a lot of surprises." Ganshert said the experience he gained during the initial days of the deployment was definitely worth the initial anxiety. "The senior NCOs are doing a good job of organizing the daily activities and work schedules and things like that," he said. "They're making it easy." According to the Nebraskans' hosts, the Cornhuskers made a big difference during their stay in Hawaii. "The guys hit the ground running. They didn't need any supervision," said Tech. Sgt. Ronald Norbry, a 154th Comm. Flt. small computers branch supervisor. "They took charge, which you don't see very often." "(Nebraska) is definitely one of my favorites," he added. One of the projects that Norbry and the Nebraskans worked on involved building new metal cases for eight universal power supplies designed to protect computer systems against potential power surges. "The UPSs weigh about 120 pounds a piece," said Norbry. "They lugged them upstairs, lugged them into closets and mounted them on top of walls." Norbry said the visit by the Nebraskans also helps build a better Air Force by bringing people from different cultures and backgrounds together to work on important missions." "It's about the diversity…not just the different cultures, but also in the way that different people go about doing a job," he said. "You get a chance to see what other units are doing. Even though we're supposed to be on one team, we all have different missions, different aircraft. So this gives us our diversity." He said that he hopes to get the chance to return the help.

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