

## MOUNT LEMMON AIR FORCE STATION

After the ending of World War II, the relationship between the Soviet Union and the United States deteriorated rapidly and both countries commenced an arms buildup. The United States expanded their nuclear weapons capability and developed a bomber fleet to carry them. In response, the Soviet Union also developed nuclear weapons and long-range bomber aircraft. The result was that the US established an Air Defense System to protect the country against Soviet nuclear bombers. This was a multifaceted system consisting of fighter aircraft interceptors, surface to air missiles and radar stations to detect and track aircraft.

In the early 1950s Mt. Lemmon was selected by the Air Defense Command as one of these radar sites. Mount Lemmon Air Force Station (AFS) was established in 1954 and became operational on 1 April 1956 with the assignment of the 684<sup>th</sup> Aircraft Control and Warning (AC&W) Squadron to the station. The site began transmitting in August and underwent several improvements in capability in the following years. In 1961 the 684<sup>th</sup> AC&W was integrated into the Semi-Automatic Ground Environment (SAGE) system and redesignated the 684<sup>th</sup> Radar Squadron (SAGE) on 15 October 1961. In the



Mt. Lemmon Observatory  
Originally Mt Lemmon AFS  
Photo from the Mt Lemmon  
Observatory Web Site



Enlisted Barracks – Mount Lemmon  
Air Force Station  
Photo by T. Johnson



Multi-Purpose Recreation Building  
Mount Lemmon Air Force Station  
Photo by T. Johnson

1960s, Intercontinental Ballistic Missiles came into prominence in both the US and the Soviet Union and the threat of attack by Soviet nuclear bombers became considerably less and the need for radar stations along the southern border was eliminated. Consequently the 684<sup>th</sup> Radar Squadron (SAGE) was inactivated on 31 December 1969.

However, the inactivation of the 684<sup>th</sup> did not eliminate the Air Force from Mount Lemmon. On 20 April 1960 Davis-Monthan AFB was selected as the location for the activation of the 390<sup>th</sup> Strategic Missile Wing, the first of three Titan II missile wings to be activated in the US. The 390<sup>th</sup> was activated on 1 January 1962 and between 31 March and 30 November 1963, eighteen Titan II missiles scattered around the Tucson area were placed on operational alert (ready to be launched). The missiles could not be launched without the proper command authority so a communications network had to be established. The logical place for the communications site to be



Site of Titan Underground  
Communications Center  
Photo by T. Johnson - 2012

located was the top of Mount Lemmon at an existing Air Force Station that could provide radio communications to each of the dispersed missile sites. A communications/command center was constructed underground in a corner of the AFS. It included three communication masts, two of which were buried underground for protection from attack and could be elevated if necessary to provide the launch signal to the missiles. In the aerial photo of the site on the top of the previous page, the Titan Communications site is the large square at the top right of the AFS. The 390<sup>th</sup> SMW maintained Titan II missiles on alert until the early 1980s. Deactivation of the missiles commenced on 1 October 1982 and was completed during May 1984. The 390<sup>th</sup> SMW was deactivated in July 1984.

The deactivation of the 390<sup>th</sup> however did not signal an end to the military presence on Mt. Lemmon. One of the communications facilities, the Ground Air Transmitting Receiving (GATR) site is still in use by the 355<sup>th</sup> Communications Squadron (CS) at Davis-Monthan AFB. Also, after the 684<sup>th</sup> Radar Squadron (SAGE) was deactivated in October 1961, personnel from Fort Huachuca continued to operate one of the geodesic dome radar-tracking units until 2003.

A portion of the former Air Force Station was converted to civilian use as an observatory for infrared astronomy in October 1970 and shared facility occupancy with military units from the 390<sup>th</sup> SMS, the 355<sup>th</sup> CS and Fort Huachuca. The only military unit still occupying a facility on the site is the 355<sup>th</sup> Communications Squadron that operates the GATR facility. The site is referred to as the Catalina Observatories and is leased by the University of Arizona. It is used by several different agencies.



Three former radar facilities now  
used for telescopes.  
Photo from the Mt Lemmon  
Observatory Web Site

1. The Catalina Sky Survey operates a 60-inch telescope whose primary function is to search for near-earth objects for NASA..
2. The Korea Astronomy and Space Science Institute operates a 40-inch telescope robotically from Seoul, Korea.
3. The University of Minnesota operates a 60-inch telescope as part of its infrared astronomy program.
4. The Mount Lemmon Sky Center has a 32-inch telescope that is used by the University of Arizona in its public outreach program.

Summary by Tom Johnson from the Wikipedia web site, various other web sites and the 11 November 2012 issue of the Arizona Daily Star.