

MANASSAS
AIR FORCE
STATION

PRINCE WILLIAM PUBLIC LIBRARY SYSTEM
Bull Run Reg Lib Manassas, VA

Not Completely Gone ... But Mostly Forgotten

Manassas Air Force Station Once Guarded Washington's Front Door

by Tom Page

Note: This article, less the final three paragraphs included below, appeared in the Manassas Journal Messenger, January 5, 2000

Passers-by in Independent Hill, a small town located in the eastern part of Virginia's Prince William County, probably do not even notice the large concrete "fortress-like" structure or the tall steel "box on stilts" among the group of buildings that sit at the southwest quadrant of the Joplin Road - Aden Road intersection. Indeed, the only uses of the facility today include the Independent Hill Elementary School and the Prince William County School Board, plus several radio transmitter towers. The "box on stilts" is now sanctuary to dozens of pigeons that make it their roost.

That this site was once home to a U.S. Air Force air-defense radar unit is not known to most folks today — and also was not known to many who grew up and lived near this location during the 1950's and early 1960's. The Air Force preferred it that way: low key and out of the spot light. Secrecy was the order of the day. Consequently, when this small station closed in June 1965 — quietly and without fanfare — most residents nearby did not even know.

Originally, this small base was named "Quantico Air Force Station," due to it being situated at the northeast corner of the Quantico Marine Corps Base, which is still an active base today. The Air Force's 647th Aircraft Control and Warning (AC&W) Squadron, part of the newly-formed Air Defense Command (ADC), began operating long-range radar equipment at Quantico AFS in March 1952. Actually, the 647th AC&W Squadron had initially been activated at Fort Meade, MD, in September 1950, to operate a temporary — or "Lashup" — radar site until the permanent radar station at Quantico could be constructed and become operational. Then in July 1957, the name of the small base was officially changed to "Manassas Air Force Station," the name it would keep until deactivation.

This long-range radar site was one of more than 200 such ADC facilities that maintained surveillance activities all across the continental US during the Cold War in support of the North American Air Defense Command (NORAD). This number does not include another 100 or so long-range radar sites all across Alaska, Canada, Greenland, and Iceland that, along with the sites in the continental US, provided continual surveillance that would warn of any Soviet bomber attacks — attacks that, fortunately, never came.

Quantico AFS — identified by the Air Force as Site # "P-55" (and as "Z-55" after July 1963) — operated a number of different radar types during its brief lifetime, and

also saw a number of changes take place. The station began manual air-defense surveillance duties using an AN/FPS-3 model long-range search radar and an AN/CPS-4 (later AN/FPS-4) model search/height medium-range radar in 1952. In 1958, two long-range height-finder radars — types AN/FPS-6 and AN/FPS-6B — were installed, which replaced the AN/FPS-4 radar. In 1959, now-Manassas AFS was integrated into the new Semi-Automatic Ground Environment (SAGE), a system of NORAD control centers that used first-generation computers to process and display radar data, sent via telephone lines, from many different radar sites. The squadron designation was officially changed to the “647th Radar Squadron” circa 1961.

Also in 1961, the station received one of the Air Force’s first four high-power, frequency-diverse, long-range search radars known as the AN/FPS-35, a very-complex VHF radar set designed to prevent jamming by enemy aircraft. The AN/FPS-35 radar was installed in the tall concrete fortress-like tower that still stands today. This radar set, which replaced the site’s AN/FPS-3, used an enormous antenna weighing over 70 tons. Owing to the radar set’s size and complexity, it took almost a year before this giant radar was fully operational.

In the early 1960’s, the perceived national threat was beginning to shift from manned bombers to intercontinental ballistic missiles (ICBM’s) and submarine-launched ballistic missiles (SLBM’s). In 1962, the AN/FPS-35 search radar at Manassas AFS (along with an identical model at Benton AFS, PA) was tested to determine if this radar type could be used to detect missile launchings. The results were marginal, so the AN/FPS-35 was never adopted for missile-detection use. A different radar type would later be developed for that purpose. So, the mission of Manassas AFS continued to be that of searching for enemy bombers.

In 1963, Manassas AFS received one of the first high-power, frequency-diverse (FD), long-range height-finder radars known as the AN/FPS-26A; this radar set replaced the AN/FPS-6 (the site continued to operate the AN/FPS-6B, though). Like the AN/FPS-35, though nowhere as large, the AN/FPS-26A was also a complex radar set designed to prevent jamming by enemy aircraft. The AN/FPS-26A was installed inside the tall steel “box on stilts,” with the antenna inside a large white rubber radome. That tower is also still standing today, only without its radome. The fact that Manassas AFS received two of the very first FD radars is testimony to the site’s importance at the time, guarding Washington’s southern and eastern airborne approaches.

In the early 1960’s also, military and other federal budgets were getting tighter and tighter. The Air Force, Army, Navy, and the FAA were directed to consolidate their radar resources where practical. A new Army radar unit had been formed at Fort Meade, MD, to support the Nike air-defense missile networks around Washington and Baltimore. In 1961, the Air Force’s 770th AC&W Squadron was transferred from Palermo AFS in southeastern New Jersey to Fort Meade, allowing Palermo

AFS to be deactivated (and converted to a short-range radar site, or "gap-filler"). Although Palermo AFS would reopen a year later and remain in use as a long-range radar site until 1970, the Air Force's use of Fort Meade marked the beginning of the end for Manassas AFS. By the mid 1960's, with funds getting still tighter, Air Force officials concluded that the radar coverage from Fort Meade was sufficient for the greater Washington area, and that the radar coverage provided by Manassas AFS was redundant. So, in a budget-cutting move, the 647th Radar Squadron at Manassas AFS was deactivated in June 1965. The powerful radars were removed, and the station was put into care-taker status.

However, the cessation of radar operations did not mark the full end to Manassas AFS. The station's ground/air-transmitter/receiver (GATR) radio site, situated about a mile west of the main site, just off Aden Road, was reassigned to the 770th Radar Squadron at Fort Meade as a remote annex, and continued to operate until 1976. [Today, that facility is operated by another government agency, and is off-limits to the public.]

The entire network of Air Force SAGE radar stations, of which Manassas AFS was part, is today long gone. Even the radar site at Fort Meade ceased operations in 1979. Now, nominal peace-time radar coverage is provided by Federal Aviation Agency (FAA)-operated radars as a part of a program known as the "Joint Surveillance System" (JSS). Only a few of the original Air Force radar stations evolved into JSS sites. Radar coverage over the Washington area today is provided by the FAA's air-route surveillance radar site situated near The Plains, VA, atop Bull Run Mountain. The next two closest JSS sites to this area are found at Oceana Naval Air Station, VA (near Virginia Beach), and at Gibbsboro, NJ (one of the few original military radar sites).

Travelers passing through Independent Hill, VA, today will likely continue to drive by the old air-defense radar site once known as "Manassas Air Force Station" without knowing (or even caring) that it once was tasked with the all-important duty of protecting Washington from surprise Soviet bomber attack. Indeed, this small group of buildings today is yet one more relic of the Cold War. But in its day, Manassas AFS was one of many defense sites that allowed Americans to sleep soundly at night, with the assurance that their Air Force and other military units were keeping them safe.

Additional information about the former Manassas AFS and the rest of the U.S. Air Force's Cold War radar stations may be found on the Internet, at the "Online Air-Defense Radar Museum" web site, at URL <http://www.radomes.org/museum>.

T.E.P.

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Information for Manassas AFS, VA

Latitude: 38-37-41 N, Longitude: 077-26-25 W

Call Sign(s): Inform

(If the town can't be found in weather database, you'll see "ERROR")



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Perm. ID	SAGE ID	JSS ID	Unit	Location	Early Equip.	Final Equip.	Oper. Date	Inact. Date	Notes
P-55	Z-55		647	Manassas AFS, VA	FPS-3; CPS-4; FPS-6A; FPS-6B; FPS-26A; FPS-35		Mar-52	25-Jun-65	Site first known as Quantico AFS. FPS-35 used for missile detection tests in 1962, with marginal results. Manassas GATR site R-20 retained until 1976. Located in Independence Hill, VA, site now used by Prince William County school system.
P-55A				<u>Chestertown, MD</u> **					Gap Filler; ** In original ADC plans, but never was built. Believed to have been used as an Army Nike early-warning radar facility (1959-1961).
P-55B / RP-54A				<u>Hermanville, MD</u>	FPS-14		Nov-57	Dec-63; c. Apr-68 *	Gap Filler; According to one source, the inactivation date Dec 1963 is when the facility was transferred to the Army to be used in the Nike Zeus missile-defense program (which was subsequently cancelled). However, the site reopened as "Z-227A."
P-55C				<u>Hallsboro, VA</u> **					Gap Filler; ** In original ADC plans, but never was built. FUDS report exists, though, suggesting that land might have been procured.
P-55D / RP-54B				<u>Hanover, PA</u>	FPS-14		Nov-57	Dec 1960* (1962?)	Gap Filler; * Dec 1960 is probably the date that this gap filler annex was transferred administratively from Manassas AFS to Fort Meade. Final deactivation was probably on/about 1962 (?).
									Gap Filler; * Radar type

P-55F / RP-62G		<u>Thomas, WV</u>	FPS-14	Feb-58	circa 1968 (?)	reportedly changed to FPS-1 circa 1963. Control of site reportedly changed from Manassas AFS, VA (Z-55), to Oakdale AI, PA (Z-62). GFA located on Backbone Mtn., w of town.
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Current Use: - Administrative and logistics center for the Prince William County School District

NOTICE:

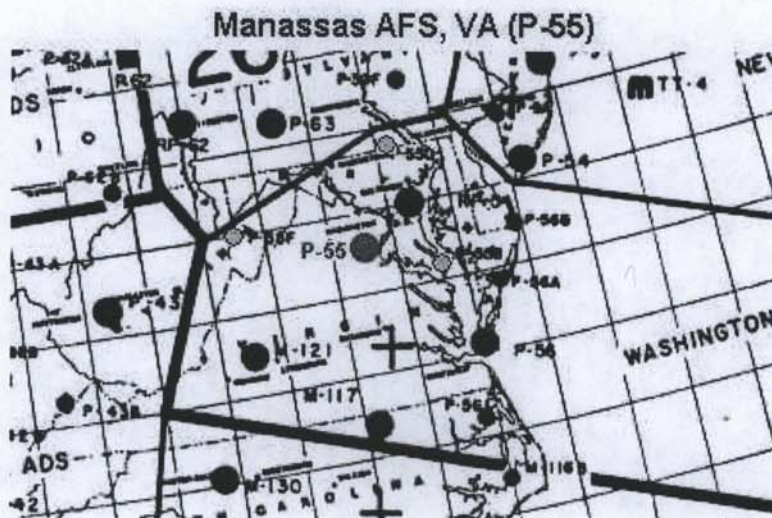
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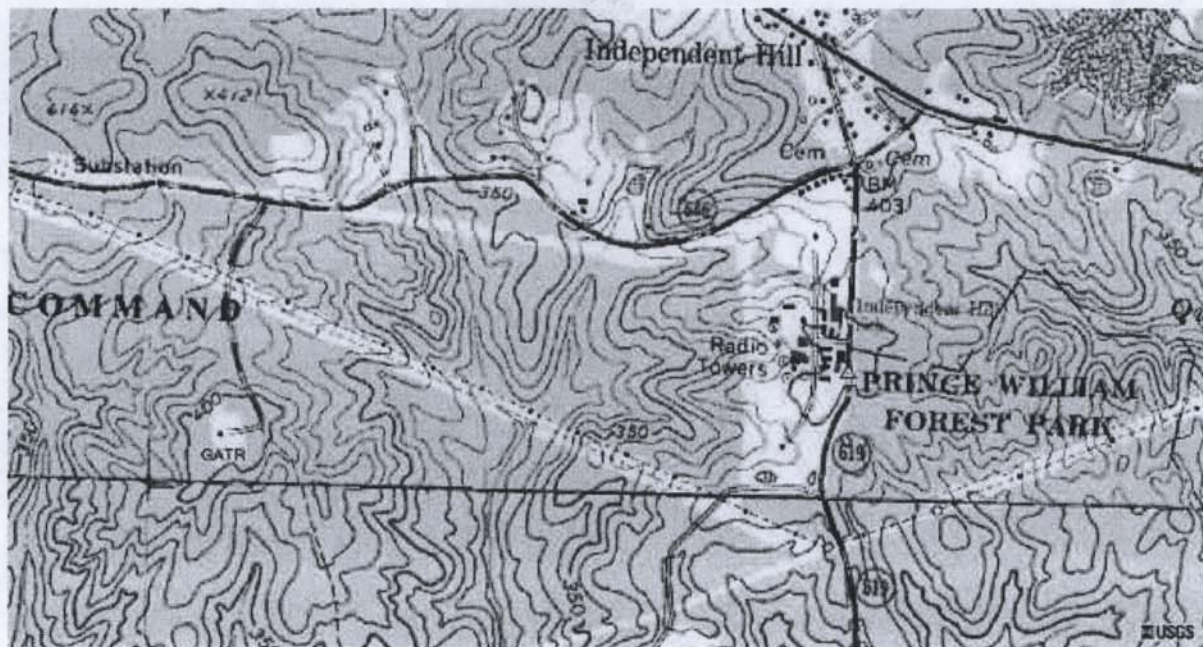






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Information for Manassas GATR, VA

Latitude: 38-37-35 N, Longitude: 077-27-20 W

Perm. ID	SAGE ID	JSS ID	Unit	Location	Early Equip.	Final Equip.	Oper. Date	Inact. Date	Notes
R-20	R-20		770 OLAA	Manassas GATR, VA					Located in Independent Hill, VA; originally was the GATR site for Manassas AFS, VA (Z-55).

Current Use: - Government facility.

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