

KOREAN CONFLICT 60TH ANNIVERSARY

By LTC Mark Rosenstein

From the beginning of the Korean War on 25 June 1950, the U. S. Army Signal Corps was responsible for providing tactical and strategic communications to commanders throughout the Korean theater of operations.

"Signalmen," as they were known at that time, reconnoit-

tered and surveyed the highest elevations reachable by foot, vehicle and air to develop a functional microwave radio "backbone" that would provide communications to support combat and subsequent armistice operations.

This "backbone" of microwave radio relay sites was constructed in some of the most re-



Radio relay sites located in the southern part of the Korean Peninsula.

remote locations across the Korean Peninsula. One of these sites designated, Salem, was located near Waegwan, Korea. At the time, it was situated in one of the most austere locations. Today, it stands as a legacy to the many "Signalmen" who have supported and who continue to support it, since its establishment in the early 1950's.

Shortly after the armistice establishing a truce between North and South Korea was signed on 27 July 1953, the U. S. Army Signal Corps initiated projects to fortify and establish mountaintop microwave relay radio sites to improve and expand backbone communications from the Demilitarized Zone in the north to United Nations Command and United States Forces Korea elements operating as far south as Chinhae and Busan.

At the time of their construction, most of these remote mountaintop radio relay sites were manned 24 hours a day, seven days a week by signalmen charged with their operations, management and defense. Legendary radio relay sites in the south included: Bucket located near Osan; Highpoint located near Pyongtaek; Richmond located near Taejon; Tacoma located near Kunsan; Salem, Dartboard and Palgongsan all located near Daegu; Brooklyn and Changsan

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The Land of the Morning Calm communication backbone



Photo by 1LT Rene Rodriguez

Salem microwave radio relay site as it is in 2010. The tower to the extreme left is a Korean owned tower.

both located near Busan and Bulmosan located near Chinhae.

Most of the radio relay sites began operations during the Korean War. Their primary mission was to provide reliable multi-channel communications across the peninsula through a series of backbone radio relay sites. Radio equipment at most sites included the AN/TRC-24 transportable VHF/UHF-FM radio set, the AN/TRC-29 transportable tactical microwave AM-FM radio set, the AN/TCC-13 used with the AN/TRC-29 to provide 23 channels of telephone communication over a radio relay system, and the AN/TRC-36 transportable radio relay set. Many sites also supported the Armed Forces Korean - Network by operating and maintaining AFK-N radio and television broadcast equipment.

Korean national employees

served proudly by providing technical and logistical operations support to the sites since their establishment. Among other things, Korean nationals helped maintain microwave equipment, helped carry supplies to the most remote radio relay sites and cooked meals for site personnel. Today, Korean national employees are fully integrated into operations and continue filling a vital role maintaining backbone communications across the peninsula. Although most sites are presently unmanned because of technological advancements such as fiber optics, many still exist to support the operational infrastructure.

Since the signing of the armistice, command and control of these legacy backbone radio relay sites has passed through the Eighth Army Long Lines Battalion (1950-1967), USAS-

TRATCOM Long Lines Battalions - North and South (1967-1974), the 36th Signal Battalion - South (1974-present) and the 41st Signal Battalion - North (1974-present). The C2 of each of the radio relay sites has passed between company level units such as the 581st Signal Company, EUSA Long Lines Battalion; Alpha, Bravo and Charlie Signal companies, USASTRATCOM Long Lines Battalion (South); and 293rd and 501ST Signal companies, 36th Signal Battalion (South).

During Ulchi Freedom Guardian 2010, the world's largest command post simulation exercise, the importance of these legacy microwave radio relay sites was highlighted on the front page of the theater's weekly newspaper, the Morning Calm.

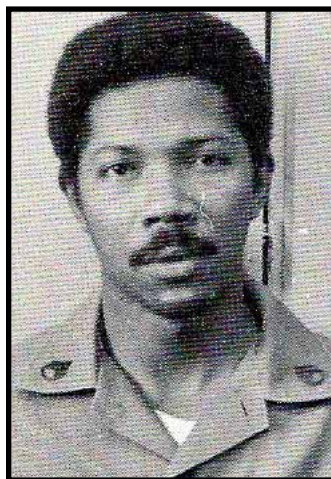
The restoration of the Salem microwave radio relay site was dubbed Operation United Drag-

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on to signify the united effort of infrastructure and logistical subject matter experts required to restore this vital alternate path communications site. The 36th Signal Battalion, in concert with U.S. Army Garrison-Daegu Directorate of Plans, Training, Mobilization and Security and Department of Public Works, planned, engineered and installed a replacement transformer to re-establish commercial power to Salem after a recent lightning strike had rendered the site's existing transformer non-operational.

To restore communications at Salem, USAG-D DPTMS coordi-



A former Salem Ridge Runner who served on Salem and PALGONG-SAN from 1977-78 (left) is SSG Jasper Sims from a 1977 photo. Today (at right) MSG (Ret) Sims serves with the 36th Signal Battalion assigned in the S-3 section as chief C4IS Plans.



nated with 2nd Combat Aviation Brigade, 2nd Infantry Division for air-mobility support. After successive days and attempts to airlift personnel and equipment were delayed as a result of inclement weather, Operation United Dragon finally came together with the successful sling load of a replacement transformer. The successful restoration of Salem included the replacement of over 150 gallons of fuel, repair of a generator that was manufactured in 1973, the engineering and installation of a new transformer and the restoration of alternate path communications.

Like many other radio relay sites across the peninsula, Salem has a rich lineage with countless Signalmen having proudly served to provide OMD service to the peninsula's legacy backbone microwave relay sites. The 36th Signal Battalion is honored to have a former Salem Ridge Runner assigned who served on Salem and PALGONGSAN from 1977-78. Jasper Sims is currently assigned in the S-3 section as Chief C4IS Plans. He is a veteran of the Vietnam War having served with the 267th Signal Company, 36th Signal Battalion as a lineman.

MSG (Ret) Sims said, "I will never forget my first trip up to Salem when veteran Ridge Runners said it would only take a maximum of an hour and 15 minutes from the base camp. Being young, and only carrying six movie canisters in my backpack, I thought not a problem and off

we went. Two hours later, we reached an area with a small lagoon where we could cool



Salem as it was in 1987.



Photo by MAJ Lan Dalat

Soldiers charge over the rocky terrain to secure the Salem site during Exercise Dragon Shield.

off. From this location, which the veterans called "keyhole," I could finally see Salem. It was a great feeling being told, and thinking, it was only fifteen minutes away although it turned out to be another hour of hiking up the muggy and rocky trail. In total, it took almost three hours to ascend up to Salem.

"After one month of acclimatization, the ascent to Salem took about one hour and 15 minutes. Descending took about 30 minutes where you ended up in the big city of Waegwan. At that time there were no high rise apartments. Daegu, our rest and relaxation area, was another hour and a half away by vehicle. The weather on Salem on any given day was either sunny and hot or cloudy and cold.

"Every Monday, Wednesday and Friday rations and test measuring diagnostic equipment were backpacked to Salem by Korean Service Corps personnel and all technicians assigned to the site. Periodically, we were excited to hear a helicopter coming our way as most pilots at that time went

out of their way to assist us in airlifting items from the base camp to the site. Catching a helicopter ride from Salem all the way to Daegu made us feel like we were very important people who were authorized to fly first class.

"On Salem, we were responsible for maintaining a radio-to-wire integration network via a Vanderbilt radio system; Armed Forces Korea - Network broadcast equipment; as well as providing helicopter pilots with real time weather conditions by maintaining and monitoring weather instruments. Duty on Salem was all about shift work. Our cooks rotated every three days.

"The site noncommissioned officer in charge was the only person that worked five days a week. Our time off Salem was anywhere from three to seven days. And no one complained when they received a few extra days of rest and relaxation."

Today, Salem microwave radio relay site is

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The remote radio relay site at Salem offers Soldiers extreme natural obstacles that make realistically challenging training evolutions.

(Right) 1LT Rene Rodriguez, 36th Signal Battalion assistant S-3, along with other members of the battalion and a Korean National soldier prepares fuel for a “sling-load” operation. Air operations are the only way to bring heavy equipment, fuel and supplies to Salem. **(Below)** A Korean National assists the during a “sling-load” operation at Salem to place a new transformer on site.



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unmanned and houses the traditional microwave antennas and tower with a containerized digital microwave unit that can be monitored and managed remotely from the Theater Network Operations and Security Center - Korea. The 293rd Signal Company located at Camp Carroll in Waegwan provides OMD site management with a dedicated roving maintenance team and support from the 36th Signal Battalion maintenance support team. This team is comprised of Korean National employees who collectively have over 70 years experience supporting the site. The maintenance schedule occasionally requires them to make the two-hour hike up the mountain since there is no road to Salem and the only way to the top is by foot or air.

The 36th Signal Battalion takes advantage of Salem’s challenging terrain and old buildings to conduct semi-annual remote site defense training. Exercise Dragon Shield involves Soldiers from all five battalion units and employs various rotary wing aircraft such as the CH-47 and UH-60 to rapidly deploy security and maintenance personnel from garrison locations to remote mountaintop radio relay sites supporting the Theater Defense Communications System infrastructure located throughout the battalion’s 38,250 square mile area of responsibility.

This article is dedicated to all “Signaleers” who faithfully served on Salem and other radio relay sites spread across Korea since the start of the Korean War on 25 June 1950. Their contributions to peace on the peninsula will never be forgotten.

For more information on 1st Signal Brigade visit: <http://8tharmy.korea.army.mil/1sig/>.

LTC Mark Rosenstein joined the U.S. Army Signal Corps after serving as a field artillery offi-



The 36th Signal Battalion takes advantage of the Salem microwave radio relay site in Korea during Exercise Dragon Shield. PFC Michael Clark, 169th Signal Company, provides security on Salem's landing zone as a CH-47, Chinook, prepares for lift-off. Air coordination and pyrotechnic resources are planned and unit-level training is conducted during Sergeant's Time Training and during other collective training events. Training focuses on troop leading procedures, site and building clearing, site defense, first aid and site restoral.

cer. Over his career he has held a variety of leadership and staff assignments including: Corps and Division G-6 Plans, Brigade S-3, Battalion Executive Officer, Group S-3 and Company Commander among others. He has deployed to Iraq three times, twice with V Corps and the 22nd Signal Brigade for Operation Iraqi Freedom and once in support of the NATO Training Mission - Iraq as an Advisor/Mentor. He also deployed to Haiti with the 10th Signal Battalion, 10th Mountain Division for Operation Uphold Democracy. He is currently serving as Commander, 36th Signal Battalion, 1st Signal Brigade, Camp Walker, Korea. 🇺🇸

ACRONYM QuickScan

AFKN - Armed Forces Korean Network
C2 - Command and Control
CAB - Combat Aviation Brigade
DCS - Defense Communications System
DMU - Digital Microwave Unit
DMZ - Demilitarized Zone
DPTMS - Directorate of Plans, Training, Mobilization and Security
DPW - Department of Public Works
EUSA - Eighth U.S. Army
KTO - Korean Theater of Operations
MST - Maintenance Support Team

OMD - Operations, Management and Defense
RMT - Roving Maintenance Team
RWI - Radio-to-Wire Integration
TCF - Technical Control Facilities
TNOSC - Theater Network Operations and Security Center
UFG - Ulchi Freedom Guardian
UNC - United Nations Command
USAG-D - U.S. Army Garrison-Daegu
USASTRATCOM - U.S. Army Strategic Command
USFK - U.S. Forces Korea
VHF - Very High Frequency