

HULA HOOP PROJECT 1973

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(Edited by Max Moore from a series of e-mails March and April 2014.)

My Hula Hoop tour to Hickam AFB, HI, was 1973. The joint project was an annual one for the Defense Nuclear Agency (DNA) to monitor French nuclear tests at Muramura atoll in the south Pacific.

The aircraft we flew belonged to the Systems Command out of Kirtland AFB, NM, an NC-135 #369. The Kirtland flight crew came to Offutt to get checked out in air refueling, but for whatever reason – politics or lack of skill, no one qualified. Therefore, we (SAC/55th SRW) took over their aircraft and mission. Same story as in 1972.



I was sent to Kirtland to get checked out in the mission aircraft soon thereafter. You can imagine how that went. The 'old' LC who was their chief pilot pulled an outboard engine to idle at S-1 during a very hot afternoon takeoff. I rotated in the overrun. I passed his check.

Sidebar: The Chief Scientist there wrote me a letter to ask that I come to Kirtland out of college. I rejected the idea, but later tried to take advantage of the offer on my way from Castle to the 55th at Offutt. I was told God could not get me out of my assignment in the 55th. My Master of Science degree in Nuclear Physics did endear me to the Los

Alamos gang and the Systems team on the aircraft.

As I recall, the DNA two-star overseeing the Hula Hoop operation was Major General Warren D. Johnson. First time I saw him he was wearing a baby blue, short sleeve, double knit, polyester flight suit with a large round pin/button that read "Bald is Beautiful." He wanted to sit in the jump seat on our first 'show the flag' mission. I told him that was a crew position (aircraft flew with a MAC checklist and the jump seat was a crew position); therefore, he had to go to the rear. After I said that, I recall my face flushing red. He left cussing. Soonl became his favorite crew member.

A major disruption at HQ SAC occurred when we left the orbit area early on one mission per the general's orders. I ginned-up a message responding to a message asking for the reason of early departure, encoding "two stars." No one at SAC knew what it meant.

During the 1973 deployment each sortie was comprised of two cells of five aircraft each -- one mission aircraft with four support tankers. The cells launched thirty minutes apart and refueled in route. The last tanker that offloaded 10,000 pounds of fuel. Hardly worth the effort, that is, unless we needed it.

During the first nuclear shot, we installed the thermo flash curtains and donned the "gold goggles." Well, when I placed the mission gold goggles on my head, I could see nothing. They were painted black inside like those we used during survival equipment identification training. Of course, I immediately discarded them henceforth.

As soon the shot went off, I removed the curtains and viewed the

event. It was interesting to experience the shock wave pass through the aircraft. I could pick it up off the right wing tip and then notice the fluctuations of the pitot-static instruments before it passed off the left wing.

Returning from one sortie I left the pilot's seat to eat my flight lunch and to take a short nap. When I awoke, I discovered everyone on board the aircraft fast asleep. The autopilot was wagging the aircraft wings as it did when approaching the weigh point. That is what one gets after playing on the beach the afternoon before. *(Midnight takeoffs for 15 hour sorties did not help with the ol' crew rest, either.)*

On another sortie, we encountered a vicious rainstorm halfway down the runway during takeoff. Performance data did not allow for wet runways. Soon after pushing the throttles to takeoff power and insuring water injection was performing properly, the downpour hit us. I remember commenting to the copilot: "that was where 'they' were going to find the throttles settings". Worst downpour I have ever encountered.

During climb out there was a blue, iridescent rod about four feet long appended to the radome. It departed with a loud report, leaving a burned spot on the aircraft. Then there is the UFO experience, but I will not relate that here.

There were seven nuclear events that year at Muramura atoll. My crew was there for six of them. The seventh got away. Others crews claimed it was not fair. No sharing of the wealth.

The aircraft had so much parasite drag, the performance data was no good. In earlier training flights soon after we arrived at Hickam, we would continue loading fuel for takeoff until we would be able to rotate on the last 1500 feet of runway. The best the old bird would climb was 300 feet per minute with everything going for it – water injection

and all. Runway 4 was the primary, into prevailing winds and the mountains. Rotate, turn gear up. Had to turn inside Aloha Tower; don't want to disturb the tourists, don't you know.

I used to have a plastic template to plot fuel consumption. In the NC-135, a ruler worked, i.e., a straight line. As I recall, she burned about 20,000 pounds an hour at any weight, altitude, or airspeed.

The NC-135 was such a poor performer during air refueling I frequently had to push the throttles to the stops. I would be MRT and watch the director lights click from yellow, red, then disconnect. Couldn't do a thing about it. Tried to toboggan but we lost all the gain climbing again to altitude. I was not smart enough at the time to ask for an increased AR airspeed, say 300 KIAS instead 285. I think the additional speed would have helped.

Regarding aircraft # 369, it was a queer bird more ways than the inverted canoe on top and the MAC checklist.

It was equipped with four generators and electric flaps. Also, the aircraft controls were excessively heavy. We referred to it as steering like a Mack truck. It was wired with a switch to transfer control of the autopilot to some geek in the rear of the aircraft who had a joy stick, whereby he would attempt to arc around the nuclear event with assistance from a side looking camera.

During the first nuclear shot of the tour, I transferred autopilot control to the aft operator. As we arced around the event, we were about to pass through the ugly red radioactive cloud. I called back to inquire if the operator really wanted to fly through the damned thing. Absolutely not!! I then took control of the aircraft and subsequently maneuvered around the cloud. There were no other requests for transfer of autopilot control during subsequent shots.

One detonation was about 15 kiloton - approximate Hiroshima size. The shot was about 20 miles away from our orbit. One device was dropped from an aircraft.



The Systems PHDs in the back wanted a 60 degree bank turn to make better use of their diagnostic equipment. Recall the aircraft is limited to a 45 degree steep turn. We were flying about 2,000 feet above optimum altitude. I refused to deliver a 60 degree bank but agreed to try a 45 degree. The aircraft soon stalled, dropping over 1000 feet. All quite after that.



French Vultur fighter intercept

On one sortie where we were flying lead in the second cell, as soon as we dropped off the boom, the tanker encountered corrupted electrical power, resulting in all instruments going tango-uniform. The tanker pilot was determined to land on Easter Island. I convinced him to stay with us, and instead, my nav conducted a rendezvous with a returning tanker from the first cell, thereby allowing the crippled tanker to fly VFR formation through final approach at Hickam. I wrote the pilot up for an Air Medal, but don't know the outcome.



Crew E-10 during operation Hula Hoop 1973. L-R AC Capt David Sheffey, CP1 Capt Bill Steadman, CP2 Capt Robert Tebbs, N-1 Major Ken Gaisior and N-2 Capt John Chisholm.

After leaving active duty, I worked as a Licensing Manager at the Ft Calhoun nuclear plant in Nebraska before moving to be a nuclear engineer overseeing nuclear safety at the various nuclear facilities managed by DOE at Oak Ridge, TN. Two years ago I retired from the Y-12 plant in Oak Ridge. While working at Oak Ridge, I flew KC-135s with the Tennessee Air National Guard out of McGhee Tyson Air Base in Knoxville until December 1993. I was activated during Desert Shield and Desert Storm

