

JULY 6, 1967

HO CHI MINH TRAIL MONITORING CENTER CONSTRUCTED AT NAKHON PHANOM

A similar headline to the one above is featured in the July 1967 [50th Vietnam War Commemoration](#) website Timeline entry. The EC-47 History Site is a registered Commemoration Program Partner and this month we are featuring the anti-infiltration system of sensors used in and around the DMZ and along the Ho Chi Minh Trail complex. This article supports the Commemoration objective *“To highlight the advances in technology, science, and medicine related to military research conducted during the Vietnam War.”*

The beginning of construction of the Nakhon Phanom Infiltration Surveillance Center, also known as the ISC or Task Force Alpha, signaled the Department of Defense commitment to the MUSCLE SHOALS program officially approved on 16 September 1966 by Secretary of Defense, Robert S. McNamara...to develop a system to interdict North Vietnamese infiltration into South Vietnam.

There is much written about the costly, nearly 1-billion dollar a year anti-infiltration sensor system that became operational in central Laos on 1 December 1967. Rather than attempting to provide a “Readers Digest Condensed Book” type article covering the immense scope and complexity of the sensor program, this article is intended as a “book review” of three documents that, although all three cover much of the same historical facts, each document author provides specific details not common to all three publications. Direct links to the original source documents are provided along with a short paragraph “readers guide” for each document. A second headline and linked article describe the minimal early involvement of the EC-47 Compass Dart and Sentinel Sara mission aircraft in support of the MUSCLE SHOALS program. Personal stories provided by the involved USAFSS Vietnamese linguists are included as war stories that entertain as much as providing any real intelligence value to this 50-year look back article.



Task Force Alpha Complex

Most of the 200,000 sq. ft. air-conditioned building was located below-ground under thick concrete roofing and protected from rocket attack by earth-filled ARMCO corrugated steel revetments. USAF Photo: 553rd Reconnaissance Wing

In August 1966, the [Jason Group](#), an independent group of elite scientists, submitted a proposal for a multisystem barrier across the DMZ and the Laotian panhandle that would make extensive use of recently innovated mines and sensors. Their paper ([Study S-255](#)) is referenced often in electronic sensor research. In September, Secretary of Defense McNamara established the Defense Communications Planning Group to implement the concept, and later expanded the mission scope to cover an anti-vehicle barrier system across Vietnam, Laos and Cambodia. From that moment in time, the anti-infiltration sensor system would have frequent and often confusing project and facility name changes. Google any of these names to see the interconnecting relationships: PRACTICE NINE, ILLINOIS CITY, DUAL BLADE, DYE MARKER, DUTCH MILL, MUSCLE SHOALS, and IGLOO WHITE.

For the serious reader, the first source document, The Contemporary Historical Evaluation of Combat Operations [CHECO Report, IGLOO WHITE, 31 July 1968](#), is a great first document to read. The 64-page report has three chapters: (1) MUSCLE SHOALS Concepts; (2) How MUSCLE SHOALS Operated; and (3) MUSCLE SHOALS Accomplishments through 31 March 1968. For this article, we were mostly interested in the implementation of the program in 1967, but it is an easy read and you may find the “war fighting doctrine” (who’s in charge) challenges as interesting as the technology and value of intelligence gained from the sensors networks. For even more information, the [Texas Tech University](#) CHECO Reports Research Guide with links to additional CHECO reports is a valuable research tool.

Specific technical details of the sensor technology are presented in the Chris Jeppesen report, [Acoubuoy, Spikebuoy, Muscle Shoals and Igloo White, Copyright 1999](#). This 15-page article describes the GSID (Ground Seismic Intrusion Detectors) and ADSID (Air Delivered Seismic Intrusion Detectors) sensors that were the most widely deployed in Vietnam and Laos. The USAF Museum photo on the right is an ADSID sensor. There were an estimated 36,000 ADSIDs manufactured. Jeppesen’s report describes geophone transducers, voltage and magnetic fields as well as the differences between seismic and acoustic sensors. He presents information on Patrol Seismic Intrusion Detectors (PSIDs) and HANDSIDs. The aircraft used to “seed” the sensors and the radio relay aircraft types and equipment and communications systems are well documented in pages 5-13. There are several good photos of OP-2E, EC-121R and the QU-22B drone airplanes.

[How the Vietnam War Brought High-Tech Border Surveillance to America](#) is an excellent wrap-up for this featured technology. Written in September 2015, author Matt Novak provides a recap of historical information already referenced in the first two documents, and then adds more recently declassified information that ties the Vietnam era technology to the systems being used by border control agents today. There is also a link to a 1969 Department of Defense 2-part (combination real-life and animated graphics) video titled [Bugging the Battlefield](#). The title says it all. The Novak article explains (generally) the eventual transfer of Department of Defense surplus and often obsolete sensors, drone aircraft, and computer systems to the Justice Department and the Border Patrol agencies. Photos from inside Task Force Alpha and close-up shots of the state-of-the-art IBM 360/65 computers and the main control room help put the anti-infiltration sensors operation into perspective compared to a great 2005 photo of a Southern California border monitoring station...with what might be considered a modernized Task Force Alpha-like control room.



Screenshot from the US military film *Bugging the Battlefield*



The last page of Novak’s article has a great list of references. [“They are watching you, through walls, in the dark of night, while you walk around, and it comes from Vietnam”](#) is a February 18, 1972 Pacific News Service article by Robert Barkan, lamenting the infringement on individual civil liberties by the same government that used these surveillance devices to spy on the Vietnamese. Perspective—50 years ago.

JULY 1967

COMPASS DART MONITORS DMZ PROJECT MUSCLE SHOALS

The 6994th Security Squadron EC-47 crews were tasked by the National Security Agency Pacific, Vietnam, representative with a requirement for "...airborne intercept resources to operate in the Muscle Shoals area in order to assess, through SIGINT, reactions and possible counter-measures of the enemy to the anti-infiltration barrier devices." Both Compass Dart and Sentinel Sara EC-47 aircraft were fitted with G-175J VHF radio receivers capable of monitoring the enemy tactical voice communications frequencies being used within and along the DMZ. The mission tasking was not implemented until mid-December and there is no mention of results in recently declassified squadron histories from July-December 1967. The histories do reference a MACV commander request that "... dropping the sensors into enemy base camps for the purpose of monitoring activities within the camps" be investigated. Subsequent 6994th Security Squadron hearability test results were disappointing...indicating the effective hearability range between a test sensor and the aircraft on the ground was only about 200 feet. The excerpted unit history is linked [here](#).

Using the EC-47 History Site Newsletter mailing service, subscribers were asked to comment on any of their personal experiences with the Muscle Shoals project and/or other involvement with the anti-infiltration sensors system. Here are some of their responses:

June 19, 2017

I was a 203 at Tan Son Nhut on TDY to NKP in February or March of 1970. My medical records had not caught up with me from Saigon and the flight surgeon at NKP was a stickler for that stuff. So, I was spending my days at Ops with not much to do. As many will remember, Det 3 Ops was in some van-like structures inside the TFA compound but outside of the high wall. A major came over to our ops from TFA with a tape that had some chatter on it. After doing the proper hand-shake with our ops officer, brought me the tape. The chatter could have been Laotian, Khmer, or Thai. It was not Vietnamese. That was tough to discern as it seemed they picked it up with a rectal microphone. Garry Kent listened to it too after he got back from a mission. He agreed with me about the language. He said probably not Thai.

That is all I remember.

Jack Condon

6994th September 69 - September 70

Tan Son Nhut mostly, Pleiku for a few weeks, NKP for a few weeks.

June 21, 2017

Dear Chief,

Tom Penn, one of the Doggers of Renown, called me today regarding your request. He indicated that he was called down to TFA one time to listen to a tape of voice. Surrounded by a captain, a major, and a two-button, he listened to the voices of two PAVN troops, one man and one lady, as they "billed and cooed" during a sultry night on the Ho Chi Minh trail. Just finding love in all the wrong places! He agreed with my general assessment that transcribing or even copying most of it would have no intel value, though there could be some pure linguistic value in improving conversational language skills.

Regards,

Larry Miller

USAF Dogger (Vietnamese Linguist)

June 19, 2017

I was at Nakhon Phanom (NKP), Thailand, from March 31, 1968, to March 22, 1969, assigned to the 1987th Communications Squadron (AFCS) at 56th Combat Support Group (PACAF). My AFSC was 29370, ground radio operations supervisor. We were TFA, Task Force Alpha, Igloo White or Muscle Shoals at one time or another - or "Spooks," as you say.

While I was a 29370, our duty was called Combat Information Monitor, Ground (CIM-G). We had four rotating shifts - 3 Swings, 3 Mids, 3 days, 72 hours off - with about 10 people per shift, as best I can remember. We had a MSgt Ike Story as NCOIC, with TSgts as shift supervisors, of which I was one.

When I was asked to relate my personal story, I conferred with Maj. Norm Cox (USAF-Ret.), who was a TSgt at NKP as our training NCO. Here are some items we came up with:

To our knowledge, there were no translators there, at least none that we were told of.

All CIM-G positions and the supervisor position also had a reel-reel tape recorder. The recorder was used for really out of the ordinary activations.

One recording was of an incoming fighter aircraft really hauling fanny. Then we heard, and taped, "Burpppppppppppppppppppppp." What the hell was that? How do we say what that was? That tape got played and replayed to many people, including then-TSgt Norm Cox. It was finally analyzed as a Gatling gun. No idea what he was shooting at, but whatever it was, it was no longer there!!!

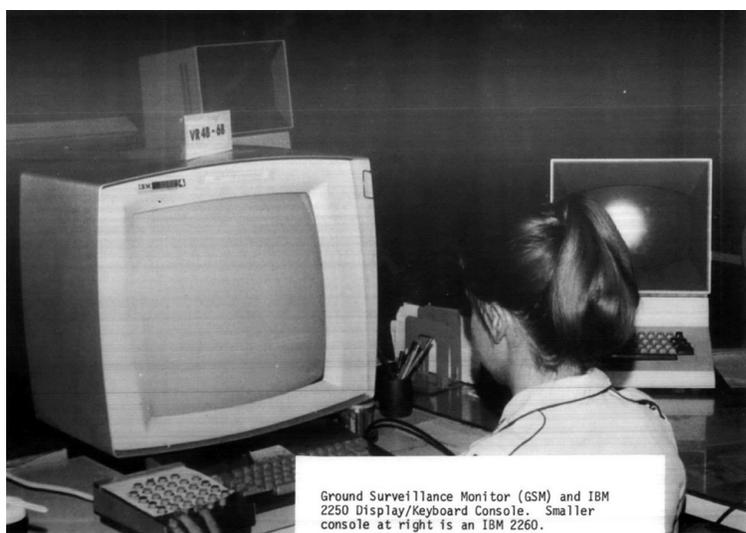
Another time, a sensor was activated and the operator listened to a truck pulling into and stopping at a "truck park." The engines shut down, and all the drivers were talking at once, a lot of "gibberish." Machinery noises were detected and a lot of "maintenance" equipment could be heard - power saws, lathes, etc. This was a hot ticket, so it was sent off to Intel for analysis. Intel thought this one worth a strike, so ABCCC was called. They targeted the site, and not long after, here came the strike aircraft. Bombs and strafing. All gone. No more noises! Scratch one truck park.

Sometimes, sensors were found by the bad guys. They would beat on them with maybe a hammer, wrench or something with durability. All the time they would be gibbering away and laughing. Should a sensor be forced open, we were told it would self-destruct, but I have no personal knowledge of that.

Regards,

Chuck Maerten

USAFSS career veteran



Ground Surveillance Monitor (GSM) and IBM 2250 Display/Keyboard Console. Smaller console at right is an IBM 2260.

The above are excerpts from Chuck's response. Read his full war story at: [Task Force Alpha: Operation Igloo White by Chuck Maerten](#)