# THE NATIONAL ARCHIVES IN THE REGIONS...

# 1arch 2009

A MONTHLY CALENDAR OF EVENTS OPEN TO THE PUBLIC

## Top Cover for America: Early Warning Air Defense Systems in Alaska, 1949–1985

Among the records of the U.S. Army Corps of Engineers' Alaska District is a large series of almost 12,000 photographs of about 150 formerly used defense sites from the Cold War period and still active military installations in Alaska. Many of these photographs were produced as a result of the Corps' work in designing and supervising the construction of military facilities for the U.S. Army and Air Force.

The development of early warning air defense systems in Alaska and Canada resulted from the Soviet Union's perfection of intercontinental ballistic missile (ICBM) technology in the mid-1950s. There was a shift away from large military bases toward strengthening air defense systems. Specifically, these changes led to the construction of the Distant Early Warning (DEW) Line; improvements to Air Control and Warning (AC & W) stations; and construction of a Ballistic Missile Early Warning System (BMEWS) station at Clear Air Force Base. These defense systems were all linked together into a cohesive network of 84 stations known as White Alice (1955–1979). The Alaska radar and communications systems were also connected to an integrated defense network, the North American Air Defense Command or NORAD, located in Colorado. Warning time of an ICBM missile attack detected at one of these stations was 15 minutes.

Tatalina, located 230 air miles northwest of Anchorage, provides an example of a station that was accessible only by air. The photograph from 1958 of the Tatalina Aircraft Control and Warning Station shows two parabolic tropo communications antennas in the foreground. The radar site can be seen beyond them. A technological advance, known as forward propagation tropospheric communications, was used to beam radio signals from a transmitting antenna, and then bounce them off the troposphere back down to a receiving antenna. Tropo communications made the rapid transmission of data over long distances possible. Tropo systems used microwave towers, which linked Distant Early Warning (DEW) stations and AC & W sites every 50 miles or so. The DEW Line (1953–1985) was a string of 50 radar and communications stations erected in the Arctic to alert against a surprise attack from

Soviet long-range bombers. The AC & W system (1949–1984) was designed to provide advanced radar warning of enemy aircraft and to assist in the control of friendly planes. Because of the limitations of electronic equipment at that time, AC & W stations had to be constructed at high elevations to ensure the radar's capacity to detect enemy aircraft.

The Tatalina Aircraft Control and Warning System site was constructed in 1953 as one of the 10 original AC & W sites in Alaska. Tatalina was one of five split-level operations camps, with the radars on a mountain top at high camp. The support functions and runway were at a lower camp, connected by a dirt road and by tramway. It was essential that men running the station had enough food, water, and fuel to last all winter. Supplies were flown to an airstrip at the base of the mountain and hauled to the top by trucks, weather permitting. The aerial tramway was used in emergencies to carry food and needed supplies. The access road, built during good weather, was often useless when deep snow, black ice, or heavy rains made it impassible. In emergencies, the tramway created problems when high winds or ice destabilized it.

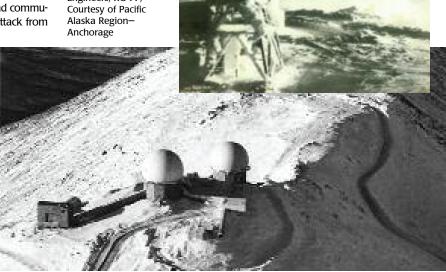
The original Tatalina station involved the wood-frame con-

struction with steel radomes. The buildings included operations, power, and equipment buildings; two warehouses; a recreation center, mess hall, barracks, and officers' quarters; roads; heat, water and sewer systems, and wells; radar domes; fuel tanks; and snow fences. In the 1960s, prefabricated buildings replaced the wood-frame structures. During the 1950s and 1960s, about 100 military personnel were stationed at Tatalina. In 1987, the station was demolished except for a pump house, weather station building, modernized radar dome, and two geodesic Minimally Attended Radar (MAR) domes. Tatalina is still in use as an active Long Range Radar Site of the Alaska Radar System of the North American Aerospace Defense Command (NORAD).

These defense systems made the north coast of North America a top cover for its defense. America's defense became strongly dependent upon Alaska for advance warning and initial interception. In sites like Tatalina, communications were first by high-frequency radio, then White Alice with satellite communications starting in 1959. In the 1970s, satellite communications replaced the White Alice tropospheric and microwave system. In the mid-1980s, Minimally Attended Radar (Geodesic Dome) structures were built at four of the original AC & W sites, including Tatalina, as part of a radar modernization program that required far less personnel with increased capabilities. This system has been improved over the years and remains in service as part of the Long Range Radar System.

### Tatalina Aircraft Control & Warning System, 1958

Historical Photographs, ca. 1950–1985 (U.S. Army COE, Alaska District, Anchorage) Records of the Office of the Chief of Engineers, RG 77, Courtesy of Pacific Alaska Region—



Tatalina Aircraft Control & Warning System Radome and White Alice Site, 1958

Historical Photographs, ca. 1950–1985 (U.S. Army COE, Alaska District, Anchorage) Records of the Office of the Chief of Engineers, RG 77, Courtesy of Pacific Alaska Region—Anchorage

# **Snow Banks in the Pike** National Forest, 1912 RG 95, Courtesy of NARA Rocky Mountain Region-Denver March 2009



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	Anchorage, AK Beginning Genealogy at NARA Workshop/Genealogists 907-261-7820 Denver, CO Genealogy Workshop and Tour Workshop and Tour General Public 303-407-5749	4	5	Seattle, WA Pacific Northwest Historian's Guild Conference Conference/General Public 206-336-5115 3/6-3/7/09 Ontario, CA California Council for Social Studies Conference Conference Center	7
8	9	10	11	12	Information Booth and Exhibit K-12, Students 650-238-3478 3/6-3/7/09	14
	Denver, CO <b>Genealogy Lecture</b> Lecture General Public 303-407-5749			Seattle, WA Brick Wall Discussion Group Workshop Genealogists 206-336-5115	Shoreline, WA North Sound History Day Competition Other/General Public 206-336-5115	
15	16	17	18	19	20	21
					San Bruno CA Census Records 1790–1930 Research Workshop and Tour General Public 650-238-3485	San Bruno, CA Chinese American Student "Roots" Program Workshop and Tour K–12, Students 650-238-3478
22	23	24	25	Seattle, WA Organization of American Historians Conference Conference/General Public 206-336-5115 3/26-3/29/09	27	28
	Bremerton, WA  Olympic History Day  Competition  Other/General Public 206-336-5115			Auburn, WA Seattle South Sound History Day Competition		
29	Seattle, WA Assoc. of King County Historical Organizations Archival and Allied Professionals 206-336-5115		Other/General Public 206-336-5115  Exhibit: Seattle, WA Blue vs. Gray: The Civil War in the Pacific NW 9/1/08-Ongoing		Exhibit: Seattle, WA Picturing the Century in the Pacific Northwest 5/6/08–Ongoing	

Region

NARA's Pacific Laguna Niguel 949-360-2641 laguna.archives@nara.gov

> San Bruno 650-238-3501 sanbruno.archives@nara.gov

**NARA's Rocky Mountain Region Denver** 303-407-5740

denver.archives@nara.gov

Alaska Region

**NARA's Pacific Seattle 206-336-5115** seattle. archives @nara.gov

**Anchorage** 907-261-7800 alaska.archives@nara.gov

# Thomas to the P RG 241, Northea EastCoast March 2009

Thomas Edison Patent for Improvement to the Phonograph, 1900

RG 241, Patent A-1, Courtesy of NARA Northeast Region—New York

3/7/09

# Exhibit: Morrow, GA From Sacred Harp to Elvis: Music in the Archives



New York, NY National History Day-NYC K-12, Students 866-840-1752		Watertown, MA Introduction to Genealogy Class Part Two, 7–9 P.M. General Public 781-663-0130	Workshop K–12, Teachers 866-840-1752	Exhibit: Philadelphia, I Elusive Freedo 8/1/08–9/30/0	m	Exhibit: New York, NY Ella Fitzgerald Goes to Court 1/5–3/31/09
29	30	31	Bay Ridge, NY Educational Resources of NARA		Federal Hall, NY New York's National Treasures	
22	Waltham, MA Genealogical Roundtable Facility Introduction & Tour Genealogists General Public 781-663-0130	Watertown, MA Introduction to Genealogy Class Part One, 7–9 P.M. General Public 781-663-0130	in the Records of the Provost Marshall Lecture/Genealogists 866-840-1752  Philadelphia, PA Genealogical Series: Military Records Workshop/Genealogists 215-606-0112	Pittsfield, MA Finding Your Immigrant Ancestors at NARA Workshop/Genealogists 413-236-3600	Pittsfield, MA Finding Italian Ancestors II Workshop/Genealogists 413-236-3600  Boston, MA New England Archivists Conference 781-663-0130 3/27/09-3/28/09	Counties Workshop/Genealogists 770-968-2555 Waleska, GA Family History Day Workshop/Genealogists 770-968-2555
Boston, MA National Council for the Social Studies NE Regional Conference on the Social Studies Conference 781-663-0130 3/15-3/19/09	16	Boston, MA National Council for the Social Studies NE Regional Conference on the Social Studies Revolution at Boston April 1775—March 1776, 1:30–2:30 P.M. Conference 781-663-0130	Boston, MA National Council for the Social Studies NE Regional Conference on the Social Studies Mass 54th 3:30p-4:30 p.m. Other/Conference 781-663-0130 Hicksville, NY Civil War Ancestors	Pittsfield, MA Using Military Records at NARA Workshop/Genealogists 413-236-3600	Conference Revolution at Boston: April 1775—March 1776, 2:30 p.m. Conference 781-663-0130  Pittsfield, MA Finding Italian Ancestors I Workshop/Genealogists 413-236-3600	Wayne, PA Sisters in Crime Workshop Other/General Public 215-606-0112 New Jersey National History Day-NJ K-12 Students 866-840-1752 Morrow, GA Genealogical Society of Clayton and Henry
Long Island, NY National History Day -NY K-12 Students 866-840-1752	9	New York, NY Finding Family: Using Census Records Workshop/General Public 866-840-1752 Philadelphia, PA National History Day Competition (Junior Division) K-12, Students 215-606-0103	Philadelphia, PA National History Day Competition (Senior Division) K–12, Students 215-606-0103	Boston, MA National Council for History Education Conference Other, K-12 Teachers 866-840-1752 3/12-3/14/09 Pittsfield, MA Using Federal Census Records Workshop/Genealogists 413-236-3600	Boston, MA National Council for History Education Conference Mass 54th: American Courage, Sacrifice and Glory, 1:30 p.m. Conference 781-663-0130 Boston, MA National Council for History Education	Boston, MA Documented Rights Panel Discussion Lecture/K-12, Teachers 866-840-1752 Middlebury, CT Using Military Service and Pension Files at NARA Lecture/Genealogists 413-236-3604
1	2	Waltham, MA On-Site Facility Tour, 1:30 p.m. General Public 781-663-0130  Waltham, MA Local History in Federal Records Lecture/General Public, 2 p.m. 781-663-0130	Philadelphia, PA Genealogical Series: Exploring the Census Workshop/Genealogists 215-606-0112	Pittsfield, MA Beginning Your Genealogy Research at NARA Workshop/Genealogists 413-236-3600  Waltham, MA Civil Rights and Civil Liberties Lecture/General Public, 6:30 P.M. 781-663-0130	Philadelphia, PA First Friday Genealogy Open House General Public 215-606-0112	Boston, MA National Council for History Education Conference Documenting the Rights of Individuals 11:30 A.M. 781-663-0130
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY

### **NARA's Northeast Region**

**Pittsfield** 413-236-3600 pittsfield.archives@nara.gov

**Boston** 866-406-2379 waltham.archives@nara.gov

**New York** 866-840-1752 newyork.archives@nara.gov

## NARA's Mid Atlantic Region

**Philadelphia** 215-606-0100 philadelphia.archives@nara.gov

**NARA's Southeast Region** 

**Morrow** 770-968-2100 atlanta.archives@nara.gov

# NARA Scottsbluff, Net RG 27, Courtesy Plains Region-Karlon Region-Karlon

**Tornado on the ground near Scottsbluff, Nebraska, 1955** RG 27, Courtesy of NARA Central Plains Region–Kansas City



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	Claycomo, MO Internet and the Genealogist Lecture/Genealogists 816-268-8012	Chicago, IL Black Women in History: Harriet Tubman General Public 773-948-9001	21
22	23	24	25	26	Kansas City, MO Discovering Your Indian Heritage Part II Lecture General Public 816-268-8071	28
29	30	31	Exhibit: Cinema in the Stacks Tucker: The Man and His Dream The Great White Hope Anatomy of a Murder 9/1/07-6/30/09			

NARA's Great Lakes Region

**Chicago** 773-948-9001 chicago.archives@nara.gov

NARA's Central Plains Region

Kansas City 816-268-8000 kansascity.archives@nara.gov NARA's National Personnel Records Center (NPRC) Archival Programs Division

**St. Louis** 314-801-0850

NARA's Southwest Region Fort Worth 817-831-5620 ftworth.archives@nara.gov