Colorado AFTAC Alumni Association

Volume 2016, Issue 1

January

ECHOES

Past — Present — and Future

INSIDE THIS ISSUE:

UPCOMING EVENTS!

ALL CURRENT AND FORMER AFTAC PERSONNEL, SPOUSES AND GUESTS ARE INVITED TO ATTEND. MEMBERSHIP IN THE ALUMNI ASSOCIATION IS NOT REQUIRED TO ATTEND THESE EVENTS.

General Membership Breakfast **27 Feb** 2016 09:00 cost $12.00 — — Buffet Breakfast. Eggs, potatoes, meats, toast, chili, etc., juice and coffee. Please RSVP to Darrel Kline vicepres@aftacco.org Bill Schmied at treasurer@aftacco.org or home phone 303-367-0625. NLT 18 Feb 2016. We will collect your money at the breakfast.

Special points of interest:

- Check the last page for dues expiration date
- Update, as necessary, your address & Email

Editor: J. Moxley

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TAPS

Richard (Dick) L. McManus, 84, of Suntree, passed away on Thursday, January 14, 2016.

Karel deLaet Following his AF service Karel worked for Western Area Power Administration , DOE. Western markets the power from the Colorado River Dams and in the area served by Karel has 3012 miles of transmission of 115 kV and above with 63 substations. Karel started as member of the Communications group and participated in the development of 55 links of MW. Later, after that development, he was a staff member of the Maintenance Division. All were impressed with Karel's knowledge, skills, and ability to work with people across various professions.

AFTACAA Membership Chair **Col. Charles K. Anderson** 95 of Melbourne died on October 16, 2015. After a long career as a meteorologist among many other distinguished accomplishments, in 1968 he transferred to Alexandria, Virginia to run the Ionospheric Division of the Air Force Technical Applications Center (AFTAC). When AFTAC moved to Patrick Air Force Base, Florida, in 1972 Col. Anderson followed but then retired in Satellite Beach in 1973.

Edward T. Gardiner, 86, of Aurora, CO passed away November 7, 2015 in Lone Tree, CO. He was born in New York City, NY on October 31, 1929 to James & Anna (Nealon) Gardiner. Throughout his life, Edward worked as a real estate agent and retired from the United States Air Force as a Senior Master Sergeant. He is preceded in death by his parents and survived by his 2 children, James & Patricia Gardiner and grandchildren.

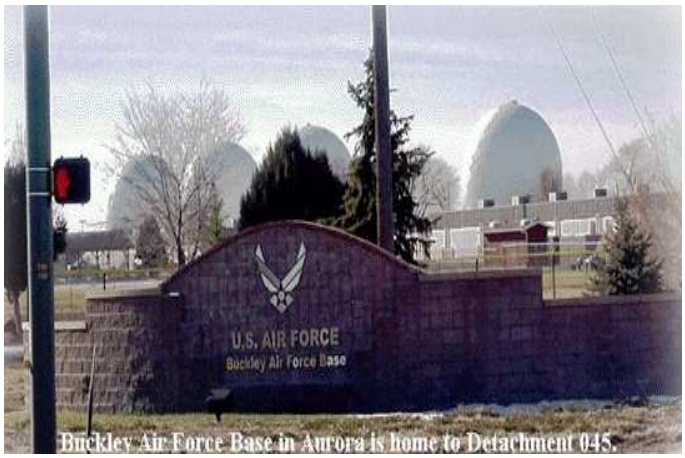
Lance A. Kinney, 64, of Durham, North Carolina passed away on 12-21-2015.

Marvin V. Richardson, 74, a retired Chief Master Sergeant with the United States Air Force and Civil Servant, died Monday January 4, 2016. A native of Georgia, he lived and worked in Brevard County,

Change of Command

Maj Jason Miller relinquishes command and the Det 46 guidon to Lt Col Dennis Uyechi, Commander, Technical Support Squadron, AFTAC.

Maj Will Dalton assumes command and receives the Det 46 guidon from Lt Col Uyechi.

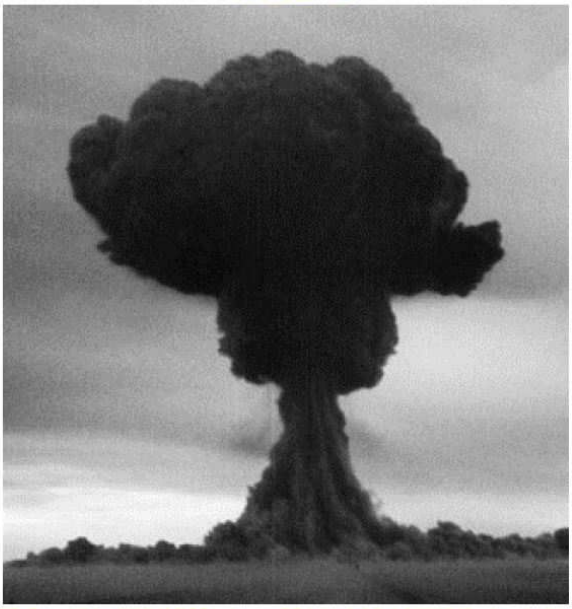


Buckley Air Force Base in Aurora is home to Detachment 045.

Air Force Aid	720-847-6708
American Red Cross	303-343-1294
Base Exchange	720-847-9628
Casualty Assistance	720-847-6123
Chapel	720-847-6411
Commissary	720-847-7100
ID Cards/Deers	720-847-9159
Legal Office	720-847-6144
Operator	720-847-9011
Outdoor Recreation	720-847-6101
Pharmacy	720-847-7455
Retiree Activity	720-847-6693
Ticket/Tour Info	720-847-6853
TriCare for Life	888-363-5433
Veterans Admin	800-827-1000
Visitors Center	720-847-9381

September Alumni Breakfast

JOE-1



LRD TO AFMSW-1 TO AFOAT-1 AND ON!

OUR SPECTACULAR BEGINNING

by Don King, WCC Newsletter Editor

YOU'RE BUSTED NIKITA!

15 December, 1947

CIA Headquarters, Washington, D.C.

Senator Hickenlooper: "The earliest that the Soviets can have an atomic bomb is most likely 1953, 1951 at the earliest."

DCI, USAF: "It is difficult for me to appreciate the philosophy which permits an optimistic finding that inevitably will tend to lull those affected by it into a feeling of false security which certainly will be no incentive to action."

1 July, 1949

Interdepartmental Joint Nuclear Energy Intelligence Committee: New information on one method used by the Soviets "suggests that their first atomic bomb cannot be completed before mid-1951."

29 August, 1949 at 0100 GMT

Semipalatinsk, Soviet Union

20 Kiloton nuclear event

There is a lot of vodka toasting and kissing going on in the Kremlin! Nikita Khrushchev has no information that the west has any way to detect a nuclear event. He is exuberant at having put one over on the free world!

But, we were not asleep! For 2 years, the Army Air Force, and then the newly created USAF, had been developing ways to not only detect a nuclear event but also to sample the by-products to determine the exact time, location, size and composition of the device. Keep in mind that this was a world that, for the most part, knew very little of what the atomic age was all about.

16 September, 1947

General Dwight D. Eisenhower directs General Carl A. Spaatz, commanding general of the Army Air Force, to assume responsibility for detecting atomic explosions anywhere in the world. Major General W. E. Kepner

, chief of the USAF Special Weapons Group, is assigned responsibility for **Long Range Detection**.

December, 1947

AFMSW-1, Air Force Materiel Special Weapons-1, is formed under Major General Hegenberger.

August, 1948

AFOAT-1, Air Force Office of Atomic Energy, begins interim surveillance.

March, 1949

The US research and development board (RDB) feels that LRD should be limited to air sampling and limited seismic studies. Not to be deterred, Admiral Strauss secures left over funds from the Manhattan Project and other places to keep other LRD activities going. Rain collecting and WB-29 air sampling continues on a routine basis. (So much for short-sighted bureaucrats!) Tracerlab analyzes every filter paper and ground sample. 111 alerts were sampled and tested into **August, 1949.** There were no findings indicating other than normal phenomena such as volcanos.

And then, routine is over!

3 September, 1949

Alert 112

A report arrives at AFOAT-1 Data Analysis Center in Washington, D.C. that a filter paper exposed for 3 hours at 18,000 feet has a reading of 85 counts per minute, and a companion one has a reading of 135 cpm. The latter is sent to the lab for further analysis.

5 September, 1949

A report arrives that a paper flown at 10,000 feet east of Japan has a reading of 1,000 counts per minute!!!!! It is immediately sent to Tracerlab in California.

7 September, 1949

Lab results show numerous findings consistent with debris from an atomic explosion!

19 September, 1949

After more than 500 sampling flights and subsequent lab analysis and airborne sample contact locations, it is determined by a panel led by Dr. Vannevar Bush at AFOAT-1 headquarters that the origin of the fission products was the explosion of an atomic bomb between the 26th and the 29th of August at some point between the 35th meridian and the 170th meridian over the Asiatic land mass.

20 September, 1949

These conclusions are reported to President Truman.

21 September, 1949

Records of weak signals at two acoustic stations reveal the exact location, time and size of Joe-1.

23 September, 1949

President Truman announces to the world that the Soviets have detonated an atomic bomb!

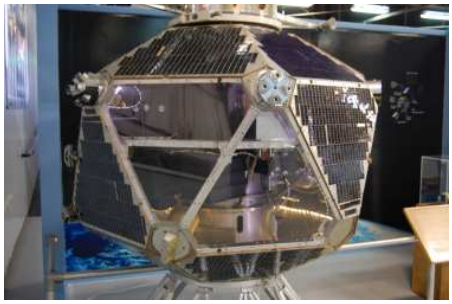
In the Kremlin, glasses fall to the floor, hugging stops, arrogance turns to shock, and bewilderment sets the tone. “How did they find this out?” Ah, Nikita, you can’t even guess!

17 October 1949

Dr. Bush sent a letter on behalf of the Panel to General Hoyt S. Vandenberg

“I was much impressed not only with the foresight exhibited by AFOAT-1…but I was impressed also with the thoroughness and skill exemplified in the entire study…I hence take great pleasure on behalf of the Panel in commending those involved for remarkable and effective performance…It now has tasks which are altered, but in my opinion not lessened in importance, and I trust its importance in the future will conform to the high standards which it has already set,”

Sources: Declassified documents:“Detection of the First Soviet Nuclear Test on August 29, 1949” by Dr. Doyle L. Northrup; “The detection of Joe 1” by Doyle L. Northrup and Donald H. Rock



Some pictures of the VELA satellite display at the Peterson AFB Air & Space Museum. Did you know that the VELA Satellite Program was "America's First Missile Warning Satellite System" and its primary mission was "Strategic and Tactical Missile Launch Detection" (**Ed. Note -That's according to the display sign in the above picture on the left.**)

JOE-4

The Soviet Union detonates a **400 kiloton** thermonuclear weapon at the Semipalatinsk Test Site, Kazakhstan, in August 1953. Dubbed Joe-4 by the west, the bomb was significant because **it was a deliverable thermonuclear device** — a milestone the U.S. would not reach until May 1956. (Photo courtesy of the Nuclear Weapons Archive)

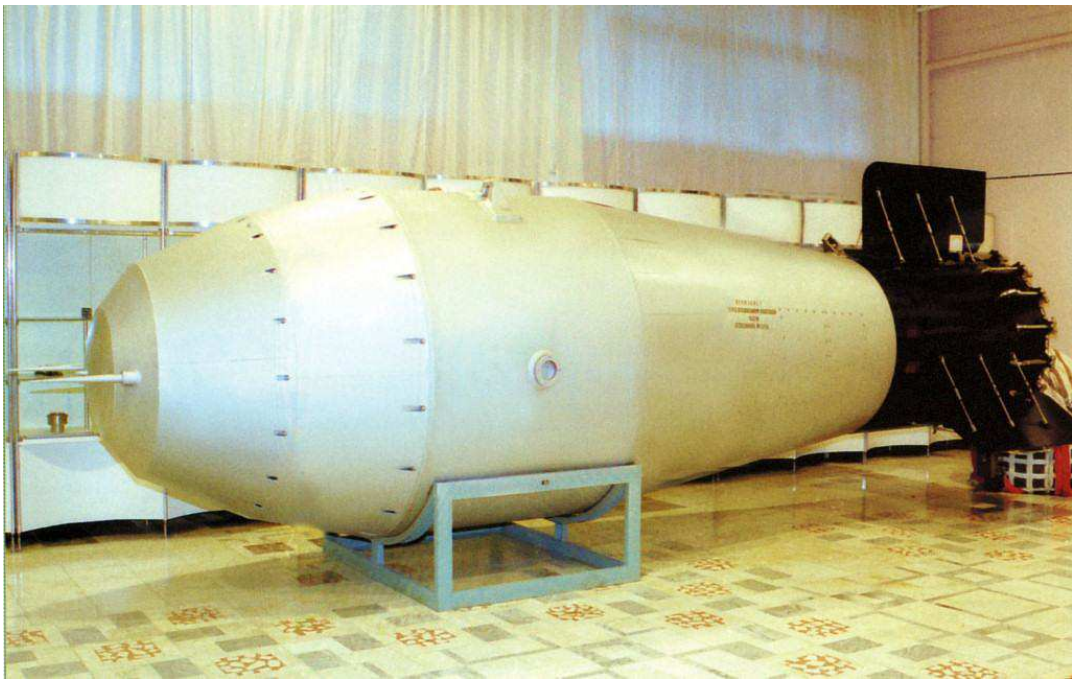
Big Ivan, The Tsar Bomba (“King of Bombs”)
The World's Largest Nuclear Weapon
The Soviet Political Bomb

. by Don King, WCC Newsletter Editor

The Time:11:32 AM 30 October 1961 (Moscow Time)

The Place: Mityushikha Bay test range, test field D-2, Novaya Zemlya Island(located above the arctic circle in the Arctic Sea).

The Method: Parachute retarded airburst, 4000 m altitude



Like the entire Soviet 1961 test series in which it was conducted, the creation of the Tsar Bomba was the result of political calculation by the Soviet leadership, especially of Premier Nikita Khrushchev. A de facto moratorium had existed between the U.S., USSR and UK since the conclusion of the last U.S. and Soviet test series in 1958, and two years of discussion had been conducted regarding formal limitations on nuclear testing. But the Cold War continued at high pitch, with the occasional reductions in tension being only partial and transitory phenomena. Many high-stakes cards remained to be played by the Soviets - the erection of the Berlin Wall and the deployment of missiles to Cuba being notable examples. The decision to break the moratorium with a "testing spectacular" that coincided with the Twenty Second Congress of the Communist Party of the Soviet Union was a move cast in the same mold.

Khrushchev called a meeting with the "atomic scientists" - the leaders of the weapons program - on 10 July 1961. There was no discussion of whether more tests were necessary or desirable. Khrushchev simply began the meeting with a speech declaring that tests would resume in the fall to 'show the imperialists what we could do', a decision that came as a surprise to the scientists present. Khrushchev specifically cited as the primary motivation a political rather than a technical justification. Since preparation of the 100 megaton bomb only began after the 10 July meeting at which Khrushchev ordered the test series be held, no more than 112 days elapsed from initial concept to detonation - exactly 16 weeks. By the mid-August review, held after 13 August (after the Berlin Wall had been built') and thus after about 4 weeks of work, they had decided to test a reduced yield "clean" version of the device with a yield of 50 megatons. At this review Khrushchev said that he had already disclosed the planned test of this device to visiting dignitaries from the U.S. Khrushchev went public regarding the planned superbomb test with the announcement of the new test series issued simultaneously with the first shot fired on 1 September 1961

In preparing its estimate of the bomb's yield the U.S. had data about the test that was collected surprisingly close at hand. With the advance notice of Khrushchev's announcement, and the other tests in the series, a crash program code-named *Speedlight* was organized at the behest of Hebert Scoville (Joint Atomic Energy Intelligence Committee chairman) and Gerald Johnson (assistant to the Secretary of Defense for atomic energy). A KC-135 Stratotanker was modified to carry broadband electromagnetic and special optical equipment (which would have included a high-speed photometer called a "bhangmeter"). The modification was carried out under the supervision of Doyle Northrup by an Air Force unit headquartered at Wright-Patterson AFB called "Big Safari." The plane was ready for overseas deployment to its staging base by 27 October. Crossing over the Arctic Ocean, *Speedlight* was able to get quite close to the detonation point; close enough that the fuselage suffered scorching (suggesting it was closer than the 45 km separation of the Tu-95 drop aircraft).

The Results:

The 50-Mt bomb tested on 30 October 1961 was never a weapon. This was a one-of-a-kind device, whose design allowed it to achieve a yield of up to 100 megatons when fully loaded with nuclear fuel.

The tested 50 Mt clean version would have been a plausible weapon though, since it could be delivered by Tu-95 in Europe, and the reduced yield and the relative lack of fallout would have made it much easier to find targets in Europe where it could be used without devastatingAA effects on the Warsaw Pact itself.

A well known phenomenon in atmospheric explosions is the "double flash": an initial rapid peak in brightness that quickly drops, followed by a much slower rise to a second peak in luminosity that lasts much longer. The two peaks are similar to total luminosity, but as the second peak lasts 100 times as long, it accounts for 99% of the emitted light and thermal radiation.

Another interesting feature is the effect of the shock wave reflected from the ground striking the bottom of the fireball. Simply from fireball radius scaling laws, one would expect the fireball to reach down and engulf the ground around the hypocenter ("ground zero"). In fact, the shock wave reaches the ground before the fireball expansion can, and bounces upward, striking the bottom of the fireball, flattening it and driving it upward, thus preventing actual contact with the ground

Despite the very substantial burst height of 4,000 m (13,000 ft) the vast fireball reached down to the Earth, and swelled upward to nearly the height of the release plane. The blast pressure below the burst point was 300 PSI, six times the peak pressure experienced at Hiroshima. The flash of light was so bright that it was visible at a distance of 1,000 kilometers, despite cloudy skies. One participant in the test saw a bright flash through dark goggles and felt the effects of a thermal pulse even at a distance of 270 km

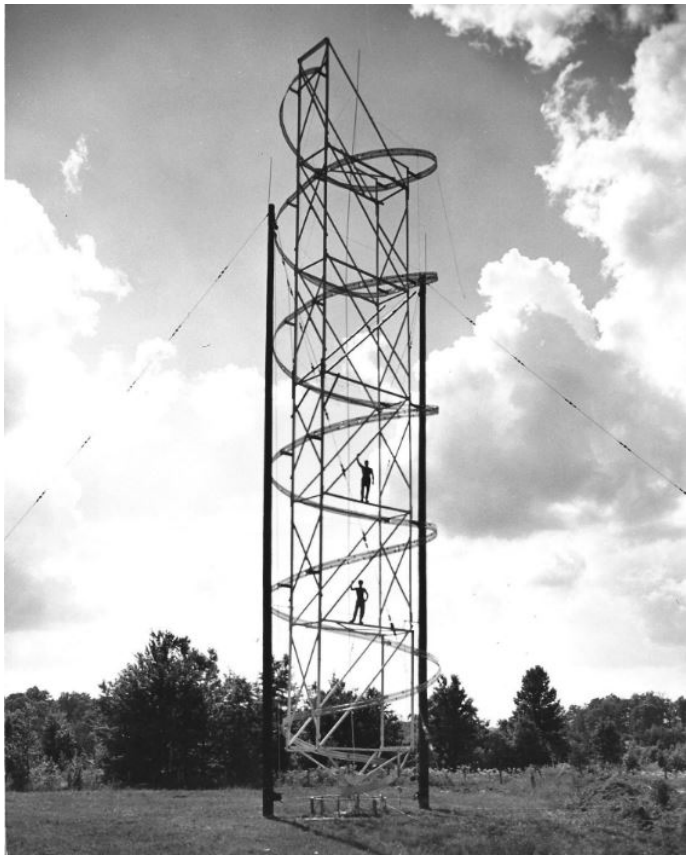
A shock wave in air was observed at Dickson settlement at 700 km; windowpanes were partially broken to distances of 900 km. All buildings in Severny (both wooden and brick), at a distance of 55 km, were completely destroyed. In districts hundreds of kilometers from ground zero, wooden houses were destroyed, and stone ones lost their roofs, windows and doors; and radio communications were interrupted for almost one hour. The atmospheric disturbance generated by the explosion orbited the earth three times. A gigantic mushroom cloud rose as high as 64 kilometers (210,000 ft).

Despite being exploded in the atmosphere, it generated substantial seismic signals. According to a bulletin of the U.S. Geological Survey it had seismic magnitude mb = 5.0 to 5.25. The blast wave was detected circling the world.

Food For Thought

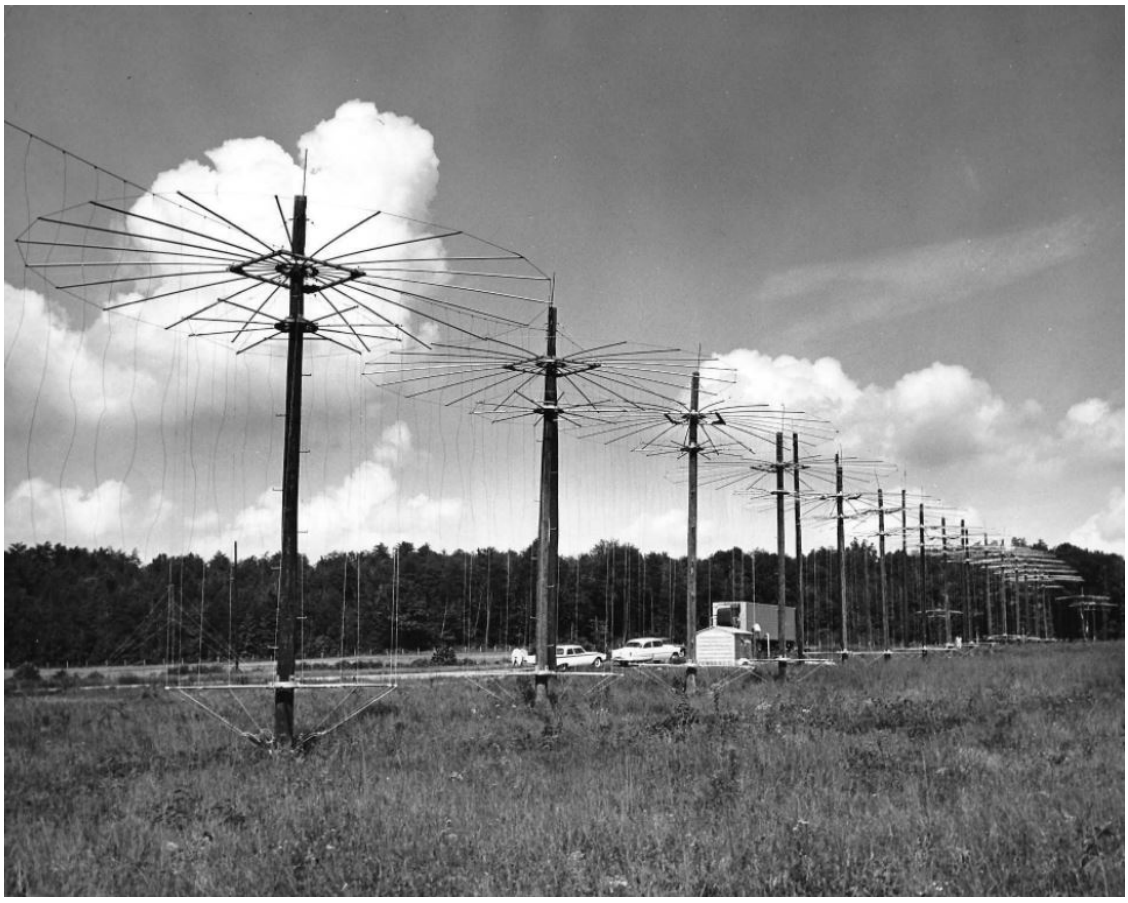
A 100 Mt weapon can level urban areas in a zone 60 km wide, cause heavy damage in a zone 100 km across, cause 3rd degree burns in a region 170 km across (only a bit smaller than the width of West Germany) and eye damage to 220 km. Such a weapon can only be used as a means of destroying an entire urban region. This scale of destruction is much larger than any discrete urban area in Western Europe. With its dense settlement, use of such a weapon in Europe is equivalent to an attack on a major portion of an entire nation and its population. Fallout from a low altitude or surface burst in central England could produce lethal exposures extending into East European nations.

Source: nuclearweoponarchive.or



Guesss what and where these two pics are.

Answer in next Echoes.



Letter to the Editor

Colorado AFTAC Alumni Association
C/O Jurell Moxley
4721 S Queen St.
Littleton, CO 80127

Dear Editor,

We must say how much we truly enjoyed reading the story on Encampment in your September Newsletter. It brought back many memories.

My husband Robert E. Strock was one of those assigned to Detachment 142 in 1957. We arrived as newly weds late in June 1957 and joined the families of that group. Just to name a few, Entsminger; Frank Desmond; Jack Kimball; Joseph Fitzgerald; Warren Stern; Ben Vlassick; Glen Feakes, Bill Whyte; Carl Raines and Cotta and others. We brought a 32 foot trailer out from Ohio to live in which worked out find for the time we were there.

The group was like a close knit family working around the clock on three shifts. We love the town people and all the new adventures of the area. Yes, some of the men did go out to help on ranches for a great first experiences to enjoy. We loved the mountains, the picnic's, pizza parties, card parties and how much everyone care for each others.

By 1960 some of our group were transferred to Laramie, Team 165, where we finished our days in the Air Force. By September 1961 we went to Texas where my husband found employment with Geotech for the next 12 ½ years. We returned to Ohio in 1974.

We have visited Encampment twice since those days and was really surprised to see the display of the Air Force Declassified Equipment at the Museum. So happy that it is part of their displayed history. We did met Bill Braukman while there on our last visit.

Thanks for the cherished memories. My husband has his Ohio licence plate as TM 142.

Hope you will have more stories of other Detachment groups to enjoy. It would be nice to find out of this group who are still around of Team 142 and where they are. I know some are gone of those mention above.

Thanks Again!

Robert E. and Esther J. Strock
214 Skyview Circle
Dalton, OH 44618-9070
Bob Strock

Ed Note - Ben Vlassick and Bill Braukman were lifetime members of our Colorado alumni chapter and Ben was our first president who started the chapter in 1989. Bob Strock (OH), Frank Desmond (CO), Jack Kimball (TX), Warren Stern (GA), and Glen Feakes (CO) are all long-time members of our chapter.

Fall Alumni Social

Many alumni and active duty attended the dinner social including Maj Will Dalton (Det 46/CC) and his family, Maj Jeff Fulton (Det 45/CC) and his family along with several members of the Det 45 team, and SMSgt Randy Blomstedt (566 IS/Supt) and his family.

Many more can be seen at:

https://www.flickr.com/photos/steveandmiriam/albums/72157648114445614

Colorado AFTAC Alumni Association

COLORADO AFTAC ALUMNI ASSOCIATION
c/o Jurell Moxley
4721 S. Queen St.
Littleton, CO 80127

We're AU on the Web!

Colorado Chapter:http://www.aftacco.org/

Florida Chapter Location:http://sites.google.com/site/lrdalumniassnneedtoknownow

West Coast Chapter:http://www.aftacwcc.org

Official AFTAC Web Site:

www.afisr.af.mil/units/aftac.asp

MAIL FLORIDA DUES ($10 PER YEAR or $75 Lifetime)

TO: ***AFTAC Alumni Association***
P.O. Box 254892
Patrick AFB, Florida 32925-0892

MAIL WEST COAST DUES ($10 PER YEAR or $75 Lifetime)

TO: **AFTAC Alumni Association**
West Coast Chapter
P.O. Box 3974
Citrus Heights, CA 95611-3974

For Colorado Dues Submission
Or Address Change

Name: _____
Spouse Name: _____
Address: _____
City: _____
State, ZIP: _____
Telephone No: _____
Email: _____

Unless advised to the contrary, personal Information listed above is releasable to otherAFTAC/LRD members.

DUES ARE $5.00 PER 12 MONTH PERIOD PAYABLE DURING THE EXPORATION MONTH. (PLEASE check your dues expiration date below.)

MAKE CHECKS PAYABLE TO "Bill Schmied".

MAIL TO: Bill SCHMIED, 2078 Kenton St., Aurora, CO 80010.

Membership questions may be directed to Bill Schmied at

Email Address: treasurer@aftacco.org