Chapter 5 Training, Testing and Readiness

Nike Hercules was a complex defensive weapon system requiring a cadre of highly trained personnel working together for successful operations. As one commander commented, "A Nike battery typifies to me real teamwork, more than anything I can think of at this time. Not only the men on the instruments, the radars, and the missiles, but the cook and the mess sergeant…if they don't keep the missilemen happy, they're not going to shoot right. It has to be a coordinated, working team."[32]

From 1959 to 1973 a significant portion of the young servicemen operating Nike sites across the country were draftees. The draft ended in 1973 when the military reverted to an all-volunteer service. Draftees and volunteers were distinguishable by the first two letters on their dog tags. Enlistees' ID tags were prefixed with 'RA' for 'Regular Army,' draftee dog tags started with 'US', Commissioned Officers had an "O" and Warrant Officers a "W". [33]

Though many were drafted, many more volunteered, and individuals had varying reasons for signing up. Many volunteered simply to serve their country. Others joined in order to avoid being drafted at a later age. Edward Hogan of Site Mike signed up when he was eighteen. "I didn't want to be drafted when I was 22 or 23. So I thought well, I'll get my military service over," he explained. There were also those who volunteered for the educational and career opportunities afforded by the military. In the 1950's and 1960's the Nike missile system represented cutting edge technology, employing sophisticated computers, electronics and radars. Many joined the service for the opportunity to work with this new technology, and many translated the experience gained in the Nike field into lifelong careers outside the military. As Bobby Pace said, "the electronics field was new and it was a good opportunity for promotions. So I went into the [service]…to get some education and electronics background. Which turned out to be good for me over the years. Because after I left the missile systems I stayed in electronics for twelve years with the FAA and electronics doing basically the same thing."

Nike soldiers trained at the Army Air Defense School at Fort Bliss, Texas. Instruction lasted from eight weeks to a year, depending on the technicality of the MOS (Military Occupational Specialty). Phillip Parks, Site Point's acquisition radar technician spent an intensive year learning the requisite skills and remembered, "it was pretty much equivalent to an Associates Degree in electronic engineering. It was quite an education for a young fellah." [34] In rare instances men were sent to the Nike sites without advance schooling to learn their skills on the job. MPs and others in non-technical positions could receive basic training or MP schooling at various Army bases around the country.

Electronics technician Bobby Pace remembered that career air defense soldiers developed a cohesiveness through their common training in Texas: "all of the missile people were trained in Fort Bliss, Texas, and at one time or another we would all meet there. So no matter what part of the world we were in, if you were [a] Hercules technician you would usually know several of the other people. Because you all went to school in the same place, and we would meet as we would rotate around."

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[32] USARAL Commanding General, Major General Ned D. Moore, 1963. Press Release on file at Public Affairs Office, Fort Richardson, Nike files.

[33] This numbering system was phased out in 1969 by the use of social security numbers for personal identification.

Cold Weather Indoctrination

In addition to rigorous operational training, soldiers in Alaska also were required complete a course in cold weather indoctrination. Because staff resources were limited, the exercise basically consisted of camping in tents for two nights and continuing with regular Nike duties during the day. The missile men of C Battery in Fairbanks vividly remembered participating in this exercise. Frank McGee said, "They set a tent up and locked the barracks door so you couldn't get back in. You couldn't sneak in." Company Clerk Jim Rutledge remembered, "It had to be over thirty degrees below zero. And it would be like three nights that you would do this. But our clerks, as I recall, they could only allow us to be out there for one night and that was ok with us." The training served as a demonstration for cold weather gear and equipment, which many soldiers from the Lower 48 were unfamiliar with. Rutledge said,

> Before going out there and doing this they told us it's going to be sub zero weather, and you've got your sleeping bag and everything [and] you are supposed to just go ahead and get ready for bed like you would be in your room and sleeping in your bunk. Take off your clothes and wear any night wear that you wanted to like that and get in your sleeping bag. Well, a lot of us didn't think that that was going to work out quite like that you know. Because we could just see ourselves freezing to death out there. And so most of us went into the sleeping bag fully clothed [with] maybe even a field jacket on or something like that. And before long you're just perspiring like all get up. And gosh you're crawling out of there and started pulling off clothes you know. And then they would show you also films about cold weather and how to survive and everything and especially taking care of yourself and warding off frost bite. And…some of the films like that weren't too pleasing to look at you know, because they would show you real life things that had happened to them.

Figure 23: Soldier standing next to tents during cold weather training, ca. 1959-1962. Courtesy Larry Goldsberry.

Operational Readiness Inspections

One Nike battery per battalion (at minimum) was always ready to fire a missile within fifteen minutes; this site was referred to as the 'hot battery'. Remaining batteries were split between a thirty-minute alert status and a training and heavy maintenance mode. The Army Air Defense Command Posts (AADCPs) designated the alert status of Nike batteries within their battalions, and ideally the status rotated on a weekly basis. Maintenance problems could, however, force one battery onto hot status for extended periods. "We might pull two, three, four weeks at a time. And I remember about 60 days without ever leaving down up here," stated Billy Sparks of Site Summit. An AADCP officer describes how disruptive and disappointing an unexpected turn on hot battery status could be for the site personnel:

> Rotating this status between batteries was a normal Monday morning routine, though at times this routine was interrupted by equipment problems at a battery. This could (and did) occur at any moment, day or night. The "hot" battery would have a problem of some kind so the medium battery would go hot. This would require that the "cold" battery go to medium so that there would be a viable backup to the new hot battery. This usually came as very unwanted news to the battery that was in cold status, since calls would have to be made and personnel recalled and people awakened in the middle of their night that weren't expecting to have to go on a long cold trip out to the bay or up the mountain in the middle of an Alaskan winter night. I hated having to call the cold battery up at times like that. You could always hear the pain in the voice at the other end of the line, because he was the guy that had to call his people. But that's what defense is all about.[35]

A battery on hot status was often subject to a visit from the Operational Readiness Evaluation (ORE) team. These were no-notice inspections that tested a site's ability to ready for a missile firing within the fifteen-minute timeline. ORE inspections could and did happen at any time, day or night. A hot battery was triggered into preparing the site for a live missile firing by the sound of sirens and the call to 'blazing skies'. Blazing skies was the code for a practice exercise, while the call to 'battle stations' signified a real situation. At the first blast of the siren, everyone ran to their stations and hurriedly started the checks and steps necessary to engage a target and fire missiles. The siren stayed on until everyone got to their duty stations, which usually only took about fifteen seconds. "If the people were sleeping and weren't on duty they might not have to go down but they had to listen to that siren until the last man was there, " remembered Bobby Pace.

Figure 24: Personnel in front of 250 kW generator control panels. Courtesy Ralph New.

Once a battery switched to hot status, the on-site power supply was activated in place of commercial power. Each

[35] The Last North American Nike-Hercules AADCP, Site Point, Alaska. http://home.att.net/~jsstars/1_43/AADCP.html

battery had three 250 kw generators for this purpose. This prevented interruption of the mission in the event of a commercial power failure, or sabotage.

ORE teams generally consisted of the Team Commander, as well as a Commissioned Officer, a Launcher Warrant and a Fire Control Warrant. Fire Control Warrant Officer Billy Badger remembered observing the IFC crews during the evaluations:

> We watched them through each of their checks and adjustments. They had certain checks that they had to perform to ensure that the equipment was sensitive enough and oriented correctly and all those things, you know, so that the radars would point the right way. Our computer would check out [whether] we could guide the missile to a predicted intercept point when it's fired. So we watched each of those steps. We were very, very critical of the way they did them. We were, it was a matter of training, not just evaluation but training at the same time, so we ensured that we observed them closely enough that they did it exactly as the book said. And above all we were always consistent. That is, when we went onto a site and we observed these checks this time, the next time it would be exactly the same. We would not give somebody a break because he's a buddy or because well that was just insignificant. Everything we did was significant."

Warrant Officer Don Neal recalled that springing surprise ORE inspections could be a difficult task:

> Of course the object was to hit a unit when they were on hot status when they were supposed to be on ready status, with no notice whatsoever. And of course the units wanted very much to know when we were coming to get a little bit of a head start on things and get their best crewmen. Which I don't blame them for, I mean they weren't cheating, this is just what we do, we play the game. So sometimes one of us that's on the ORE team would live close to some of the people that were at one of the batteries. And they'd keep a pretty good eye on us. You know if they saw one of us going out in uniform at ten o'clock at night they'd call all the three batteries and say hey you might have an ORE coming.
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> And the other thing of course is most of the batteries, to get to one area you had to go through the guards. So going up on the mountain there you had to stop at the launching area where there was a gate guard. And, the launch area guard being a loyal member of the battery out there, as soon as he thought there might be an ORE team he would try to get on the telephone and call up and alert the other people so they could get out of the bunk and pull their socks on and their boots and get ready to go. And since we wanted to make it as much of a surprise as possible sometimes they would let me out down the road and I would walk up to the guard and I would stand there and then when the vehicle came up the road and he went for the telephone I said, whoops. Nope Shorty, not this time, just hold it. Of course he recognized us, [but] of course you don't really want to walk up on a guard in the dark. That's sort of hazardous too.
>
> But trying to surprise them wasn't all that easy. Because…when they were on hot status and they had not had an ORE for a while they knew they were due. So they'd keep a pretty good eye open. They'd look down for lights coming up the mountain…Sometimes I think they had their radar trained on my car so when I left the parking lot they'd know when I moved it. Because very seldom we actually got them one hundred percent surprised. And for the long trips of course a lot of times we took a helicopter over to the

> Knik Battery, the Charley battery, and they could hear us coming a long way off. So again we didn't catch them by surprise on that.

Donald Dukes, who worked at Site Bay (Anchorage), describes a battery's perspective:

> The guys assigned to the other sites could never figure out how we constantly maxed out the ORE inspections. Didn't matter what was the subject of the inspection. Particularly the "surprise" inspections. We always maxed. There were several little secrets at work. 1) We knew that immediately prior to opening of hunting or fishing season we would have a major inspection. Upon conclusion of the inspection, the hunting or fishing trip got underway. 2) There were only two ways an inspection team could travel to Site Bay – either by air or by land. Of course, it cost us a little bit of booty (e.g., some smoked salmon), but we got good information from Flight Operations at Ft. Richardson or the only restaurant within the final hour's drive from Palmer and Wasilla. We always had sufficient time to "dispatch" all the vehicles from the motor pool or to make final corrections to a missile component.

Batteries on hot status operated under intense conditions. Personnel generally worked twenty-four hour shifts, with every other day off. But as Glenn Bechtel of C Battery in Fairbanks remembered, "days ran into nights, we didn't sleep too much…you catch a couple hours of sleep when you could."

ORE inspections were important evaluation and training tools taken very seriously by the command. Failed ORE inspections had serious consequences, particularly for the battery commanders who were ultimately responsible for site readiness. Too many problems could result in disciplinary action or even dismissal. The Nike sites were useless if they did not operate within the ascribed time limits. As Billy Badger explained: "If you go hunting for birds, you know, you carry your shotgun in a way that you can get it to your shoulder quickly and fire… So you don't take the thing and put it in a box to keep it from getting scratched…it had to be ready all the time. And that's what we taught everybody."

Consistency in the way an inspector performed any inspection was important to a battery. They needed to know what to expect. One day while visiting Site Summit I noticed there were no tracks in the snow leading to the Radar Frequency Test Site (RFTS). The RFTS required daily maintenance and was located 800 to 1,000 feet from the IFC. I pointed it out to the maintenance chief and he called one of his maintenance people and asked if he had checked the RFTS. "No Chief I have been too busy but I am on my way now," was the reply. After lunch the tracks were there and never again did I find "no tracks" going to the RFTS on an inspection day. Word gets around.

- Billy Badger -

Annual Service Practice

'To actually see the first one fired made a believer out of me' - Thomas Kontes

The USARAL FY 64 Nike-Hercules Annual Service Practice [was] conducted 18 November – 10 December 1963 and 6 – 21 January 1964. Emphasis was placed on the ability of a fire unit to assemble war reserve missiles, demonstrate proficiency in all phases of system operation, and to engage and destroy targets at extreme intercept ranges from tactical sites.

A total of eighteen rounds were fired; fourteen were scored successful, and four were scored unsuccessful. The maximum intercept range was 164,000 yards. The minimum intercept range was 113,000 yards, with an average intercept range of 151,600 yards.

- CINCAL Historical Report, 1963. Alaskan Command. 5 April 1964.

Figure 25: Nike Hercules Missile Launch: C or B Battery, Fairbanks. February 10, 1970

ORE inspections provided soldiers with all the training necessary to execute their mission up to the point of actually firing and detonating a missile. Firing was an extremely important training objective that could only be tested once a year due to the cost of missiles, range use restrictions, and lengthy preparation procedures. Alaska and Hawaii were the only states in the country where active Nike batteries practiced live missile firings. Personnel at all the other sites traveled to the White Sands Missile Range in New Mexico. Isolated site locations and limited urban development made live missile firings possible in Alaska. The exercise was not feasible from every site though. Just three of the batteries were optimally located for range use: B and C Batteries in Fairbanks, and B Battery (Site Summit) in Anchorage.[36]

B Battery in Fairbanks conducted the first live missile firing in December 1959. Site Summit hosted the Anchorage area annual service practice from 1960 to January of 1964. After that, the growing Anchorage population forced the Army to cease the live fire exercises at Site Summit, and from 1964 to 1971 Anchorage batteries traveled to Fairbanks for their practice. After 1971, when the Fairbanks batteries closed, Anchorage servicemen traveled to the White Sands Missile Range in New Mexico for the annual exercise.

The live fire exercises were an exciting time for the batteries, when everyone finally put their ceaseless training to the test and witnessed the system in action. Larry Goldsberry of C Battery in Fairbanks remembered, "we were lucky we got to fire from our own site both years and then the other batteries came up there and fired also. At least while I was there. And so it was very exciting. Beautiful sight. And give you the shivers to see it take off you know".

[36] It has also been suggested that live fire exercises were conducted at A Battery, Site Point, in Anchorage. No records were located to support this assertion.

The exercises were carefully observed by headquarters personnel and evaluated with a point system. The practice was divided into three phases: phase one tested the proper missile assembly procedures, phase two tested the pre-firing drills, and phase three was the missile firing itself. The battery scoring the most points in the three-part exercise won the coveted U.S. Army Alaska Commanding General's Trophy.[37]

Thomas Kontes, an MP at C Battery in Fairbanks, recalled the lasting impression the live fire exercise imparted: "It was ironic to me, we'd guarded those things, we used to refer to them as tin cans…you know we really didn't have any respect for them. We never saw them fired, we weren't missilemen. And to actually see the first one fired made a believer out of me. I mean that thing just took off. It looked like slow at first until it really got going, and all of the sudden, man it's gone, and the booster separation, it's out of sight in no time. Yeah so, it was something."

The Nike-Hercules system had the additional, little known capability of firing missiles for a surface-to-surface, as well as surface-to-air mission. The sites were thus considered a backup defensive system for a ground invasion. In Alaska this capability acquired an added importance, as the state was considered the only location in the country likely to ever use the surface-to-surface capabilities of the Nike system.[38] Headquarters Operations Officer George Bristow remembers practicing a surface-to-surface firing exercise in Fairbanks:

> What we did was took a lot of surplus tents way downrange [30 to 40 miles] towards [the] Yukon River, put them up, erected them on a mountaintop. And computed a gunnery problem and fired a missile. And we actually hit the sites and shredded the tents. It was covered by the PAO [Public Affairs Office] folks at the time. It was quite a big deal. We made a lot of people happy by doing that. And we were pretty happy we hit our target obviously.

The Army used the live exercises to showcase the system's capabilities and promote good relations with the community. Top Army and Air Force personnel, mayors, the Governor and assorted VIP's often attended the exercises.

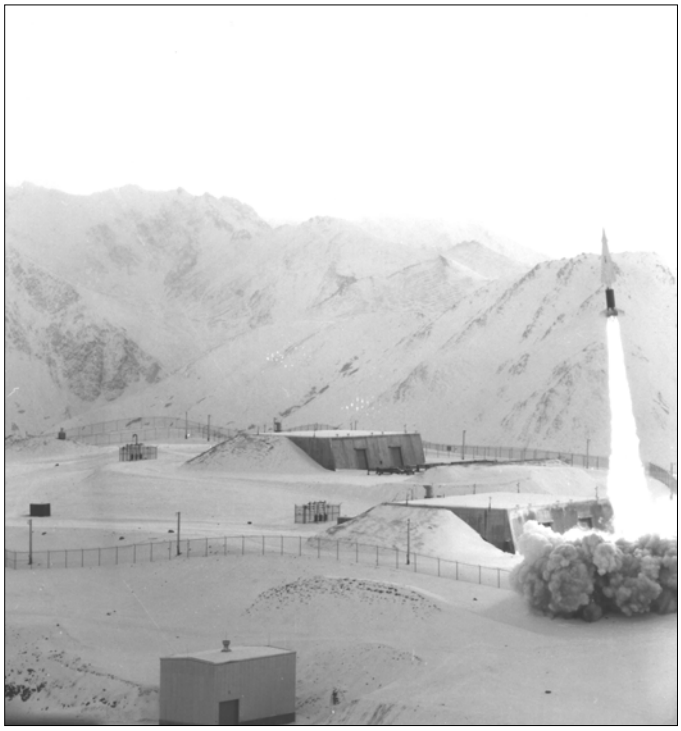

Figure 26: Site Summit Missile Firing. U.S. Army Photo.

[37] Press Release, Headquarters, Yukon Command. Fort Wainwright, Alaska. 'Yukon Command Missilemen Score 100 Per Cent in Annual Practice'. February 5, 1963. On file in Public Affairs Office, Fort Richardson, Nike files.
[38] ALCOM Command History, 1970. Prepared by the Historian, Office of the Secretary, Joint Staff. p. 12. Elmendorf AFB History Office, ALCOM Histories.

The exercises were also eagerly observed by the general public. Site Summit's prominent location meant that the firings could be easily viewed from many vantage points in Anchorage. As the *Anchorage Daily Times* reported, "People formed in groups on the streets and fixed their gaze on the launching site, 4,000 feet up in the Chugach Mountains. School children of the area witnessed the launching. Some gathered outside their schools while many gathered in classrooms having a view of the mountains."[39]

The live fire exercises generally occurred in winter to test the system's cold weather capabilities, and to ensure that fewer people would inadvertently be in the firing fans. Even so, some outlying homesteaders in the Anchorage area were potentially in harm's way. The Army invited homestead families to be guests of the military as a safety precaution. Citizens were bussed to Fort Richardson and provided Army housing on days when the missiles were fired. The inconvenience was offset by the opportunity to witness the live fire exercises with the VIP's on post.

The live Nike missile firings did leave some physical impacts upon the landscape. S.E. Thomas, an Anchorage AADCP officer, said missile debris from a live fire exercise in the 1960's broke through the roof on his parents' home in Eagle River. Also in 1981, many years after the live fire exercises at Site Summit had ceased, a cluster of rocket boosters from a missile launch was discovered near Hiland Drive in Eagle River. Thirteen-year old Doug Liebold located the boosters through a spotting scope on Fort Richardson. The Army sent ordnance disposal experts to investigate the debris and determined that the boosters were inert and presented no danger.[40]

Figure 27: Spectators prepare to watch a live missile firing ca. 1960-1964. Site Summit.

[39] *Anchorage Daily Times*. 22 Nov. 1960.
[40] Frank Gerjevic, " Missile Remains 'Dangerous as a Tree,'" *Anchorage Daily News,* 18 August 1981. A1.

Figure 28: Personnel of C Battery, 2nd Missile Battalion, 562d Artillery with the USARAL Commanding General's Trophy.