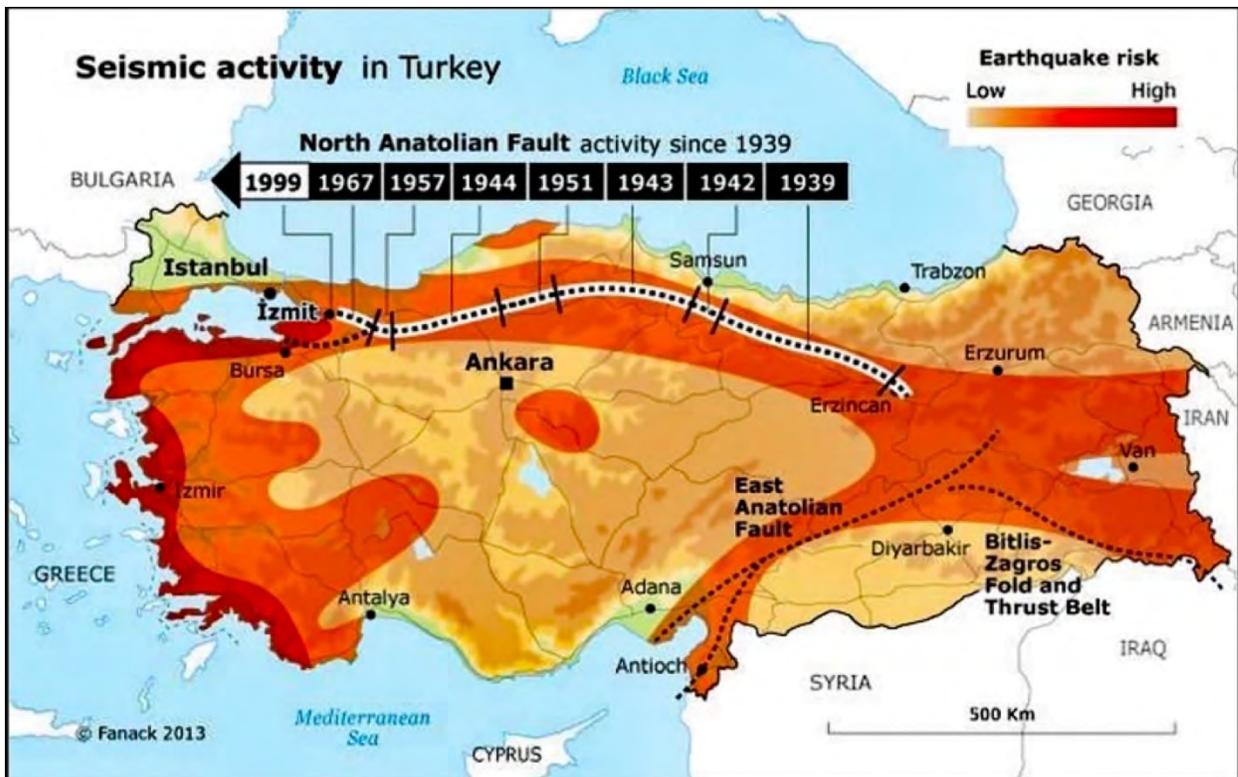


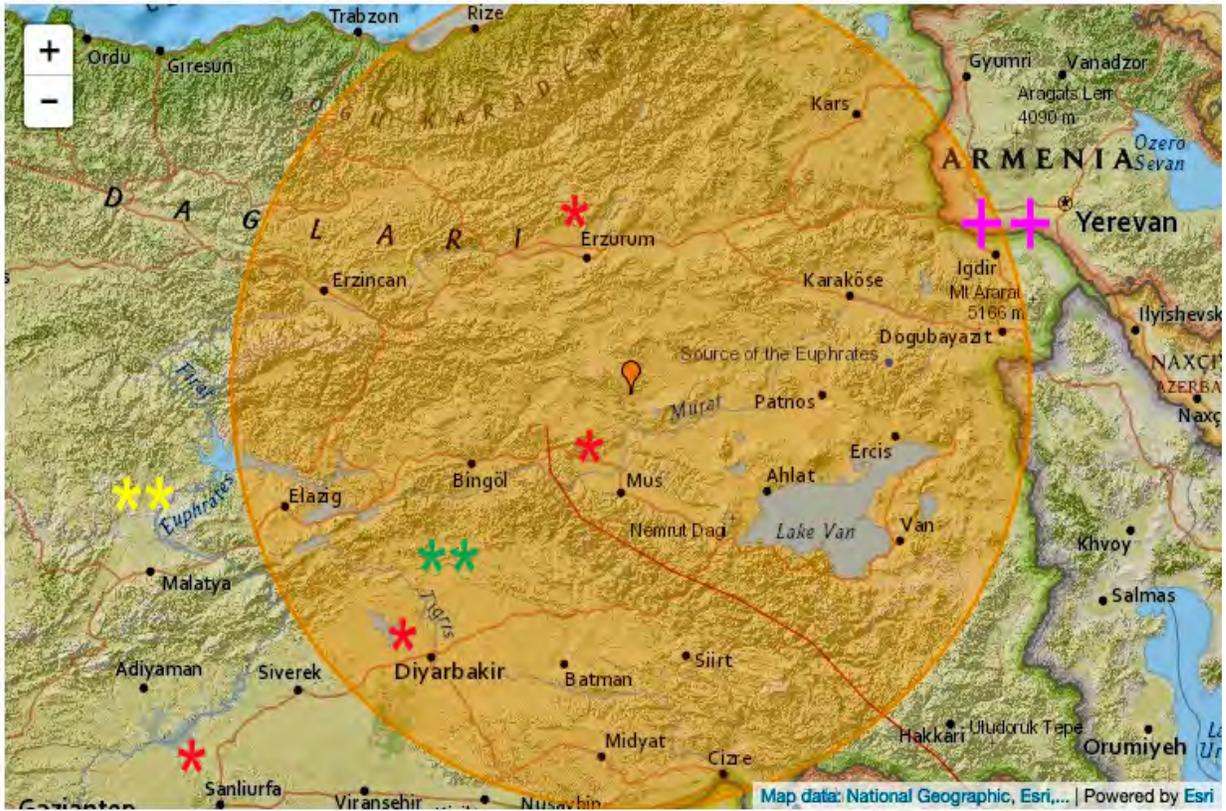
Gallery



Map of Turkish Fault-Lines



Map of Historical Earthquakes



Map of Anatolian Towns That I Visited





Anatolian Landscape



River Of Mountainous Run-Off



Lush Varto Valley



Volcanic Landscape



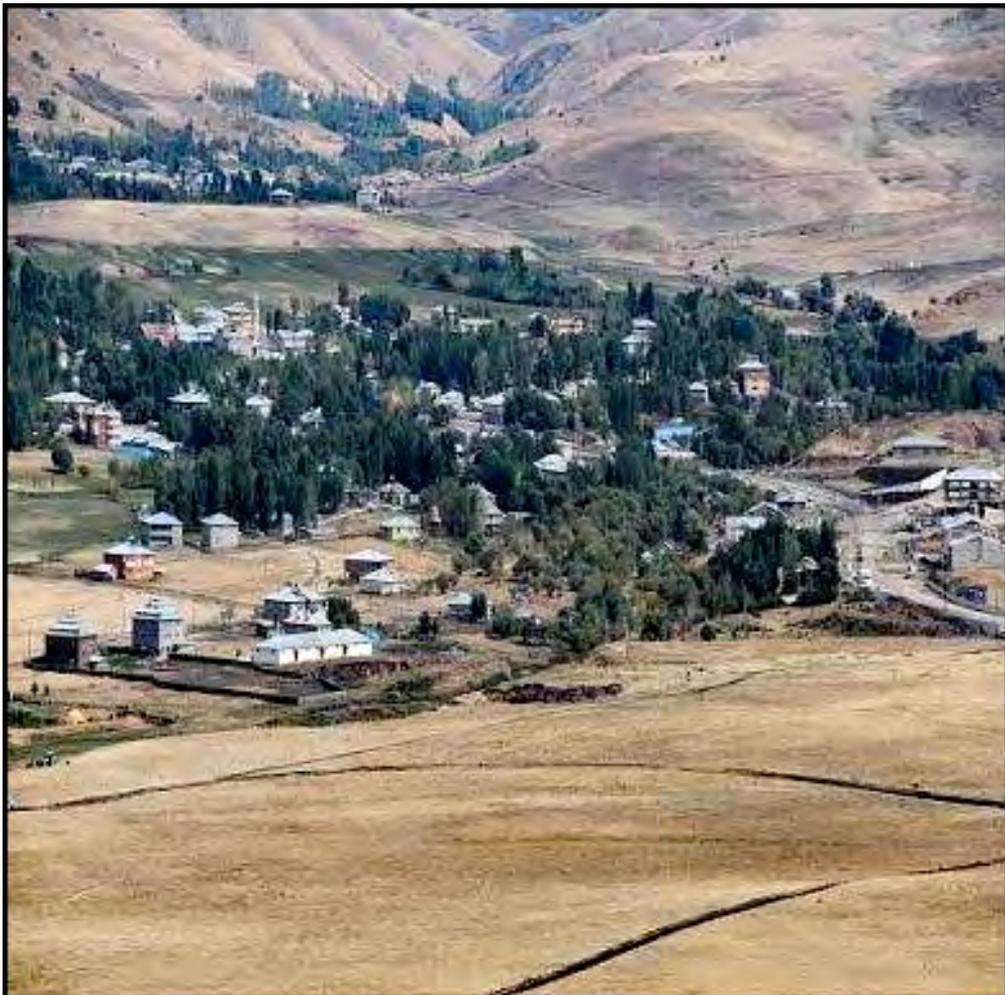
Imagine Bathing In This Frigid River?



Minimally Improved Roads



Road Disrupted From Earthquake



Varto Community



Our ATH Was Set-Up On This Island



Varto Landscape



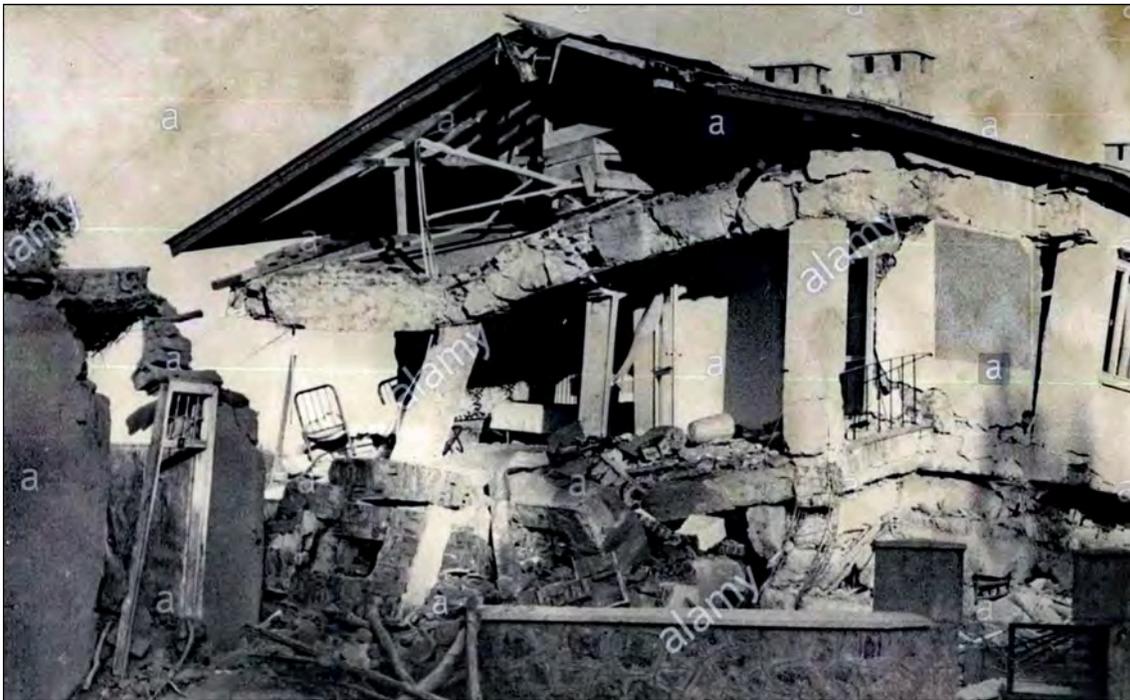
Downtown Varto



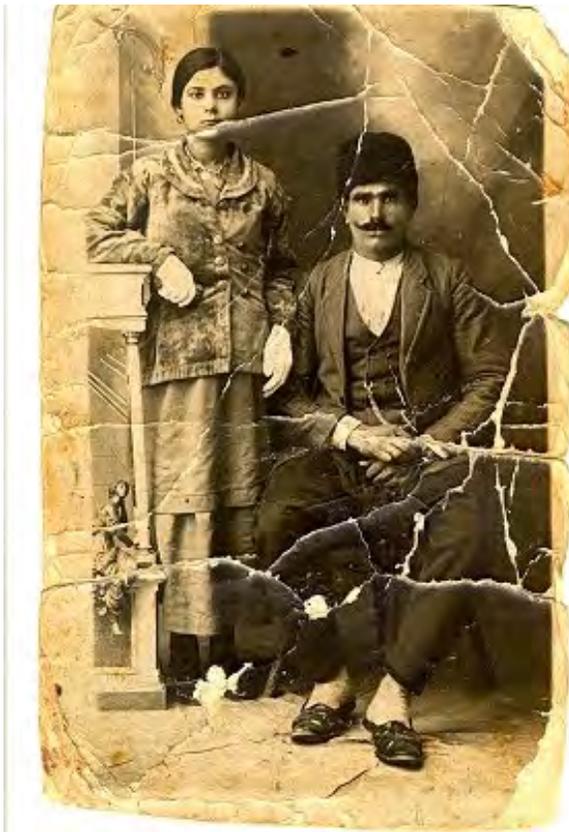
Not So Sturdily Built Business Construction



Unsupported Roof and Home Construction



Disastrous Consequence of the Varto Earthquake



Wealthy Kurdish Couple



Uncovering Family Members Lost In the Earthquake



Varto Victim



Men Gathered To Discuss Situation of Varto



Women Gathered To Discuss Family Safety and Injuries



Storks Are Revered, Not Slaughtered For Food



Sheep Are Raised for Essential Wool, Meat and Milk Products



Men Performing Traditional Ceremonial Folk Dances



Varto – No Homes Remained Intact



Varto Population Feared Sleeping Inside Homes
Women and their Children Gathered Outside For Safety



www.alamy.com - E0XF9E

Men Were Equally Anxious



Father Protects His Baby – Whereabouts of the Mother is in Question



Everyone Participated In the Earthquake Recovery

Perhaps there was an ulterior motive for us to examine the farmer's injured mother, who was safely installed in a Turkish military tent outside on the lawn before her farmhouse. Her foot was bandaged exactly as it was at our facility. We unwrapped the gauze bandage whereupon tea leaves fell out from the dressing. Her ankle was minimally bruised and swollen, but no longer painful. We re-dressed the ankle and reassured her, while replacing the tea leaves properly; no sense in disturbing the local practices of the "healers" of Varto.

We were then escorted to the agricultural field adjacent to their home. The farmer's young daughter brought a large carpet, which she placed beneath a huge shade tree. Before us we observed the enormous acreage of blooming sunflower plants that stood 6-8 feet displaying huge seeded blossoms measuring 18-inches in diameter. The sunflowers were opened to present us with never handled fresh seeds. They were enormous and delicious. His daughter also served fresh hot tea. It was a banquet that was particularly poignant in the midst of the recent earthquake disaster. This

farmer and his family indeed had great intelligence, social sensitivity and gratitude for our American participation in the town's recovery.



Turkish Casualties Received Army Tents To Sleep Outdoors

Nurse Tumas and I returned to our hospital encampment. Approaching the river, we noted a scene of agitated Turkish military troops gathered about one of our tent enclosures. We ran, suspecting that an awful situation must have just occurred. Apparently, a Turkish Oskar (soldier) was inadvertently hit by a truck. His collapsed body was placed in the nearby American hospital tent.

I spotted my office corpsman, whom I immediately enlisted to help. With a just found scalpel, I performed a cut-down on the victim's leg, which permitted rapid installation of intravenous saline; the bag was held up to increase gravity-flow. My corpsman had never witnessed such an emergency procedure.

Our surgical team was divided: one physician had just intubated the trachea to establish an open airway; the victim was forcibly ventilated. A second doctor was installing another intravenous saline line in the patient's arm. The third doctor attempted to examine heart, lung and abdomen. A large

bruise was noted on the victim's upper left abdominal area; we correctly suspected that the injury had ruptured his spleen; most likely the patient hemorrhaged into his abdomen. When the soldier was finally declared dead, we noted that the top brass, Turkish General Commanders, were standing adjacent to the corpse, witnessing this feat; most likely, this was the most advance attempt at resuscitation they had ever observed. Indeed, Turkish news media soon published stories about the American's heroic attempts to save a Turkish soldier's life.

Capt. Barry Grunland, MD – team psychiatrist, made fresh chicken stew by purchasing several slaughtered chickens from the farmer/owner of the land that we utilized. He gathered cans of chicken and tins of vegetables with sauces from our rations; he cooked the “mess” over an open fire. He must have borrowed the skillet from the farmer's wife. Barry was exceptionally creative; he became another staff “Hero” – BRAVO, Barry!!!



Special Cases

One day I received an urgent message from Capt. Mike Gurvey, MD, who manned the triage facility. The message was delivered by his corpsman. He needed a physician witness to verify the examination of a young teenage girl. Apparently since daybreak, she had walked from a distant village to our facility in Varto. Her husband rode their donkey and led the group. The girl was probably late teens, about 18. She writhed in pain; Dr. Gurvey had to examine her through her many layers of clothes. Women were not to be “touched” particularly exposing the naked body. All of their conversations had to be double-translated from Kurdish to Turkish and then into English. It was a time-consuming and difficult process.

Mike Gurvey was unable to define the source of the patient’s pain. He was most afraid she might perish from a ruptured viscus. As well, he considered the diagnosis of a ruptured appendix or ectopic pregnancy. The family and attendants surrounding the patient steadfastly refused to permit him to unclothe the girl for the best means for his medical assessment. He knew he needed to perform an additional internal vaginal/rectal examination, which under even those circumstances was completely out of order. I witnessed the examination as the best means of preventing Dr. Gurvey from being accused of rape or creating any International incident for the weary public or Middle Eastern media. He pursued examining her abdomen and pelvic area. He exclaimed loudly, “Oh My God; she’s delivering a baby and head is ‘*crowning*’ from the vagina”. The friends, who attended her journey to Varto, were in actuality mid-wives. The family wanted the new baby to be delivered in the American Hostani (hospital).

All the nurses accompanied the *mother-to-be* to an isolated tent. No men were permitted; even the husband was excluded. Afterwards, our nurses reported the events. One of the midwives pushed the uterine fundus from above, while another midwife pulled vigorously to spread the labia below. Et voilà, a shrieking boy emerged. The afterbirth delivery was accompanied by much ceremony including placing her braids in the mother’s mouth for her to bite upon.

Our male doctors and corpsmen were then admitted to the tent where the midwives showed off the infant’s male genitals; males are extremely important in the Kurdish culture. In the meantime, the exhausted young mother leaned on a tent-pole, looking quite pale, but not showing any

bloodied cloths or clothes from her delivery. The midwives were quite experienced.

The infant was placed under the mother's blouse to nurse and the team proceeded home walking the many miles they had endured in their arrival. Of course, the husband/father rode his donkey to lead the way. He had total authority, but nary to say, little empathy for his exhausted wife.





On another day at our encampment, I was called to the triage tent to examine a very old man, who was writhing in pain. I observed his hugely swollen abdomen; it was larger than a big watermelon. His son gestured that the roof of their abode (of felled tree trunks) struck the old man's lower back. Indeed, I was easily able to diagnosis that this victim had become paraplegic. I assumed the aged victim had a paralyzed bladder sphincter; additionally, due to his advanced age, he probably had a very enlarged obstructed prostate gland. Through interpreters, I was able to explain that I needed to catheterize the man. "Tamam" (okay), said the son, were upon about 3,000 cc of urine gushed into our pan. There was an immediate sigh of great relief from the old man.

Upon relief, I next had to discuss discharge management of this terribly injured man. Certainly, our standard of care required hospitalization. Surgical remedies were quite complicated. "No Way", said the son, "They would never go to a Turkish facility, because the Turks kill people like us Kurds". I did understand and empathized with the cultural antagonism of Turks toward Kurds. So, I explained that he had to return home with his injured father; but he must also leave the catheter in-place. Kurdish farmers have sheep who have chronic urinary stones; the farmers were used to catheterizing their sheep. I explained that his father would develop fever

and pain within 7-10 days, but he should not remove the catheter. In the end, this terrible injury would become fatal. With that explanation, the son bent to the floor and kissed both of my feet! Many years later, I later learned from a colleague the reason for the son kissing my feet. In their cultural traditions and experience, the only individual capable of accurately predicting the future was their God! The enormous respect for my American medical training was “Godly”, so he bent to kiss my feet.



As a reminder of the very fragile landscape of Anatolia, I wish to relate a final story about our experiences. On our 10th day of deployment, we were ordered to evacuate the facilities in Varto. A team of enlisted men packed up our equipment and materials. The medical team preceded in a convoy of Turkish busses. We became aware of the dangerous and very narrow roads to Erzurum, which were pockmarked with ditches and large landslides from the earthquake and aftershocks. Our Turkish drivers were fearless and sped much too rapidly along the dirt roadways despite many mountainous hills and blind-curved areas. As you may have already guessed, we met an on-coming open truck carrying field workers. Our driver swerved

immediately toward the safer hillside. To avoid collision, the on-coming truck driver swerved to the outer lane, which was closest to the ditch and down slope toward the adjacent river. When he broke hard, we all watched as the farm workers being pitched out of the open truck, tumbling down the slope. “All Hands On Deck”, as the saying goes. We emerged from our bus unharmed, each of us taking after one worker felled by the crash. My victim sustained a compound fracture of his clavicle. Someone had gauze bandage rolls, so I was able to place a figure-of-eight splint around his shoulders, back and chest. Our chief-surgeon took our reports of the injuries with relief. As far as I knew, nobody died. My patient was young, perhaps mid-twenties, so he likely survived to be carted to a hospital for treatment and closure of the wound where the clavicle protruded. This was an exceptional experience. I don’t remember if our bus driver slowed down before we reached our destination, Erzurum.

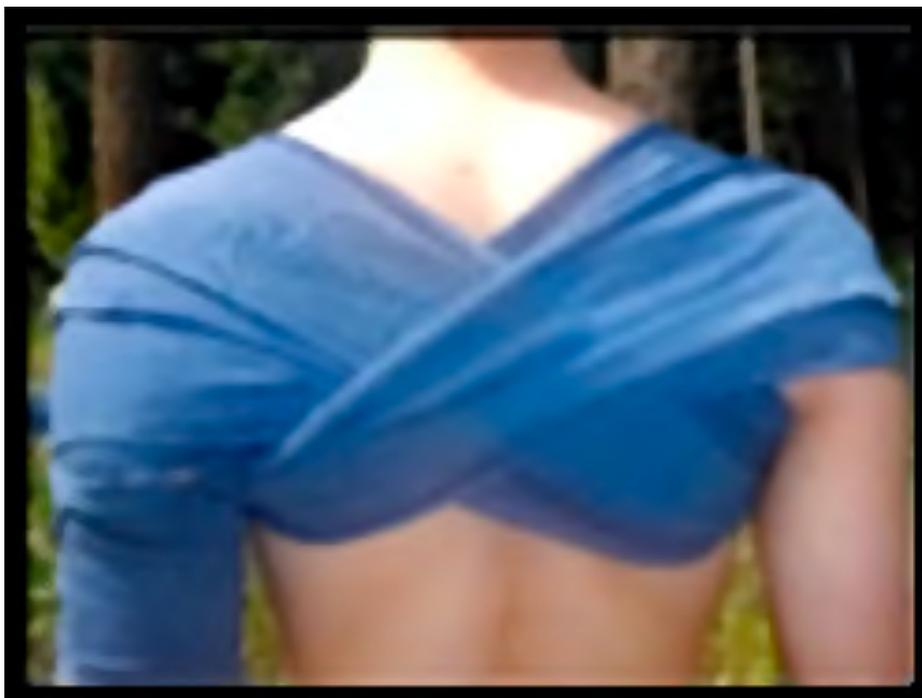


Figure of Eight Bandage



Plowing



A Few Modern Tractors Were Available



Vital Crops Of Beans and Squash

Post Script

A detailed and illustrated summary of my experiences during the U.S. Airforce medical airlift to Varto after their devastating earthquake, 1966, has been presented. The experience that unfolded was somewhat stressful because of the unexpected developments. On the other hand, I was part of a very professional medical unit comprised of 113 members, which included 12 surgeons and medically-trained physicians, 2 flight surgeons, 12 nurses, and the rest of the team composed of medical corpsmen, radiology and laboratory technicians, and other assorted administrative and able-bodied folks. The teams were merged from both the İnçirlik USAF Dispensary, where I served, and from the USAF hospital staff in Ankara.

Even after 53 years since my Air Force experiences in Varto, I still get a “chill down my spine” when I relate the story and view the images downloaded from the Internet.

This was a remarkable story of my experiences in eastern Anatolia. Our deployment was to the Kurdish region located in Northeast Turkey, within the shadow of Mt. Ararat adjacent to the Armenian border. Armenia was under the suzerainty of the Soviet Union.



From Wikipedia: The modern concept of United Armenia as claimed by the [Armenian Revolutionary Federation](#). Orange: areas

overwhelmingly populated by Armenians (Republic of Armenia: 98% and Nagorno-Karabakh).



From Wikipedia: "Mount Ararat, today located in Turkey, as seen from Armenia's capital Yerevan. It symbolizes Western Armenia in Armenian public mind.

United Armenia (*classical Armenian: known as **Greater Armenia** or **Great Armenia**, is an Armenian ethno-nationalist irredentist concept referring to areas within the traditional Armenian homeland—the Armenian Highland—which are currently or have historically been mostly populated by Armenians. The idea of what Armenians see as unification of their historical lands was prevalent throughout the 20th century and has been advocated by individuals, various organizations and institutions, including the nationalist parties Armenian Revolutionary Federation (ARF or Dashnaktsutyun) and Heritage, the ASALA and others.*

The ARF idea of "United Armenia" incorporates claims to Western Armenia (eastern Turkey) Nagorno-Karabakh (Artsakh), the landlocked exclave Nakhichevan of Azerbaijan and the Javakheti (Javakhk) region of Georgia.^{[1][2]} Nagorno-Karabakh and Javakhk are overwhelmingly inhabited by Armenians. Western Armenia and Nakhichevan had significant Armenian populations in the early 20th century, but no longer do. The Armenian population of eastern Turkey was almost completely

exterminated during the genocide of 1915, when the millennia-long Armenian presence in the area largely ended and Armenian cultural heritage was mainly destroyed by the Turkish government.^{[9][10]} In 1919 the ARF-dominated government of the First Republic of Armenia declared the formal unification of Armenian lands. The ARF bases its claims to Turkey on the 1920 Treaty of Sèvres, which was effectively negated by subsequent historical events. The territorial claims to Turkey are often seen as the ultimate goal of the recognition of the Armenian Genocide and the hypothetical reparations of the genocide.

The most recent Armenian irredentist movement, the Karabakh movement that began in 1988, sought to unify Nagorno-Karabakh with then-Soviet Armenia. As a result of the subsequent war with Azerbaijan, the Armenian forces have established effective control over most of Nagorno-Karabakh and the surrounding districts, thus succeeding in de facto unification of Armenia and Karabakh.^{[13][14]} Some Armenian nationalists consider Nagorno-Karabakh "the first stage of a United Armenia."

The "mountains of Ararat" have been widely accepted in Christianity as the resting place of Noah's Ark, despite contention that Genesis 8:4 does not refer specifically to Mt. Ararat. It is the principal national symbol of Armenia and has been considered a sacred mountain by Armenians. It is featured prominently in Armenian literature and art and is an icon for Armenian irredentism. It is depicted on the coat of arms of Armenia along with Noah's Ark."

Chicago Tribune Correspondent
Gwen Morgan, London Tribune Foreign Office

The Chicago Tribune news article By Gwen Morgan was printed on August 28, 1966. By that time, the whole world was aware and watched sympathetically as the Kurdish casualties mounted. Today in the digital age with easily available mass media, news alerts have become instantaneous. In the 1960s, news took longer to be verified and announced.

Gwen Morgan, was a foreign correspondent from Chicago Tribune's London Bureau. She was selected to bring the story of the Varto catastrophe to fruition. She appeared at our Mobile USF Hospital in Varto about the 4th day of our deployment, about August 22nd. It required a very long trip with many connections from London and back to her desk. She flew to Frankfurt,

Germany, transferred to a flight to Istanbul and a final leg (or 2-3) to Diyarbakir, Turkey, which was the last location of the most available safe airport in Anatolia. The remainder of her journey was identical to mine, which was via surface roads from Diyarbakir to Mus and finally to Varto. The journey required a few days' time; she was quite exhausted from sleep deprivation.

Email was not yet invented. Gwen Morgan's task was performed the "old way" – by hand carried notes. Despite her unquestionable professional credentials, it was also an exceptional task for an unaccompanied woman to travel in Kurdish territory, in one of the most remote regions of Anatolia, Turkey or for that matter anywhere else in the remote Middle East. Gwen Morgan was a sturdy gal. I did question her about the details of her travel, which she confirmed was exhausting. The detailed publication inserted below attests to her diligent investigation of the Varto' tragedy. We spent much of the day discussing as many aspects of our military assistance as I could summarize or show to her.



Turkish Quake Victims Pour Into U.S. Hospital

Injured Passive, Grateful for Help Given

Gwen Morgan of THE TRIBUNE's London bureau has been sent to eastern Turkey to report on earthquakes which brought destruction and the death of 2,200 persons 10 days ago. This is the second of a series of graphic accounts which she is preparing.

By GWEN MORGAN
(Chicago Tribune Press Service)

VARTO, Turkey, Aug. 28 — Stoic and grateful — these are the words American doctors and nurses use to describe the 1,200 Turkish villagers who have come to an emergency field hospital set up here by the United States air force to help earthquake victims.

After 10 days people still come. On a stretcher on the ground under the green canvas tent a woman sat holding out a leg with a deep, dirty 8-inch gash. Her brother sat on one side, her husband on the other. She raised her skirt barely high enough to expose the wound. She clamped her mouth tighter as Airman Arthur Grimes Jr. of La Porte, Ind., washed antiseptic thru the wound.

Child Has Broken Leg

A child lay on another cot with a badly fractured leg. It had been set crudely in her

village. Now she would be taken by truck to a Turkish hospital for it to be reset. Lois Rockhill, an Illinois peace corps girl, soothed her and, in Turkish, told her not to worry.

A mother was so grateful that her elder son, hurt in the quake, will recover that she offered her younger and unmarried son as a husband to the chief nurse, Maj. Crystal Epperson, of Tulsa. Others offered the more usual gifts — sheep, cows, chickens, and eggs. One man brought just one chicken and explained he was sorry the gift was so small, but that it was the only chicken he had.

Not All Quake Victims

Four men walked in with a badly injured woman. They had carried her for six hours on a stretcher fashioned from boughs and wool. The villagers had tried to ease her agony by binding her fractured limbs.

Not all patients are earthquake victims. One was a leper. Word spread quickly that an American hospital had been set up.

A pregnant woman walked in carrying a small child. Her mother and the village midwife came with her. Forty-five minutes later the baby was born. Grandmother and midwife officiated, using their own methods altho they did accept a hospital knife to cut the umbilical cord. Normally they would have used a stone. Before the day was out, the party left for home, the mother carrying the new child while the grandmother played up to the elder, already showing signs of jealousy.

Only two of the 1,200 patients died. One was a girl, 5, the only member of her family to live thru the quake.

Based at Adana

The hospital, normally based at Adana in southeastern Turkey, first set up at Mus. Because two Turkish hospitals already were at work there, the Americans came on to Varto in the heart of the quake area where 2,300 persons died in 30 villages. The principal job has been to give initial treatment and send on to the Turkish hospitals persons who need long treatment.

The doctors have devised new kinds of treatment. Dr. Raymond H. Dunn, of La Grange, a dental surgeon, used bandages rather than wire to hold repaired jaws in place because further treatment would be unavailable. His wife, Suzanne, is the daughter of Mr. and Mrs. John Stephens of Arlington Heights, Ill.

The peace corps girl and her husband, Ervin Rockhill, of Racine, Wis., who joined the corps six days after marriage on graduation from Anderson college, have been working in Turkey a year. They came from their village, Tekyot, to help at the hospital. Maj. Epperson said they have been invaluable as interpreters, learning about aches and pains, passing on instructions from

doctors and nurses and, all the while, soothing and comforting, dispelling fears.

Initial Job Is Over

The initial relief job is over and 69 of the 130 Americans left yesterday by truck for Erzurum, the nearest airfield, to return to Adana, or to Diyarbakir, a town with ancient basalt walls where the American headquarters in Turkey known as Tuslog, is located.

The Turkish regional army commander, Gen. Faik Turun came to the hospital to thank its commanders, Lt. Col. John Sleeper Jr., of Waco, Tex., and Dr. Grady Breese, of San Antonio. Fifteen hundred Turkish troops have set up a camp near the hospital to help.

"It's been quite an experience," said Dr. Michael S. Gur-

vey, of Chicago, whose wife, Elaine, is from Hobart, Ind.

Dr. Robert Sherins of Los Angeles, a specialist in water supplies and hygiene, said he had noted no signs of epidemic. He has kept close watch over the hospital's 3,000-gallon water tank. The water, so heavy with chlorine that it has an odor, flows coolly from the canvas lister bags strung on ropes. Dr. Sherins' wife, Mariene, is a granddaughter of Sophia Mauger, of Chicago Heights.

Asks to Go to Varto

One nurse, Capt. Theresa Chenoweth, of Fowler, Ind., had been scheduled to return home last week on completion of her assignment in Turkey, but asked to come to Varto with the hospital team. The quake provided the team with its first

practical experience in large scale emergency care.

She said there had been several small quakes. Tho slight, they awoke patients during the night. Nurses went thru the tents relieving patients' fears of being trapped again under the stones, timbers, and earth villagers used in making the snug, but perilous houses.

The Turkish general said the big need now is for housing. Ten thousand families are sheltered in tents or makeshift lean-tos. In two weeks, autumn rains are due and in another month the first snow may come.

The general is trying to provide temporary barracks for all of the homeless before winter sets in. Here, more than a mile above sea, winters can be fierce.

Chapter 4

Feeling the Direct Heat of Jet Exhaust and Related Issues

Thermonuclear Stockpile

U.S. Secretary of Defense, Hon. Harold Brown

The Honorable Harold Brown, PhD (Physics Professor, Cal Tech), serving as Secretary of Defense under President Lyndon B. Johnson, arrive at Inçirlik AFB in the Spring of 1965. Sec. Brown and his staff arrived aboard **U.S. Airforce One** accompanied by a flight surgeon assigned from Andrews AFB, Virginia. There was no announcement at my rank level. Instead I received a personal phone call from the flight surgeon, who desperately wished to meet and chat. I leaped at the opportunity. We soon shook hands at Base Ops along the flight line.

The visiting doctor had been assigned to accompany the Defense Secretary's team through the expedited tour of Middle Eastern military facilities. Since the team departed in the afternoon, the brief stay at Inçirlik could only have been introductory, meeting and greeting. My colleague was so relieved to relax with another flight surgeon his age, he divulged many details involved with his responsibilities. First he stated, Washington elites were know-it-alls. They didn't need or use his services. His lower rank resulted in being ignored. Instead the group made calls directly to the prominent specialists in the world for medical advice, had years of time spent in-service and presumed that they knew the all the treatments for common illnesses The flight surgeon was treated as one would a brass finial on the bedside; it was a degrading experience for him. American governmental officers are democratically elected or appointed in-turn. However, the elite culture of officials demanded royal treatment from everyone else. RHIP. They may have thought themselves as "Royals", but they were not "Majestic".

Most of our time was spent by the doctor showing me through Air Force One. At that time, the plane was reconfigured from a Boeing 707. It was not the massive wide-bodied later version of the Boeing 747, 757 or 777. None-the-less, I witnessed navigational' instruments in the cockpit that did not appear commercially for many years, such as the level-flight indicator, advanced altimeter, secure radio communications - sans satellite connections, and a most luxurious crew cockpit. The interior designs were also royal for the President and staff. Front guest seats befitted "first-class" accommodations, aft conference center, and then a private presidential sleep, rest, and fully equipped bathroom section for the "chief". We lunched together to provide as much time as possible discussing our mutual experiences. He could not leave the immediacy of the plane, as ordered. This experience was for me the first and only meeting with any other age-

related flight surgeon. I was profoundly grateful for my assignment to Inçirlik and for the independence granted to me by my commander.



Air Force One - Boeing 707



Air Force One Cockpit



Air Force One Conference Table



Air Force One - Oval Office



Air Force One - Executive Bedroom

Tactical Air Command Training

The U.S. Airforce Tactical Air Command, TAC, is tasked with military responsibilities in diverse battlefield situations. Not only are the aircrews responsible for removing battlefield threats, but they are also engaged in support of other military air and ground offensive and defensive elements. The pilots are remarkably well-trained and they fly aerodynamically sophisticated aircraft that must be fast and stealthy. Fighter pilots are among the most intelligent and athletic crew members of the armed forces.

Constant training TAC crews is a prerequisite for performance perfection and success. Usually the squadrons are sent for temporary duties and training in regions where weather is most favorable. That is why TAC crews spend much of their time training in the Southern areas of the U.S. NATO squadrons also train in the regions of milder and warmer climates in Europe, Turkey and North Africa. For that reason, Inçirlik frequently hosted TAC squadrons. Practice bombing and gunnery ranges were created in isolated regions of Anatolia for such purposes, which were utilized by American, Turkish, NATO and other Middle Eastern forces.

During such an exercise, we received an alert that one of the TAC aircraft had just crashed in Southwestern Anatolia. Our rescue team was immediately assembled on the flight line. The vehicle that was engaged was the HH-43 chopper, crewed by an outstanding flight team normally engaged in rescue and fire-suppression efforts for disabled jets flying in or out of Inçirlik AFB. For the downed fighter rescue, a team had to be augmented with medical personnel and their equipment, as well as senior squadron command officers. To reach the zone of the downed fighter, our HH-43 had to gain altitude to pass over the Taurus mountain peaks at an altitude over 10,000 feet. Our vehicle was overloaded. To my dismay and fierce objection, most of my medical equipment was off-loaded.

Our HH-43 pilot received continuous radio instructions to reach the impact zone. After an hour we arrived at the crash site and observed a cluster of local peasants protecting the downed pilot with sheets of the parachute material. We settled quickly nearby.

The pilot was fully conscious and reported details of his accident. When he realized that his bombing pass was too low, he instituted ejection. He was a solo pilot so only one individual had to be accounted for. I was able to examine him, while he related further details. He was not in shock, had

excellent cognition and could move his extremities. I detected an ileus. His abdomen was very firm, but silent indicating an ileus. His left foot was flail having dislocated from the tibia and fibula. What saved the limb was the intact vasculature and attached skin. His boot kept the parts together. I merely rinsed off the bone ends of the leg and splinted the parts.

After an hour, our C-118 transport had arrived at a nearby airfield from Inçirlik with additional medical staff. We helicoptered the pilot to the plane and proceeded to the U.S. military hospital in Ankara. The pilot's care was transferred to the hospital medical staff; I was escorted to meet the General Commander of American/NATO forces in Turkey, where I was debriefed.

Several months later I received a welcomed letter from the rescued pilot. He reported having healed well from surgery to relocate his foot. He suffered no complications, so his case was then transferred to another facility on Ohio nearer to his home for rehabilitation. I received his personal thanks with gratitude.



Pilot Waiting For Taxiing Instructions, Canopy Still Open



Armed Ejection Seat



Ejection Is A Violent Event, But Life-Saving



In 2-Seat Aircraft, The Pilot First Ejects His Passenger



Successful Ejection Requires Adequate Altitude and Time for the Parachute To Deploy Properly

In-Flight Refueling

Refueling techniques are utilized on many military aircraft missions, which extends the mission foray distance and lessens the volume of heavy fuel that would have been carried aboard the plane. Other techniques to improve fuel capacity include carrying external gas tanks that can be jettisoned after take-off.

Aerial refueling is performed under conditions of total radio-silence and in all weather situations. Preplanning is essential to pinpoint the precise location for the “gassing up”. GPS and radar positioning technology is essential.

I was invited to participate in an aerial refueling exercise off the southern coast of Turkey. The flight crew readied the KC-135 at the flight line, while I joined the team to be properly fitted with my parachute. My flight suit and specialized fitted helmet were permanently stored at my home. We boarded our flying gas station, where I received further instruction and a detailed tour of the craft, which was a reconfigured Boeing 707. The pilot and copilot were already making seat adjustments and setting their controls, navigational instruments, et al. Crew members walked me through the main cabin that carried the wiring, pipes from the fuel tanks located in the wings, and an added few military-style seats. Structural details were bare, no padding nor decorations as in commercial flights.

I was taken to the aft section where the “boomer” was prepositioned over his couch, control instruments and an angled viewing window. The gas nozzle, called the “boom” , projected a short distance from the fuselage belly and would later-on be extended during the maneuvers. A second couch/cushion was prepositioned to the right side of the boomer. That was my “spot” for the duration of the foray. I got into position with my attached parachute and side-appendage, a Petri 35mm camera.

Take off was not unusual; we climbed to the appropriate altitude. The flight plan was to journey westward about 100 miles before turning southward to approach the Mediterranean Sea over Silifke point. Silifke is the outlet of a large river and is quite noticeable on maps. Cyprus Island is further south several hundred miles. There were mixed clouds, but minimal overcast; it was an ideal day for aerial refueling and for me, a novice flight surgeon.

In the quiet of the droning engines, I detected the first aircraft of the squadron that had been scheduled to approach us. No words were spoken between the boomer, pilots nor me; complete radio-silence was maintained. The first F-104 approached the KC-135, which I estimated to be about 100 yards distant behind our KC-135 . The boom standard was extended toward the jet fighter, while the boomer flew the device by controlling attached “wings” that steadied the apparatus. By that time, I detected Silifke point along the coastline. I knew exactly where we were located.

The boomer extended the nozzle of the device into the receptacle located on the nose of the F-104, but just a foot or so from the canopy - dangerously close to the cabin and pilot. There was no room for error. On other aircraft the fuel receptacle may be located aft of the canopy over the fuselage, or extended from an external pipe alongside the fuselage projecting outward and frontally. The maneuvers were spectacularly precise. Gauges metered the gas volume and flow. Everyone joined in the “act” seemed to have nerves of steel and performed their tasks instinctively.

The squadron lined up in formation behind the right wing of the KC-135. Each jet maneuvered into exact position to receive fuel. When fueled, the jet backed off the nozzle ever so slowly and dropped down a few feet to clear the zone. In turn, each of the planes maneuvered in formation behind the KC-135’s left wing. When I was permitted to move from the boom station, I went to a side window and caught the eye of the closest pilot by our left wing. He sent me a “hi-five” and “thumbs up” signal. This experience was a thrilling. I waved as the squadron flew off to return to base or perform whatever field work that had been assigned.

When the KC-135 completed its aerial refueling tasks, it was time to return to Inçirlik AFB. The landing procedures differed from those landings we’ve experienced aboard commercial flights. We maintained higher altitude until directly above the airbase, when our pilot demonstrated that the Boeing 707 was quite capable of sudden descent for landing. It was not quite as rapid as a tactical jet, but almost. I thought about my parachute until our landing wheels made their safe touchdown.



Refueling Approached In Radio Silence



Boomer Controls Nozzle "Flying" the Extended Gear - In Radio Silence



Fighter Close Approach For Fueling



Nozzle In Close Proximity Over Silifke, Turkey, Coastline



Boomer Flies Nozzle Into Fuel Port - Exactingly Close to Cockpit Canopy



Fueling Over Silifke, Turkey



Boomer In Total Concentration Visual Contact Only



Silent Farewell Formation; Pilot Saw Me in Window and Waved

Reconnaissance Aircraft and Crews

Military Intelligence Reconnaissance was gathered by different Airforce and Naval squadrons. Other Airforce crews were permanently stationed at Inçirlik AFB; Naval Air teams were temporary or TDY. I served as their flight surgeon. Except during the secure discussions, I was frequently invited to sit in their meetings.

ELINT reconnaissance had a long history of operations from Inçirlik AFB. The famous U-2, developed by Lockheed's chief aeronautical engineer, Kelly Johnson, played a famous ELINT (reconnaissance) role from Inçirlik. Its most notorious pilot, Gary Powers, operated from Inçirlik in the mid-1950s. Powers resided with his wife in a trailer later reoccupied by my Inçirlik colleague, Veterinarian, Capt. Mel Geiger, DVM. Powers initials had been pressed into the front step wet cement of the trailer. During one of Powers' flights over the Soviet Union, he was shot down and imprisoned. Powers was tried and convicted of espionage. Eventually he was released in a political swap with another Soviet spy (Abel) living in New York. Powers then became a news-media helicopter pilot in the North Hollywood suburb of Los Angeles. Powers was a superb pilot, but he died in a mysterious crash having "run out of fuel".

After Powers' capture, the U-2 program was reconsidered. Other ELINT aircraft replaced the U-2. Just prior to my arrival at Inçirlik, RC-130s were used. However, the Soviets lured one of the planes over their border and the plane and crew were shot down. The crew was never recovered.

The next in the series of ELINT reconnaissance planes flown out of Inçirlik was the RB 47, which has been described on previous pages. The RB-47 program became an established squadron, not rotated TDY. I became their flight surgeon, often invited to sit in their conferences during non-secure discussions. Our relationships became very close and I was awarded their "Raven" scarf with the emboldened insignia of their ELINT group. During participation with their unit, I was always placed adjacent to the commander, referencing their sincere respect and appreciation for me. Later on, Col. Jernigan, Senior Flight Surgeon and Ankara Medical Commander, observed me dressed with the scarf. He screamed at me to immediately remove my "unauthorized" scarf. I was so upset by his angry indifference and play-by-the-rules personality. Later on, I did not resist on better sympathetic advice from my direct Inçirlik commander.

Performance details about the RB-47 squadron are critical to understand. I wish to describe my experience with the crew and their aircraft. Except for the secret INTEL information, the crew demonstrated as much as they could for me to best understand their work environment.

Let's review the aircraft and their work environment. The squadron was always on-call for alerts, ELINT emergencies that were generated elsewhere and relayed to Inçirlik. That information was way above my "pay-grade" and need to know. I did learn that the crews were often launched at night or at odd times of declared emergencies. We all require rest times, so-called R & R. Because of National Security, these crews were kept close to the base. When my duties permitted sufficient trust, I was provided tours of the plane, maintenance area on the flight line, and permission to attend the non-security parts of their meetings. They really wanted their doctor to be close and available. Such was their requirement for a good medical friend.

The RB-47 is a large aircraft. Its weight was reduced by structural re-design in order to increase fuel capacity add in-flight refueling, long loitering times, trips over their target areas and the ability to return to base safely. The major weight was concentrated in the fuselage, which contained the fuel, ELINT equipment, under-belly landing gear and crew. No space suits were worn suggesting lower altitudes were flown, which must have added significant risks of being shot-down by enemy missiles. For added stability, most large aircraft have landing gears suspended under their wing, such as commercial aircraft, Boeing 707, 737, 747, 757 787, and Airbus equivalents, etc. . The central under-belly landing gear of the U-2, B-58, and RB-47 add significant complexity in both take-off and landings, especially when cross winds are high. The RB-47 was built in the early 1950s when engine designs were smaller and lower powered. Water was injected into the fuel mixture to add mass during take-off, which boosted the power of RB-47 engines. I witnessed those very loud take-offs with engines spewing massive clouds of black smoke. The aircraft slowly ran the full long 10,000 foot runway in its attempt to become airborne. Suspended from the wings to stabilize take-off were 2 extra detachable wheel structures. I rarely witnessed the RB-47 take-offs due to the night emergency flights. However, the aircraft was definitely a beautiful "bird".

To the contrary, the U-2 flights that I did witness were also impressive. The U-2 has centralized landing gear suspended under the fuselage, aided also by 2 sub-wing detachable wheel sets. However, the U-2 is a lighter weigh aircraft with a glider-like aerodynamic shape and large engines. The U-2

take-off was spectacular in the extreme by rolling down the runway until lift-off when the aircraft became nearly vertical climbing rapidly to altitude. Maximum altitude is classified, but the pilot must don a pressurize space suit - hint, hint.



RB-47 Parked On Tarmac



RB-47 Midline Landing Gear, 5-Engines, Auxiliary Gas Tanks



Most of the RB-47 crews consist of 5 individuals having both a pilot and copilot. Occasionally the bubble canopy enclosed only a pilot, reducing the crew to 4. The plane has 2-decks. Pilot and copilot command a stunning visibility 360°.

The navigator is seated in the forward nose compartment, enclosed in cabinets of instruments. He has no visibility and relies entirely upon instrumentation for his orientation and guidance. Aft of the forward crew is the main fuselage, which has been reconfigured to contain 2 huge fuel tanks separated by a narrow tunnel that lead to the tail section. Fuel is no longer housed in the wings. I followed my guide to the tail section through the narrowed space that tunneled between the rubberized fuel tanks. We arrived at the rear ELINT "office" reserved for the 2 technicians. It was a very small setting of instruments and 2 seats for the ELINT techs. As advised, I did not study the instrument details, but got the general sense of their work. At the terminus of the tail section were machine gun armaments, useful only in low altitude flights if attacked by enemy fighters.

The ELINT mission was so top secret that to protect the crew if captured, even the crew commander was never told details. Upon completion of a mission, canisters of the recording tapes were the first items to be removed. In a locked and enclosed shelter within the hanger, the tapes were immediately prepared for trans-shipment to analysts in NATO and/or America for classified review. I was awed by the highest degree of secrecy, crew dedication and efficiency. Occasionally word spread quietly that the ELINTS had acquired some "really good stuff" - no further details or comments were given.



RB-47 Crew: Pilot, Co-Pilot, Navigator, 2 Electronic Technicians



Pilot Ascending Crew Into RB-47 Compartments



RB-47 Takeoff Using Water-Fuel Injection to Achieve Powered Thrust

When my commander took a rare vacation break to Beirut, Lebanon, I assumed command of our medical detachment. After a long weekend on-call, I rested at our downtown apartment. Our phone rang, which was an unusual event in Turkey. My colleague, Dr. Mike Gurvey, screamed, "Get back here, NOW!!! The RB-47 just crashed on landing; fire, bullets and bodies everywhere". "Helicopters, fire trucks, military police and on-lookers crowded around; all available medical personnel had immediately assembled. "Oh, sh..."! I explained to Marlene, briefly. I took a bag of clean underwear, shaving gear... and departed for the airbase, explaining that I had no idea how long I might be gone". Sam Chunn was still in Beirut.

Upon arrival at our base dispensary/hospital, I discovered how organized our team had become. Every patient and victim had his doctor and corpsmen. The casualty list included: both pilot and copilot were safe; the pilot had suffered a lumbar compression fracture that needed to be casted for stability; the copilot had only minor bruises; the navigator was dead having suffered a fatal crushing blow to his frontal skull that I discovered when cursorily examining him in our morgue; one of the ELINT technicians died in the rear compartment of the plane; the second ELINT technician crawled through the blazing plane and was pulled from the wreckage badly burned, but alive. He was in surgery having a tracheotomy placed for pulmonary ventilation. He was alive and able to hear my voice each day when I visited his ICU room. I knew him well and grieved to see him suffering so badly. Mercifully, he died on the 3rd day have been maintained on intravenous fluids, morphine and ventilation through his tracheotomy. He was single leaving his grieving parents, siblings and friends. The

deceased navigator left a widow and small children, whom I also knew well. During the following year, I did receive a very nice letter from the pilot, Major Walt Savage, expressing his grateful thanks to me.

There was a 2nd crew commanded by Major Hal Simpson. We became good friends during our mutual tours of duty and remained in contact for many years following my discharge from the Airforce. Hal visited us our home in Pacific Palisades, California, after my private practice of Ophthalmology was established, met our children and continue our wonderful friendship. Hal was promoted to Lt. Col. Serving as chief of the intelligence team at Beale Airbase located in Yuba City, northern San Juquin valley, California. He served as part of SR-71 reconnaissance squadron. We leaped at his offer to host us at the base in order to visit the squadron facilities.



SR-71 Squadron, Beale AFB, Yuba City, California



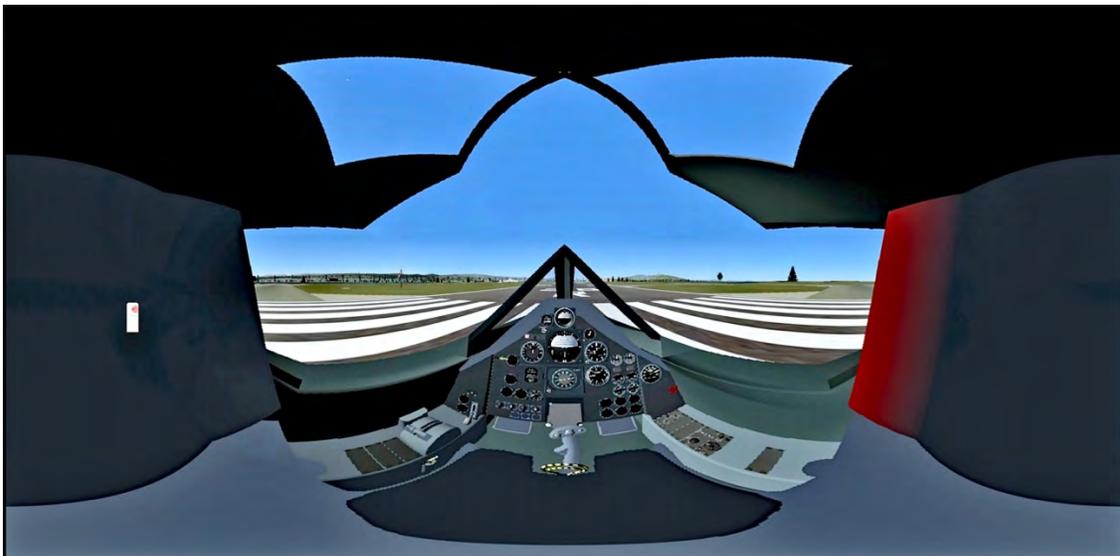
SR-71 Crew "Suited Up"



Crew Boarding SR-71



Cockpit SR-71



View From Cockpit SR-71



Stealthy Magnificence SR-71



SR-71 In-Flight Refueling

We drove to Beale Airbase with our friend, Lt. Col. Hal Simpson, just in time to witness the landing of an SR-71 squadron. In formation, 8 magnificent

planes descended, made their final approach and touched-down on the tarmac. It was a thrilling ballet performance par-excellence. In the specialized hanger, Hal guided us beneath one of the planes. Although we were not permitted to board the SR-71, we were able to touch the delicate wing. Pans to collect the thin lubricants were scattered below the craft. Lubricants must be thin at the very high speeds and altitudes required of the R-71; on land the lubricants leak.

RB 57 Reconnaissance Gen Bruce Holloway

The Martin RB-57D was deployed to Inçirlik from New Mexico during my assignment. It was reconfigured for extreme altitude electronic surveillance (ELINT), crews required spacesuits, refueling extended their range of operation and a special flight surgeon was assigned to the top-secret operation.

ELINT reconnaissance had a long history of operations from Inçirlik AFB. The famous U-2, developed by Lockheed's chief aeronautical engineer, Kelly Johnson, played a famous ELINT (reconnaissance) role from Inçirlik. Its most notorious pilot, Gary Powers, operated from Inçirlik in the mid-1950s. Powers resided with his wife in a trailer later reoccupied by my Inçirlik colleague, Veterinarian, Capt. Mel Geiger, DVM. Powers initials had been pressed into the front step wet cement of the trailer. After Powers' final flight was over the Soviet Union when he was shot down and imprisoned. Powers was tried and convicted of espionage. Eventually he was released in a political swat with another Soviet spy (Abel) living in New York. Powers then became a news-media helicopter pilot in the North Hollywood suburb of Los Angeles. Although an experienced pilot, he died in a mysterious crash having run out of fuel.

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Martin RB-57D Canberra

From Wikipedia, the free encyclopedia

The **Martin RB-57D Canberra** was a specialized high-altitude strategic reconnaissance aircraft developed from the Martin B-57 Canberra tactical bomber, a license-built version of the English Electric Canberra. It was used by the United States Air Force during the 1950s prior to operational use of the Lockheed U-2.

Development

The RB-57D was built strictly as a high-altitude reconnaissance aircraft. It originated in a December 1952 USAF study funded by the Wright Air Development Center for a turbojet-powered special reconnaissance aircraft with a radius of 2,000 nautical miles (3,700 km; 2,300 mi) that could operate at altitudes of 65,000 feet (20,000 m). Subsonic performance was considered to be acceptable and it was felt that no defensive armament would be needed. The RB-57D was unique and set the stage for high-altitude reconnaissance operations in the rarefied air of the stratosphere. Preliminary specifications were prepared by the Air Force on 27 March 1953. The project was carried out in high secrecy. It was known as Weapon System MX-2147, and the code name was Bald Eagle.

The basic B-57 Canberra design was used as a starting point for the D model, but there were several significant changes incorporated. The most obvious was the greatly enlarged wing. The wingspan was lengthened by 42 feet (13 m) to 106 feet (32 m) overall. The chord of the wing was also increased, which combined with the increased length gave the wing a very high lift capability.

The second major change to the RB-57D was the addition of Pratt & Whitney J57 engines in place of the Wright J65 engines used on all earlier B-57 models. The two J57 engines produced about 20,000 lbf (89.0 kN) total thrust, about 6,000 lbf (26.7 kN) more than the two J65 engines. Other changes in the D model included removal of all fuselage fuel tanks and the addition of "wet wing" fuel cells. All defensive armament was removed, and the bomb bay was also removed and replaced by avionics equipment. The horizontal stabilizer was changed to the variable incidence or "all flying" type. Spoilers were added to the outboard wings to assist the ailerons in roll axis control.

Despite the very enlarged wing, an empty RB-57D weighed not much more than an empty B-57 due to the lightening measures taken. The most extreme measures were taken with the wings, which were thin metal honeycomb sections that formed a full wet wing (even in the leading edges). To avoid the weight of rivets, the wings were assembled with a special glue. The wing skin was waxed for aerodynamic smoothness. With a surface skin of only 0.010 inch thick, dropping a small tool on the wing could damage the skin. Even deicing fluid used on the aircraft could potentially cause the glue used to lose strength.

On takeoff, only 50% engine power was necessary for a takeoff ground roll of about 2,000 feet (610 m). Climbing at 25–30 degrees, the RB-57Ds could reach 50,000 feet (15,000 m) in just 15 minutes. Maximum cruise altitude was 65,000 feet (20,000 m) and the pilots wore full pressure suits. With 200 US gallons (760 l; 170 imp gal) of fuel less than a stock B-57, the RB-57D had twice the duration, approximately seven hours compared to four hours for a B-57. Landing was challenging as the big wing would fly at very low speeds, and the small thrust the engines produced at idle made it difficult to reduce speed for touchdown. Even with the spoilers out and landing gear extended, the plane had a very low sink rate and pilots resorted to holding the RB-57Ds into a series of slight stalls to get the aircraft down to the runway.

RB-57D 53-3982 at the National Museum of the United States Air Force

Only 20 RB-57Ds were built, but there were four basic variants that each had mission specific changes incorporated into the design.

- 6 – RB-57D Model 294 (53-3977 to 53-3982) – (Group A) Basic configuration built as single-seat aircraft. The primary mission of these aircraft was high-altitude photo reconnaissance. There were four reconnaissance cameras (two K38 and two KC1) mounted in the forward lower fuselage.
- 7 – RB-57D Model 744 (53-3970 to 53-3976) – (Group B) Basic configuration with in-flight refueling.
- 1 – RB-57D-1 (53-3963) – (Type C) Single-seat basic version, but its mission was electronic (radar) reconnaissance. This type didn't have any cameras but had an extensive suite of radar equipment installed throughout the fuselage. The aircraft had a nose Radom housing an AN/APN-107 radar antenna. A number of search radars and an AN/APQ-56 Side Looking Airborne Radar (SLAR) were mounted within the fuselage. The SLAR was primarily used for radar mapping and its

antennas were mounted on the lower fuselage just below the aft wing. These antennas gave the D-1 a unique appearance.

- 6 – RB-57D-2 Model 796 (53-3964 to 53-3969) – (Group D) Dual-seat version, pilot and electronic warfare officer/observer—and was designed for the electronic ferret mission. The aircraft had the same AN/APN-107 nose radar, but also had an AN/APA-69A radar with an antenna mounted in a distinctive belly Radom.

The first RB-57D flew on 5 November 1955.

Operational history

The RB-57D remained in service for only about five years. The first deliveries were in April 1956 to the 4025th Strategic Reconnaissance Squadron, 4080th Strategic Reconnaissance Wing, which was a part of Strategic Air Command (SAC). Initially, the planes were to be based at Lockbourne AFB, Ohio, but they were soon relocated to Turner AFB, Georgia.

The squadron would become fully operational with its first six RB-57Ds only 120 days from the delivery of its first RB-57D. Those first six aircraft, all Group A RB-57Ds, deployed Yokota AB, Japan, and to Eielson AFB, Alaska, in late 1956 for reconnaissance missions over what is presumed to be China, North Korea and the Soviet Union. The detachment at Yokota was used to monitor fall-out from Soviet tests in Operation Sea Lion. Other sorties were flown over Communist China, the RB-57D's operational ceiling being well above that of Chinese MiG-15s. The Eielson-based aircraft conducted ELINT around the Kamchatka Peninsula of the Soviet Union. On 15 December 1956 three aircraft overflew Vladivostok.

In early 1956, the 4080th SR Wing moved to Laughlin AFB, Texas. Midair-refueling capable RB-57Ds (Group B and the sole Type C) were deployed in 1957 to Rhein-Main AB, West Germany to support USAFE operations. All RB-57D operations were under heavy security and very little information ever leaked out about their early operations. They presumably carried out ELINT/SIGINT missions along the East German border and over the Baltic Sea. Since the missions were carried out under an atmosphere of high secrecy, RB-57s returning from missions over the Baltic were often intercepted by RAF Hawker Hunter interceptors just to make sure that they were not Soviet aircraft. These particular versions of the RB-57Ds had the guts ripped out of the fuselage. They were equipped with a camera with a 24 feet (730 cm) focal length from lens to aperture. They produced individual frames that were developed as large as 4'x6' for CIA analysts to go over in great detail when looking for missile silos throughout Eastern

Europe. The pilot and navigator who flew these missions never even got to view the film they shot. Upon landing a CIA employee would take the film before they even left their seats in their planes. When the 4025th SRS was inactivated in June 1959 the RB-57D aircraft were assigned to the 7407th Support Squadron at Rhein-Main AB, two additional aircraft added to complement including the unique RB-57D-1 equipped with SLR. Intelligence gathering sorties by the RB-57's in West Germany continued until 1964 when wing fatigue problems caused type to be withdrawn from service.

The RB-57Ds of the 4926th Test Squadron (later 1211th Test Squadron) at Kirtland AFB, New Mexico, participated in support of atomic bomb tests at Eniwetok Atoll in the Marshall Islands and at the AEC testing range in Nevada during 1957–1963. The high flying capability of the RB-57Ds allowed them to get nuclear particle samples from high in the atmosphere as part of the post-detonation analysis.

CIA In 1958, the Central Intelligence Agency started sponsoring a program known as Diamond Lil, in which Chinese Nationalist pilots were trained to fly RB-57Ds. Six Black Cat Squadron Taiwanese pilots were trained on the B-57C at Laughlin AFB, Texas, arriving back in Taiwan, and two or three Group A RB-57Ds were ferried to Taoyuan Air Base, near Taipei, Taiwan in early 1959. During early 1959, they carried out deep penetration reconnaissance flights over the Chinese mainland, photographing airfields, military establishments and ports. They flew in Republic of China Air Force markings, being painted white on top and black on the bottom with lettering stenciled in red.

RB-57D "5643", piloted by Capt. Ying-Chin Wang, was shot down and killed on 7 October 1959 by a People's Liberation Army SA-2 surface-to-air missile, which was the first successful shoot-down of an aircraft ever achieved by a SAM. It seems that the pilot had made a premature descent while returning to Taiwan. The program ended around 1964, when fatigue problems with the wing spars forced the retirement of the surviving aircraft, which was returned to the US. They were replaced by four Lockheed U-2s, all of which were subsequently lost in operations over the Chinese mainland.

Retirement

EB-57D of the 4713th DSES flying over a General Electric AN/FPS-6 radar

The pace of missions put a strain on the delicate wings of the RB-57D and the first aircraft were put into storage by SAC following two incidents when the wings outboard of the engine nacelles cracked and fell off during landing. Martin had designed the wings for only 500 flight hours and many

of them had already exceeded that limit but strategic necessity resulted in the RB-57Ds still flying missions. The 4025th SRS was discontinued in June 1959. Some of the RB-57Ds that had been operating with the 4025th SRS were adapted to other specialist roles.

Air Defense Command took over the remaining RB-57Ds to act as high-altitude targets for the supersonic interceptor force. Martin modified the wings to extend their service life. Fitted out with electronic countermeasures, the 4677th Defense Systems Evaluation Squadron at Hill AFB, Utah, was formed to operate 12 of the 20 RB-57Ds to fly training missions against continental Radar defense installations as electronic "aggressor" aircraft. The upgrades to the electronic countermeasures to challenge the ADC interceptor crews resulted in these aircraft being designated EB-57Ds.

Some were used by NASA for high-altitude flight testing and terrain mapping. A few aircraft were transferred to Taiwan in the late 1950s for high-altitude reconnaissance missions.

Six more RB-57Ds were used to monitor the last series of American atmospheric nuclear tests which took place in 1962. Three RB-57Ds were assigned to the 1211th Test Squadron (Sampling) of the MATS Air Weather Service at Kirtland AFB, New Mexico and were re-designated WB-57D.

In 1964, an RB-57D which was operating on test flights out of Wright-Patterson AFB (53-3973), lost its wing at 50,000 feet (15,000 m) over Dayton, Ohio and crashed into a schoolyard. No-one was injured and the pilot was able to eject safely. This mishap forced all the surviving RB-57Ds to be withdrawn from service and grounded. But the ADC still needed a high-altitude target aircraft, and Martin agreed to modify the remaining EB-57Ds for another 3,000 flight hours, and they served in this role along with other testing roles until the last was retired in July 1979 due to wing-spar fractures.

An even larger B-57 reconnaissance version was the 122 feet (37 m) wingspan RB-57F. Beginning in 1963, General Dynamics converted 21 B-57 airframes (four of them RB-57Ds) into RB-57Fs. These aircraft performed missions similar to the RB-57D, and the last USAF-operated RB-57F was retired in the early 1970s.

Clarence "Kelly" Johnson of Lockheed submitted an unsolicited proposal on his own which eventually edged out the RB-57D design, resulting in the Lockheed U-2.^[2] The U-2 was a more capable aircraft and replaced the RB-57D in U.S. strategic reconnaissance units.

Martin B-57 Canberra - Wikipedia

en.wikipedia.org › wiki › Martin_B-57_Canberra

The **Martin/General Dynamics RB-57F Canberra** is a specialized strategic reconnaissance aircraft developed in the 1960s for the United States Air Force by General Dynamics from the Martin B-57 Canberra tactical bomber, which itself was a license-built version of the English Electric Canberra. It was operationally assigned to the Air Weather Service for weather reconnaissance involving high-altitude atmospheric sampling and radiation detection in support of nuclear test monitoring, but four of the 21 modified aircraft performed solely as strategic reconnaissance platforms in Japan and Germany.

Three of the modified aircraft were destroyed with loss of their crews while performing operationally. The remainder were re-designated *WB-57F* in 1968. Four of the survivors were subsequently used by NASA for high-altitude atmospheric research. The others were retired from 1972 to 1974 and placed in storage.

As of 2015, three WB-57Fs are the only B-57 aircraft model still flying, in service with NASA.



Airplane Model Kit of the F-35C Iteration With Vertical Lift Capability



Unassembled Parts of Model Kit, F-35 C
Author, Dr. Robert Sherins, is a modeler and will complete construction of
this kit.

Inçirlik Nuclear Arsenal

One month after I settled into my role as flight surgeon at Inçirlik AFB, I was joined by Top Master Sergeant, John Edwards. He immediately brought his 23 years of prior service skills to our facility. He explained that he would re-organize the office, corpsmen and operative details to my satisfaction and lectured me on procedural matters common to the military. It is the non-commissioned officer ranks that provide for effective performance throughout all services. He requested that I understand not to question his special requests or actions. The NCO ranks share a secret language and provide for the orderly and efficient carrying out of necessary actions.

Shortly thereafter, our office was painted, new signage installed, the corpsmen functioned with smiles on their faces and bickering ended. "Ed" as I called him, was merciless and effective. New patients were added to my daily patient list. All flying personnel were eligible to seek my medical advice, as were their dependents. After "Ed" arrived, I was consulting on non-flying troops, dependents and even some civilian employees. "Ed" bartered our services for special favors.

One morning "Ed" placed a new patient next on my list, explaining that the patient had called for a special physical examination for a new top-secret position. Capt. X arrived with an "attitude" demanding immediate medical clearance for his new role that was so secret that I was not eligible to inquire. "So", I stated, "You're demanding my professional signature under ignorant circumstances". "I'll be sent to Ramstein AFB in Germany, otherwise, which will delay my installation and might cause a national security crisis". I still refused and sent Capt. X out the door to meet my commander to resolved his problem. I called Sam Chunn to inform him of the "crisis".

Within a few minutes appeared my good friend, Lt. Col. Marian Dykes, Base Materials Commander. Marian's daughter, Katerina, had been our babysitter; we knew Marian, Pauline and Katrina very well. I accompanied him to the remote part of our airbase where "special weapons" were housed. We entered one of the bomb revetments that housed thermo-nuclear devices. There was a sergeant with loaded machine gun guarding a single weapon in each bunker. Lt. Col. Dykes was quite specific in his commands. Bob, "the guard sergeant is instructed to kill you if you move any closer to this device". "I will instruct you from a distance". I listened intently. The heavy device was stored on a study platform. It measured

about 5-feet in total length, including guidance instruments stored in the nose cone, flight controlling fins in the aft part and the main fuselage of the thermo-nuclear device. I was shown the control panel on the side, where a key-pad was installed for passwords if needed for war. I didn't move!!! This H-Bomb "package" contained nuclear explosive materials equivalent to 5-megatons of TNT, compared to the first A-Bomb exploded over Hiroshima, Japan, in 1945, that contained an explosive detonation of only 5-kilotons.



Nuclear Arsenal Bunker



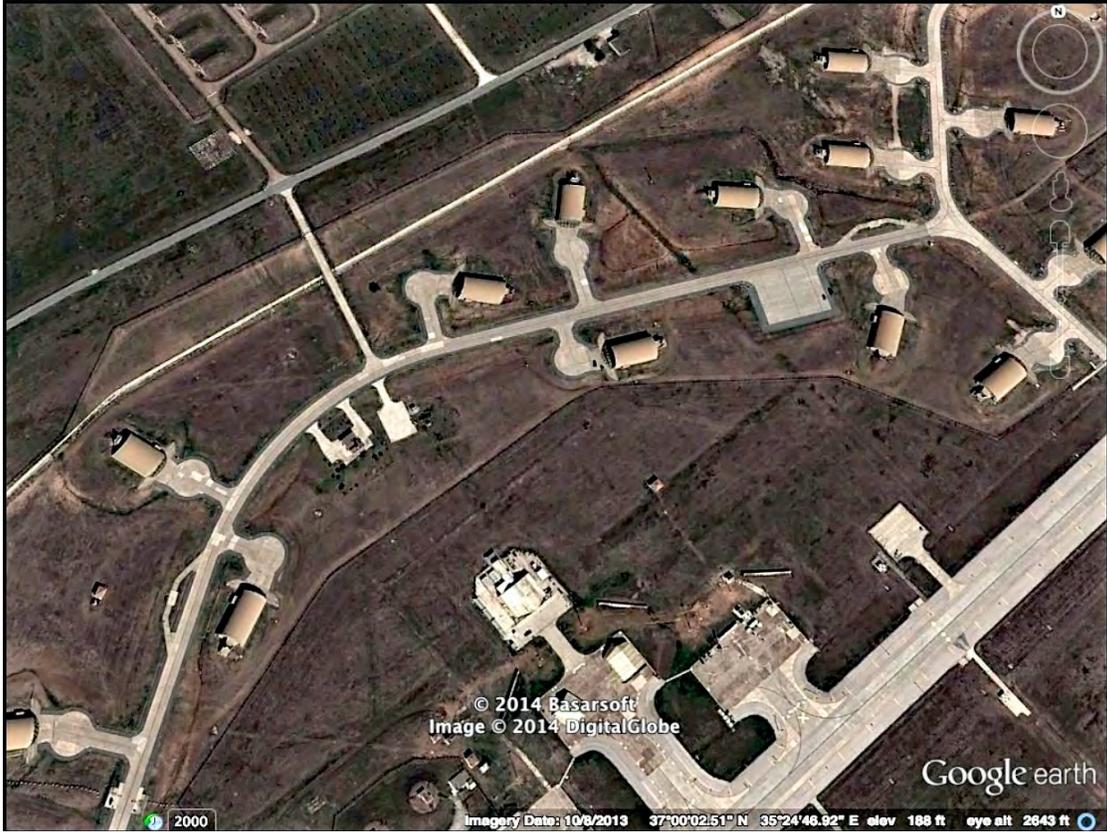
Transporting A Nuclear Weapon



Bomb Standard

We departed the facility knowing that the officer, who demanded the urgent physical, was responsible for the nuclear arsenal. I knew that if even a scratch were placed upon a weapon, why my corpsmen and I might be faced with health risks.

A special armed fighter squadron was placed on alert, fully armed and in a ready-to-launch state at the end of the Inçirlik runway. The crew-ready-housing quarters were constructed adjacent to their aircraft. Emergency practice alarms sounded regularly and at any time of the day or night. Consequently, the crew were sleep-deprived and nervous. On off-duty days, I observed the boisterous crew always at the bar of the officer's club. So, I decided to schedule my mandatory flight requirements with other squadrons.



Secure Weapon's Bunkers



Nuclear Weapon Transported to Inçirlik AFB



Loading Nuclear Weapon Securely Onto Jet Fuselage



Practice Launch

For very sound reasons, military procedures are practiced relentlessly. As a result, there have been occasional “accidents” moving nuclear weapons. Dropping or denting a weapon is called a “broken arrow” that has dire consequences for the crew. Very occasionally a device had been dropped over water from the jet. I remember such an incident publicized in news media when the device fell into the Mediterranean Sea off the coast of Spain. The political result became an International incident that was finally

resolved when the American Ambassador to Spain decided to make a public swim in the sea, downplaying any health risk. The sea was cold; the incident was a politically “hot”.

PostScript

Have you felt the heat from the exhaust of the descriptions about my experiences at Inçirlik AFB? Have you felt the joy of the happiest encounters and events or the grief from the tragedies? I do!

In May 1965, I was sent on temporary duty to Dhahran, Saudi Arabia, to relieve an air force flight surgeon who needed to fly to Europe for health reasons. Our C-130 Hercules flight from Adana to Beirut, Lebanon, proceeded over the Rub' al Khali Desert to Dhahran. The arrival airport was magnificently Islamic yet modern. Our cargo door was opened to the tarmac and noon-time temperature over 130°F. It was intolerable scorching heat. No human should have to endure such abusive weather. This has become my metaphor for recognizing our military threats and the sacrifices endured by our military professionals.



Airport Dhahran, Saudi Arabia



Dhahran Airport Control Tower



Dhahran Jet Fighter Covered Maintenance Covered



Dhahran Jet Fight Squadron Parking Bay

The experiences from my duties as flight surgeon at Inçirlik AFB were remarkable. My commander knowingly exposed me to a wide variety of situations and undreamed responsibilities, which provided me with opportunities for both professional and personal maturation. I was most fortunate to be assigned to Inçirlik, as opposed to other military sites, such as isolated desert bases, remote radar or reconnaissance units, places like deep snowy underground missile launch facilities or in the Navy on 6-month isolated undersea voyages.

We will sleep well and unharmed tonight; we can be assured of our safety because of the sacrifices made by our military.