

## **Addendum 9 March 2017**

### **Authors Note:**

Gentlemen,

In the past year I received photographs from two additional veterans of the of the Niagara-Buffalo Army Air Defense, Richard Ehrenreich and David Tincher, who both served at the Cambria Nike Missile Site. 1<sup>st</sup> Lt. Ehrenreich served with the 1<sup>st</sup> Missile Battalion, 4<sup>th</sup> Artillery and David, Private and later Spec 4, who was at the Cambria Site between 1956-1959 and served initially with the 44<sup>th</sup> Antiaircraft Artillery Battalion and later the 1<sup>st</sup> Missile Battalion 4<sup>th</sup> Artillery as part of the launcher crew.

Having published the original version of my report two years ago, followed by the revised edition last year, I did not want reprint it a third time. The pictures and articles Richard and David provided are good additions and worth sharing with you. I also found an article printed in the Grand Island Newspaper in 1956 that provides a view into the public's understanding of the Nike Missile Program at that time which I thought you might enjoy reading.

In order to share this information with you, I have generated this addendum to the revised edition of my paper. I believe it is the most expedient and cost effective way to share this information it with you.

Next to each new newspaper article and photograph I have provided a citation for the source, and also included a page number (in italics) which indicates where the picture/article would have appeared in the revised version of my paper dated 23 May 2016 had these items been available prior to the paper's printing date.

I hope all is well with each of you and send you my best wishes for a good year ahead!

Paul

## **Army's Nike Missile Antiaircraft Battery Nears Completion on Grand Island, NY** **Published in the Island Dispatch - September 26, 1956 Page 64/65**

The Army's Nike guided missile program in this area is beginning to take shape after more than two years of intensive construction and planning. At one time, curious residents were asking antiaircraft officers, "What happens to the man riding in the missile?" Since that time, however, the lid of secrecy on the supersonic weapon has been largely removed. Western New Yorkers have grown to accept Nike as a vital component of the area air defense setup.

Guided missile sites at Model City and Cambria Center in Niagara County and on Grand Island in Erie County already are "operational." Sites near Millersport, East Aurora and Hamburg are expected to be finished by the end of the year. A seventh site in the Town of Lancaster is scheduled for completion during 1957.

"Beautification" programs now are under way at the Model City, Cambria and Grand Island sites. This includes landscaping and the planting of trees and shrubs.

According to recently released Department of Defense reports, the Nike missile has a "slant range" of 25 miles. Target-tracking radar computes the path of oncoming enemy aircraft. When the missile is launched, both target and missile tracking radars work in unison, one locked on the target, the other on the missile. On the basis of data from these radars, guidance is provided the missile to intercept and destroy the target. A series of electronic impulses from ground to air prevents the missile from hitting friendly interceptor planes. Each friendly aircraft has an electronic means of identifying itself. The principle works somewhat like the identification of different radio frequencies.

A Nike installation, the Army insists, constitutes no danger to the area nor to the personnel of the unit itself. A warhead on the missile is constructed to explode only in flight. It has a self-destructive feature so that it will not crash and explode. In case the missile misses its target, battery technicians can also burst it from the ground by electronic impulses. At the various sites, safety precautions are taken for storage of explosives and volatile fuels. Assembled missiles are stored underground. Fueling areas are surrounded by high earthen revetments.

The missile itself, named after the Greek goddess of Victory, is liquid fueled and measures about 20 feet in length and one foot in diameter. It has two sets of fins for guidance and steering. The missile together with an 11-foot booster, weighs slightly more than a ton. When launched from an elevated rack the missile is attached to the booster. This booster gives it the initial thrust, launches it, and gets it up to flashing speeds before it is jettisoned a few seconds later when the Nike takes over and streaks on under its own power. Nike is normally fired from an almost vertical position.

The Nike project was initiated by the Army in 1945. The first Nike battery to become operational was installed at Ft. Meade, Md., in December 1953. The Department of defense, however, noting that the Niagara Frontier was the tenth largest industrial area in the country, started laying plans for antiaircraft defense here as early as 1950. Several million dollars was subsequently appropriated and 1,000 men from Ft. Devens, Massachusetts, were sent here in October 1952. The first Nike site at Model City was started August 4, 1954. The 2nd AAA Group at Ft. Niagara is the antiaircraft defense headquarters for Western New York. In case of an enemy air attack, the headquarters would coordinate their activities with the Air Force's 15th Fighter Group at the Niagara Falls Municipal Airport.

Each of the group's three operational Nike sites are self-sustaining. About 200 men at each station eat, sleep and work within the site. The personnel responsible for getting the missile into the air are highly trained technicians. Electronics maintenance men, for instance, have all completed a 32-week course at the Army's guided missile school at Ft. Bliss, Texas.

All personnel associated with the actual firing of the missile go to the Army's firing ranges in New Mexico each year for target practice. Excepting for an actual enemy attack, no missile ever will be fired here. Although no missiles are actually launched in this area, the efficiency of each Nike battery can be accurately tabulated.

Each site covers approximately 40 acres. Six to eight acres are set aside for a control area and the remainder for the launching area. There must be an unobstructed line of sight between both areas.

Various types of computers, radars and associated control equipment are located in the control area. In the launching areas, there are from three to six missile launchers. The areas are manned 24 hours a day.

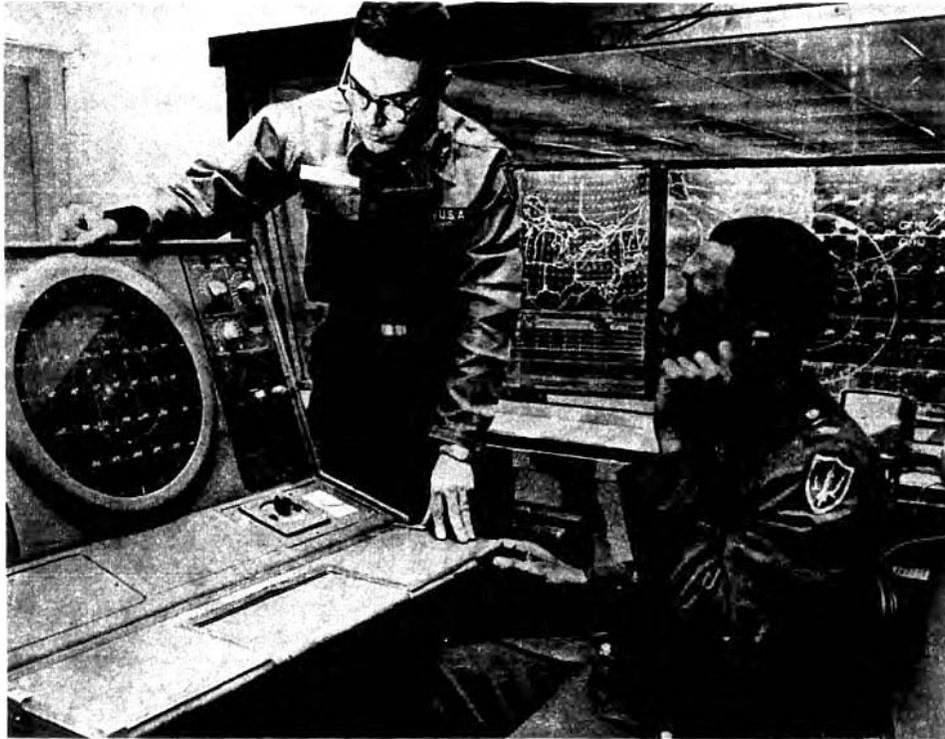
Area antiaircraft officers are looking forward to the appearance of the Nike "B," the Army's latest guided missile. It has greater range and striking force than the present Nike. At least one launcher at each of the area sites is equipped to handle the new weapon. Presumably, all launchers eventually will have to be converted to accommodate the new missile.



**Captain Charles Brown & 1<sup>st</sup> Lieutenant Rex Jenkins in Battery Control Van during January 1968 Short Notice Annual Practice (SNAP), exercise at McGregor Range, New Mexico. Photo Credit: Richard Ehrenreich. Page 73.**

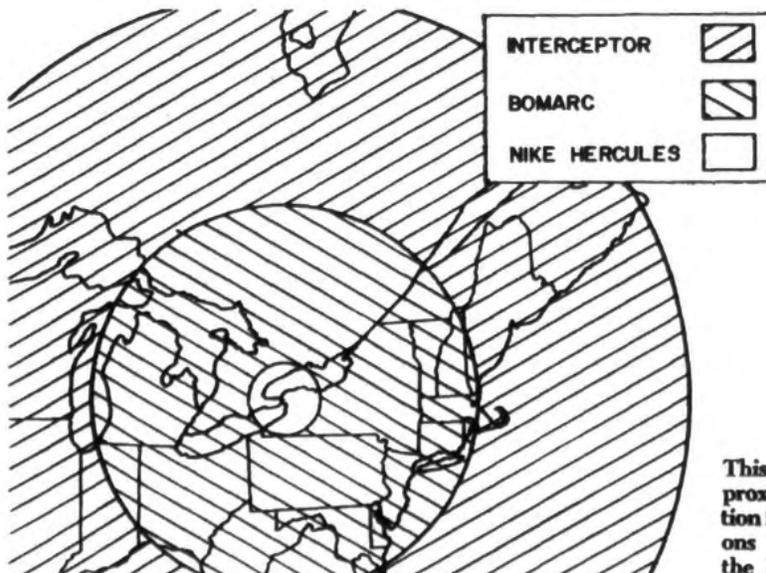
The next photograph was taken at the at the AADCP which was located at the Lockport Air Force Station.

Photograph credit: Buffalo Evening News, 3 March 1968. Page 51.

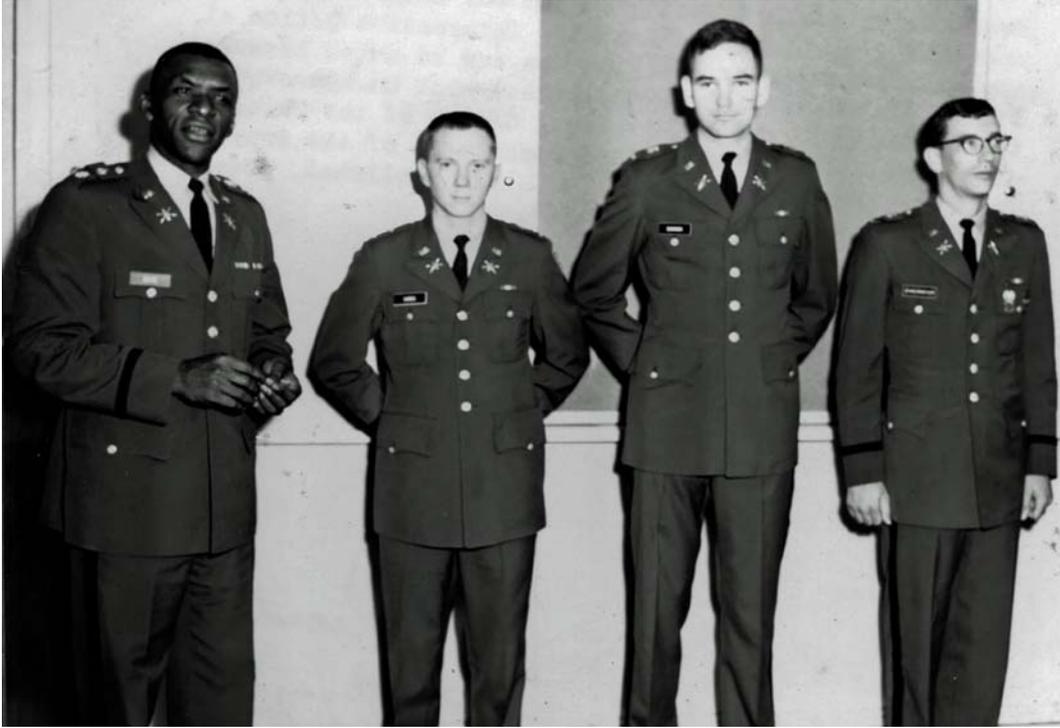


In a separate area adjoining the "Blue Room," Lt. Thomas J. Wyant, standing, and Lt. Col. Ulysses X. White watch a radarscope which constantly monitors the air space over the Niagara Frontier.

The figure below was in the same newspaper issue. While not clearly stated in the chart, the coverage zone ranges depicted must have included all Fighter Interceptor, BOMARC and Nike Hercules in the North Eastern Region.



This chart shows the approximate area of operation for each of the weapons systems defending the Niagara Frontier.



Promotion of 2nd Lieutenant Richard Ehenreich to 1<sup>st</sup> Lieutenant, 7 June 1968.  
Left to right are Lieutenant Colonel Ulysses X. White, Acting 101<sup>st</sup> Artillery Group (Air Defense),  
Commander; Jack Gibbs; Mike Bannon; and Richard Ehenreich.  
Photo credit: Richard Ehenrich. *Page 54.*



Nike Hercules on Alert at Cambria Site

# Lockport Missile Station A Key Unit In Country's Air Defenses

BY ROBERT NICHOLS

At Lockport Air Force Base Thursday Col. Oliver D. Street III, and his staff of officers and enlisted men, proved that rockets and missiles have come a long way since Dr. Robert H. Goddard (1882-1945) successfully fired his first liquid fuel rocket in 1926.

Dr. Goddard was the father of modern rocketry and space flight, and his contributions helped lead to the modern air defense system now in operation at the 101st Artillery Group (Air Defense) eight miles west of Lockport.

In a tour and demonstration given to Western New York newsmen, Col. Street and his staff discussed our national defensive system to guard against possible enemy attack by manned bombers and guided missiles.

Lt. Col. Ulysses X. White, deputy commander, said that the overall defensive system, known as the North American Air Defense Command (NORAD), is controlled at Cheyenne Mountain headquarters in Colorado.

NORAD is composed of elements of the Canadian Air Force, and the U.S. Army, Navy and Air Force.

Our first line of defense in this system is the Distant Early Warning (DEW) line that extends across the top of Canada near the Arctic Circle. This is backed up by the Mid-Canada line of radar installations, at about the 55th parallel. These are further supported by other radar units in both countries.

In the event of an alert, Colorado controls the entire operation. Only when enemy aircraft are able to penetrate the other defenses would the 101st be brought into action to defend the Niagara - Buffalo area.

For example, should an attack come by way of the North Pole, Canadian fighter planes would make the first interception. American fighters would supplement them to pick off surviving aircraft.

When the balance of the enemy was 400 miles away, the third interception would be handled by Bomarc guided missiles. At 75 miles, the Nike Hercules would complete the defensive chain against a bomber threat.

The Nike Hercules is the armament of the 101st. Unlike Dr. Goddard's first craft, it is propelled by solid fuel. It is 39 feet long, has two stages, and is commanded via radar.

This radar is in three stages: acquisition, which locks on to the target; another which tracks the target; and a third which guides the Nike Hercules. Computations are fed into the computer which predicts the "kill point" at which a "burst command" will automatically be sent.

However, due to the increased possibility of use of inter-continental ballistic missiles (IC-BM's), the Army is developing Spartan and Sprint missiles.

The Spartan is capable of extended range outside the atmosphere, while the Sprint has a short range but exceedingly high acceleration. If the Sprint and a .30 caliber machine gun bullet were fired simultaneously, the missile would pass the bullet in less than three seconds.

Both Spartan and Sprint use phased array radar, which combines all three operations previously described by means of electronic beam steering. This development enables the radar to scan large volumes of space in billionths of a second. The improved computerization allows the radar to keep track of numerous targets at the same time, while also guiding missiles to their targets.

The computer now used with the Nike Hercules provides automatic tracking. It replaced one that required a room 55 by 80 feet. The newer solid-state unit stands in the middle of that otherwise empty room, housed in a casing that measures only 8 by 12 feet.

Other computers are housed in mobile vans. These large vans contain complex equipment worth hundreds of thousands of dollars, and are packed with devices to enable tracking and destruction of enemy aircraft.

Command decisions are made by Col. Street in the "blue room," where blue lighting softens the glare and makes for easier reading of the plotting boards.

This room houses the base Army Air Defense Command Post, and contains electrical tracking devices, backed up by manual techniques.

In fact, nearly every operation has provision for a back-up system. In an emergency, this defensive system could be entirely self-contained, with no reliance required on public utilities.

The missile sites, where the launchings take place, are the most thoroughly guarded of all. The four acre section is protect-

ed by an 8-foot-high fence and armed soldiers. At night, four dogs with their handlers patrol the area.

Dogs and handlers are trained as teams at Lackland Air Force Base in Texas. Should a handler be reassigned or leave the service, the dog is returned to Lackland for retraining with a new handler.

Almost 600 men comprise the three batteries and headquarters unit of the Niagara - Buffalo Defense System. There are 160 at headquarters, 137 assigned to the battery at Cambria, and 285 National Guardsmen are split into the batteries at Lancaster and Grand Island.

Col. Street pointed out, "We are well protected in this area. Our operations are good, and are getting better." —

Photo credit for the picture at bottom of the previous page and text above:  
Buffalo Evening News  
27 June 1968. Page 73.

## Missilemen Practice In New Mexico

A group of missilemen whose job is to protect the Niagara-Buffalo area are now proving their qualifications in live firing at McGregor Testing Grounds New Mexico.

Two crews of 43 men from Battery B, 1st Battalion, 4th Artillery of the 101st Artillery Group (Air Defense), stationed at Lockport Air Force Base, arrived Sunday at the site 30 miles north of El Paso.

To pass their test, they must score 70 points out of an aggregate total of 100. Certain values are assigned to each phase of the operation, and Battery B must achieve a total of 70 to be considered successfully qualified.

The exercise began with telephone notification to Group Commander Colonel Oliver D. Street III. Within three days the men were ready for action on the sands of the New Mexico site, which is linked to White Sands Proving Grounds.

As the men prepare and fire live missiles at electronically guided targets, they are judged by four evaluators who record every mistake. This enables the Battery Commander, Captain Rex D. Jenkins, to correct his men after the exercise.

Colonel Street is also at McGregor, for this exercise is a vital part of his duties as area Defense Commander. Each of the 43 men must understand and perform his duties efficiently if the team is to beat combat readiness to defend Lockport and surrounding areas.

## Air Defense Unit Now '18th Group'

The official designation of the 101st Artillery Group (Air Defense) has been changed, Col. Oliver D. Street III, commanding officer, announced today.

The group, located at Lockport Air Force Base eight miles west of this city, is now designated the 18th Artillery Group (Air Defense).

Col. Street said the reason for the change is that the Army recently phased out a few units in the Midwest. One of them was the 18th, but since the group had such a long and successful history, the army decided to retain the designation. Thus the 101st was phased out, and the 18th still exists on the books.

Col. Street pointed out that nothing else has changed. He still has the same units protecting the Lockport area from missile attack.

Lockport Union Sun & Journal  
29 November 1968. Page 57.

Lockport Union Sun &  
Journal  
5 October 1968. Page 73.



(US&J Photo)

**ALMOST PERFECT** — Battery "B", 4th Artillery, Cambria, scored 97.5 percent in their Short Notice Annual Practice, one of the highest scores in the nation. Arriving at Niagara Falls Airport Sunday night were 1st. Lt. Richard Ehrenreich, battery commander, second from left; and Col. Oliver D. Street III, right, group commander and commander of the 18th Artillery Group. Mrs. Ehrenreich and Mrs. Street welcomed their husbands at the airport. 2nd Lt. Leonard Ventimiglia, left, holds a sign congratulating the unit.

## Nike Crew Honored For Marksmanship

Members of Battery "B," 4th Artillery, Cambria, got the red carpet treatment when they returned to Niagara Falls Sunday night after their Short Notice Annual Practice.

The soldiers were returning from McGregor Missile Range at Ft. Bliss, Tex., where they

scored an almost perfect 97.5 per cent in practice tests which rate the battery's ability to construct and prepare a Nike anti-aircraft missile and fire that missile to destroy an attacking enemy aircraft.

First Lt. Richard Ehrenreich, commanding officer of the battery, led the men from the plane at Niagara Falls International Airport.

They traveled along the red carpet to the music of the Niagara - Wheatfield School Band, on hand to welcome the successful battery.

On Tuesday, after a day of construction and preparation, the battery fired two Nike missiles and destroyed their targets, small, high-speed jet aircraft.



**Sgt. 1<sup>st</sup> Class Browning, Launcher Platoon Sgt. Is promoted to 1<sup>st</sup> Sgt. by Colonel Oliver D. Street, Commander, 18<sup>th</sup> Artillery Group (Air Defense).**

**In the photograph from left to right: 1<sup>st</sup> Lt. Lawrence Gilley, Group / Battalion S1; Col. Oliver D. Street; 1<sup>st</sup> Lt. Richard Ehenreich; Sgt 1<sup>st</sup> Class Browning. The ceremony took place in the Admin Area on Upper Mountain Road.**

**September 1969**

**Photo Credit: Richard Ehenreich Page 57.**

# Smith Told Decision Final On Closing Of Missile Bases

WASHINGTON — Rep. Henry P. Smith III of North Tonawanda said today that the decision to close Nike-Hercules Missile sites in Cambria, Grand Island and Lancaster is "irreversible".

In statement issued following a meeting Thursday with Barry J. Shillito, assistant secretary of defense, Rep. Smith said that he was told that the decision to close the sites "was a military decision made in light of our intelligence reports of Soviet capabilities and in view of present budgetary restrictions."

The North Tonawanda congressman said he was "assured that, in accordance with my suggestion, all personnel will have at least 60 days individual notice of the termination of their services."

He said, too, that there will be opportunities offered to all personnel "desirous of re-training with pay."

Rep. Smith stated that the closing of the Nike-Hercules sites in the WNY area by March 31, 1970, is part of a general

phase out of these installations which started in 1963. Sites in the interior of the country were phased out first.

"The decision to close the sites in WNY is an irreversible decision and the defense of WNY against bombing will be mostly the mission of F-106 interceptor planes from Griffis Air Force Base at Rome, N.Y. with a detachment at Niagara Falls Air Base."

Rep. Smith said that Mr. Shillito promised that a National

Guard team will visit WNY within a few weeks to counsel and advise all personnel in regard to their rights, the opportunities for re-training, the ins and outs of severance pay, other national guard opportunities and other matters affecting the lives and futures of the personnel displaced by the closing of these sites.

The congressman said he and his administrative assistant, Russell Rourke, met yesterday for an hour with Mr. Shillito and two of his aides at the Pentagon.

## Army Will Fire 93 At Support Center

WASHINGTON — Ninety-three employees of the Army Support Center on Porter Road, Niagara Falls, will be separated from their jobs within two months.

This was announced today by the office of Rep. Henry P. Smith III (R-NT). A spokesman for the congressman's office said the word came from the Department of the Army, which said the move would leave 125 employees at the center.

The center supplies equipment of all types to the 101st Artillery Group and to 1st Army units in the 19 western-

most counties of the state. Sixty per cent of its \$3 million annual expenditures is for civilian salaries.

The reduction in personnel at the Falls installation results from cost-cutting that will require the separation of 5,037 employees at 43 Army units throughout the continental U.S.

All the personnel to be separated are career and "career conditional" employees, the spokesman for Rep. Smith said. The latter category includes persons who are low on the list of Civil Service appointees and subject to first separation.

The following photographs at Battery B were taken by David Tincher when he visited the former Nike Site several years ago:



Launch Area on Upper Mountain Road – New Cambria Town Hall



Launch Area - Former Mess Hall



**Launch Area - Former Missile Assembly Building**



**Launch Area – Former Missile Assembly Building**



**IFC Area – Former Barracks**



**IFC Area – Former Generator Area**



**IFC Area - Former HIPAR Radar Tower**



**IFC Area – Memorial plaque near entry gate**