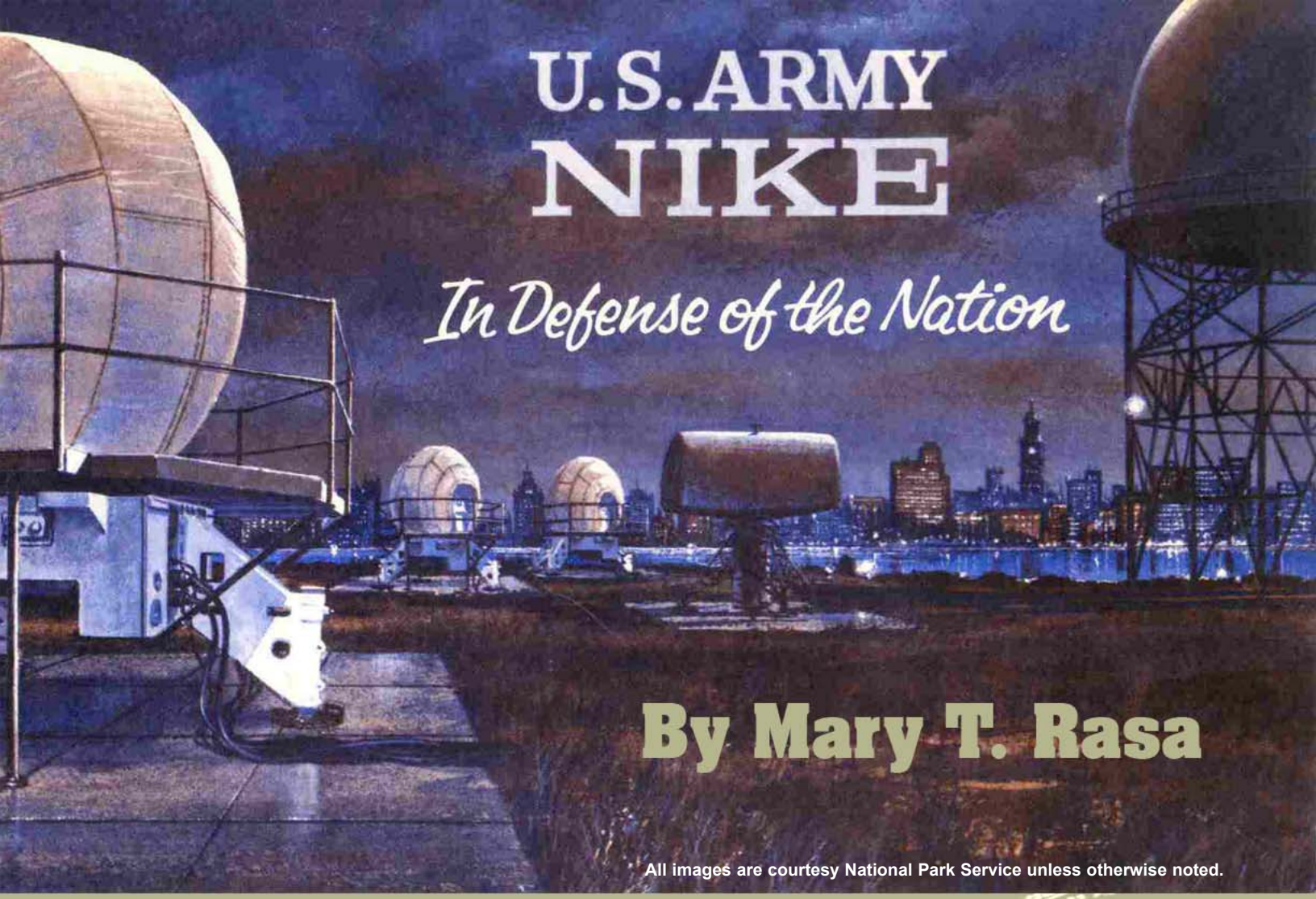


By Mary T. Rasa

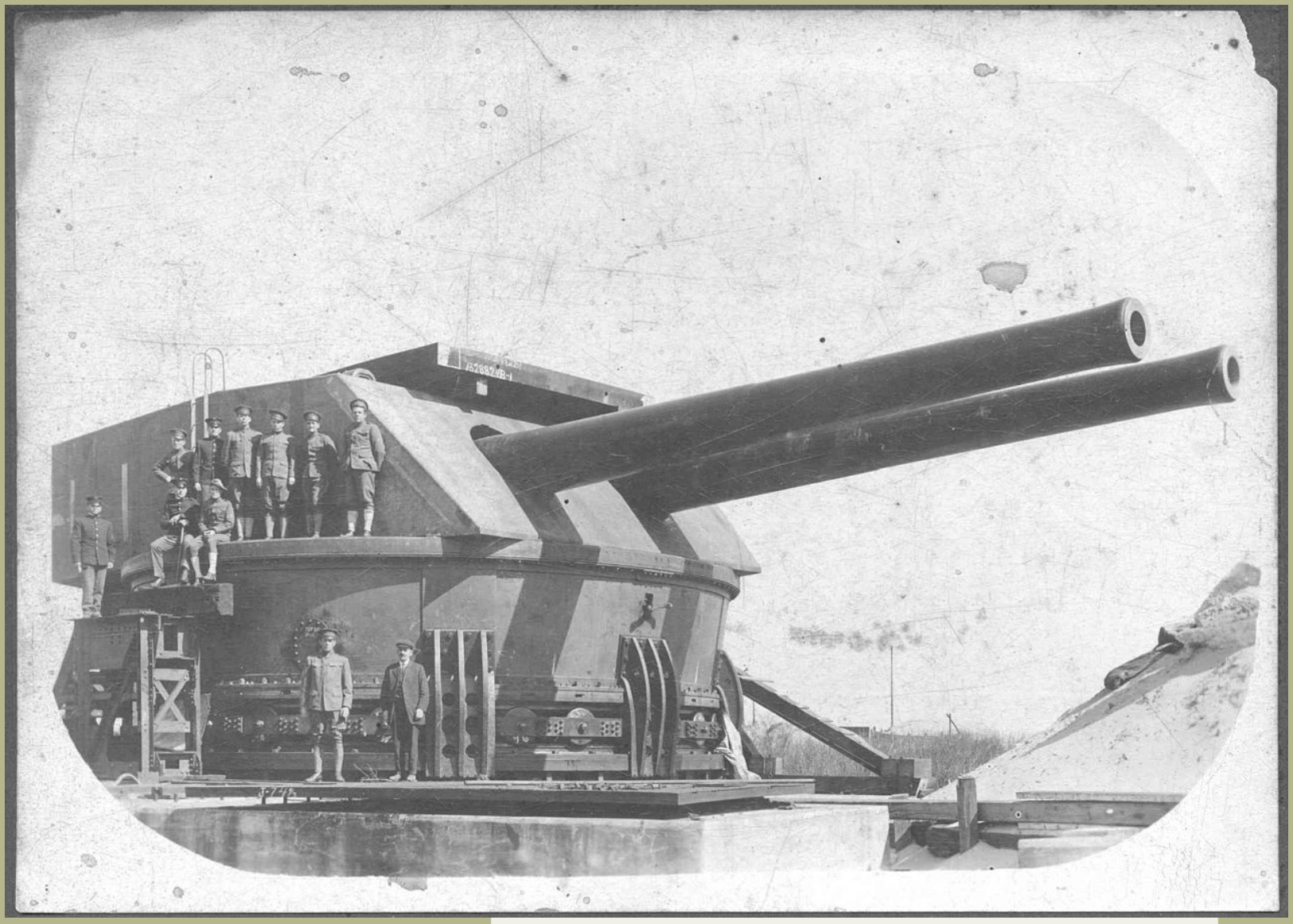
All images are courtesy National Park Service unless otherwise noted.

New Jersey's Nike Missiles

The last of the U.S. Army's Homeland Defenses

A history of defending the U.S. Seacoasts

In 1807, the United States government began building its first coast defenses. Referred to as the "2nd system," they were constructed between 1807 and 1815. These forts were built of earth, wood and masonry. Used during the War of 1812, these forts fired cannon balls at enemy wooden sailing ships. Because the range of these guns was only one mile, the forts were located at the entrance of major harbors.



Twin 14-inch (356 mm) gun turret for Fort Drum, a heavily fortified island situated at the mouth of Manila Bay in the Philippines, undergoing tests at Sandy Hook Proving Ground.

Between 1817 and 1867, the "3rd system" of fortifications was constructed. Improving upon the design of the "2nd system," these enclosed masonry fortifications were larger and equipped with many smoothbore iron cannons. The range of these weapons increased to three miles and allowed the fortifications to be located before entering a harbor. This gave more time to defend the position before an enemy could enter a city. Used during the Civil War, these fortifications were rendered obsolete because of the advancements in weaponry created during the conflict. In New Jersey, the unnamed fort at Sandy Hook was constructed in 1859 but never completed.

Due to the advancements created during the Civil War, the U.S. Army needed a location to test new weapons. In 1874, the Sandy Hook Proving Ground (N.J.) was established. The Proving Ground was ready to test all the new weapons developed for the "Endicott system." This system was constructed from 1890–1910 and used at every major harbor in the United States. The Endicott system used concrete and electricity for the first time in

LEFT: During the Korean War anti aircraft batteries were set up in the north Jersey area. This unit, the 526th AAA, later became a Nike missile unit.

RIGHT: AAA unit during Korean War. George Washington Bridge is in background.

defenses. Its disappearing canons were rifled which made them more accurate. The system also included searchlights, submarine nets, and underwater mines. With its guns having a range of 7 to 9 miles, these forts were even further away from the entrance to any harbor making it easier to defend a city from battleship attack. The system was ready for the Spanish-American War in 1898 and some of its weaponry continued to be used until the end of World War II. Fort Hancock and Fort Mott were New Jersey's Endicott system fortifications.

In 1907, "the Taft era," added technology to existing defense fortifications including telephones and searchlights. Fire Control Stations were located at a distance from a gun emplacement. These stations used telephones to communicate with a battery which allowed better accuracy for the plotting system for locating and destroying an enemy ship.

By World War I, disappearing guns had too short a range to compete with battleships. This resulted in the U.S. Army emplacing 12-inch fixed barbette carriages guns with a range of upward of 17 miles at many harbors. After the Great War, airplanes were the new threat. The U.S. Army added anti-aircraft guns. During World War II, existing 12- and 16-inch barbette guns and new 16 inch batteries with a range of 26 miles were casemated to camouflage them from the air while still providing protection from battleship attack. Airpower became the major threat during World War II and by 1943 an attack of the homeland by ship was no longer a possibility.

The Coast Artillery Corps of the US Army was abolished 1950 and its soldiers became part of the U.S. Army Anti-Aircraft Command (ARAACOM), later called ARADCOM. Anti-aircraft guns were the only defenders of

Insignias of the 51st ADA, 52nd ADA, and 71st ADA stationed at Fort Hancock and in the NY Nike area.

Drawn by Michael Thomas

Nike Ajax located in Marion, Kentucky.

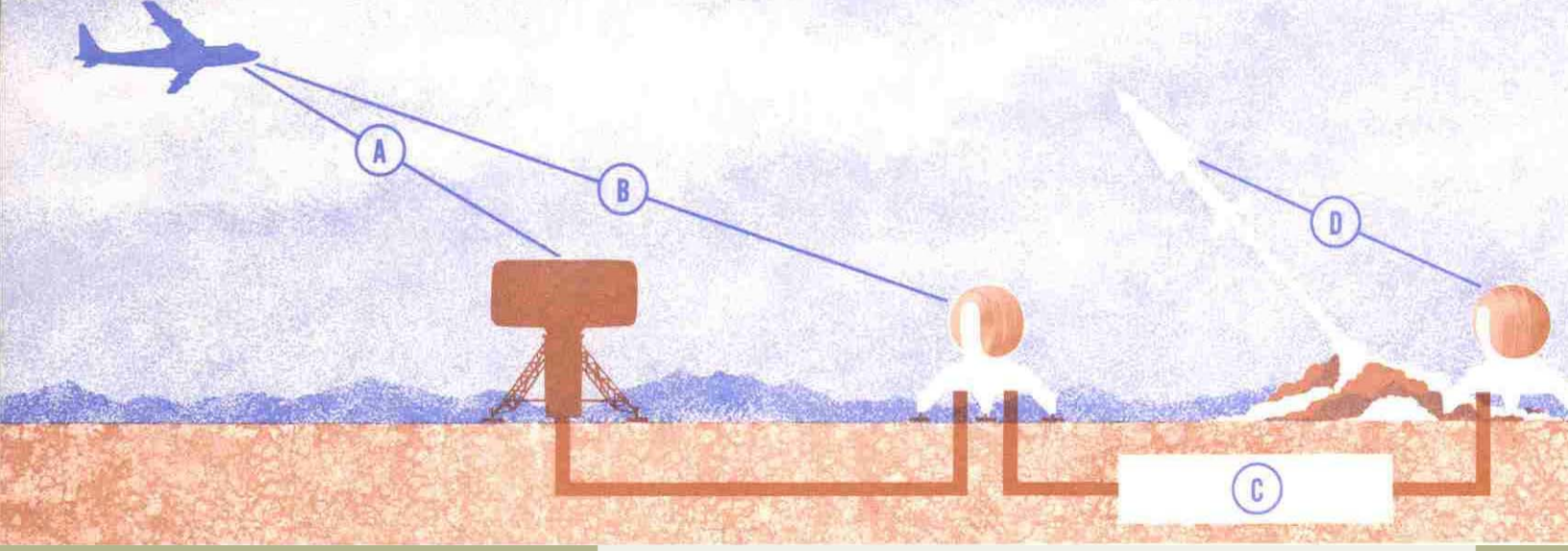
www.wikipedia.com

the shores. During the Korean War these weapons protected the skies in the continental U.S. (CONUS). The problem with these weapons was that they could only defend against propeller airplanes. No defense existed against the new jet airplane.

History of the Nike Missile

In 1945, just as the Second World War was ending, the U.S. Army and Bell Laboratories began working towards an anti-aircraft missile that would be capable of destroying a jet airplane. The Soviet Union became the major enemy of the U.S as a new type of war was beginning between these two countries. The Cold War involved arming and stockpiling missiles among other weaponry. This Cold War lasted until 1989 and tensions ran high throughout that time including some "hot" spots. If a Soviet bomber could invade U.S. airspace there needed to be a defense. Anti-antiaircraft guns could not shoot down a fast moving aircraft. Soviet Premier Nikita S. Khrushchev said, "World War III will be fought on the American continent, which can be reached by our rockets." The U.S. and Soviet Union were in an arms race.

Named, "Project Nike," after the Greek goddess of victory, this project produced the United States' first surface to air missile (SAM). This missile was named the Nike Ajax and completed in 1953. The Ajax could fire and destroy a target 25 to 30 miles away. This 21-foot long missile contained both a solid and liquid fuel. The first Nike batteries were constructed in 1954 and at the program's height there were approximately 200 Nike Ajax locations in CONUS. These Nike batteries were placed strategically near cities throughout the country to prevent, "destruction of the centers of America's great retaliatory and productive might." Unlike the Coast Artillery Corps locations that were to protect major harbors and cities by



Acquisition Radar (A), Target Tracking Radar (B), Computer (C), Missile Tracking Radar (D).

Nike Hercules missile at the Army Museum in Brussels.

www.wikipedia.com

the oceans, the Nike locations ringed the major cities in the interior of the U.S as well as those near the coasts.

In 1958, the Nike Hercules missile began replacing the Ajax missile. This 27-foot long missile had a range of 75 miles and could contain a conventional or nuclear warhead. Because it could reach a larger range, many of the Ajax batteries were deactivated and not converted to hold the larger missile. In 1974, the SALT II Treaty that the U.S. signed with the Soviet Union mandated that all CONUS Nike batteries be disarmed. The treaty required that these sites be closed but in reality they were already obsolete because of the arms race's newest weapon, the Intercontinental Ballistic Missile (ICBM).

How it was organized

Nike batteries were located on military property and in civilian communities. Each major city was ringed by missile batteries. New York City had 19 batteries defending it during the height of the program. Each Nike missile battery had two elements, the launcher area and the radar area known as Integrated Fire Control (IFC). These locations were typically separated from each other by a mile. In civilian areas, that meant that some were in two towns. The launcher area contained two underground storage magazines that each had an elevator. In a larger Nike site there would be a double battery which meant four magazines, or pits as the soldiers referred to them. The missiles were stored underground and brought to the surface by elevator to be raised on rails to the launch position. The IFC was run with computers and controlled three types of radar. The first, called Acquisition Radar located the enemy target. Once the enemy was located, then the Target Tracking Radar (TTR) followed the target. The third radar type was Missile Tracking Radar (MTR). This radar would guide the Nike to destroy the target.

Nike Missile Sites in New Jersey

New York Defense Area Names and Locations

NY-53 Leonardo/Belford (Middletown Township)
NY-54 Holmdel /Hazlet
NY-55DC Highlands
NY-56 Fort Hancock
NY-58/60 South Amboy
NY-65 South Plainfield
NY-73 Summit/Watchung
NY-80 Livingston/ East Hanover
NY-88 Mt. View /Wayne/Packanack Lakes
NY-93/94 Ramsey/Darlington/Mahwah

Philadelphia Defense Area Names and Locations

PH-25 Lumberton
PH-32 Marlton
PH-41 Berlin /Clementon
PH-49 Pitman, NJ
PH-58 Swedesboro
PH-64DC Pedricktown

Blasts Rock N. J. Nike Missile Base

MIDDLETOWN —AP— Two explosions rocked the Nike guided missile base here today. First reports said there were several dead and 25 injured.

A truck driver at the base said he was knocked from his truck by the force of the first blast. Henry Lutz Jr., the driver, said there was a second blast four minutes later.

He said the blast appeared to have been in a Nike launching pit.

"Buildings on the base were shattered," he said.

First reports from State Police in Keyport said that a Nike missile had exploded and that "several" persons had been killed. There was no immediate confirmation of the report.

The Army hospital at Fort Monmouth was thrown open for the "dead and injured," an Army public information spokesman said.

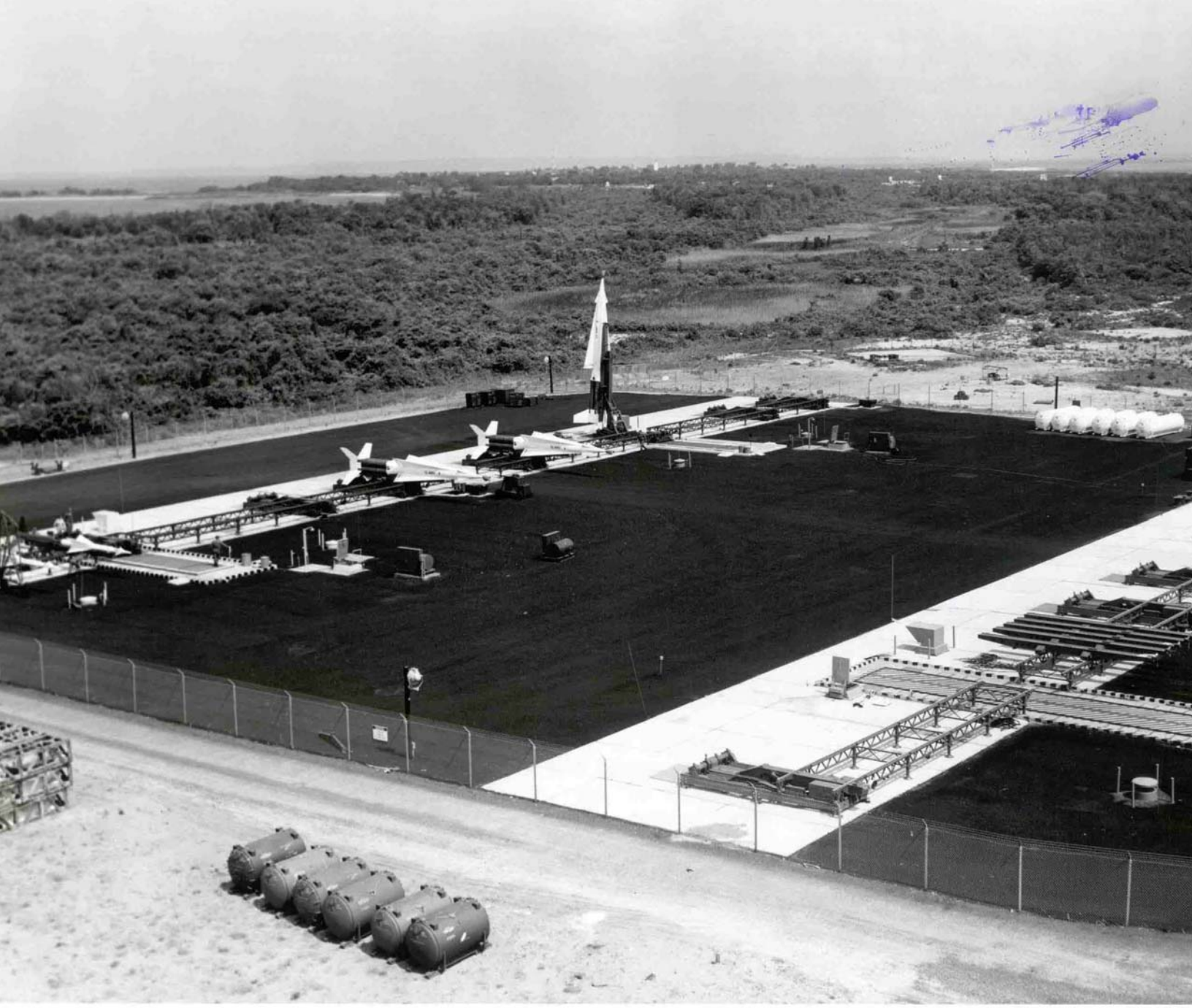
The Trenton Evening Times, May 22, 1958.
http://www.genealogybank.com

Major Accident of the Nike System

On May 22, 1958, eight Nike Ajax missiles exploded in Middletown, NJ at NY-53. The missiles were out of the ground for maintenance. One missile ignited and a chain reaction followed that ignited seven more. The explosion killed six soldiers and four ordnance department workers. The impact caused many broken windows and other property damage in the surrounding area. The site was closed in 1963 and never converted from Ajax to Hercules. After this explosion the Army required that only one missile be out of the magazine at a time to prevent future accidents. A monument to these soldiers and civilians is located in Guardian Park at Fort Hancock, N.J.

Fort Hancock, NJ

Nike Missiles were the last defensive weapon located at Fort Hancock which actively defended New York from 1895 t01974. From 1954 until 1974, soldiers worked at the Launch Area and the IFC. The IFC area was one mile



Fort Hancock's Launching area NY-56. This image shows missiles on rails, circa 1958.

north of the launch site on Hartshorne Road. Fort Hancock was a double battery site with 4 magazines. Each double battery also had two sets of identical radar equipment. At this site, Battery C operated them and the IFC area was referred to as C-1 and C-2. Soldiers lived at these sites when they were on 24-hour duty shifts. When not on duty or in a maintenance status, single soldiers lived in Barracks 74 in the main part of Fort Hancock. Married officers and enlisted men lived in Sergeants' or Officers' Row as well as the trailer park or off post. Because it had been an active military post, soldiers and their families from the other nearby Nike locations could live here or participate in activities on post.

Fort Hancock IFC area circa 1965. Visible on right are the 4 barracks. On the left near the bay on top of photo is of C-2 which had the HIPAR, the much larger radar tower and cover. C-1 is near the bottom of the photo. Horseshoe Cove in Sandy Hook Bay is the body of water at top.

The Soldiers

Soldiers of U.S. Army Air Defense Command (ARADCOM) worked on Nike Missiles. Some batteries were turned over to National Guard units in the 1960s with the Vietnam War heating up. Many regular Army soldiers headed overseas. Soldiers who worked in the launching area were nicknamed "Pit Rats." The soldiers who worked in the IFC area were nicknamed, "scope dopes." Though working on the same weapon system, these soldiers rarely interacted with one another. Off duty life for these soldiers varied greatly depending on where

Soldiers relaxing in barracks 74 in 1961. 71st ADA

they were assigned. At Fort Hancock, these men lived in Barracks 74 which was both a dorm and headquarters for the battery. Their sleeping quarters and mess hall were inside. These men enjoyed fishing and swimming as well as bowling and visiting the service club onsite. Bus service was available to New York City and many soldiers took advantage of this. From the Fort Hancock Oral History Program a couple of soldiers stories are listed below.

For full transcripts please view
https://www.nps.gov/gate/learn/historyculture/cold-war.htm

Richard Busch
51st Artillery, Battery C, IFC Area, Fort Hancock, 1965–1969

I graduated just before I came in the Army on June 1965. I enlisted because I never won anything, but at that time the Vietnam War was going on and they were doing draft call up by birthdays, I think. . . . They picked the numbers out. . . . every single time my number was in the first ten numbers. . . . I might as well join. The end of May,

Target tracking radar with "scope dope" or radarman, circa 1958.

after I graduated college I went down to the recruiting station. . . . so they said there is something called ARADCOM. [I said] "What's that?" "It's the Army Air Defense Command. You can get home town enlistment, you know, if you sign up for three years." I said, "Okay, we'll take that.." . . . I arrived here [Barracks 74] Labor Day weekend and my folks had left and I didn't own a car. And the first thing the clerk said was, "Do you have any place that you can go around here for like leave or pass?" I said, "Yeah, I live up in the city." [He said] "Good. . . . come back Tuesday morning. I won't be able to deal with you right now.." . . . [He was assigned to the Integrated Fire Control Area] If something was to happen to our telephone wires that connected us to the Launch Control Area for communications, alright, then we would go to this radio system, the AN/TRC-47. It was a two radio set .. . . . monstrous things in the Interconnecting building. The corridor [Inter-connecting Corridor, or ICC] it was called. . . . . And the LOPAR acquisition radar . . . [was painted] either very faded OD [Olive Drab] or a color we used to call dog shit brown. . . . Those ladders [to the antennas] were heated for the wintertime so they wouldn't ice up. We could come out and without gloves you could come out on the ladder and get up on top of the radar antenna. . . . There was a blower motor, huge one that sat inside that and then there was a canvas like clamshell cover that went over that and the blower motor kept it inflated. And if you were going to battle stations for real, if in other words you were going to be under attack you would have to run outside, go up on the antenna and the big zippers you would have to pull and yank that and pull the zippers down and the clamshell would fall back so in case there was a nuclear explosion or whatever it wouldn't foul the antenna if the bubble was carried away. We dropped the bubbles right away. That's the inflatable one. It's just to protect. It was very heavy. It took the whole crew to get out there and move one, to put it in place because we took it down a couple of times while I was here because they did major work on the antennas. . . . It was standard throughout the Army missile sites because D Battery was in Holmdel. It had the exact same color scheme, the exact same barracks. Well, they had tin barracks that they slept in. They were on top of Telegraph Hill. A Battery was in Old Bridge, New Jersey. They were right by the highway. It's unbelievable, the Launch Area is right by the highway and colors of the buildings; everything was exactly the same as we had. All the buildings were white. Even down in the

Battery B of the 526th AAA at Fort Hancock in 1955. Before the underground magazines were constructed in 1956 all operations were above ground. these men worked the radars which were located near the tip of Fort Hancock.

Launch Control Area, the Missile Assembly Building everything was white. The [Inter]-connecting Corridor building and then they laid a pad down and the two vans came up to it and cables ran up to the antennas. . . . High Power Acquisition Radar, huge early warning radar and it had a solid fiberglass dome over it on the towers. Also it didn't go up very high since it was flat here. That could to about, range on it was something like 500,000 yards. We thought it was the greatest thing going because it could see a metal desk out there at 500,000 yards. . . . . D Battery had one in Holmdel. Theirs was way up. I am glad I didn't have to climb that sucker. And A Battery had an ABAR. . . . . We had what they called an ABAR radar which is the first early warning radar. . . . when I left I was a crew chief. . . . I was a 16C10 was what I was trained which was Nike Hercules fire control technician. I think was the title.

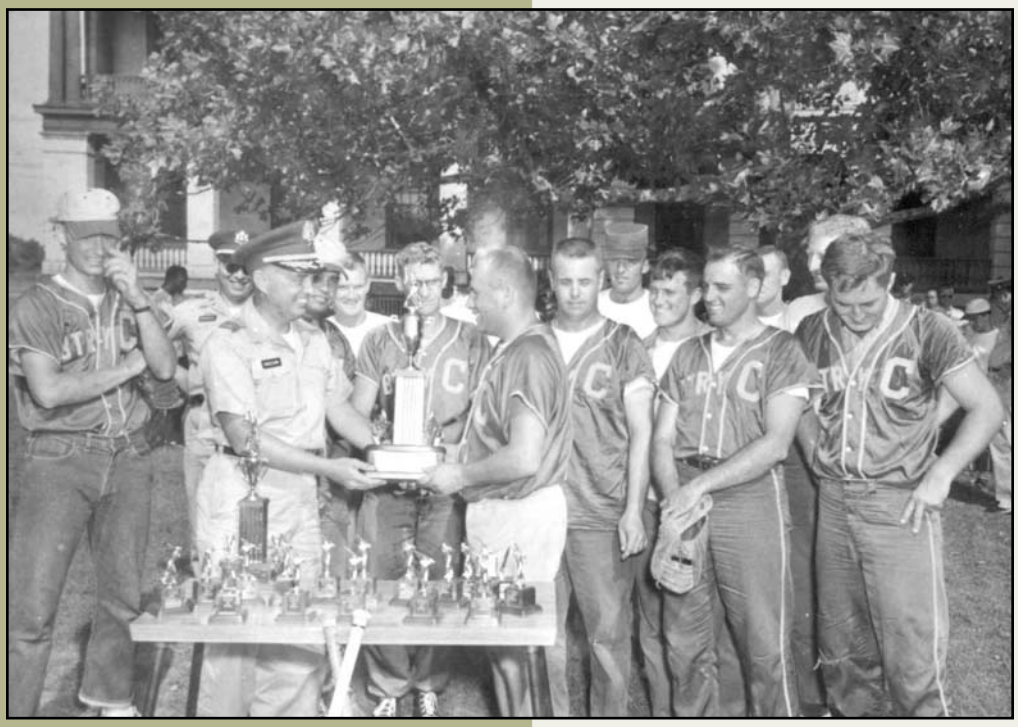
Officers Wives Club enjoying a tea at an officer's home on Officer Row front porch, circa 1965.

. . . [to] senior fire control technician and then I moved up to 10C40 which is crew chief. It was Battery C, 3rd Battalion 51st Artillery. Battalion Headquarters was here also on Fort Hancock but Gate Headquarters was up in Atlantic Highlands. I think it was the 52nd Artillery up there. That was the fire direction center for this area. . . . The AADCP [Army Air Defense Command Post] here at Atlantic Highlands, the information there was a computer at McGuire Air Force Base, alright supposedly several stories high. Yeah, you got to remember back then computers used tubes and it had all the known flight plans it in for that day, commercial, private, whatever. . . . If a plane was picked up by radar in the early warning system it checked it for flight plan there. If there was no flight plan then, of course, that information would be sent up to Stewart Air Force Base which is First Region Headquarters, alright. And if it was say in our area here, alright, then it would be flashed to the AADCP at Atlantic Highlands. The AADCP then would call. Let's say we were on A status alright which means we had 15 minutes warning notice to fire, alright. They would then call C-2. . . OC. It's the Officers' Command line, alright. He would answer the phone, site whatever it was and say, "Okay, this is," they had codenames. I don't remember them anymore. They changed them. "Bring your site to five minute status." And just swing over, you would be in the Fire Control Van when you got the call. You would need a switchboard and flip over and hit the siren, alright. That would alert everybody whether they were above the antennas, out cutting grass, shoveling the sand off the road which we would have two inch grass down there but we had to shovel the sand back all the time. And you would drop what you were doing and

Fort Hancock Officers Wives' Club Spring Tea 1963 inside the Officers' Club.

run. And just report present and your position and you go into your drill. Get the equipment ready. Launch Control would bring the missiles above ground and then you would report to AADCP. They had something called the FUIF, Fire Unit Integration Unit. I learned to repair that unit. It was the worst thing I had done in my life. They pulled you out in the middle of the night to go fix it. It would put a symbol over the aircraft target that they wanted you, because it came up on your radar. You would have everything that is flying. . . . Behind you was the plotting board. They would start giving you the plot, unknown and you would plot that in yellow and then they would designate the target and a symbol would come up over it. Half-moon for unknown or friendly and a full circle which was actually opened at the bottom. A computer couldn't make a circle at that time. It would come right up over the target. That's the target. Okay, the battery control officer would tell the acquisition radar the target and he would, you know, bring the thing out there and we would start tracking it. If it was within range of 200,000 yards or less of tracking radar designate it. The tracking radars would come on over and log onto it. Just follow it until they would tell us what was going on. Then I don't know how they would identify it. They would scramble fighters. Sometimes we had fighters coming out of . . . McGuire Air Force Base, yeah, Phantoms at that time or sometimes they just said,"Stand down.." . . . They never told us exactly. . . .

And you had two crews, two IFC crews assigned to each Fire Control Battery. We were responsible for the site 24 hours. Alright and then we would go off and then the next crew, the other crew would come on and switch back and forth and on the weekends. We would take one weekend so they would have the whole weekend off. And they would take it the next weekend and that's how we



71st ADA Battery C Softball awards on Parade Ground. Sport teams of many types were available to the Nike Soldiers.

would do it. If we were on. . . . maintenance status, which means that two and half hours to bring ourselves back up to. . . . where we could fire a missile it was. . . . straight shifts. You pulled just a day shift. . . . .If you were on A status it was definitely around the clock and the power was on. The crews slept in the tin barracks. . . . We didn't come up here (Barracks 74) to sleep. You slept down there. You could bring blankets and whatever you needed, you know. . .you had 12 fire control operators minimum. There could be more men on the crew than 12 but 12 trained men. You could have guys that weren't trained also assigned. At some point, I think we had as high as 20. . . . You had at least three in the ABAR building, the two operators and the ABAR crew chief. You had a generator operator that was assigned to you. He was there for the generators, at minimum one. . . . . Then you would have two warrant officers. They were in charge of the maintenance section and as many as four or five radar mechanics and a parts clerk and then the officer might be in the battery platoon leader. Oh you probably have anywhere from 40 to 60 in there a day during the day.

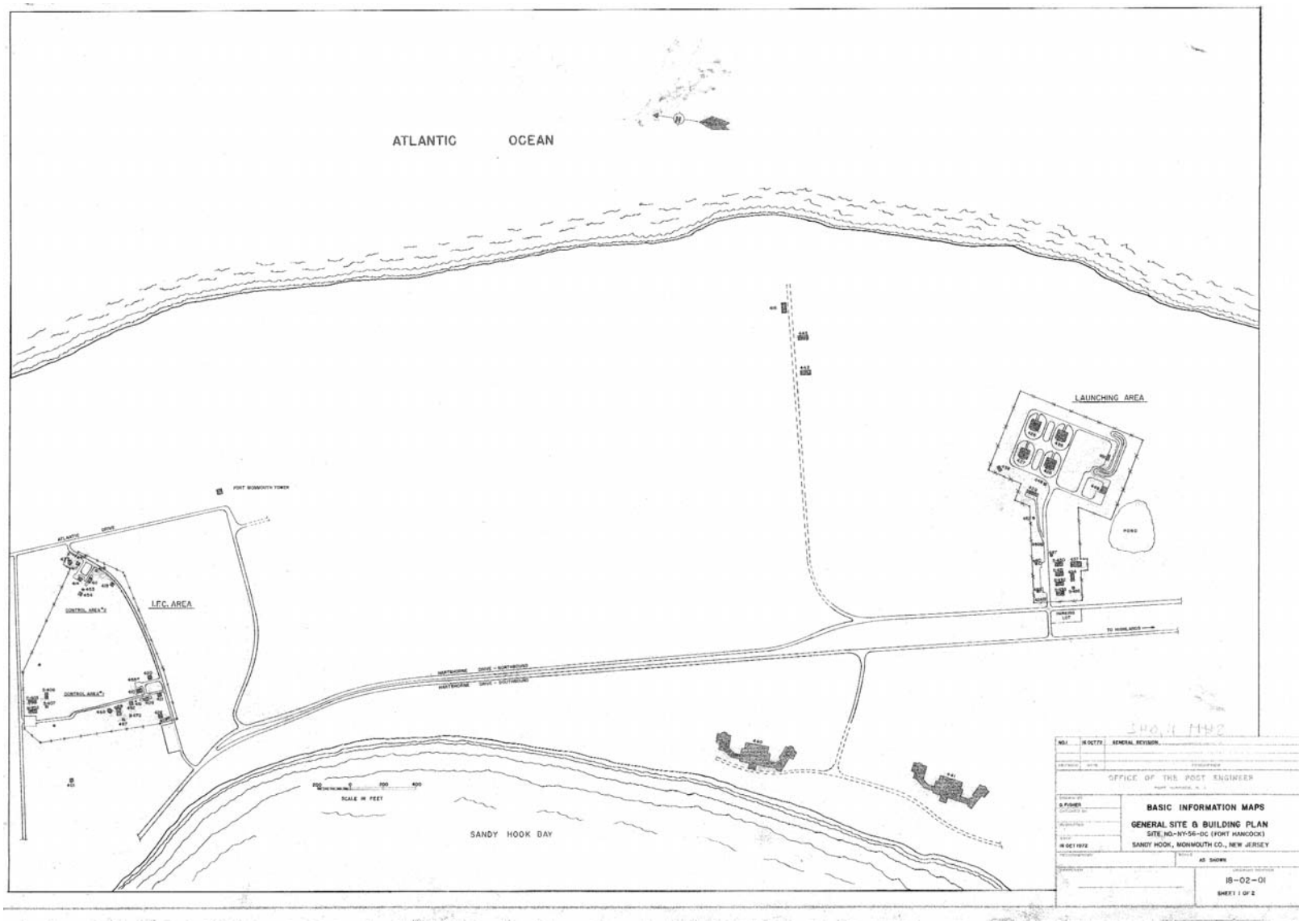
At that time, [1965–69] there were twelve sites in the New York City Defense. Between here and New York State we had 12 sites. Four were always on A status. Four of the twelve were always on A status. The rest were on release status or maintenance status. Most of them were on release status. Maintenance usually that was scheduled and they knew that there were major repairs going on there either on the missile area or the radar area.

. . . when I was a private I made $72.50 a month before taxes which means I brought home $54 a month after taxes. When I made PFC I thought I hit the jackpot because I made $113 a month before taxes. I thought I was like whoa! When I made E-6 my salary was $721 a month before taxes. I made E-6 in Korea.

Nike site SF-88L missile control.
www.wikipedia.com

Holmdel which is on top of a mountain in the middle of, that was D Battery. They had basically the same setup. Their equipment though sat inside a huge bomb shelter that was above ground. They had a five ton door on the shelter. They would all move in there in an emergency and there was one in the Launching Area too. They told you that building could withstand a direct hit from a 750 pound bomb. You might get knocked around and that was the worst that would ever happen to you.

Short Notice Annual Practice [known as SNAP]. . . Saturday night they would take us, bag and baggage out to Newark Airport. They would have a charter flight that would come in and pick us up. We would usually fly to Philadelphia, pick up another crew around Philadelphia. Then we would go out to El Paso, Texas. . .Then we would have buses that would take us to McGregor guided missile range. . .You were ready to fire on Wednesday, alright. Each of the sites had a trainer hooked to it. . .And I remember the target would come in and before you were ready to fire if you were ready to fire they would stop the target and make sure you were ready to lock on it and not a commercial airliner or something like that and then restart the target and fire. And then they took everything from the event recorder and then the officers went to a meeting that night and you would get your score out a thousand. And they would take the measurements and tell you how close you got to the target and this and that. If your missile, one target you fired with the Ajax missile, one target you fired with the Hercules Missile. The launcher for the Hercules you fired 89 degrees. It's not perfect 90 degrees. . .When the fire command would come through you had four boosters the size of the Ajax, single boosters strapped together and they were solid fuel. They would, you know, you could hear it in the Fire Control Area a couple of miles away. You could hear this thing firing and you see the bright flash and all the smoke and also, go and follow the thing all the way out and fire 25 miles away and BOOM, the flash 25 miles away and it be gone in less than 10 seconds of engagement at the range.

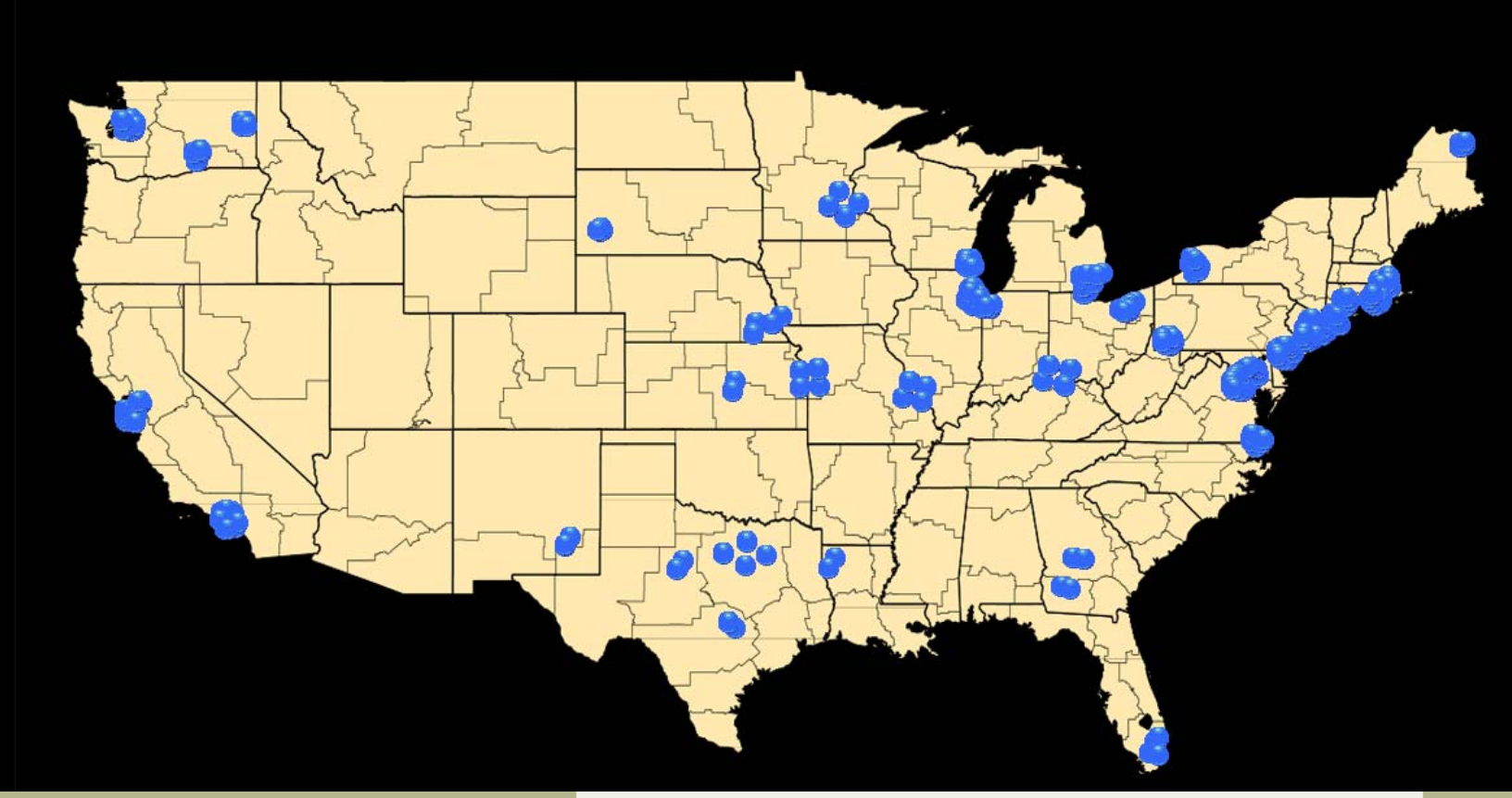


Fort Hancock's NY 56 site plan. Drawing shows the four magazines in the launching area as well as the support structures. To the north is the IFC area which was formed in a triangle with identical radar sites and a barracks area. 1972.

Ronald Holmes

526th AA, Fort Tilden and NY 53-Middletown, 1955–58

[I served] From April '55 to April '58 . . . What happened is that when I got out of Val Po Tech I started looking for a job . . . I came back home to Pennsylvania and absolutely could not get a job . . . So, I went down and tried to volunteer for the draft. And they said, "Well, it'll be a couple of years before we take you." So with that, at that time you could request a school if you went in the military. So, I went down to the recruiting office and I requested Electronic Material Maintenance School. And got a letter from the Adjacent General in D.C. stating that they had an opening in that school. So, I enlisted for three years. . . . I went to Missile School at Fort Bliss. . . . I was down at Bliss for almost a year . . . We brought part of the crew with us north when we moved into Tilden. We had all the maintenance personnel and most of the officers . . . This was in, it would have been in the beginning of '54 in like June. June of '54 into April of '55. . . . There were two



New Jersey was just one of several states to have Nike missile sites in the contiguous United States.

www.wikipedia.com

permanent batteries there. . . . they were preparing the site in Jersey. It wasn't ready yet. And it took almost a year to get it ready. . . . We came down with the 526th. So, a lot of these guys had been in the [90 mm AA] gun battery. What we did was bring up all maintenance personnel and some officers and some people that were trained on the equipment. And we spent that year training the people that had come in from the gun battery and so on. In April of '57. Well, we went to Middletown [NY-53]. We, they used to exchange missiles. . . . After a missile was on site for a while they'd pull them out and send them down to, it might have been McGregor Range at that point in time. . . . And they used to pull in all the maintenance personnel from all the batteries in Fort Hancock to change out the missiles that they had down here. So, I got pulled in on that occasionally. And that was the case of where you were given the work in either the area where they were de-fueling or de-war heading. . . . But that's where I worked in the assembly building where they would bring the missiles in once they had been deactivated, de-fueled. Then they would take the fins off of them and they would put them in the shipping tubes. . . . You worked as long as you wanted to but it would turn out that you worked 12–14 hours at a crack. I remember that in between receiving deactivated missiles that I would crawl up on a work bench and go to sleep until the next missiles came in. . . . Ajax had three fuels really. They had red fuming nitric acid [RFNA] and

On May 22, 1958 eight Nike Ajax missiles exploded killing 10. This monument and "Guardian Park" honor their memory at Fort Hancock. Originally built and emplaced at Middletown, the granite monument was moved twice. Upon deactivating NY 53 it was moved to NY 55 in Highlands and in August of 1974 moved to Fort Hancock to be viewed as part of a larger monument park to Nike Missiles for the future.

JP4. And then they had a starter fluid. Now in the beginning it was aniline. I think they change it later because having the aniline was particularly dangerous because apparently it could build up in your system. So as maintenance personnel I had to take a blood test every month and a chest x-ray every six months because of the aniline poisoning. But here again in the military and all its wiseness, once the missile got on the launchers, I didn't have, you know, I didn't have much more to do other than the electronic checkout once a month. And the guys who were the pit rats, the guys who worked in the pits actually did aniline. And aniline was actually just a large syringe that they put in. It was a started fluid to start the sustainer engine. And the way it worked, they had a devise they called a basketball. It was a stainless steel ball about the size of a basketball. And it was full of high pressure air. When the booster separates from the missile, there's a quarter inch rod that connects from the booster to the missile. As the booster falls away it pulls this rod and starts the sustainer motor. Well, it starts it by as it pulls the rod it activates the air in this basketball. And there are partitions in the fuel lines and what it does it shoves this high pressure air through the fuel lines first and blows all these little partitions out. So that then the fuels mix. And when the JP 4 and the nitric acid mix, it's very volatile. It starts to burn. That's why they have the starter fluid in there too. It's even more volatile and it has a little chamber between a couple of partitions that gets to the sustainer motor first. While you were fueling, you had complete rubberized suits. Boots, pants, jackets, hoods, gloves,

May 2006 rededication of Guardian Park at Fort Hancock. Family of a Lee Parker, a civilian ordnance department employee killed at the Middletown site during the explosion lay a wreath at the memorial.

mainly because of the acid. In fact, we had a slight accident one time when we refueled a missile. Cochran, one of the guys that out there on the headstone, he was a good guy. . . . they come down off the fueling trailer and I was acting safety officer during that fueling. And they, I don't know why, they had a neoprene plug that you plugged the filler areas after you put in the fuel and nitric acid and the one on the acid blew out. And we started losing acid down on the side of the motor well. And I'm jumping up and down saying, "Yeah, we are taking all the paint off the missile." Well, he jumped up there and just grabbed. You had a tool that you used to insert it. And he jumped up and just grabbed the thing with his bare hands and inserted it. It gave him a little bit of an acid burn on his hand. . . . .[About the NY 53 Nike Site] We called it the Middletown when we were there. I've been by that site two or three years ago. Of course the houses, there are houses where the launcher area used to be. . . . It was up, if you came out and crossed the railroad tracks. There was two roads that ran down, the military and the civilian highway. We went down that military road a ways and then up over the hill. Now I stayed, that's the barracks that I was in.

What happened was the barracks had. . . . four or five rooms that ended in a partitioned off area with a little lobby and so on. It was really for officers. But we only had one single officer. So he stayed at the BOQ [Bachelor Officers' Quarters] at Fort Monmouth. So they gave all those rooms to the first three graders. So, on a site alert when you called out hot battery, I really had nothing to do

Fort Hancock is the only Nike site in NJ that is open to the public. Tours are available. For more information, call 732-872-5970.

because I was assembly and maintenance unless something went wrong. So, I stayed up on the hill, not in the Launcher Area. Of course when they had a problem they'd have to come up and get me out of the sack. 'Cause we had, I could never forget the night we had, we were a hot battery (and it was) snowing and raining and cold and it was like January or February. They couldn't get one missile down. They had raised them and they couldn't get it down. So, they got me and I came down and well, I had just found out that there was a down limit switch on a missile rail when it goes down. When it comes up it is activated. When it goes down of course it breaks the switch. And it had frozen and I had tracked it down. [Mr Holmes speaks about the accident at the site.] I wasn't there. It still bothers me a lot because if you look at that headstone the first name would have been mine. That was my replacement. And then there was Sergeant Mould, Cochran and Berry. Now Berry was the hydraulic maintenance man. He was a black kid. And the other ones I remember but they came on board late. They were only working around there a month or so before I got out. Now, I got out and I went across. I stayed over on the New York side because I was going to get married. . . . So what happened, I was driving down to pick my wife up from work. She still worked at Ordnance [Fort Tilden]. And I saw that cloud and I knew just what it was across the Bay I saw that cloud and said, "By god, that is right where Middletown is." So then I found out that it was Middletown. I drove, I went down a couple of days later. The Sergeant that had the A pit, Sergeant Richter, who roomed with me up in the barracks for a while they put us both together. . . . he was telling me, you know, the fuel and everything came pouring down the elevator cables, there are cables that hang under the elevator. And he said that the fire was coming down into the pit. And he got everybody into the crew room which is a blast proof room. Yeah, well he got them all into that crew room there. Of course, they said they were afraid to come out. There's a hatch, an escape hatch that you can use that comes up on a ladder up out of there. He said they waited until somebody started pounding on that escape hatch up there to come out. He said it was really, really scary. The [missiles] ones in the furthest pit, the C pit, they got back down. There were 8, they had more than four above ground on A pit. Those all went. And then two or three of the ones went in B pit too. And I don't understand why they had all those missiles above ground. They were working on them.

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Mary Rasa worked as as park ranger and museum curator at Sandy Hook for 16 years and currently is a librarian for Harford County public library (Maryland).