

T/Sgt. William A. Harrison, ROG, on Ferkin's crew, described his 60 day sojourn as a tour from one Russian prison camp to another, before he arrived at Odessa. There were about 85 American and 2 RAF prisoners in the camp at Kiev. The Americans were from the Eighth and Fifteenth Air Forces. They all were transported on the same British ship to Naples.⁴⁷

MISSION 385, MARCH 24, 1945 BERLIN, GERMANY, DAIMLER BENZ TANK ASSEMBLY PLANT

The heavy bombers of the 8th Air Force had been bombing the capitol city of Germany for more than a year. Berlin was 550 miles from the bases in eastern England, and though a long mission, was well within the range of the B-17s and B-24s and their fighter escort. While thousands of American and British warplanes were operating to the west, the Fifteenth sent nearly 150 B-17s to attack the Daimler Benz Tank Assembly Plant in the suburbs of Berlin.⁴⁸

The 463rd Group led the 5th Wing B-17s. The tank works were judged to be the current most important target within the Fifteenth's range. The plant was assembling heavy and medium tanks which very probably were being sent directly to the eastern front, where the Russians were readying their drive on Berlin. The aiming points were the tank assembly shops. The predicted enemy defenses included: 394 heavy flak guns in the target area; nests of antiaircraft artillery along the way around well-known and oft-visited former targets in Austria, Czechoslovakia and Germany; 40 to 45 Me-262s and 5 to 6 Me-163s available in the target area; and another 250 to 275 Me-109s and FW-190s to supplement the jets if the enemy chose, and had the fuel to launch them.⁴⁹ Given these potential defenses, the German desperation, and the deep penetration, the Group did not take the mauling that might have been expected. Still, one airplane was lost to flak and one to jet fighters — the last loss of the war to enemy aircraft.

Lt. Col. Luther M. Bivins, Deputy Group Commander, led the four-box formation of 26 airplanes. Bivins went to the briefing that morning prepared for anything, he thought, after two straight missions to Ruhland, but he wasn't quite prepared for the line he saw on the target map. What he first thought to be a new bomb line, turned out to be a straight mission line from Amendola to Berlin! It was well over 700 miles and 70 miles beyond Ruhland. Starting the mission, Bivins was preoccupied about fuel, but the winds were favorable as they had been for the last two days. The mission started well. The weather over the Alps was clear and continued that way to the target. The escort was visible in abundance. The mission's tranquil pattern was broken as flak started coming up in globs around Ruhland. Bivins surmised that the heavy guns had become more concentrated as the Germans pulled back from the advancing Russians. The Group took the prescribed evasive action, including use of the group ahead to run interference. By the time the formation reached the IP, dogfights were in full force ahead, and the flak came mushrooming up.⁵⁰

Eighteen airplanes were damaged, 16 mi-



A close encounter of the worst kind. A German ME-410 pays a visit. In the last two aerial combat victories of WWII, S/Sgt. Benjamin W. Probst shot down a ME-410, and S/Sgt. Kenneth E. Alles, shot down an Me-110, on the Berlin raid March 24, 1945. See Appendix 18. (Courtesy of M. Caruthers)



The Daimler Benz Tank Assembly Plant. The Group's only mission to Berlin, number 385, March 24, 1945. The oval in the center was a proving track. (Group Photo)

nor and 2 severely. Ten to twelve Me-262s and one Me-109 pounced on the formation, using the sun and the bomber formation vapor trails to conceal their approaches. Disdainful of their own flak, the Luftwaffe pilots flew into it to press the attack as the formation approached the target. The fighters attacked primarily the "C" box, coming in firing tracers, 20mm cannons, and at least one, firing rockets, and closing brazenly to within 20 yards. The attack lasted approximately ten minutes before the P-51 escort en-

gaged them, but by then the attackers had maimed one B-17. Another group of enemy fighters, using the same tactics, and pressing to within 150 yards, tried, unsuccessfully, to quickly smother the "D" box. The foray lasted only a few minutes before the fighters abruptly broke off just before bombs away. In addition to the one airplane shot down, the Luftwaffe inflicted only minor damage on two other planes. Fortress gunners destroyed one Me-109, one Me-410, and claimed one probable Me-262.⁵¹

The Group may have been the lucky beneficiary of the Luftwaffe's decision to concentrate more heavily on other formations. The 463rd Bomb Group lost six crews to flak and fighters, and sixteen more, unable to return to base, landed at friendly fields in Yugoslavia and Italy.⁵²

The target was clear except for the disturbance from earlier bombing. The Group made only one run as lead bombardier, Capt. William S. Kerns, sighted in on the target. The bombing results were not all that the Group hoped for after such a long and grueling effort. There were some hits on the assigned target, but the majority of bombs impacted slightly left and short, yet still within the target perimeters. The results of the total 5th Wing effort were more gratifying. There was a good concentration of bombs throughout the target area causing moderate to heavy damage. Only a comparatively small percentage of bombs fell outside the target boundary. The Daimler Benz Plant was left 70 to 80% destroyed.⁵³

As soon as the bombs cleared, Bivins made a sharp rally turn, wasting no time in getting out of the area. He resumed the evasive action, changing headings and altitudes in a random pattern, and after forty-five minutes the formation finally ran out of the flak. The rest of the trip home was comparatively uneventful.

Twentieth Squadron airplane 44-6718, piloted by 1st Lt. Robert W. Tappan, was among those in the "C" box attacked by fighters. One observer reported that Tappan left the formation after being attacked by an Me-262 that shot out a turbo. Another observed an Me-262 spray the fuselage and bomb bay doors of Tappan's plane with 20mm cannon fire. The weakened Fortress lost speed and altitude, and fell behind the Squadron with smoke coming out of the tail. Two chutes appeared before the observer lost sight of the airplane. According to surviving crew members, nine men were known to bail out and survive as POWs. They do not know precisely what happened to Cpl. Irving M. Chary, RWG. There are three varying reports from among the crew members, none conclusive, as to Chary's fate — not an unusual phenomena given the confusion and excitement of a combat, in-flight emergency. One report had Chary bailing out first and never seen or heard from again by the crew. Another had him wounded, and possibly passed out without oxygen and going down with the airplane. The plane was seen to explode once in the air and again upon hitting the ground. The third report, and the one supported by Lt. Tappan, is that Cpl. Chary was uninjured and was seen returning through the waist from the jettisoned waist door as others bailed out, supposedly to get his chest pack parachute, which he had forgotten in the excitement of the emergency. This delay caused him to perished with the airplane. It is known that Cpl. Chary did not survive. It is also known that he switched from his upper turret position to the right waist gunner position with Cpl. William J. Kralich for this mission. The plane crashed near Jutrbog, Germany.⁵⁴

2nd Lt. Richard (NMI) Rapelyea, in airplane number 44-8162, 429th Squadron, feathered his number 2 engine shortly after leaving the target. Two observers heard Rapelyea call the for-

mation leader on VHF and say that he had lost one engine, was having trouble with another, and could not keep up. He said he was going to head for an emergency field in Russia. Returning crew members stated that the airplane's flight controls had been shot out and the crew bailed out over the German-Russian front near Romana, Hungary. They were shot at by both sides as they came down in their chutes and after they were on the ground. Two crew members, S/Sgt. Marvin J. Steinfeld, the toggeler, and Cpl. Melvin L. Rowe, UTG, both of whom were uninjured and known to bail out safely, did not survive. They are believed to have been killed by the small arms fire as they descended or after they reached the ground.⁵⁵

In his debriefing after the mission, Lt. Col. Bivins expressed pride in the way the Group performed and was grateful for the job the escort did. He said he didn't get to see as much of Berlin as he hoped, there was just too much going on for sightseeing. He felt good about the opportunity to lead the Group on the longest operational formation flight ever flown in the European theater of operations. Years later, in a more reflective mood, and with the benefit of hindsight, Bivins questioned the need for the Berlin mission.⁵⁶ The war was essentially over, he observed. He likened the effect the mission had in hastening the end of the war to that of a tear in a bucket of water. It was in that context that he lamented the downing of the two crews.

MISSION 386, MARCH 25, 1945 PRAGUE/KBELY, CZECHOSLOVAKIA AIRDROMES

These were two adjoining airdromes northeast of Prague. Reconnaissance on March 23 disclosed 203 airplanes on the fields, including 90 single engine fighters, 68 Me-109s and 20 Ju-88s. The fields were strategically located in relation to the German-Russian front.⁵⁷ The area had seldom been touched by Allied strategic air forces. This date it served to be the last real strategic mission of the war by the Fifteenth Air Force.⁵⁸ The 2nd dropped 1,026 fragmentation bomb clusters from 27 airplanes on the Kbelly airdrome and came away unscathed as many fires erupted on the field.⁵⁹

From this date until the end of the war, the Group was cast in the tactical role in support of the ground force's push to final victory. Germany's strategic resources — oil and its war production capacity — had been overrun, destroyed or damaged beyond recovery. The final task was to destroy or conquer the last vestiges of the Nazi forces in being. Except for one mission to an airdrome, the Group's last 26 missions were devoted to transportation, stores of military goods and troop concentrations.

MISSION 387, MARCH 26, 1945 WIENER NEUSTADT, AUSTRIA MARSHALLING YARDS

These yards were on the rail line carrying traffic between Vienna and northern Italy. They also carried traffic from these same two points to northern Yugoslavia through Maribor and Ljubljana. On March 21 there were 500 to 600

cars on the sorting sidings and 300 more in the station yard. A successful attack would have a decided beneficial effect on the Russian army's drive on the German southeastern front. The Group attacked the yards with 1,100x 100 general purpose bombs with excellent concentration in the target area.

MISSION 388, MARCH 30, 1945 GRAZ, AUSTRIA, MARSHALLING YARDS

This small, four-ship Pathfinder mission was briefed to attack the North Station Goods Depot at Vienna, but two planes aborted, and the other two elected, as they were authorized to do, not to bomb the primary because of insufficient cloud cover for defense. They bombed the Graz yards by radar with no observable results. Of the two planes that aborted, one jettisoned its bombs in the Adriatic, and the other returned bombs to base.⁶⁰

MISSION 389, MARCH 31, 1945 LINZ, AUSTRIA, MAIN STATION

Twenty-six B-17s of the Group bombed by radar through broken clouds. All bombs fell within the city. The flak was inaccurate and there were no fighters.⁶¹

Endnotes:

- ¹ Craven & Cate 742
- ² Mission Report
- ³ 96th Squadron History, microfilm no. A0573, fr. 744
- ⁴ Mission Report
- ⁵ Ibid
- ⁶ Ibid
- ⁷ 20th Squadron History, microfilm no. A0542, fr. 1606
- ⁸ Mission Report
- ⁹ Canavan Group History, March 1945
- ¹⁰ Craven & Cate, 742, 743
- ¹¹ Mission Report
- ¹² Ibid
- ¹³ Craven & Cate, 743
- ¹⁴ Mission Report
- ¹⁵ Richards Missing Crew Report
- ¹⁶ Ibid
- ¹⁷ Rust, 43
- ¹⁸ Mission Report
- ¹⁹ Mission Report — Interrogations of 1st Lt. J. J. Stravers and Crew, by Capt. William Fitcher, Intelligence Officer, and Capt. Russell H. Bradshaw, Interviewing Officer.
- ²⁰ Ibid, Lt. J. W. Collens and Crew Interrogation
- ²¹ Ibid, Lt. P. Good and Crew Interrogation
- ²² Craven & Cate, 745
- ²³ Canavan Group History, April 1945; Col. Richard R. Waugh letter, April 21, 1945 to Commanding General, U.S. Military Mission, Moscow.
- ²⁴ Second Bombardment Group, Individual Record Combat Crew Members
- ²⁵ Mission Report
- ²⁶ Ibid
- ²⁷ Ibid
- ²⁸ Craven & Cate, 745
- ²⁹ Mission Report, Intelligence Annex to Operations Order No. 71A, March 15, 1945; Intelligence Annex, March 22, 1945
- ³⁰ Canavan Group History, March 1945, Maj. John C. Reardon mission account
- ³¹ Mission Report; Canavan Group History for March 1945
- ³² Craven & Cate, 745
- ³³ Mission Report
- ³⁴ Rust, 43
- ³⁵ Mission Report

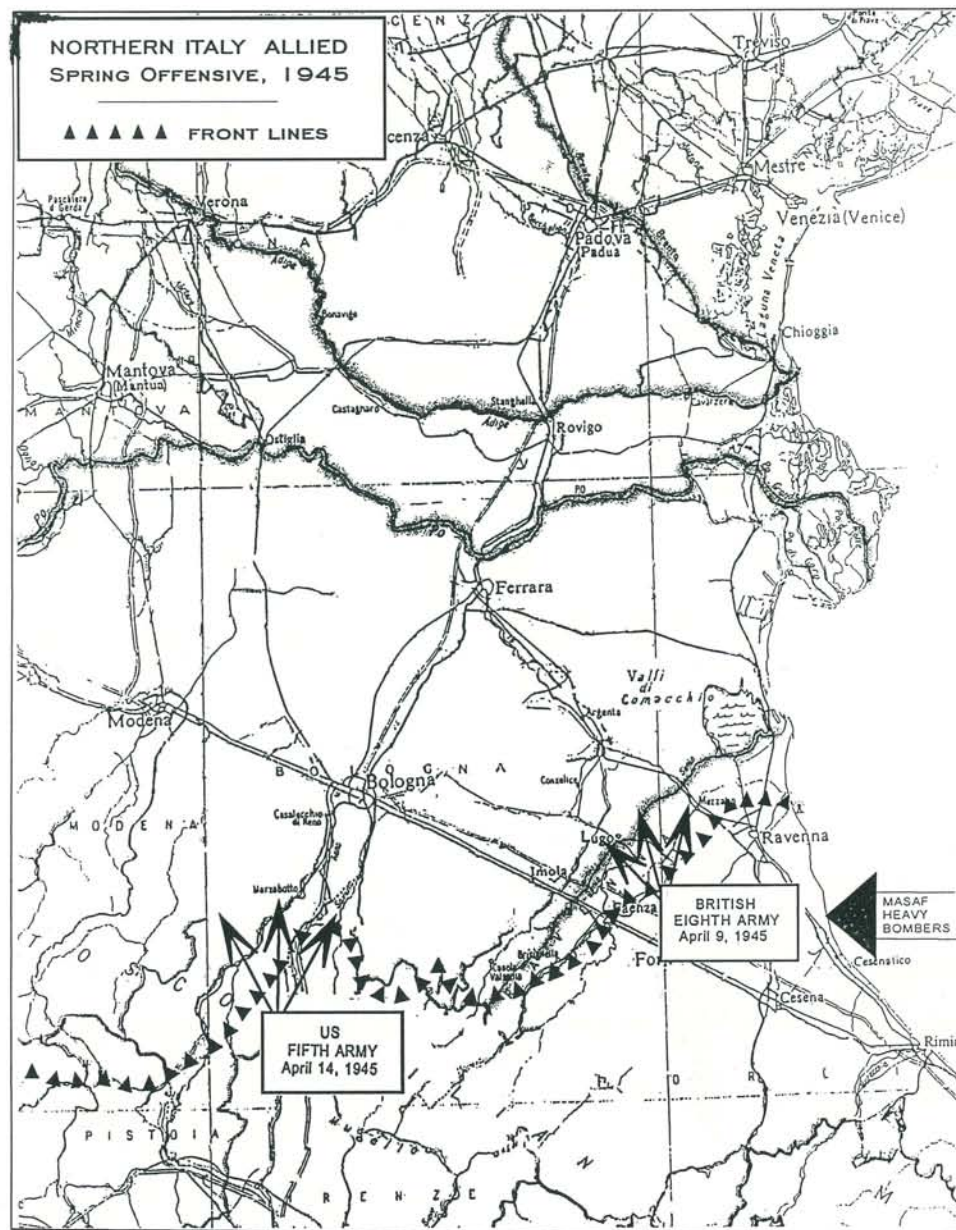
- ³⁶ Richards Missing Crew Report
³⁷ Mission Report
³⁸ Canavan Group History, microfilm reel B0042, frs. 0227-0229
³⁹ 429th Squadron History for February 1945
⁴⁰ Mission Report
⁴¹ Richard H. Benjamin, personal account, April 7, 1994
⁴² Ibid
⁴³ Supplemental Mission Report
⁴⁴ Mission Report, Interrogation of 2nd Lt. W. O. Landers and Crew
⁴⁵ Craven & Cate 745
⁴⁶ Mission Report
⁴⁷ Richards Missing Crew Report
⁴⁸ Craven & Cate, 745, 746
⁴⁹ Mission Report, Intelligence Annex to Operations Order No. 80A, March 24, 1945
⁵⁰ Mission Report and debriefing
⁵¹ Ibid
⁵² Canavan Group History for March 1945
⁵³ Mission Report
⁵⁴ Richards Missing Crew Report
⁵⁵ Ibid
⁵⁶ Mission Report and debriefing
⁵⁷ Mission Report, Intelligence Annex to Operation Order
⁵⁸ Craven & Cate, 746
⁵⁹ Mission Report
⁶⁰ Ibid
⁶¹ Ibid

APRIL-MAY 1945

The 2nd's efforts in the 22 missions flown in April were dedicated largely to support of the final ground offensive in northern Italy. The concentration on Italian targets was only briefly interrupted by three missions in support of the Russian offensive on the southeastern front, and one mission to southern Germany.

In mid-October 1944, the Mediterranean strategic air forces had thrown their weight behind an on-going tactical air campaign that was then committed to supporting a breakthrough of the German lines at Bologna by the Fifth Army. While the air assault was eminently successful, the Fifth Army, weakened by forces withdrawn for the invasion of Southern France, was unable to take Bologna. With winter coming on, the Allied ground strategy was changed. The armies were to assume a defensive role, withdraw as many troops as possible from the front lines for rest, accumulate ammunition and stocks and reorganize for renewal of the offensive in the spring. There was little ground activity for three months.¹

In the meantime, the mission of the Mediterranean command remained the same — to destroy or contain Kesselring's forces in Italy. In the absence of a ground offensive, this role fell largely to the air forces. They endeavored to starve enemy forces remaining in Italy and prevent the escape of those that tried to leave.² The air attention was focused on the northern lines of communication in and out of Italy, particularly the Brenner Pass and the Tarvisio and Piedicolle rail lines. Roads and railroads across the rivers in northern Italy also received special attention. Periodically the strategic air forces, including the 2nd Bomb Group, had been sent after these tactical targets to meet a particular need or as alternates and substitutes for strategic targets that were weather-bound. But Italian targets were last on strategic's priority list, and



those attacked, up to April, were as specified by MATAF.³

Planning for the final offensive of the war in Italy began in March 1945. Basically the plan was a resumption of the strategy attempted in the fall. The Eighth Army would push forward on the right flank along the Adriatic side of the peninsula, followed by the Fifth renewing its drive on Bologna. By staggering the drives, each of the armies could be given maximum air support. The air plan was quite simple. MATAF was to give maximum support directly to the ground troops during the initial stages of the offensive. Thereafter, the primary task was to maintain the isolation of Italy — deny the enemy supply and reinforcement, or a chance to exit. The operation code name was WOWSER, and the spring offensive D-day was April 9. The timing was ideal to assure the maximum air support. The absence of strategic targets and General Spaatz's declaration on April 16 that the Combined Bomber Offensive was over, and that the mission of U. S. Strategic Air Forces in Europe was now, "direct assistance to the land campaign," meant that MASAF was free to lend its

considerable air power to WOWSER. MASAF, and the 2nd Bomb Group, were already set on that course, having flown the last strategic mission on March 25. The nature of the air offensive to the end of the war was now set.⁴ Before the air plan was completed and the offensive started, there was a change in MAAF commanders. On March 24, Gen. Eaker turned over command to Gen. Cannon, and left for Washington to become deputy commander of the Army Air Forces and Chief of Staff.⁵

MISSION 390, APRIL 1, 1945 MARIBOR, YUGOSLAVIA RAILROAD BRIDGE

This April Fool's Day raid did not meet expectations. The bridge had been a Group target before, but this day it was covered by clouds, and although the formation made four bombing runs, only one box of six planes was able to see the target enough to bomb it. Twenty-two crews returned their bombs to Amendola. Spending extra time over a target frequently had its consequences. 2nd Lt. Richard S. Wood, CP, 429th

Squadron, was killed by flak, four others, all from the 429th, were slightly wounded, and one crewman experienced a case of frostbite. 1st Lt. Walter B. Cope, and crew, also of the 429th Squadron, were raked by flak over the target that knocked out engines 1, 3 and 4. Lt. Cope was among the four that were wounded. The crew dropped their bombs over the target and were able to stay aloft for the 50-odd minutes it took them to reach Prakos Airdrome, Yugoslavia, for an emergency landing in friendly territory. The crew was returned to the base that evening by C-4.⁶

MISSION 391, APRIL 2, 1945

GRAZ, AUSTRIA
MARSHALLING YARDS

Four boxes of seven planes each bombed the marshalling yards in clear weather with very good results. The 500 pound RDX bombs were placed well within the target area. One box dropped on the first run, but another group got in the way and the other three boxes had to make another run. The mission and results were timely. Intelligence reported heavy traffic activity in the yards before the raid.⁷

MISSION 392, APRIL 5, 1945

UDINE, ITALY, AIRDROME

The Udine area had been a hornet's nest of enemy fighters all during the time the 2nd had flown to targets in northern Italy, Austria, Germany, and Hungary. Even at this late date in the war, the fighters there required the attention of the heavy bombers. The twenty-eight planes over the target dropped 1,045 fragmentation bomb clusters of 120 pounds each. Clear skies helped to assure good patterns of bombs across the assigned target area.⁸

MISSION 393, APRIL 6, 1945

VERONA-PARONA, ITALY
RAILROAD BRIDGE

Bomber crew claims of being able to put a bomb down a pickle barrel from 25,000 feet were more fantasy than fact. The high altitude, heavy bomber was not well suited to precision bombing of pin-point targets. The bombing process involved too many variables and random, uncontrollable factors to achieve consistent, precision bombing. It was true, however, that pattern bombing of area targets, such as airdromes, marshalling yards, and industrial complexes improved substantially in the later stages of the war. It was also true that the probability of success in precision bombing of small targets was enhanced by the sheer weight of the number of airplanes and bombs involved.

This was the Group's third visit to the Verona-Parona bridge. On the first trip, February 28, the bridge was untouched. On the second, March 10, the bridge was severely damaged, but still hadn't been "dropped in the river," and it wouldn't be dropped on this mission. The best that the 25 airplanes on this mission could claim was possible near misses. The two prevalent MPIs were to the right and left of the target.⁹

MISSION 394, APRIL 7, 1945

BRESSANONE, ITALY, RAILROAD
BRIDGE & PROTECTING FLAK
POSITIONS

MISSION 395, APRIL 8, 1945

BRESSANONE, ITALY, RAILROAD
BRIDGE & PROTECTING FLAK
POSITIONS

This was one of several bridges on the Brenner Pass system. Damage or destruction would create another gap in the enemy's tenuous link to vital supplies and reinforcements from Germany, or add an impediment to exit or escape. Bressanone was approximately half way between Bolzano and the Pass. On the first mission, a major Group force of 43 crews ended a frustrating day by bringing their bombs home when weather thwarted their search for the target and the alternates.

The next day there were no clouds or smoke at the target. Twenty-eight crews loosed six 1,000-pound bombs each at 12:02 P.M., from 25,200 feet. Strike photos by the last box over the target showed the bridge was down. Both missions were unopposed except for moderate, inaccurate flak the second day.¹⁰

MISSION 396, APRIL 9, 1945

BOLOGNA, ITALY, AREA
"APRICOT" ENEMY POSITIONS
MISSION 397, APRIL 10, 1945
BOLOGNA, ITALY, AREA
"CHARLIE" ENEMY POSITIONS

The final battle for Italy began April 9 with the British Eighth Army offensive to establish a bridgehead across the Senio River southeast of Bologna. As a prelude to the drive, the Eighth looked to the air forces to isolate the battle field, knock out the big guns opposing the point of attack, and blast a hole in the opposing enemy positions through which the Eighth troops could sweep. The Fifteenth's heavies were given the latter two tasks.

The center of area "Apricot" was approximately 2 miles ahead of the British front lines. Stringent precautions were taken against error. A navigation system was carefully mapped out to assure target identification. Visual ground markers and smoke pots were strung out along the front. Radio contact with the ground was maintained throughout. The bombers were to open their bomb bay doors over water going in and have them closed before passing over friendly forces on withdrawal. Target times and bombing altitudes were unusually precise — times: 1:44 to 1:52 hours and altitudes: 18,940 to 19,010 feet. There was to be no bombing after 3:20, the Eighth's H-hour.

Shortly after mid-day on April 9, the 2nd's 41 aircraft were part of the bomber armada flying north up the Adriatic, seemingly on one of its many missions to a distant target. Upon reaching Cesenatico (half way between Rimini and Ravenna), the formation wheeled westward and started the

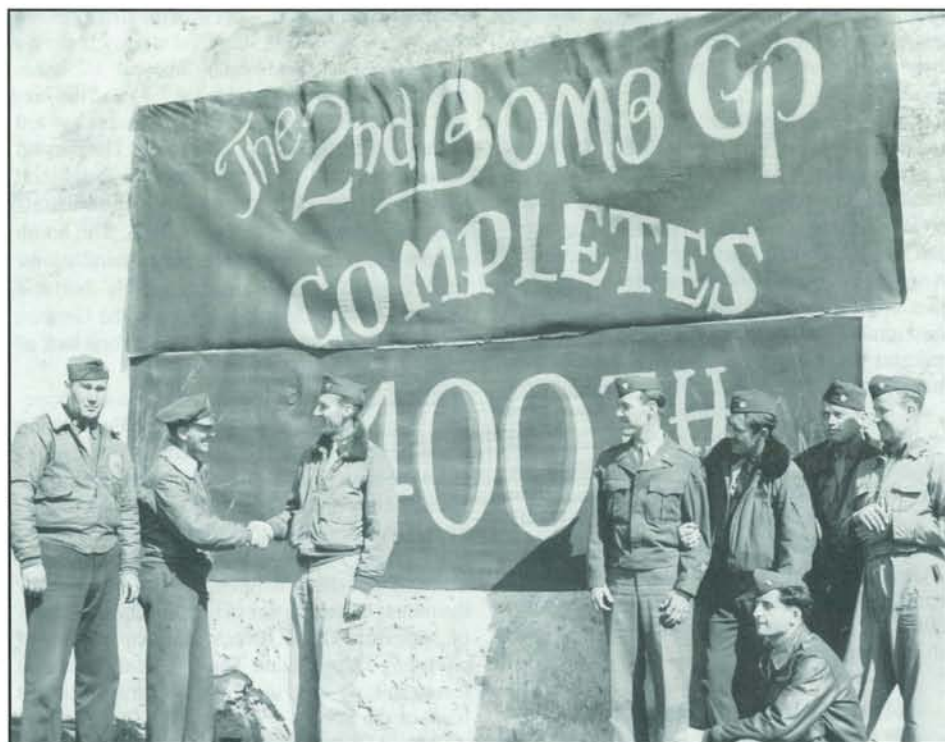
first of two days of saturation bombing of enemy field positions. The first day's ordnance rained down on guns and troop positions across the Senio River. The second day, the big bombers went after enemy guns, troop positions and crossing sites on the Santerno River. The 2nd's specific target was designated as "Charlie" area. The Group used fragmentation bombs to neutralize heavy, medium and anti-tank gun positions, machine gun nests and infantry defense networks.¹¹ Over the two day period, 1,673 heavy bombers wreaked havoc, unchallenged, on enemy positions. The estimated 180 enemy heavy guns, which the British feared might hold up the advance, were largely silenced. Following the air assault, elements of the Eighth crossed the Senio against light resistance and started pushing northwestward. By the next day they had taken Lugo. By September 13, they had crossed the Sillaro River east of Bologna, and to the north troops were moving through the Agenta Gap toward Ferrara.¹²

The 2nd experienced only nominal flak opposition both days that slightly wounded one man. On mission 397, April 10, Lt. F. Marsh, 49th Squadron, in airplane number 44-6416, had mechanical failure of two engines. During an emergency landing at Iesi Airdrome, a tire came off one of the main wheels and the airplane went into a six-foot ditch at the end of the runway causing major damage. The crew had salvaged the bombs before the landing. They returned to the base that same day on another airplane. Their plane was salvaged.¹³

MISSION 398, APRIL 11, 1945

PADUA, ITALY
NORTH RAILROAD BRIDGE

While other heavies were attacking along the Brenner Pass rail lines, the 2nd was sent to Padua to interdict a rail line that linked both the Brenner and the Italian northern coastal networks. The Group attacked with twenty-eight airplanes and made some probable hits and near misses on the target. Flak caused minor damage to four airplanes and severely damaged two. One of those two was airplane number 44-8108, pilot 2nd Lt. C. E. Underwood and crew from the 429th Squadron. The first burst of flak came before bombs away and made it necessary to feather the number 1 engine. Two more bursts at bombs-away time hit the number 3 engine and near the radio room-bomb bay area. Then the number four turbo was shot out, the gas lines near the number 4 engine were severed, and the engine had to be feathered. Finally, the number 3 engine caught fire. The crew was still over enemy lines. Underwood ordered the crew to jettison all the equipment. He checked with 2nd Lt. T. M. Hyndman, the navigator, and when they were over friendly territory, Underwood ordered the crew to bail out. Underwood chose to stay with the airplane and made a crash landing north of Florence, Italy. The airplane was wrecked, but Underwood was not injured. The left waist gunner, S/Sgt. W. D. Schultz, broke his ankle in the bailout and was hospitalized at the 18th Evacuation Hospital, otherwise, the crew was uninjured.¹⁴



A Great Day! Lt. Col. Bivins, left; Col. Cullen, third from left. (Group Photo)



The 400th mission was flown April 15, 1945. A long time coming, it was a milestone worthy of celebration. (Group Photo)

MISSION 399, APRIL 12, 1945 MALCONTENTA, ITALY AMMUNITION FILLING STATION

The crews were briefed for a mission that offered prospects for a huge display of pyrotechnics at Malcontenta, just west of Venice. The show was cancelled when the formation couldn't penetrate the weather, and all bombs were returned to base.¹⁵

MISSION 400, APRIL 15, 1945 NERVES, ITALY DIVERSION RAILROAD BRIDGE PONTE DI PIAVE, ITALY RAILROAD BRIDGE

The 400th mission was numerically significant but not militarily noteworthy.

This was a double mission day, and the Group put 60 airplanes in the air, 18 on one raid and 42 on the other, with only 1 early return. By the quirk of chronology, the smaller formation took off at 7:40 on the 400th mission, and the larger force departed at 8:50 on the 401st mission.

The 18 planes in the Blue Force found the Diversion Bridge smoke-covered from a prior raid and only 6 airplanes dropped bombs, which fell to the right of the target. The remaining two boxes bombed the alternate at Ponte Di Piave with no greater success. Their bombs were beyond and to the left of the target.¹⁶

MISSION 401, APRIL 15, 1945 BOLOGNA, ITALY, AREA MA-16, GERMAN TROOP CONCENTRATIONS **MISSION 402, APRIL 16, 1945** BOLOGNA, ITALY, AREA MA-7, GERMAN TROOP CONCENTRATIONS **MISSION 403, APRIL 17, 1945** BOLOGNA, ITALY, AREA MA-19, GERMAN TROOP CONCENTRATIONS **MISSION 404, APRIL 18, 1945** BOLOGNA, ITALY, AREA MA-19, GERMAN TROOP CONCENTRATIONS

Gen. Clark had set April 12 for the start of the Fifth Army's spring offensive, with its re-

newed drive on Bologna. Bad flying weather caused him to postpone it until April 14 when one corps was to launch an attack preliminary to the main effort, the latter to start on April 15. As was planned for the air offensive, MAAF's effort now shifted to the Fifth Army front.¹⁷

Nineteen pin-point targets were mapped out south of Bologna for heavy bombardment in front of the Fifth Army advance.¹⁸ April 15 marked the beginning of the most sustained heavy bomber close air support of a ground campaign ever undertaken in the Mediterranean. Only two days of operation were called for, but MASAF devoted four days to the effort. Bomber unit commanders out-did themselves to put planes in the air. Some even going to the extent of re-equipping airplanes that had been stripped for other duty. On that first day, 850 B-17s and B-24s dropped 24,760 bombs on the 19 targets south of Bologna. Another force of Fortresses and Liberators attacked rail and munitions stores in northern Italy, bringing the total bombs dropped by the heavies to 27,978. The heavy bomber assault was augmented by raids from 1,600 mediums, fighter-bombers and fighters.

The Fifteenth's effort that day was historic. It was able to dispatch 93% of all operational aircraft. Gen. Spaatz wired congratulations to Gen. Twining on the "outstanding record of bombers and fighters dispatched from those assigned is unsurpassed in the annals of U.S. Air Force activity."¹⁹

Over the period from April 15 to April 18, a total of 2,053, heavy bombers struck a variety of targets between the Fifth Army lines and Bologna.²⁰ It was a remarkable feat of planning, coordination and airmanship that so many high-altitude, heavy bombers operated in a relatively small airspace, against a confined area of targets close to Allied front lines, without an unfortunate incident or miscalculation that involved the lives of Allied troops. The air plans were carefully crafted with routes, times, checkpoints and altitudes and reinforced with "dos", "don'ts", and cautions. In part, the air plans provided: "... Planned visual mission, PFF for navigation only. Bombing by squadrons in trail. All bomb bay doors will be opened over water before IP, and will be closed before passing over friendly troops on the withdrawal. Target will be positively identified before release of bombs - it is desirable to return bombs to base than have friendly troops endangered. There will be no second pass and no alternate targets will be bombed. Beginning two minutes before bombs away each bombardier will call on inter-phone, each 15 seconds, his estimate of the number of seconds remaining before bombs away. Pilots and navigators will cross check the estimate to safeguard against gross error. VHF forward radio control will be set up for emergency cancellation of bomber attack. Channel A will be monitored. . ."²¹ These plans and precautions made for safety and success.

On the first day, the 2nd put up 42 airplanes and 41 succeeded in bombing the target with good coverage. Reconnaissance confirmed that the first day's results ranged from good to excellent.²²

The second day, April 16, the Group again launched 42 planes, but for naught, when cloud cover forced a mission abort. One airplane, 44-

6627, 96th Squadron, pilot Lt. Woodrow W. Abbott, returned early and after landing, the gear collapsed. Damage was sufficient to warrant salvaging the airplane.²³

The third day, April 17, the Group attacked its target, in clear weather, with two waves, totalling 41 airplanes. The first wave did an excellent job. The second wave results were fair.²⁴

On the fourth and final day of these close air support assaults, the Group was again able to put 41 airplanes over its target. Accuracy and coverage were fair.²⁵

With complete air supremacy, Allied air forces pounded enemy positions and lines of communication around the clock. So aided, the Fifth Army was able to move steadily toward its objective. By April 20, it had taken Casalecchio, and two other points, Gessi and Riale, just west of Bologna. The Eighth was just to the east and threatening Ferrara to the north. Caught in the pincers between the two armies, the Germans had no alternative but to withdraw, and on April 20 started a general pull back to the Po River to the north. It was now necessary to assure that all avenues of escape were blocked. The rail lines to the north had been decimated. The bridges were down across the Po, so the next priority was the bridges across the Adige and Brenta rivers to the north and northeast of the Po.²⁶

In the meantime, the 2nd was dispatched to a deeper interdiction target in Austria.

MISSION 405, APRIL 19, 1945

RATTENBERG, AUSTRIA RAILROAD BRIDGE

This bridge was on the rail line north of the Brenner Pass. The 2nd achieved an excellent bomb pattern on the target, with probable direct hits on the bridge and the approaches. Twenty-nine airplanes bombed the primary target at Rattenberg, but not all boxes were able to see the target well enough through the clouds and smoke to bomb. One box of seven crews bombed the marshalling yards at Rosenheim, Germany, and another box of six airplanes bombed the marshalling yards at Linz, Austria. Clouds concealed the bomb strikes at Rosenheim, but smoke was observed rising from the yards. Direct bomb strikes were observed on the Linz yards.²⁷

MISSION 406, APRIL 20, 1945

VIPITENO, ITALY MARSHALLING YARDS

The target was just south of the Brenner Pass. Forty-two airplanes took off, and forty bombed the target with very good results. Reconnaissance photos confirmed that the weight of the attack fell across the central and southeast portions of the yard cutting all through-lines in several places, and inflicting heavy damage to trackage. Seventy to seventy-five units of rolling stock were destroyed or heavily damaged. The yard was declared 100 percent temporarily unserviceable. Both waves were met with flak before and after target time. Ten airplanes received minor damage and three severe damage. One man was slightly wounded, and two, 1st. Lt. Harmon

Dooha, N, 96th Squadron and S/Sgt. William Spaulding, toggeler, 20th Squadron, were seriously injured. And one crew was blown out of the sky.

The last crew lost in combat in World War II was that of 1st Lt. Tommy N. Baer pilot in airplane number 44-6374, "Tough Titty," 49th Squadron. The plane was hit by flak on the bomb run and lost engines number 1 and 2. The bomb load was jettisoned, a few seconds later the left wing was blown off and the airplane exploded. Baer, copilot 1st Lt. Carleton S. Smith, and left waist gunner S/Sgt. Robert E. Blazer, were blown free and parachuted safely. Lt. Baer was later interrogated at Fifteenth Air Force Headquarters. It was his belief that the other seven members of the crew went down with the airplane. They were the Group's last aerial combat casualties of the war: F/O Donald L. Gawronski, N; S/Sgt. Ivan L. Schraeder, toggeler; S/Sgt. Patrick (NMI) Shaughnessy, UTG; S/Sgt. Orval L. Burman, LTG; S/Sgt. John H. Dunston, RWG; Cpl. Joseph T. Hart, TG; and S/Sgt. Hugh A. Stevenson, ROG. Lt. Smith and S/Sgt. Blazer were hospitalized with injuries.²⁸

MISSION 407, APRIL 21, 1945

ROSENHEIM, GERMANY MARSHALLING YARDS SPITTAL, AUSTRIA, MARSHALLING YARDS

Rosenheim, across the border from Austria, in deep southern Germany, was on the rail line going through Innsbruck and over the Brenner Pass. With the Brenner Pass rail system in shambles, supplies for the beleaguered German forces in northern Italy were blocked behind the severed rail lines and downed bridges. The Group took 27 airplanes to the target, but weather interfered with optimum results. There was 7/10s cloud cover at Rosenheim and only one box bombed visually without seeing the results. The other three boxes bombed a clear target of opportunity, the marshalling yards at Spittal, Austria. The reconnaissance report of results at Rosenheim state there were direct hits on rolling stock and a warehouse, and probable hits on the station and train sheds. Several main and siding tracks were damaged. For Spittal there were reported direct hits on one end of the station, on a large freight warehouse, and on other small warehouses. Several of the main and siding tracks were severed or blocked, and a few units of rolling stock damaged and destroyed. The Group bombed from the 17,000 to 20,000 foot levels without any opposition.²⁹

MISSION 408, APRIL 23, 1945

BONAVIGO, ITALY, ROAD BRIDGE PESCHIERA, ITALY, SUPPLY DUMP

As the Germans scampered to the Po River on April 20, the Allies sought to stop further retreat to defensive positions to the north, by knocking out the remaining bridges over the Adige and Brenta rivers. MASAF was assigned these targets and on April 21 and 23, its heavy bombers knocked down eight of the nine bridges over the Adige

River.³⁰ To help assure success of the strike against the Bonavigo bridge, the 2nd dispatched two waves of 21 airplanes each, about 1 1/2 hours apart. The first wave departed at 7:35 and the second at 9:00. By the time the second wave arrived at the target, the bridge was down. The second wave proceeded to the alternate at Peschiera, which was half way between Brescia and Verona near the southern tip of Lake Garda. The bomb pattern of one box struck the dump installations, while those of the other two boxes were short and to the right. The desperate plight of the German forces in the area was evident by the total lack of defenses against these raids.³¹

By April 23, the German situation was hopeless. The permanent crossings of the Po had long since been destroyed. The German attempts to cross the river by ferries and pontoon boats were hounded day and night by the tactical air forces. Their main forces were largely confined to the plains of the Po valley, with its gutted roads and absence of natural defenses. They had neither the means to escape nor to hold off the onslaught of superior Allied forces, and the incessant pounding from the air. The fate of the German forces in Italy was, in effect, sealed at the south bank of the Po.

Major German resistance had evaporated by the 25th — the Eighth Army having crushed the hard core of the German 10th Army against the Po. The Allies now were able to roam throughout Northern Italy at will.

MISSION 409, APRIL 24, 1945

MALBORGHETTO, ITALY, BRIDGE

Malborghetto is in far northeast Italy near the Austrian border. It was on the rail line that ran from Italy to Klagenfurt, Austria and on to Vienna. This was the last completed bombing mission to an Italian target. The Group again mounted two waves, with staggered take off times, to enhance mission success. Two boxes from the first wave and one box from the second wave bombed the bridge visually through 7/10 to 9/10 cloud cover. Part of the results could not be observed, and those results that could be seen were reported to be good. Three airplanes from the first wave attacked the Casarsa, Italy railroad bridge with excellent results. Three planes from the second wave chose to bomb the Arnoldstein, Italy railroad bridge and recorded near misses. Nineteen airplanes aborted because of weather and brought their bombs back to base.³²

MISSION 410, APRIL 25, 1945

LINZ, AUSTRIA MAIN STATION SIDING

This familiar target city was bombed for the last time. The Group attacked with 26 airplanes, using a combination of visual and radar methods, with poor results. The bomb patterns were short and to the right and left of the target. Crews were shot at for the first time in four missions. Even though the formation bombed from 28,000 to 29,000 feet, the enemy flak gunners were still very competent. Four men from the 20th Squadron were slightly wounded, and one from the 429th suffered anoxia.³³



A scene oft repeated -- going to the target in a disciplined formation and hoping for the best. (Courtesy of L. Moore)



Center, Lt. John G. "Jerry" Hofmann with friends in Amendola officer's club, summer 1944. Far L to R: Lt. Robert Canavan (partly obscured); Lt. Robert B. Donovan, KIA over Munich October 4, 1944; Unk; "Jerry" Hofmann; and Unknown. (Courtesy of R. Hofmann/W. Daly)

MISSION 411, APRIL 26, 1945 BOLZANO, ITALY, GRIES AMMUNITION STORAGE DUMP

Bolzano is the first major city south of Brenner Pass. This mission was to deprive the enemy of any armaments that might have filtered through the breaks in the Brenner Pass rail system. Unfortunately the Group's twenty-nine bombers could not drop their bombs because of 10/10 cloud cover at the primary and alternate targets. The ground situation was so fluid at this time that only visual bombing could be allowed. All crews returned with their bombs.

MISSION 412, MAY 1, 1945 SALZBURG, AUSTRIA, MAIN STATION MARSHALLING YARDS

The 412th and final combat mission of World War II was led by Col. Cullen. The 5th Wing ordered all of its B-17 Groups into the air in two forces. The Red Force, 5 groups strong, was ordered against a single railroad bridge at Kolbnitz, Austria. Their objective — to destroy the bridge and block the lines of supply and withdrawal between German forces in central Austria and those in Italy and Yugoslavia. The Blue Force, composed only of the 2nd Bomb Group, was sent to Salzburg because the yards there had shown a great increase in activity and the rail center there was one of the last, important centers left to the enemy. Enemy defenses were estimated to include 31 heavy flak guns at the target, 180 to 200 enemy aircraft, including jets and single engine fighters, within operational range of Salzburg, and a smoke screen. Air opposition was, however, expected to be negligible to nil. Italy, as a source of alternates or targets of opportunity, was off limits. It was a planned PFF mission.

The Group attacked the target with 27 airplanes in four boxes, through a 9/10 cloud cover. Three boxes made two runs before being satisfied enough to drop bombs. One box made four

runs before reaching its threshold of satisfaction. The flak was reported to be moderate and inaccurate, but it still had sufficient accuracy to inflict the final combat wound of the war. The recipient of that dubious honor went to S/Sgt. C. F. Radcliff, LWG, 20th Squadron, who received a slight wound. S/Sgt. C. T. Knox, LWG, 49th Squadron, suffered from anoxia.

Returning crews reported one aircraft missing. When last seen, aircraft number, 485, pilot 1st Lt. W. B. McCulloch, 49th Squadron was last reported headed for the Munich area with one propeller feathered and one windmilling. Later in the day a message was received that McCulloch had made an emergency landing at Cervia, Italy, on the Adriatic coast southeast of Bologna, because of two failed engines. The crew was okay. A service squadron reported that engine changes were probable and it was unable to state the time of aircraft or crew return.

The final strike assessment report stated that a concentration of hits carried across the center of the marshalling yards and into probable barracks nearby. There were direct hits on tracks and rolling stock. A concentration of hits were visible among residential structures just southeast of the yards. Heavy clouds prevented further detailed damage assessment.³⁴ The final mission was successful and merciful to the men of the 2nd Bomb Group.

THE LAST CASUALTY

Oddly, the 2nd Bomb Group's final combat casualty of WW II did not come from flak, fighters or even aerial conflict. It came from the ground war in northern Italy.

For some time air and ground units had periodically exchanged officer observers as a means of improving understanding and cooperation between the two branches of service. It was a volunteer program, and those participating were free to decide the extent of their involvement with the other service. Some Army observers chose to go on missions, while others did not. Similarly, Air Force officers decided whether they wished to get into forward elements

or even the front lines of the ground campaign. One member of the 2nd Bomb Group from the 429th Squadron volunteered to go with the Army as an observer under the exchange program.

Captain John G. "Jerry" Hofmann, bombardier, 429th Squadron, was on the original crew of Capt. Charles E. Crafton when they left the U.S. on April 29, 1944, to join the 2nd Bomb Group. Jerry had already flown something in excess of the required fifty missions, had been awarded the Distinguished Flying Cross, with one oak leaf cluster, the Purple Heart, and the Air Medal, with three oak leaf clusters. He had served his nation with great distinction, the war was nearing an end and he was imminently entitled to go home to a hero's welcome. Instead, he went with the Army.

While the Allied Fifth and Eighth Armies pushed triumphantly through the disintegrating ranks of the German Tenth and Fourteenth Armies across the Po River valley, and just eight days before the German's unconditional surrender, John G. "Jerry" Hofmann, Captain USAAC, was killed in one of those innumerable tank battles in northern Italy. He is buried in the American Military Cemetery near Florence, Italy. He was the Group's last combat fatality.

His comrades in the 2nd Bomb Group remembered him with genuine affection and admiration: "Jerry was wonderful, good — he treated the enlisted men as equals." "Jerry was a happy-go-lucky joker — a nice guy with a good sense of humor." "Jerry was big, not in height, but in character. He was head and shoulders over most of those serving. A superb human being who was good at what he did as a bombardier." "There was something about him as a bombardier that immediately conveyed exceptional skill and vigor." "... in the best sense of the word 'perfectionist' would be one apt description of him, yet he was completely relaxed, in a very focused way, and unassuming." "... even more important was his outstanding self-discipline which in the face of life-threatening stress, controlled anxiety and fear so they were out of sight and inoperative..."

“... and beyond all else silently and unselfconsciously but utterly brave.” “Jerry was well liked and obviously a good bombardier. Jerry was thinking of flying a second tour. We were telling him to go home.”³⁵

A QUIET CONCLUSION

Within days after being forced from his defensive positions around Bologna, the enemy in Italy was essentially finished. The roads were jammed with his wrecked and abandoned vehicles of all kinds, his heavy equipment was stranded at the banks of the Po, his mobility had been reduced to foot and a few animals, he was without air cover or support and was being bombed and strafed with impunity. He was, in short, without the will or means to resist. On April 29, Gen. Karl Wolff, head of the SS in Italy, acting as plenipotentiary for the Commander-in-Chief, South-West, Col. Gen. Heinrich von Vietinghoff, signed an armistice at Field Marshal Alexander's headquarters at Caserta. Even as arrangements were being made for this first of the piecemeal capitulations of the German armed forces, Hitler was marrying his long-time mistress, Eva Braun, in his Berlin bunker. Thirty-six hours later, on the afternoon of April 30, they committed suicide, and in accordance with the terms of Hitler's hastily drawn will, their bodies were burned in the garden of the Reich's Chancellery, and no reported trace of them was ever found.³⁶ (Author's note: The ultimate fate of Hitler and Eva Braun remained a mystery until revelations following the collapse of the Soviet Union. It was learned that a Russian Army unit found the charred remains of Hitler and Eva in the Reich's Chancellery garden. They were smuggled out of Berlin in ammunition boxes, secretly and hastily autopsied, and eventually buried under the roadway of a military compound occupied by the unit in Magdeburg, Germany. The events of their final hours were confirmed from four aides and servants, who were in the bunker, and taken to Moscow and thoroughly interrogated. The Russians identified Hitler's remains from dental work, and from pieces of a skull, with a hole in it, subsequently recovered from the burial site near the bunker. [Hitler shot himself as he simultaneously bit into a cyanide capsule.] Stalin never revealed this secret to the Allies. Hitler's and Braun's remains were left buried at Magdeburg until 1970, when Soviet Premier Andropov ordered them exhumed and burned.) Hitler, like his erstwhile ally, Mussolini, bereft of his once vaunted legions to carry out his arrogant ambitions for a modern-day European empire, came to an ignominious end with his former mistress at his side.

On May 2, exactly twenty months to the day since the Allies first landed on the peninsula, the Germans signed the terms of unconditional surrender, and hostilities ceased in Italy.³⁷

It was a quiet conclusion to an under-publicized campaign, that had been slugged out from stalemate to stalemate — Cassino, Anzio and Bologna — under grim conditions for almost two years. And it ended, like a prelude to the

main event, without the triumphant march of victors into the enemy's heartland or with the jubilant liberation of a subjugated population. The Group stood down for two days as the men went to the beach, played ball or “sacked out.” Even if the war in Europe came to an early conclusion, as then seemed apparent, there was still the war in the Pacific. The 2nd's longer-term role was uncertain and the subject of no small amount of speculation. A celebration of more than two days off had to wait, then it was swallowed up by revelment of VE day, May 8.

A GREAT VICTORY — AN UNEASY PEACE

As the war ended, the 2nd Bomb Group could look back with pride at being part of the continuum of the strategic bombing concept that its pioneers had so painstakingly developed, tested and validated, and fervently promoted.

The post-war U.S. Strategic Bombing Survey concluded that Allied air power was decisive in the war in western Europe.³⁸ Strategic air forces were an integral and significant part of that achievement. Of all the accomplishments of the air forces, attainment of air supremacy was the most important for it made possible the successful invasions of the continent, and gave the strategic bombers the opportunity to wreck German industries. Among the industries that were wrecked, none was a source of greater pride than destruction of the oil industry. Success of the oil campaign ultimately grounded the Luftwaffe, stopped the enemy tanks and trucks, and shut down vast areas of the German war industry.³⁹ The combination of the CBO oil campaign and the counter-air campaign eliminated the Luftwaffe as a factor in the war after mid-1944.

The air forces wrecked the once highly efficient transportation systems in the war zones, depriving German field armies of vital fuel, ammunition, and equipment and severed routes of escape and redeployment. By war's end, transportation paralysis brought Germany to near collapse. Of lesser consequence was the bomber offensive against war production of ordnance, trucks and tanks. These less than conclusive results were due mostly to lack of a sustained bombing effort. Finally, the air forces achieved considerable, but not complete success against steel production, submarine assembly and V weapons.⁴⁰

Even when pressed into the close air support role, strategic bomber forces were an indispensable factor in averting near disaster at Salerno, and Anzio, and they blasted openings in enemy positions for the break out at Bologna in the decisive final stages of the Italian campaign. Of the dozen German generals who surrendered in Italy, all but one regarded air power chiefly responsible for their defeat.⁴¹

Gratifying as these results were, they came at great sacrifice and cost. More than 9,000 B-17s and B-24s were lost in the European and Mediterranean operations. This number included 1,097 non-combat losses, such as those attributed to adverse weather and to training accidents. Overall casualties of the Fifteenth and Eighth Air Forces up to May 1, 1945, were: killed, 24,288; wounded, 18,804; missing, 18,699; prisoners, 31,436; and total losses, 93,227.⁴² Churchill in closing Chapter 12, “Mounting the Air Offensive,” of his volume

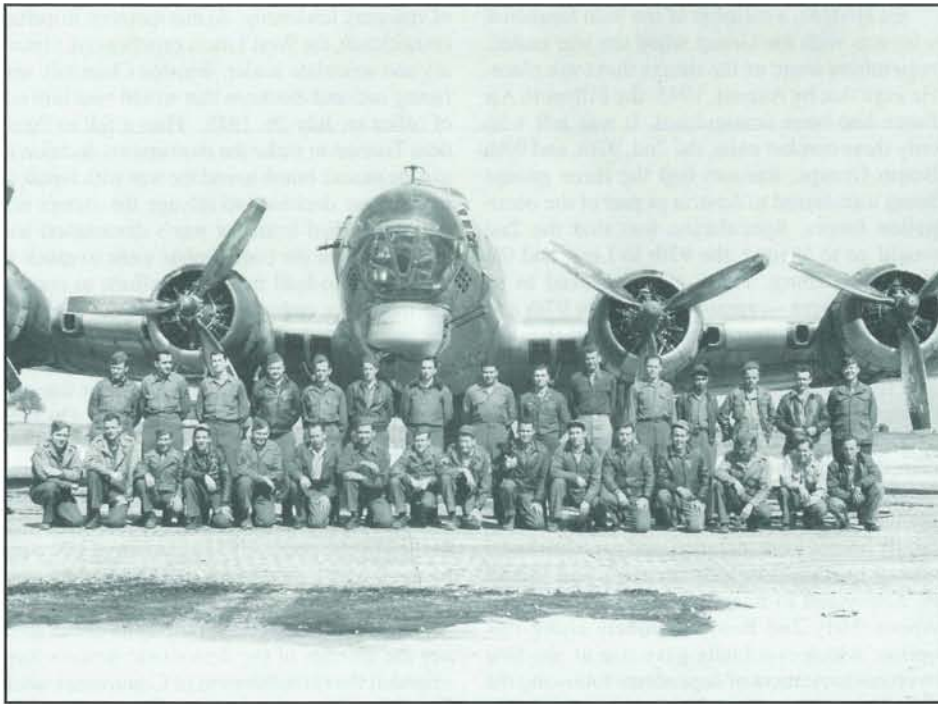
“Closing the Ring,” had this to say about the sacrifices of American and British airmen and their contribution to victory: “In the British and American bombing of Germany and Italy during the war, the casualties were over a hundred and forty thousand, and in the period with which this chapter deals there were more British and American aircrew casualties than there were killed and wounded in the great operation of crossing the Channel. These heroes never flinched or failed. It is to their devotion that in no small measure we owe our victory. Let us give them our salute.”⁴³

The 2nd Bomb Group was one of many that shared in the successes of Allied air power and the strategic bomber offensive. It also shared in the sacrifices necessary to achieve those successes and victory. The Group flew 412 missions of record (Appendix 17); dropped 25,746 tons of ordnance of all types (Appendix 22); destroyed at least 267 enemy aircraft in aerial combat (Appendix 18); and probably destroyed and damaged numerous others in the air and on the ground; lost 178 airplanes, including both combat and casual losses (Appendix 19);⁴⁴ lost 574 of its number to combat, combat support operations, and training (Appendix 20); left 586 imprisoned in war camps — 5 of whom died there (Appendix 21); and had uncounted others maimed, and wounded or emotionally scared by the horrors of their experience, leaving innumerable families, sweethearts and friends with years of anguish over what might have been. To all of this must be added the long separation and deprivation of the 1,500 to 1,600 officers and men who made up the ground echelon, whose tour of overseas duty ended only with the war.

The victory, as great as it was in stopping the spread of the dark shadow of Nazism and in exposing the unimaginable suffering the Nazis had perpetrated, brought an uneasy peace. Over much of Europe a new totalitarianism soon emerged from the ruins of the one just defeated. This unfortunate outcome devolved from U.S. military strategy that did not take into account the post-war realities of a thoroughly defeated Germany. The Allied victory was so complete that it left no counterbalance in Europe to curb the political ambitions of the Soviet Union, which Churchill had warned against for so long. The aspirations for international cooperation and peace steadily evaporated, and it fell to the U.S. to redress the balance of power in western Europe that its war time military strategy had created. Relations with the former Soviet ally chilled. The iron curtain of communism descended across Europe — the better for the Soviets to consolidate and exploit their conquests and to spread communism from behind a veiled stage. The cold war set in and mutual distrust spurred the U.S. — Soviet arms race, that led to nearly a half a century of tense military stand-off. From this came a long and demanding post-war mission for the 2nd Bomb Group/Wing as a vital part of the military deterrent against Soviet expansionist ambitions.

Endnotes :

¹ Craven & Cate, 478



VE Day. 96th Squadron Headquarters personnel. Rear L to R: McWeeney, Richards, O'Toole. Front L to R: Johnson, McGurk, Gucciardo, Holmes. Finally, a chance to go home. (C. Richards)

² Ibid

³ Ibid 478, 484

⁴ Ibid, 484

⁵ Ibid, 482,

⁶ Mission Report

⁷ Ibid

⁸ Ibid

⁹ Ibid

¹⁰ Ibid

¹¹ Mission Reports

¹² Craven & Cate, 484, 485

¹³ Mission Reports

¹⁴ Mission Report

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Craven & Cate 486

¹⁸ Canavan Group History, April 1945

¹⁹ 429th Squadron History, microfilm reel No. A0613, fr. 312

²⁰ Craven & Cate, 485

²¹ Mission Report for April 17, 1945

²² Mission Report

²³ Ibid

²⁴ Ibid

²⁵ Ibid

²⁶ Craven & Cate, 487

²⁷ Mission Report

²⁸ Ibid

²⁹ Ibid

³⁰ Craven & Cate, 487

³¹ Mission Report

³² Mission Report

³³ Mission Report

³⁴ Mission Report

³⁵ Richards Missing Crew Report; William M. Daly personal account.

³⁶ Wilmot, 704

³⁷ Craven & Cate, 489

³⁸ Ibid, 789-792; The survey was an independent study and analysis of the bomber offensive, authorized by a Presidential Directive on September 9, 1944. The survey team was chaired by Franklin D'Olier, president of the Prudential Insurance Company. The survey team included 1,200 officers, civilians and enlisted men. An autonomous group of senior U.S. generals and admirals were included as military advisors.

³⁹ Craven & Cate, 792, 794

⁴⁰ Ibid, 796-799

⁴¹ Ibid, 786

⁴² "Impact," Vol III, No. 7, July 1945, p 60

⁴³ Churchill, "Closing The Ring," chapter 12, p 531

⁴⁴ WW II Combat Operations Reports, (Washington National Records Center, Suitland, MD) Box 31

CHAPTER XVII

THE AFTERMATH

The victory brought observances and celebrations. The Group held a formation and parade. There were spontaneous celebrations and time off for rest and recreation. But it wasn't long before the overriding question was, "What next?" Rumors were rampant. The war with Japan continued, and logic seemed to dictate a move to that theater to help finish that part of the war. The most prized rumors were those that had the Group returning to the United States. That obviously was the most desirable alternative. Neither of these prospects materialized. There was important work to be done right there in the theater. People all over Europe were starving. Allied prisoners of war in camps throughout Germany, Poland, Austria, and Czechoslovakia needed attention and transportation. And other units and thousands of military personnel were on the move to other assignments or back to the States.

Even before the end of the war was officially announced and the Group converted to non-combat duties. There was an occasion to display aerial pride and power. Gen. Arnold was visiting the Fifteenth Air Force at Bari. On May 6, every Group in the Fifteenth put up 28 aircraft, with fighters flying cover, for a huge fly over and review for the General.

Group crews and airplanes were soon converted to transport and humanitarian service, a role for which the B-17 was not well suited, but its limited cargo and passenger space could be

compensated for by the number of airplanes assigned to the task.

On May 9, the Group flew two ferry missions transporting air force personnel from Amendola and Lucera to Pomigliano. From May 10 through the 12th there was little flying, but maximum ground training. On May 13 the Group gave an embarrassing performance while ferrying personnel of the 717th Bomb Squadron from Grottaglia to Pomigliano. One aircraft blew a tire. One tore a wing tip off in a taxi accident, and one was damaged so badly it had to be salvaged. It nosed over, then fell back on the tail section. Luckily no one was injured.

On May 14 the Group furnished 15 airplanes to transport personnel of the 484th Bomb Group to Marrakech, French Morocco.

On May 15 personnel were flown to rest camps at Naples and Rome. The next day was devoted to flying training and ground school. On May 17, one of the airplanes returning from the Marrakech shuttle mission nosed over on landing, injuring one crewman slightly and another seriously.

On May 18, the Group started the first of eight consecutive, 40-aircraft each, humanitarian missions to Aviano and Villaorba, in northeastern Italy.¹ The war destruction in general, and that of the transportation system in particular, left large areas of Europe in near economic collapse and people at the brink of starvation. Tons of food, clothing, and medical supplies were delivered to the people in northern Italy where the effects of the last phase of the Italian war had been most recent and most devastating.

Numerous other Groups were pressed into similar service. At wars end, men of all service branches from all of the nations that had fought against the Germans and their allies were released from prison camps. In many cases, when the prison guards left their posts, the prisoners left by any means possible to get away from the despised confinement places. They became scattered throughout Europe, trying to make their way to a place from which to reach their homes. Most, however, waited at their camps, usually being cared for, to the extent possible, by a busy, liberating army. In time, transportation became available, and they were taken by whatever means available, — former war planes, trucks, busses and trains — to collection and processing points. It was a huge task. Authorities estimated that eighty to one hundred thousand prisoners were released from the giant POW camp at Moosburg, Germany, alone.

By May 27, the Group returned to primarily training flights, except for one flight to transport personnel to Naples, and the start of the Bomb Damage Tours.

The ground crews had little idea what the ultimate consequences were of the combat sorties they had so long supported. They were given the opportunity to see first hand. Three planes a day, filled with eager groundlings, were sent by each squadron for an aerial observation tour of some of the most heavily bombed targets in the Group's area of operation. This opportunity was also extended to personnel of the fighter groups. A typical itinerary was from Amendola to northern Italy, through the Brenner Pass to Munich, then generally eastward to Salzburg, Berchtesgaden, Steyr, Linz, then south to the

Udine area of Italy, Venice and return to Amendola. Passengers were limited to ten per aircraft.² They were awed, amazed, and saddened, but also somehow deeply satisfied to see the former targets that had been just names on target maps to them. They returned with a far better understanding of the importance of their work over the past two years, and a profound appreciation of the utter devastation that can be wrought from the air.³

Ground men and air crews alike, now found time for leisure. With the hot, dusty summer months on the way, the beach became a popular spot. More time was available for tours at the rest camps in Rome, San Spirito, Venice, and Capri. In addition, visits were possible to other attractive destinations, and tours were organized to Cannes, France and to Switzerland.

Higher headquarters determined that men with time on their hands needed reminders that they were still in the Army. A physical fitness program was put into effect, and two hours of infantry drill were required each week. The troops found themselves harking back to the long dreaded days of basic training as they stumbled to commands of "To the right flank, MARCH!", and "To the rear, MARCH!"

A school, "The Fortress Institute," was organized to provide off-duty personnel courses in business arithmetic, shorthand, foreign languages, and other practical subjects.⁴

Then came the point system. The Army devised a system to determine who would be allowed to go home first, and in what order thereafter. The system awarded points for such factors as length of service, time overseas, campaigns, and awards and decorations. The magic number was 85 points. Most of the ground men in the Group had enough points, but each had to wait until everything fit into place before they could be rotated to the Zone of the Interior. After a time, the system began to work, and the men with the most points received their long-awaited orders. The personnel makeup of the squadrons changed dramatically as the combat veterans welcomed their replacements.⁵

The point system started a new exodus as thousands of military personnel, no longer needed in the Mediterranean theater, were sent home. The Group's transport workload was renewed, as returnees were ferried to northern and western Africa to board ships and transport airplanes for the cherished trip home.

As the months of 1945 began to dwindle, so did the 2nd Bomb Group. By October, very few of the men who had been with the Group at war's end remained. Work commenced on closing the Amendola base, and on November 19, the Group moved to the base at Foggia.⁶ Group personnel strength continued to decline as men were transferred. The 5th Wing had been inactivated November 2, and the 2nd Bomb Group was attached to the 40th Bombardment Wing. On February 14, Col. Anthony Q. Mustoe, commander of the 40th, visited the Group to discuss inactivation. The date was set for February 28, 1946.⁷ On February 20, 1946, the 2nd Bombardment Group was reduced to zero personnel and equipment, and on February 28, 1946, it was inactivated by G.O. #6, HQ, 40th Bombardment Wing dated February 24, 1946

Ed Hodges, a member of the 96th Squadron who was with the Group when the war ended, remembers some of the things that took place. He says that by August, 1945, the Fifteenth Air Force had been emasculated. It was left with only three combat units, the 2nd, 97th, and 99th Bomb Groups. Rumors had the three groups being transferred to Austria as part of the occupation forces. Speculation was that the 2nd would go to Vienna, the 97th to Linz, and the 99th to Salzburg. These moves proved to be what they were — rumors —, and the 97th and 99th were soon deactivated. The 2nd then received some of the personnel from those groups and from some fighter groups that were also deactivated.

In November 1945, information was received that the abandoned Amendola site would be upgraded to a B-29 capability and used as a permanent U.S. base in Italy. Modern, single-family homes were included, and personnel who agreed to remain in Italy an extra year would be authorized to have dependents with them. About thirty 2nd Bomb members chose this option, which eventually gave rise to the first overseas movement of dependents following the war. Dependents arrived before the new housing on the base was finished, and they had to find places to live "on the economy," in wartime Italy.

Base construction proceeded rapidly with much of the work being administered by former 2nd Bomb Group personnel. A B-29 did stop over at Amendola before the hangers, houses, barracks, and runways were turned over to the Italians in late 1946. The newly constructed air base was never occupied by any U.S. forces, and currently houses an Italian Air Force combat wing.⁸

Endnotes:

¹ *Mission Reports*; Donald J. Smith *Group Journal*, May 1945

² *Ibid*

³ *96th Squadron History*, microfilm fr. 846

⁴ *Ibid*, 847

⁵ *Ibid*

⁶ Mauer, editor, "Air Force Units of World War II," (*Office of Air Force History*, 1983) 27

⁷ *20th Squadron History*, microfilm fr. 2126

⁸ Edwin S. Hodges, letter 1994

CHAPTER XVIII

POST WW II — SALVAGE, CONTAINMENT AND THE COLD WAR (THE B-29 ERA)

Out of the ruins of WW II, the fall of empires and a universal stirring of revolt against the past, two nations on the margins of Europe — Communist Russia and the United States — emerged in 1945 with the strength and will to shape the post-war world.¹ The role of post-war world leadership fell upon the U.S. at a particularly inopportune time.

On April 12, 1945, the nation was stunned by the news that its long-time trusted leader, President Roosevelt, had suddenly died of cerebral hemorrhage in Warm Springs, Georgia. President Truman was abruptly thrust onto the world scene at a time when the nation was in dire need

of visionary leadership. At that moment, in a cruel coincidence, the West's most experienced, visionary and articulate leader, Winston Churchill, was facing national elections that would vote him out of office on July 26, 1945. Thus it fell to President Truman to make the momentous decision to use the atomic bomb to end the war with Japan, to make those decisions to salvage the victors and the vanquished from the war's devastation and instability that the communists were so quick to exploit, and to lead free world efforts to contain the mounting ambitions of the Soviet Union in the immediate post-war years.

One of Truman's first acts as president was to reaffirm American hopes for an international organization to keep the peace. On June 26, 1945 he attended the signing of the United Nations Charter in San Francisco, California.² The earnest hopes for fulfilling the lofty post-war peace goals of the United Nations were soon dashed by the persistent obstruction of UN work by the Soviet Union's repeated abuse of the veto power.

Neither the fine print of the Yalta declaration nor the niceties of the democratic process long impeded the establishment of Communist satellite regimes over the people of Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland and Rumania.³ Winston Churchill's famous phrase—an iron curtain has descended across Europe from Stettin to Trieste—indelibly branded the sovietism of Eastern Europe.⁴

Even beyond the reach of the powerful Red Army, strong communist parties in France, Italy and Greece, obediently followed the Soviet lead, using real popular grievances to discredit and harass shaky post-war regimes. As the United States and Great Britain rapidly withdrew their occupation forces, the Soviet leader Stalin could, it seemed, work his will on an exhausted and demoralized Europe by constantly applying a combination of external and internal pressures.

By 1947, President Truman was determined to act with boldness and authority to "contain" Soviet expansion. With Congressional bipartisan backing, Truman sent vital military and economic aid to the threatened governments of Greece and Turkey.⁵ Thus, checking a Soviet thrust into the Eastern Mediterranean. Also in 1947, the U.S. began extending aid to European countries, under what came to be known as the Marshall Plan (named for General George C. Marshall, the Secretary of State and the Plan's originator), to rebuild the economies of the war-torn countries of free Europe.⁶ Then a series of acts by the Soviets in 1947 and 48 jarred the free world into the full realization of how brazen, ruthless and duplicitous the Soviets were prepared to be in pursuit of their expansionist goals.

The Soviets openly supported the capture of the Hungarian government by the communists. In apparent retaliation against the Marshall Plan, and in the hope of discrediting the resolve of the western powers, the USSR began a land blockade of the Allied Sectors of occupied West Berlin on April 1, 1948. The U.S. and Great Britain countered by employing a dramatic airlift of food and coal to the beleaguered city. In total, 2,343,315 tons of supplies were airlifted in over 19 months before Soviets accepted the futility

of trying to freeze the Allies out of Berlin. With elements of the Red Army on its borders, the government of Czechoslovakia, the last democratic government in central Europe, yielded to demands of a ruthless communist leadership for full government powers. In Poland, where the Red army had set up a communist government, any pretext of Polish sovereignty was abandoned, as a Russian general was sent to take command of the Polish army. In Italy a communist minority was aggressive in its efforts to take over the government.⁷

These acts of unbridled aggression and subversion made it clear that the USSR had the ambition, and if it chose, the capability to extend its dominion over the continent of Europe. It was likewise clear that the evolving success of the Marshall Plan in salvaging the shattered European economies was not sufficient to counter the military superiority of the Soviets in Europe. Under the leadership of the U.S. and Canada, 10 west European nations set about the urgent and delicate task of developing an alliance for their collective security. The outcome was the North Atlantic Treaty, that was signed April 4, 1949.⁸ From this treaty emerged the NATO military structure. To demonstrate commitment and gain member nation acceptance of NATO, the U.S., in an unprecedented change in national policy, agreed to station armed forces on the continent of Europe in peacetime. The U.S. also approved an accompanying program of military assistance for NATO member nations. The NATO military alliance developed and grew into a credible force to counter the numerically superior Red Army based in eastern Europe.

Concurrent with these enormous changes on the world scene, momentous changes occurred in the organization of the U.S. military forces. As early as the summer of 1945, President Truman started action that ultimately led to passage of the National Security Act of 1947, that unified the armed forces under a single Department of Defense, headed by a civilian Secretary of Defense.⁹ The Act also established the United States Air Force as a co-equal service with the Army and Navy.

Earlier, and in response to an urgent need to counter-balance and contain the growing threat from the Soviets, the U.S. reorganized its Air Forces into three new major combat commands. On March 21, 1946, the Strategic Air Command (SAC), the Tactical Air Command (TAC) and the Air Defense Command (ADC) were created and organized.¹⁰ General Carl A. Spaatz, Commanding General of the Army Air Forces defined the SAC mission as: "The Strategic Air Command will be prepared to conduct long range offensive operations in any part of the world either independently or in cooperation with land and naval forces to conduct maximum range reconnaissance over land or sea either independently or in cooperation with land and Naval forces; to provide combat units capable of intense and sustained combat operations employing the latest and most advanced weapons; to train units and personnel for the maintenance of Strategic Forces in all parts of the world; to perform such special missions as the Commanding General, Army Air Forces may direct."

SAC received most of its initial assets from the Continental Air Forces. It gained the headquarters at Bolling AAF, DC; Second Air Force, Colorado Springs, CO; 311th Reconnaissance Wing, MacDill AAF, FL; and approximately 100,000 personnel, 22 major bases and more than 30 minor installations; and about 300 bomber, fighter, reconnaissance and support aircraft. However, with the ongoing post-war demobilization these gained assets were reduced to 37,092 personnel and 279 bomber, fighter and transport aircraft.

SAC moved its headquarters from Bolling Field to Andrews AAF, MD, on October 21, 1946.

Except for the spread of the Communist threat to the Far East, this was the international environment and the military framework that would shape the mission of the reactivated 2nd Bombardment Group/Wing for the next four decades.

REACTIVATION, DAVIS-MONTHAN AND B-29s

The 2nd Bombardment Group was reactivated at Andrews AAF, MD effective July 1, 1947. Reestablishment of the Group was part of the action taken to increase the strength of the Strategic Air Command.

It was the United States intention in 1946 that the Strategic Air Command would be the nuclear shield against aggression from the East (Europe).¹¹

During 1948-1951, the cooperative economic venture under the Marshall Plan helped to finance a miraculous revival of Western European economies. In turn, the success of the Marshall Plan led to strong democratic parties and institutions, stable and prosperous West European societies, and prompted a voluntary cooperation among Western European nations that was unknown to European history. Within this cooperative economic environment, the strength of the NATO alliance was considerably enhanced.

The post-war plans for the Far East, sketched out at Yalta and Potsdam in 1945 and further defined after Japan's surrender, seemed relatively clear and pleasing to American leaders.¹² However, the American agreement at Yalta recognizing the Soviet special interest in Manchuria and the Northern Pacific, eventually led to a spread of the Cold War to the Far East.

Subsequent to the end of WW II, the Chinese Nationalist government and the Communist Mao Tse Tung's, shadow government, became heavily involved in a civil war. By 1949 the Communists had seized control of Manchuria and swept south to conquer all of China. The Nationalists were literally driven into the sea and escaped to Taiwan. This action made China a formidable power in the politics of Asia. The Chinese brand of Marxism burned with hatred of the United States as the symbol and chief agent of "Western Imperialism."

The Far East situation confronting the United States from 1949 through the early part of the 1950's was one of dismay and great concern. China was all communist and North Korea, north of the 38th north parallel, was a communist pup-

pet government controlled by the Soviets. Containment now meant containment in Western Europe as well as containment of China and North Korea.

Out of these developments there evolved new military alliances for mutual defense and the strategic military deterrence to contain Communism.

By 1947, the B-17 days of WW II were gone — a part of history. In this post WW II era the Group transitioned into the B-29. The B-29 had been the mainstay of the Army Air Corp's battle against Japan. Over 3,965 B-29's were produced during the war. Aside from a limited amount of B-29's at training bases in the United States, most of the production went overseas.

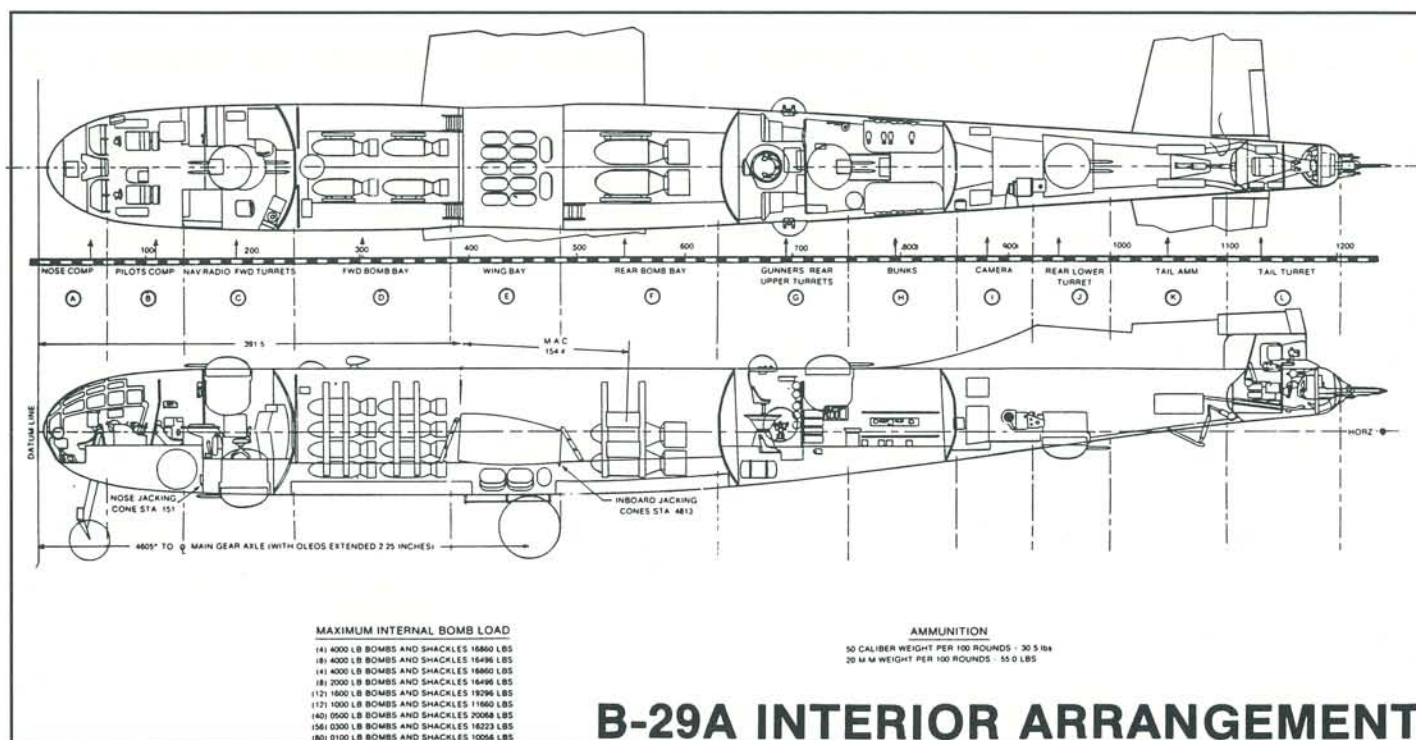
A brief overview of the development of the B-29 is given to provide continuity and demonstrate the ever-increasing complexity of the U.S. Air Force's strategic bombers.

Even while Boeing Aircraft Company was in early production and modification of the B-17, it began studies for a new bomber that would be superior to the B-17. These studies began in June 1938. In November 1939 the Army Air Corps developed a concept for a new super bomber. The desired capability was an aircraft with speeds up to 400 mph, a 5,333-mile range, and the capacity to carry a one-ton bomb load for half that distance. The Air Corps specifications for the new super bomber were submitted to four aircraft manufacturers — Boeing, Lockheed, Douglas, and Consolidated — on January 29, 1940. The Air Corps assigned design-series designations of B-29, B-30, B-31, and B-32, respectively to the aircraft manufacturers.^{13,14,15}

The Lockheed and Douglas submissions were not considered. However, because the B-29 was so radically different from previous aircraft designs, the Air Corps also went ahead with the Consolidated B-32 "Dominitor" as a hedge against the potential failure of the B-29. The more conservative B-32 was based loosely on the B-24 but used the nacelles, power package and empennage of the B-29.

The Boeing B-29 design team was headed by Chief Engineer Edward C. Wells, part of the original B-17 design team, and four others — Wellwood Beall, VP in charge of Engineering; Lysle A.A. Wood, Asst. Engineer; George S. Schairer, Chief Aerodynamicist; and Noah D. Showalter, Chief of flight Test. Wellwood Beall had designed the Model 314 Flying Boat for Pan American World Airways in 1938. George Schairer had previously been on the Consolidated Aircraft design team for the B-24.¹⁶

The basic problem confronting the Boeing designers was how to propel a mass which was twice as heavy as the B-17, twice as fast. To meet this challenge, extremely powerful engines would be required. In general terms, to double the speed requires the horsepower to go up by the square. When the weight and drag factors are accounted for, the problem becomes a major challenge. The B-17's were powered by four Wright R-1820 engines which developed 1,200 hp each. Prior to WW II, the Wright Aeronautical Corporation had designed the R-3350 "Cyclone" engine that had been test flown on the Douglas XB-19. Development of the Cyclone



B-29A INTERIOR ARRANGEMENT

Inboard profile and plan view drawing of the B-29A and its various bomb loads.

was stopped by President Roosevelt in the late 1930's as a cost saving measure. If four R-1820s developed a total of 4,800 hp and four R-3350's produced 8,800 hp there would be a major shortfall in power. The Boeing engineers were confronted with the very big problem of compensating for the lack of engine power through the aerodynamic efficiency of airframe design.

Boeing worked to reduce airplane drag in thirteen critical areas, while providing a combination of good landing and flight characteristics which compromised neither regime. A sleek, aerodynamically smoothed fuselage with enclosed defensive armament positions and a high aspect ratio wing performed well in flight.

The R-3350's, however, were difficult to cool and were prone to internal failures which could result in fires. Wright launched a major effort to bring design up to an acceptable standard, while Boeing refined the cowlings. The engine cowls were streamlined and close-fitting; a condition which exacerbated the cooling problems. Large cowl flaps were added for cooling, but these increased drag which was critical on takeoff. The cowl flaps were shortened. The exhaust collector ring was revised and valve cooling was improved. A revised cowl shape, coupled with changes to the induction, reduced the potential for backfiring. Later, fuel injection was incorporated, thus greatly improving engine performance.

The fuselage was a cylindrical, semi-monocoque structure formed from aluminum alloy, which provided maximum strength and minimized aerodynamic drag. To further reduce drag, flush rivets were used in most external areas except in the gun blast areas where brazier head rivets were used for greater strength. Three pressurized compartments were incorporated into the design to provide greater crew comfort

on long flights at high altitudes. A tunnel through and over the two bomb bays connected the forward flight deck with the waist compartment. A pressurized compartment was added in the tail for the tail gunner. The pressurization system provided a 10,000-foot cabin altitude when the airplane was flying at 30,000 feet. To reduce the effect of cabin rapid depressurization in combat, the crew was to go on oxygen 30 minutes prior to entering a combat zone and the airplane was depressurized.

Large four-bladed Hamilton Standard 16'7" diameter full-feathering hydromatic propellers were installed on most B-29's. Some B-29's and the Bell built B-29's were equipped with Curtiss electric propellers. These propellers would eventually be retrofitted on a number of post-war B-29's. An isopropyl alcohol anti-icing system was incorporated into the propellers.

The leading edges of the wings, horizontal stabilizers, and fin were equipped with pulsating de-icing boots. The boots were eliminated on the aircraft that served in the Pacific in WW II. Later, when the aircraft underwent winterization modification programs, the boots were re-installed.

General Electric designed the Central Fire Control System employed on the B-29's. This defensive armament system consisted of four remotely sighted turrets in the main portion of the fuselage — two top and two bottom, and a tail turret. The turrets were equipped with twin 0.50 caliber machine guns. Later, a four-gun top turret was installed. The turrets were equipped with a gun-following cam, or contour follower, which activated limit switches to cut out the guns thereby preventing the bullets from striking the aircraft. The B-29's were equipped with a tail turret having three 0.50 caliber machine guns installed in addition to a pair of flexible 0.50 caliber guns which could be put into position at the waist by the crew. The bombardier had pri-

mary control of both forward turrets. A central fire control gunner was perched in his "barber chair" in the waist where he had primary control of the aft top turret. Two side gunners shared primary control of the lower aft turret. The tail gunner had primary control of the tail turret. The gunners had secondary control of other guns through the Central Fire Control System. Originally the tail turret was equipped with a 20 mm cannon in addition to the twin 0.50 caliber guns. Because of the differences in trajectory, the cannon was removed in the field and deleted in production.

Offensive weapons were carried internally within the two bomb bays which straddled the wing center section. Four bomb racks were installed in each bomb bay. A total of 20,000 pounds of bombs in a variety of sizes could be carried in the bomb bays. The bomb bay doors were, initially, operated electrically, but the time lag in operation greatly increased drag. Later, fast-operating, pneumatically actuated doors were employed. The later doors created a hazard for ground personnel who could be caught in the door. The solution, devised by a Boeing service engineer, was simple. He developed a special tool comprised of a properly sized 2X4!

Initially the B-29 had a maximum gross weight of 105,000 lbs; post WW II modifications resulted in an increase to 140,000 lbs.

The home base of the 2nd Bombardment Group at Andrews AAF was short lived — and for good reason. Andrews is only a few miles from Washington, DC. To conduct bomber training operations from Andrews would not have been appreciated by the occupants of Washington DC and the surrounding communities. By September 1947, the Group was relocated to Davis-Monthan Air Force Base, Tucson, Arizona. It was there

that the Group was assigned personnel and the first B-29 aircraft.

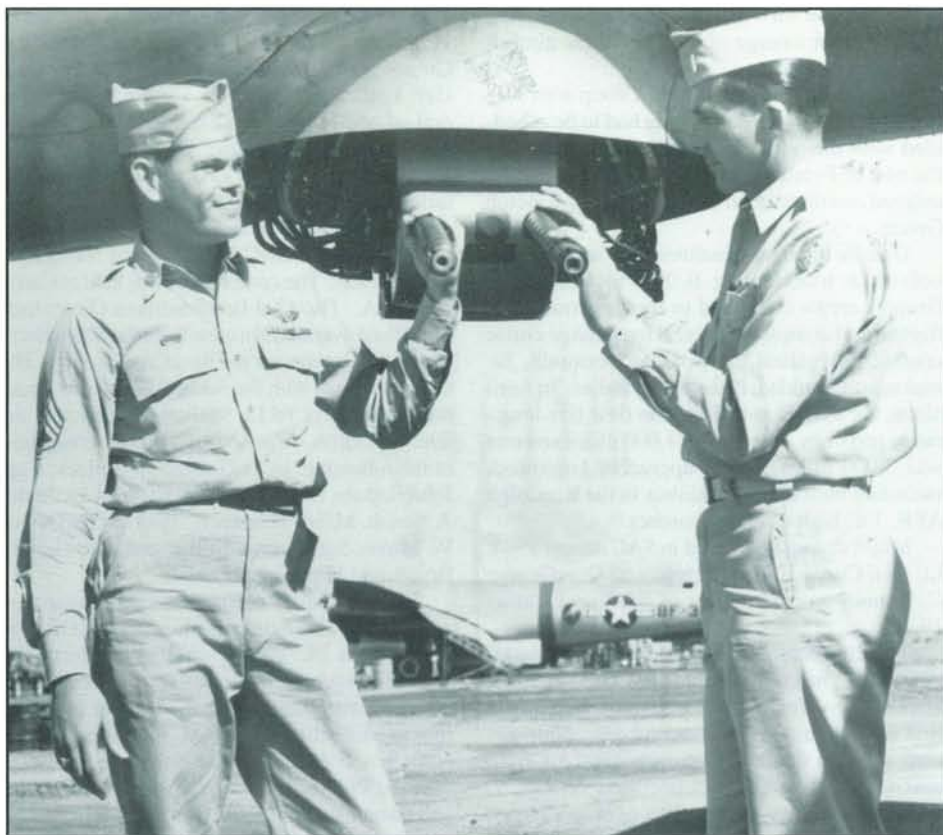
During WW II Davis-Monthan underwent a series of improvements. The 34th Bombardment Group, which was to supply the initial cadre for the 304th/2nd Bombardment Group in September 1942, was stationed there in May-August 1942¹⁷. By the end of WW II, Davis-Monthan was one of the largest airfields in the Army Air Force inventory. Its runways were capable of supporting B-29 operations. On the Group's relocation to Davis-Monthan, it was attached to the 43rd Bombardment Group (VH) for day-to-day support, and was subordinated to the Eighth Air Force, SAC. At the time, the 2nd Bomb Group consisted of a Group Headquarters unit, the 20th Bombardment Squadron, the 49th Bombardment Squadron and the 96th Bombardment Squadron. Authorization for the Group's relocation to the base was General Order 95, Headquarters SAC. The Group's mission was to man, train, and maintain aircrews and aircraft as a powerful, long-range strike force of the Strategic Air Command.

The Group's first order of business was to acquire its personnel and aircraft and to train both ground and aircrews in the operation and maintenance of the B-29. Not all aircrew members, and ground support personnel transferred into the Group had experience in the B-29. The first six months was like being in a Combat Crew Training Unit (CCTU) during WW II.

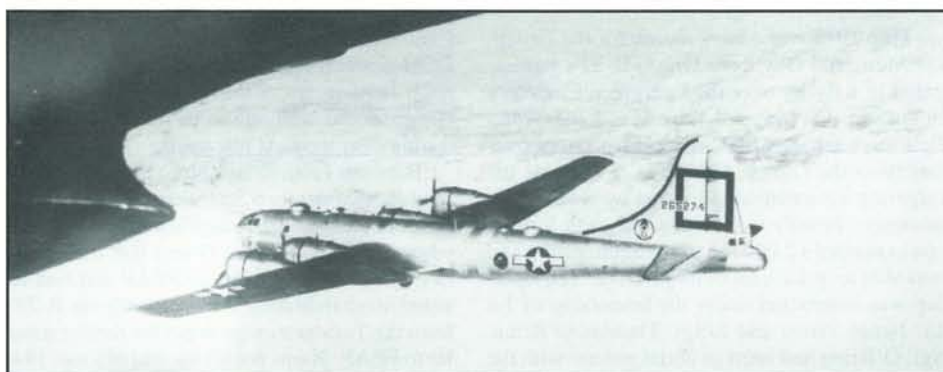
During November 1947, two months after activation, the Group had 322 enlisted personnel and 42 officers assigned. Training programs were undertaken to qualify all assigned personnel into the Military Occupational Specialty (MOS) required by the Group's manning authorization.

Nine B-29's and two B-29A's were assigned to the Group. Of the three squadrons, only the 20th had more than 50% qualified B-29 crew personnel. Despite these limitations the Group flew a total of 264:40 hours in November. Included in these hours were 4,000-mile cruise control missions to Bermuda, British West Indies, and round-robin missions to San Francisco, CA., and Spokane, WA.¹⁸

By the end of December 1947, the total aircraft assigned had risen to thirty. Ten of the newly assigned B-29's went to the 96th Squadron. These were the first aircraft assigned to the 96th. Training continued with more round-robin flights, firing of the .50 caliber guns, and dropping 100 lb. practice bombs on the local Saharita bombing range. Armorers were given special training in loading both 500lb demolition bombs and 500lb practice bombs. Special flights were made to Jamaica, British West Indies. These flights emphasized long-range cruise control and all types of navigation. Unfortunately, on December 16, 1947, a B-29 of the 49th Bomb Squadron crashed during a night takeoff for a flight to Jamaica. Of the double crew of twenty aboard, eight officers and four enlisted men were killed, while eight enlisted personnel survived.¹⁹



S/Sgt. Thomas O'Brien and 1st Lt. James Wiser were responsible for training the 96th Bomb Squadron gunners at Davis-Monthan AFB in May 1948. The two men were photographed under the aft lower turret of one of the unit's B-29s. (Courtesy of Thomas W. O'Brien)



This 96th Bomb Squadron B-29, s/n 42-65274, displayed the full-up markings for the 2nd Bombardment Group with the large open square on the tail, Eighth Air Force insignia on the fin fillet, red fin cap, red waist bands, and the 96th Bomb Squadron insignia on the nose. (Courtesy of the United States Air Force)

1948 — THE FIRST DEPLOYMENT AND INTO THE COLD WAR

Between January and March 1948, the Group went through a continuous period of MOS reclassification — still trying to get the right people in the right job. Manning overages existed in the copilot, basic airman and armorer career fields, while there were shortages in qualified B-29 aircrew members, electronics and communications work areas, and in general maintenance support operations. These imbalances were symptomatic of the reorganization and re-equipping problems the entire Air Force was experiencing.

In the midst of trying to qualify aircrews in the B-29 and train maintenance personnel, the Group was tasked to prepare twenty-six of the

Group's B-29's for transfer to the 19th Bombardment Group, Far East Air Force (FEAF), under project "97669". The Group also prepared thirty-five more B-29's, recovered from the Tucson very extensive aircraft graveyard storage area, for transfer to FEAF under the same project—"97669". Despite all the maintenance preparation activities involved with the transfer of these aircraft, the 20th Squadron flew a 31 hour mission to Jamaica, British West Indies. No operational or mechanical difficulties were encountered.

The 49th Squadron had the bulk of the work in recovering the B-29 aircraft from Tucson storage. The Squadron maintenance section encountered difficulties in this recovery work. Many of the aircraft had problems with worn tires; malfunctioning cowl flaps, including cowl motors and attaching hex nuts; fuel strainers filled

with sand and dirt; and frozen escape hatches. The two-year storage of many of these aircraft had taken its toll.

All of these transfers left the Group with only four B-29's. Proficiency flying had to be scheduled with the adjacent 43rd Bomb Group. By the end of February, the Group had six aircraft assigned and thirteen on loan from the 43rd Bomb Group.

Despite the heavy maintenance schedule involved in transferring B-29's to FEAF, the Group's crews continued to fly local transition flights, and completed several long-range cruise control navigation missions to Bermuda, Jamaica, and Trinidad, British West Indies. In April alone, the 49th Bomb Squadron flew five long-range missions – four were 4,000 miles and one was 3,000 miles. Crew upgrading continued, including high altitude training in the Randolph AFB, TX, high altitude chamber.²⁰

Major changes occurred in SAC during 1948. Lt. Gen Curtis E. LeMay replaced Gen George C. Kenney as commander of SAC on October 19.²¹

The 20th Squadron flew two of three maximum effort missions on January 5 and 7, 1948, respectively. Ten aircraft were launched on the first day and nine on the second day. Nine aircraft reached the target on each day. A Group maximum effort mission occurred on Jan. 7, 1948 with twenty-nine B-29's over the target. One hundred twenty (120) practice bombs were dropped on the Wilcox bombing range near Tucson. In March, the Group prepared nine more B-29's for transfer to FEAF under project "97669."²²

May 1948 was a busy month for the Group. On Memorial Day three Group B-29's participated in a fly-by over the Evergreen Cemetery in Tucson. On May 3rd, 4th and 6th, the Group flew three separate SAC-directed missions over targets in the Ogden, Utah area to evaluate the targeting information provided by SAC headquarters. In only two weeks, the 96th Squadron expended 12,000 rounds of ammunition and was able to qualify all of its gunners. The training was conducted under the leadership of 1st Lt. James Wisner and S/Sgt. Thomas O'Brien. Sgt. O'Brien had been an aerial gunner with the 381st Bombardment Group, a B-17 unit in the Eighth Air Force in England. He took a sixteen-week central fire control gunnery school at Lowry Field, CO, and was a B-29 gunnery instructor at Fort Meyers, FL, before coming to the Group. Sgt. "Obie" O'Brien later became one of the Group's senior aerial refueling boom operators.

Overall, May was a tough month for aircraft maintenance. The B-29 parts supply pipeline had not reached the response time necessary to keep all aircraft in commission. In May there was a 24.7% aircraft-out-of-commission for parts (AOCP) rate for the Group. Not a good situation, and one that rendered the Group's performance on maximum effort missions less than satisfactory.²³

On June 1st the Group participated with other SAC units in another maximum effort mission. This mission was scheduled as a simulated bomb strike on Selfridge AFB, MI. All but one of the Group's B-29's reached the target. On June 12th the Group participated in a

Wing review at Davis-Monthan. Col. Dalene W. Bailey commanded the troops in the review. Guests in the reviewing stand included Brig. Gen Luther W. Sweerser, Commanding General of the 304th Air Division, Col James C. Selser, Jr., Commanding Officer of the 43rd Bombardment Group(VH), and civilian dignitaries from the city of Tucson.

Between June 21 and 25, the Group participated in the first SAC Bombing and Navigation Competition. The competition was held at Castle AFB, CA. The 43rd Bombardment Group took First Place overall and a crew from the 509th Bombardment Group took the Best Crew Trophy. The Group came in with the Second Best Crew under the command of 1st Lt. Shelton A. Classon of the 49th Squadron. Classon's crew was comprised of the following: 1st Lt Garland R. Bullock, Capt John Repola, 1st Lt. Nelson Kasten, 1st Lt. James A. Smith, M/Sgt Thomas E. Tylor, S/Sgt Dewey W. Minus, Sgt. Warren K. Barbour, Sgt. Gary L. Bryan, and PFC Walter J. Allen.

The Group underwent a thorough inspection and Operational Readiness Inspection (ORI) on June 28 and 29. Twenty-nine, of the thirty-one aircraft launched, made it over the designated target. Thirty-one aircraft made radar bombing runs at McClellan AFB, CA., and thirty-one aircraft flew a daylight radar bombing formation over the Wilcox bombing range. The Group received an excellent rating for this ORI.

In addition to all of the foregoing, the Group flew the first in a series of electronic countermeasures (ECM) missions with three B-29's of the 20th Squadron flying simulated strikes against the cities of Greenville, Sumpter, and Charleston, South Carolina. The purpose of the ECM mission was to jam the fighter radio and radar frequencies of the Ninth Air Force. The Group would continue to be involved in ECM testing over the next few years.

Between January and June, 1948, the Group flew approximately 6,550 hours. This was a singularly outstanding accomplishment, especially when one considers the Group had transferred twenty-six of its aircraft to FEAF and had assisted in rehabilitating another twenty-six B-29's from the Tucson storage depot for further transfer to FEAF. It was not till the end of June, 1948

that the Group was back to its strength of thirty-two aircraft.²⁴

The B-36, with its 230 foot wing span and 328,000 lb maximum gross weight, had been introduced into the SAC bomber force in 1948. The B-36 size and gross weight made the term VH-Very Heavy in the B-29 Group designations out of date. General Order 28, Section II Headquarters SAC, dated June 29, 1948 redesignated B-29 groups to a medium bomber classification. Accordingly, the Group was redesignated the 2nd Bombardment Group (M) effective July 12, 1948.

Most of July was spent in unit training and local flights. Much of the emphasis on flying training was in preparation for a pending overseas deployment to the United Kingdom. One major cross country mission was flown on July 31, 1948 when the Group participated in a seventy plane fly-by at Idlewild International Airport (now JFK International), New York. The Group took off early in the morning and assembled over Philadelphia, Pennsylvania. Total flying time for the Group was approximately twenty-three hours. The reviewing party included President Truman; Thomas E. Dewey, Governor of New York; Thomas O'Dwyer, Mayor of New York City; Secretary of the Air Force W. Stuart Symington; and, General Hoyt S. Vandenberg, Chief of Staff of the United States Air Force.²⁵

DEPLOYMENT TO ENGLAND

August of 1948 marked the beginning of many deployments to foreign bases. On July 23, HQ SAC issued Field Order 33 directing the 2nd Bombardment Group (M) to deploy to Royal Air Force (RAF) Station Lakenheath, Suffolk, England for thirty days. The Group was alerted for overseas movement on August 3, 1948 and part of the air echelon left the following day. The Group's arriving B-29's were greeted by a welcoming party from No. 3 Group, RAF Bomber Command. The squadrons of No. 3 Group operated a mixture of four-engine Avro Lancasters and Lincolns, and twin-engine deHavilland Mosquitos. Little did the Group know when they arrived in England that the thirty day TDY would



96th Squadron B-29-25-MO, s/n 42-62328, during deployment to RAF Lakenheath, August 1948. Note the RAF fuel bowser servicing the right outboard fuel tank. Later this aircraft served with both No. 149 and No. 4 Squadrons in the RAF. (Courtesy of the United States Air Force)

extend to four months and twenty-three days. (See Appendix 23)

The international situation had deteriorated in mid-1948 and there was serious concern on the part of the United States, Great Britain, France, and other nations of Western Europe that the bellicose Soviet government was about to embark on another venture of European conquest. On April 1, 1948, the Soviets closed all ground routes – both train and highway – to the enclave of Berlin. The Berlin enclave contained the Allied occupation forces of France, England and the United States. The United States and Great Britain began a limited airlift of supplies through the open air routes to Berlin. Over the next few months the Soviets alternately opened and closed the ground routes. Gen. LeMay, Commander of United States Air Forces, Europe (USAFE), started the airlift with a few available C-47's. The C-47's were not sufficient to carry the loads necessary to keep Berlin supplied. The U.S. authorized an increase of USAFE airlift and C-54's and C-46's from other commands were sent TDY to West Germany. Finally, the Soviets ceased the cat and mouse game of opening and closing the ground routes and closed the ground routes permanently in an apparent attempt to squeeze the Allies out of Berlin. Soviet fighters began to harass the incoming Berlin airlift airplanes. In response to this Cold War pressure, the 2nd Bomb Group, along with other SAC bomber units, were deployed to England in a show of force, that certainly did not go unnoticed by the Soviet Union.

The Group and its B-29's represented a real threat to the Soviets. As the international situation unfolded, it was considered best to keep the Group in a forward area in England. The thirty day TDY was extended through four months and twenty-three days. It turned out to be a tough assignment for the Group. Tough in the sense that it was an unanticipated period of family separation, and the logistic support for such an extended deployment was not fully in place. Peacetime was beginning to look more and more like wartime.

Aircraft and crews from the 20th Squadron arrived at RAF Lakenheath on August 8, 1948 while those of the 49th and 96th Squadrons arrived over the following two days. The route to England took the aircraft from Davis-Monthan to Goose Bay, Labrador, Canada and on to RAF Lakenheath. The B-29's of the 20th Squadron departed Davis-Monthan at 2:30 A.M. and arrived at Goose Bay that evening.

Airlift support for the deployment to England was provided by seven C-54's from the 1st Strategic Support Unit, Fort Worth, TX. SAC had its own integral airlift capability. The C-54's were used to take passengers and freight for the Group from Davis-Monthan to Westover AFB, MA., where the passengers and freight was transferred to commercial airliners for the trans-Atlantic crossing.

The Atlantic crossing by the bombers was made with only one mishap when a B-29 lost an engine shortly after taking off from Goose Bay. An attempt to feather the propeller at an altitude of 13,000 feet was unsuccessful. The crew set the engine at 2,150 RPM with a manifold pressure of 33.6 mm of mercury and leaned-out the mixture. While flying at 8,000 feet, the crew

jettisoned the flyaway kit, regained control at 5,000 feet, and returned to Goose Bay where an engine change was made. Inspection revealed that the engine had swallowed an exhaust valve. After an engine change, this aircraft arrived at RAF Lakenheath on August 14, 1948.

RAF Group Captain Chamberlain officially welcomed the Group in Hangar 5 at Lakenheath on August 11th. Air Force Secretary W. Stuart Symington arrived the following day on an inspection tour. Mr. Symington was accompanied by Gen. Hoyt S. Vandenberg, USAF Chief of Staff, Gen. LeMay, and Maj. Gen. Leon W. Johnson, Commander 3rd Air Division (Provisional). Air Vice Marshal L. Darval, Commander RAF Bomber Command, and Group Captain Chamberlain were on hand to greet the U.S. dignitaries.

During this first overseas deployment of a bomber force the U.S. relied on the RAF for support. The RAF provided the Group with six operational fuel bowsters out of nine such trucks available at RAF Lakenheath. In addition, the RAF provided a single oil truck. The Group allocated two fuel bowsters per squadron. Including the time required for refueling the trucks, it took a minimum of twenty-two hours of continual work to service all of the Group's B-29's with 5,400 gallons of gasoline each. Because of this, the Group ordered some USAF gasoline and oil servicing vehicles and used the RAF vehicles for off-base operation. The RAF also loaned the Group a heavy lift hoist for replacing the R-3350 engines. This piece of equipment was out of commission about half the time.

While in England, the Group was under operational control of the 3rd Air Division (Provisional) which, in turn, was subordinated to USAFE.

On August 23, the Group began a series of temporary duty (TDY) missions to Furstenfeldbruck, in southern West Germany. These might be referred to as mini-deployments. Crews from the 49th Bomb Squadron flew to Furstenfeldbruck where they operated for a period of seven days. While there they flew a twelve hour round-robin mission to Tripoli, Libya. F-80's from the 36th Fighter Group, at Furstenfeldbruck, provided fighter interception simulation on the 49th's return to Germany from Libya. Navigators gained a lot of experience in overwater navigation during the month. One of the 49th's B-29's experienced an engine fire that caused it to abort its mission. The engine fire burned both the nacelle and the leading edge of the wing. This aircraft, s/n 44-86341, was beyond quick repair and was transferred to the 36th Fighter Group for repair.

The 20th Squadron was the next to go TDY to Furstenfeldbruck. Nine B-29's of the 20th flew out on October 16. The 20th was followed by the 96th on November 4. The 96th remained five days at Furstenfeldbruck. One B-29 from the 20th Squadron was dispatched to Germany for use by Lt. Gen. LeMay.

The three squadron mini-deployments to Furstenfeldbruck, their training flights and missions to Africa while there, were no doubt anxiously tracked by Soviet Bloc early warning radars. No one knew what impression this activity had on the Soviets, but it was intended as a show of force and to demonstrate the kind of mobility

that a knowledgeable opponent would grudgingly respect. While one cannot know the impressions made at the time, one can speculate that the Soviet Bloc air defense command suffered a great deal of worry and sleepless nights during these four months. (See Appendix 23.)

For August, the 20th Squadron reported that 90% of its bombers were in commission at the end of each operational day. The 20th had only one engine and one supercharger change during the month. The 49th had an enviable 100% in-commission rate for the month, and the 96th 90% in-commission rate, despite eight engine changes and twelve cylinder replacements.

An RB-29A of the 16th Reconnaissance Squadron (Special), 311th Reconnaissance Group joined the 2nd in England for about thirty days during August and September, to provide motion picture and still photography coverage for Group operations.²⁶

Starting in September and continuing through the end of October the Group carried out a series of joint exercises with the RAF. Part of these exercises was a joint RAF/USAF offensive and defensive action simulating the Battle of Britain. This particular exercise was code-named OPERATION DAGGAR. Aircraft from the 20th and 49th Squadrons participated. The operation was considered a success, marred only by the loss of one B-29, s/n 44-62100, on September 25, in which the crew was forced to bail out over the Netherlands coast. T/Sgt Walter D. Roquet, the flight engineer, was severely injured while bailing out and later died in a Norwegian hospital.

September was a busy month. The Group sent eight B-29's – three from the 20th and five from 49th – over Oslo, Norway as part of the celebration of Norwegian Air Force Day on September 12, 1948. The eight-ship formation was over the city for about forty-five minutes. During this time one aircraft departed the formation and made several low-level passes over the airfield. All city traffic came to a halt as the population looked skyward to witness what is believed to have been the first appearance of B-29's over Norway.

On September 7, fourteen cadets and four instructors from RAF Feltwell, just north of Lakenheath, were given orientation flights in the Group's B-29's. Probably the most thrilling part of this demonstration was the formation flying done by the B-29's.

Group manning was augmented by the arrival of 18 officers and 143 enlisted men on September 18. They, together with Group personnel records, were transported by ship from the U.S.

The Soviet Bloc air defense forces got another workout when maximum effort camera bombing missions were conducted over England and Germany on September 9, 16 and 17. This was followed by a maximum effort Air Force Day mission over U.S.-occupied sections of Germany on September 18, 1948. The Soviet Bloc air defenses got relief on September 19 when the 2nd made no flights over West Germany. Although the Group continued its mini-deployments to Furstenfeldbruck through November 4, there were no more high activity flights over the continent after the September 9 through 17 demonstrations.

The balance of the time on this first deployment to England was spent operating with the



Piccadilly Tilly, B-29A-75-BN, s/n 44-62325, 96th Squadron. The radio operator complained about the CUT HERE emergency access panel adjacent to his station, so the ground crew painted a window replete with curtains and a flower pot. (Courtesy of the United States Air Force/Thomas W. O'Brien)



Members of the 96th Bomb Squadron inspecting a load of 500-lb. bombs in the bomb bay of one of their aircraft, September 10, 1948. (Courtesy of the United States Air Force)



20th Squadron aircraft "Ole-Faithful," B-29-25, s/n 42-5299, over Oslo, Norway, September 12, 1948. (Courtesy of SAC History Office)

RAF or conducting single-ship bombing missions against local bombing ranges.

A maximum effort fighter-bomber mission was flown over Britain September 28. Group crews led simulated attacks against RAF stations at Thorney Island and Brough. The RAF countered with intercepts by deHavilland Hornets. Gunners from the 49th and 96th Squadrons expended 2,750 feet of 16-mm gun camera film during these intercepts.

On September 30, fifteen B-29's flew a combination air-to-sea gunnery and visual bombing mission against the Breast Sands bombing range. RAF fighters put up an intercept as the bombers fired 12,000 rounds of ammunition and visually dropped thirty-five M38A2 bombs. All of this flight activity in September accrued 1,139 hours and 48 minutes of flying time.²⁷

October 1948 marked the waning days of the Groups' deployment to England. With the exception of a mini-deployment to Furstenfeldbruck, all of the Group activities were confined to the United Kingdom and adjacent bombing ranges.

Combined RAF/USAF training exercises continued throughout the month, with both day and night missions being flown on October 1, 4, 6, 7, 8, 9, and 19th. The RAF provided intercepts with propeller-driven deHavilland Mosquitoes and Hornets and jet-propelled deHavilland Vampires and Gloster Meteors. In addition to the actual flight experience gained by the crews, they were privileged to hear briefings by RAF fighter pilots who had participated in the exercises. Here they learned about the weaknesses of the B-29's to certain kinds of fighter attacks.

Actual bombing missions were flown against the Breast Sands and Heliogoland bombing ranges on October 4, 6, and 14. On October 12, a force of 21 B-29's from the Group, joined by other 3rd Division aircraft, flew a maximum effort mission against RAF Coxhill. Two squadrons from the Group joined the 301st Bombardment Group – also deployed to the United Kingdom – in a practice mission against RAF Hawarden, Sealand and Spilsby on October 29. This was the first time the Group had flown with the 301st since the WW II days in Italy.

The 49th Squadron participated in the RAF special weapons display at Bristol on October 26 and on October 29. Four B-29's from the 20th Squadron flew a high altitude fighter interception mission in conjunction with the RAF Central Fighter Establishment.²⁸ RAF Station Upwood supplied the Group Intelligence Section with a large number of identification and recognition photographs of Russian, British, and U.S. aircraft. Copies of the recognition photographs were posted in briefing rooms, mess halls, and barracks.²⁹

On November 1 and 5, the Group flew secret long-range navigation missions.

Finally, the Group received orders to return to the U.S. Preparations were made, paper work was brought up to date, and the aircraft were prepared for the flight across the Atlantic.

RETURN TO DAVIS-MONTHAN

First to depart, on November 15, were eight crews from the 20th Squadron. Shortly after departure, one B-29 experienced an engine fire just off the English coast and had to return to RAF Marham for an engine change. The return route for these eight crews was from RAF Lakenheath to Lagens, (later renamed Lages), Azores, MacDill AFB, Tampa, FL, and Davis-Monthan. The first aircraft to land at home base was piloted by Lt. Ralph W. Young. The fourth plane to land was flown by Col. William Eubank and carried the name "Pride of Tucson." (See Appendix 6.) Two crews from the 20th went via Keflavik, Iceland. Severe head winds kept these two aircraft from making the trip non-stop from Keflavik to Tucson. One aircraft refueled at

Smoky Hill AFB, Kansas, while the other refueled at Minneapolis, MN.

On November 16 and 17, the 49th and 96th Bomb Squadrons departed RAF Lakenheath for Davis-Monthan. Most of the aircraft landed at Keflavik; however, closing weather forced two of the B-29's to continue to Goose Bay, Labrador. Weather again played its foul hand against these two B-29's. On their continuing journey to Davis-Monthan one was forced to land at Smoky Hill, AFB for fuel and the other at Amarillo TX. Both the 49th and 96th Squadrons sent some crews via Lagens. One aircraft experienced an engine fire and returned to Lagens for an engine change.

After the Group returned to Davis-Monthan, it received letters of commendation from Secretary of Defense James Forrestal and Maj. Gen. Leon W. Johnson, Commanding General 3rd Air Division for their outstanding accomplishments while deployed to England. General Johnson particularly noted the excellent conduct of Group personnel while both on and off the base.

The TDY deployment was very beneficial to the Group. It brought the Group together as an integrated outfit and gave it confidence in its ability to deploy overseas and conduct simulated wartime missions. One side effect of the TDY was that many of the personnel came home enchanted with the British Isles and a number of airmen requested re-enlistment assignments to England.

The last B-29 to return to Davis-Monthan AFB arrived on December 5, 1948. Everybody was now back home and it was time to reflect on what had been done and what had been learned from this deployment.

The aircrews and ground support personnel received extensive beneficial training during the deployment. The aircrews had diverse missions that took them through some of the tough European winter weather and allowed them to drop bombs on a variety of ranges in England, West Germany and Libya. The navigators honed their skill through both eastward and westward overwater deployments, and by navigating, on time, to many different European and Libyan bombing ranges and radar targets. Additionally, the navigators were able to become proficient in the various British radio navigation systems. The bombardiers and radar operators got to drop many bombs on unfamiliar bombing ranges and do a quantity of Radar Bomb Scoring (RBS) runs against cities in England and West Germany. The Armament Sections of the Squadrons received extensive training loading a variety of bombs on the B-29's. The 49th Squadron set a record time in bomb loading when it loaded ten aircraft, with sixteen 500 lb. bombs each, in 1:45 hrs. Maintenance personnel got a good workout in maintaining the aircraft under relatively spartan conditions and were justifiably proud of their in-commission rates. Communications personnel had their job cut out for them in learning how to deal with the communications differences which were found in England and Western Europe.

Several other vital lessons were learned from this deployment. Not enough support personnel had been planned for the deployment. There

were insufficient numbers of Air Police. There were not enough administrative personnel to handle pay and other personnel problems. And, there were not enough mess hall personnel to handle the Group's feeding needs. Finally, there was the realization that the RAF logistics support system was inadequate to properly support one or two deployed B-29 groups. It was clear that provisions had to be made for greater self-sufficiency of deployed units.

Based on 2nd Bomb Group experience and that of other deploying bomb groups, SAC eventually created the 7th Air Division, initially located with the 3rd Air Force in South Ruislip, England, to handle all of SAC deployments to the UK. The SAC deployment bases, like Lakenheath, Brize Norton, Upper Heyford, etc., were eventually supplied with support equipment and materiel.³⁰

December 1948 marked the beginning of a new phase in the life of the Group. First, the Group received notice that it would transfer from Davis-Monthan AFB to Chatham AFB, Georgia. The transfer of personnel and equipment was scheduled to take place between late December 1948 and April, 1949.³¹ Secondly, the Group received the first allotment of the B-50 bomber. Two B-50A's were delivered in December. While several pilots had completed a B-50 transition program before going to England, they had to attend a refresher course upon returning to Davis-Monthan. During December, three aircraft commanders and three flight engineers completed B-50 training with the 43rd Bombardment Group.

The Group was in the process of transferring its earlier B-29's to flyaway storage and replacing them with thirty-one "Silverplate" – B-29 aircraft modified to carry atomic bombs. The code name was compromised in 1947 and was replaced by the code name "Saddletree."

The "Saddletree" modifications included a number of changes to the basic airframe.³² These included replacement of the Hamilton Standard hydromatic propellers with Curtiss Electric propellers; installation of fuel-injected R-3350 engines; installation of a new H-frame bomb support; installation of a new U-1 bomb rack; installation of a new C-6 bomb hoist; installation of new bomb sway braces; replacement of snap-opening bomb bay doors with Winker-type doors; and, installation of the SCR-718 altimeter. The "Saddletree" modified aircraft came to the Group from Warner Robbins AFB, GA, Tinker AFB, OK, or Hill AFB, UT. Training for the Group's crews in the "Saddletree" – modified aircraft was provided by the 509th and 43rd Bomb Groups. Six training airplanes and their crew chiefs were provided by the 509th Group. Training was concentrated between December 5 and December 15, 1948.

Regular training continued during December, 1948. The goal for the month was twenty scored radar bombing runs per radar operation against the radar bomb site, using the ground SCR-584 equipment. At the beginning of the month only 23 radar operators were assigned to the Group. While 320 scored runs were flown by the Group, the average per radar observer was only fifteen.



An example of nose art on the B-29s of the 2nd Bombardment Group in 1948, "Speed Run." (Courtesy of the United States Air Force)

This program did not get started until December 7th, when the crews returned from England and new aircraft began arriving. While on deployment in England, the radar observers were able to fly only a few RBS missions, thereby degrading radar operator skills. The early runs with the ground SCR 584 radar were quite poor. However, as the radar operators became more familiar with this new ground scoring system, the radar bombing scores progressively improved and the average circular error was 4,600 feet. All the RBS runs were flown at an altitude of 25,000 feet.

Because of the addition of the "Saddletree" aircraft, the Group added a new Squadron — the 2nd Aviation Squadron. This new Squadron, comprised of eight officers and twenty-four airmen, was responsible for the care, maintenance, storage and loading of the special (nuclear) weapons. An initial cadre of the 2nd Aviation Squadron came from the 7th Bombardment Wing at Carswell AFB, TX to the Group's new location at Chatham AFB, GA on December 12. The balance of the Squadron arrived at Chatham on January 5, 1949.

During December 1948, the Group accrued 1,620 hours and thirty minutes of flying time. Eight hours and ten minutes were in the B-50A. All aircrews attended extensive ground school classes for the impending transition into the B-50A. The Group also participated in an aerial display over Charleston, West Virginia on December 7. Two B-29's from the Group were joined by two B-36A's from the 7th Group at Carswell, for this aerial demonstration. The total aircraft complement of the Group was in flux during December. During the last days of the month, twenty B-29's were ferried to the 97th Bombardment Wing at Biggs AFB, TX; thirty-one "Saddletree" B-29's and six B-50A's were gained by the Group. One B-29, s/n 44-27345, went out of commission at Warner Robbins AFB, GA, on December 23, and was transferred to the Warner Robbins Depot.

Ground support personnel began moving to Chatham, in late December. The flight and maintenance crews of the Group remained at Davis-Monthan for the next three months while they underwent transition training in the new B-50. These personnel moved to Chatham in late March 1949.

Some kind of aircraft markings has long been part of any air unit's distinctive identification. These distinctive markings, either by insignia or color coded schemes date back to the Air Corps days of the 1930's. During this post-WW II period, the Group continued the tradition of having its distinctive aircraft markings. Group B-29's carried a large open square on the vertical tail, with the tail number cut through the forward vertical bar of the square, and an Eighth Air Force emblem on the fin fillet. The individual squadron insignia was carried on the left side of the nose and quite often a piece of nose art was applied to the right side. The airplanes also had different colors applied as belly bands, colored nose gear doors, fin cap, and panels on the outboard sides of the engine cowlings to identify each squadron. The color coding for the Squadrons was yellow for the 20th; blue for the 49th; and red for the 96th.

1947 and 1948 was a new era for the 2nd



Members of the 20th Field Maintenance Squadron working on the No. 2 engine of B-29 A-5-BN, s/n 42-93872. Note the new Triangle S tail insignia for the Group. This photo dates from May 10, 1950. (Courtesy of the United States Air Force)

Bombardment Group. The Group had been reactivated, assigned B-29's, and personnel to accomplish the Group's mission. Only a smattering of the new personnel assigned to the Group had any experience in the B-29. It was a new training program all over. The Group mastered both its new airplane and all of its new personnel. The deployment to the United Kingdom brought the Group together as a fighting unit. Now in December 1948 it was about to embark on a new venture — a new aircraft, a new home base and the addition of another aircraft — the air refueler.

Endnotes:

¹ Meyers, Cawelti & Kern: Sources of the American Public - rev ed 2, Vol 2. Scott Foresman & Co., 1961. p. 460

² Harry S. Truman, "Memoirs — Year of Decisions," Vol 1 (Double Day & Co. Inc., NY 1955) pp 271, 289

³ Ibid p. 461

⁴ Churchill, Winston: The Sinews of Peace; Post War Speeches by Winston Churchill ed. Randolph Churchill. London. Cassell and Company Ltd. 1948. pp 100-105

⁵ Harry S. Truman, "Memoirs — Years of Trial and Hope," Vol 2 (Double Day & Co. Inc., NY 1956) pp 96, 104, 108

⁶ Truman, Ibid, pp 113-119

⁷ Truman, Ibid, pp 120-124, 240, 241

Mark S. Hoffman, Editor "World Almanac, 1991," (An Imprint of Pharos Books, A Scripps Howard Co.) p446

⁸ Truman, Ibid p 250

⁹ Truman, Ibid p 48

¹⁰ Hopkins, J.C.: The Development of the Strategic Air Command 1956-1981 (A Chronological History). Office of the Historian, Headquarters Strategic Air Command, Offutt AFB, NE., 1 July 1982 pp 1-9

¹¹ Sources Ibid p. 461

¹² Sources Ibid p 462.

¹³ Birdsall, Steve: Saga of the Superfortress. Doubleday, NY. 1980, pp 1-58

¹⁴ Collison, Thomas: The Superfortress is Born. Duell, Sloane & Pearce, NY. 1945. pp 1-109

¹⁵ Jones, Lloyd: US Bombers B-1 to B-1. Tab/McGraw-Hill, Blue Ridge Summit, PA., 1983. pp 4-20

¹⁶ Lloyd, Alwyn T.: B-29 Superfortress in Detail & Scale. Kalmbach Publishing, Waukesha, WE. 1983. pp 4-20

¹⁷ Koller Diary. 1942-1945.

¹⁸ History of the 2nd Bombardment Group (VH) for 1 November 1947 to 30 November 1947.



Forever Ambling, B-29-70-BN, s/n 44-62231, was the last bomber of this type in the 2nd Bombardment Group. It was delivered to Wright-Patterson Air Force Base, Ohio in 1950 and was subsequently transferred to the RAF on January 15, 1951. (Courtesy of the United States Air Force)

¹⁹ History of the 2nd Bombardment Group (VH) for December 1947

²⁰ History of the 2nd Bombardment Group (VH) for February-March, 1948.

²¹ Hopkins, JC. Ibid pp 11-19.

²² History of the 2nd Bombardment Group (VH) for January 1948.

²³ History of the 2nd Bombardment Group (VH) for May 1948.

²⁴ History of the 2nd Bombardment Group (VH) for June 1948.

²⁵ History of the 2nd Bombardment Group (M) for July 1948.

²⁶ History of the 2nd Bombardment Group (M) for August 1948

²⁷ History of the 2nd Bombardment Group (M) for September 1948.

²⁸ History of the 2nd Bombardment Group (M) for October 1948.

²⁹ History of the 2nd Bombardment Group (M) for October 1948

³⁰ History of the 2nd Bombardment Group (M) for November 1948

³¹ History of the 2nd Bombardment Group (M) for 1 December through 31 December 1948.

³² Lloyd, Ibid pp 10-15.

CHAPTER XIX

CONTINUED THREAT TO WORLD ORDER

(THE B-50 ERA)

During the 1949 — 1953 period, the threat of Soviet expansionism and the build-up of its

armed forces continued to heighten the tempo of the Cold War. Proxy wars appeared on the world scene. The North Korean communists, supported by their Soviet mentors, invaded South Korea in June of 1950. China continued its threats of invading the Nationalist Chinese sanctuary of Taiwan. The United States threw down the gauntlet on the Formosa Straits and dared the Chinese Communists to cross the line. Vietnam was becoming a hot-bed of confrontation between the local communists in the North and the French colonial government. Outbreaks of communist-inspired revolutions occurred across Latin America, and Cuba became a Soviet puppet. Post WW II European colonialism in Southeast Asia was in flux. New, and sometimes fragile, nation states came to life in India, Pakistan, Burma, the Philippines and Indonesia. With the exception of France in French Indo China areas of Vietnam, Laos, and Cambodia, the European colonial powers of Great Britain and Holland relinquished rule of their colonies in the area to new nation states.¹

One result of the breakup of the colonial empires was to bring Asia far more directly into the arena of world power rivalries. U.S. policies in Japan and the far east became linked to Soviet moves in east Germany and Europe as each of the two emerging great powers tried to curb the influence of the other. The events in Indo China had a close bearing on French participation in Atlantic Pact NATO.²

On September 3, 1949, President Truman disclosed that Russia had exploded an atomic

bomb within recent weeks, thus ending U.S. atomic monopoly. On November 1, 1952, the U.S. exploded the world's first hydrogen bomb at Enewitok atoll in the central Pacific ocean. Within seven months, in August 1953, the Soviets exploded their own hydrogen bomb.

The Korean war ended in 1953 with an uneasy truce between North and South Korea. On June 7, 1953 Russian tanks rolled into the Soviet sector of East Berlin to quell riots of East German workers. It seemed that as one area of conflict was reduced or eliminated, another popped up to take its place.

Within the United States both the President and the Congress realized that this was a new era in world politics, and that returning to the traditional peacetime mode of the armed forces was no longer a prudent policy. Steps were taken to rebuild the post-war armed services into a more credible force. Funds were appropriated to this end.

Subsequent to 1950 the U.S. made heavy investments in intelligence gathering, in electronic eavesdropping and in aerial reconnaissance. SAC's role in all of this remains classified, but the unpublished, yet known loss of several SAC reconnaissance aircraft between 1949 and 1953 bears testimony to the very active role that SAC played in intelligence gathering. In the very critical struggle for power, position and influence, the U.S. had to have the best and most reliable information about Soviet intentions, activities and capabilities.

In November 1948, Lt. Gen. Curtis LeMay assumed command of the Strategic Air Command. In early 1949 SAC headquarters was moved to the abandoned Glenn Martin Company aircraft factory adjacent to old Fort Crook, Omaha, NE. One of Gen. LeMay's first actions as SAC commander was to replace the current SAC staff with bomber generals — generals who had worked with or for him in the 8th and 20th Air Forces during WW II. Maj. Gen. Thomas Power, from the 20th Air Force, was assigned as Vice Chief of SAC. Maj. Gen. J. B. Montgomery, also of the 20th, was made Director of Operations. Maj. Gen. August Kissner, from the 8th Air Force, was assigned as Chief of Staff, and Maj. Gen. W. C. Sweeney was made Director of Plans.³

1949 was a new training year for all SAC units. Gen. LeMay's goal was to develop SAC into a strong and efficient outfit. As far as he was concerned, SAC had to reach a level of instant readiness. He felt that SAC must operate each day as if the U.S. was at war, so that if the whistle blew, SAC would do the same then that it had been doing in training. LeMay began reworking the bomber, reconnaissance, tanker and fighter training programs so they would emulate wartime operations.⁴

At the outbreak of the Korean war, two SAC units, the 22nd Bombardment Group from March AFB, CA, and the 92nd Bombardment Group from Spokane, WA, moved immediately to Okinawa and Japan, where they became the core of the newly formed Far East Bomber Command, under the operational control of the General Douglas MacArthur, the theater commander.⁵ Although classified at the time, some other individual "Saddletree" B-29s deployed to Okinawa. Brig. Gen. Robert F. Travis, Commander,

Fairfield-Suisun AFB, CA (now Travis AFB) was on one of the deploying aircraft, and was killed when the airplane crashed on takeoff.

Other SAC bombardment groups remained at their home bases and continued to train to be in readiness for any other national emergency. The 2nd Bomb Group was one of those units that continued its training. At the start of the Korean War, the Group was at Chatham AFB, GA, training in B-50s.

1949 was a year of upheaval and change for the 2nd Bomb Group. It transferred from Davis-Monthan to Chatham AFB, released its B-29s, transitioned into the B-50 — an updated and severely modified version of the B-29 — and received its first aerial refueling aircraft, the KB-29.

B-50 SUPERFORTRESS⁶

The outward appearance of the B-50 bore a striking resemblance to its predecessor, the B-29, and rightly so because the B-50 was initially designed as the B-29D. By using this approach the USAAF did not have to pay Boeing for a new design. While outwardly similar, the B-50 was actually a 75% new design. The most notable exterior differences between the B-29 and B-50 are:

- Larger Pratt & Whitney R-4360 engines with deeply recessed oil cooler chin inlets which provided 59% greater power. These engines had 28 cylinders, with a total of 56 spark plugs for the mechanics to replace vs. the 36 plugs on the Wright R-3350 engines which powered the B-29s!
- Taller vertical tail to counteract adverse torque from the larger engines during an engine-out condition.
- Curtiss Electric reversible pitch propellers greatly enhanced landing on short, wet runways.
- Nose wheel steering pistons which greatly enhanced ground handling and taxi operations.
- The B-50D had a blown nose piece, vs. the built-up framed affair installed on the B-29 and B-50A, thereby enhancing forward visibility.

The innovation of nose wheel steering was a significant improvement. B-29 pilots used "up" elevator to unload the nose gear centering cams and differential power to get the nose wheel to turn. With the B-50, the steering was accomplished by hydraulic power. This powered steering feature has been used on all subsequent large tricycle-gear aircraft.

The B-50 was initially designed as a conventional bomb carrier; however, in 1948 the Mk. 3 atomic bomb became generally available for the B-50Ds. These were followed by the Mk. 4 in mid-1949. Essentially each series of bomb had its own particular requirements for loading into the bomb bay and for its electrical hook-ups which were incompatible with the conventional-mission bomb bay. As a consequence numerous field modifications were performed to bring the early B-50Ds up to an atomic capability. Initially, the bomb groups were allotted the retrofit of only four aircraft each.⁷



These B-50As on the flight line at Boeing Field, Seattle, bear a marked resemblance to their B-29 predecessors. Major externally visible differences include: nose wheel steering, Curtiss Electric propellers, huge Pratt & Whitney R-4360 engines in nacelles with recessed oil collar inlets, and the taller vertical tail. (Courtesy of S. Williams)

The maximum gross weight for B-50 series aircraft was: B-50A, 168,708 lbs.; B-50B, 170,000 lbs.; and B-50D, 173,000 lbs.⁸

KB-29M HOSE TANKER⁹

America had dabbled in the art of aerial refueling as a barnstorming feat during the 1920s and with the famed *Question Mark* in January 1929 with Capt. Carl A. Spaatz, Capt. Ira C. Eaker, and Lt. Elwood "Pete" Quesada. On May 29, 1929 Lt. Odas Moon, from the 2nd Bombardment Group, flew a bomber which was refueled by a tanker flown by Capt. Hoyt S. Vandenberg on a flight between Dayton, Ohio and New York City. While the British had taken the lead in the development of aerial refueling as a serious means of range extension, it would take SAC, under Gen. LeMay to pursue the technique in the United States. Capitalizing on Britain's Air Refuelling Limited hose system, SAC came to Boeing with a proposal to modify some B-29s into a tanker configuration and others into receivers.

B-29 production came to an end in June 1946 and the Boeing Wichita Plant 2 was virtually closed down shortly thereafter. In 1948, the plant was reopened as a B-29 modification center. The Flight Refuelling Limited system was installed in the modified aircraft. In addition, a 2,300-gallon jettisonable fuel tank was installed in each bomb bay, giving a total of 12,032 gallons of useable fuel capacity. A hose windlass and refueling panel were installed in the aft fuselage. After modification, the aircraft were redesignated as B-29Ms. The Boeing-Wichita Plant also converted a number of B-29s into receiver aircraft which were identified as B-29MRs. This receiver installation was similar to that employed on the B-50As and B-50Bs. There were 92 KB-29Ms and 72 KB-29MRs produced.

The refueling operation was a real *Rube Goldberg* affair and was not much different from that originally tested by Eaker and Quesada in the mid-1920s.

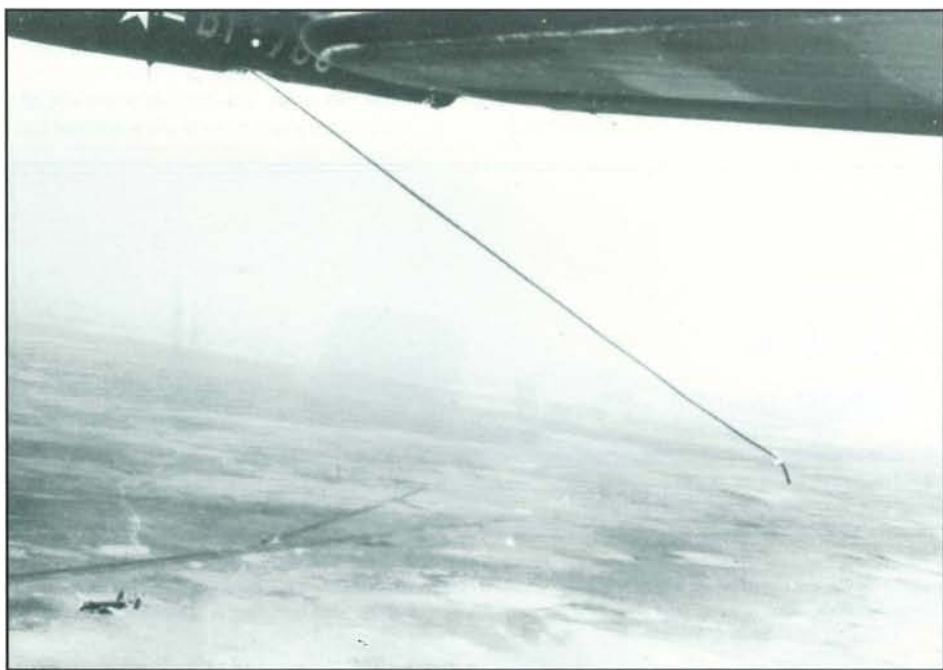
KB-29P BOOM TANKER¹⁰

Not satisfied with the complicated hose refueling operations, Boeing set out to develop a better system. What evolved was a tanker with a *flying boom* which was directed into a receptacle on the receiver aircraft. With this system the two aircraft would fly in formation and the refueling operation was controlled from the tanker. Higher fuel transfer rates, a requisite for refueling large aircraft, could also be achieved with the *flying boom*.

All defensive armament was removed from the tanker aircraft and the turret holes were faired over. A hinged, telescoping boom was mounted on the aft lower fuselage and was controlled by the boom operator located in the former tail gunner's position. Because the aircraft was considered to be a non-combat type, all fuel cells within the tanker were constructed as non-self-sealing cells; thus contributing to a significant weight reduction. Whereas the standard B-29 bomber had a fuel capacity of 3,600 gallons, the tanker carried 11,954 gallons. When initially used to refuel piston-powered aircraft, all of the tanker's tanks were filled with Mil-F-5572 grade 100/130 or 115/145 aviation gasoline. With the advent of jet receivers, aviation gasoline was restricted to the four main wing tanks and the two bomb bay tanks in the tanker. Tanker wing center section tanks were restricted to Mil-F-5624 (JP-4) jet fuel. However, in an emergency, these tankers could off-load the aviation gasoline because jet engines are not all that particular about what they burn. A set of refueling director lights was mounted on the belly of the tanker along with a set of alignment stripes.

After conversion, the aircraft were redesignated KB-29Ps. A total of 116 KB-29P conversions were made between 1950 and 1951.

The refueling operations were conducted with precise formation flying and coordinated crew functions. The tanker assumed a cruise attitude and the boom operator extended the boom. The receiver moved into position below and behind



Typical of the hose refueling system operation, used with B-29s and B-50A refuelings, was the deployment of the refueling line with its sinker to which the receiver's grapnel attached. (Courtesy of the United States Air Force)



These are some of the buildings which the 2nd Bombardment Group inherited when it moved to Chatham Air Force Base, Georgia in 1949. (Courtesy of United States Air Force)

the tanker, using the alignment stripes and director lights for reference, and opened the refueling receptacle. The director lights provided UP, DN, FWD and AFT indications for the receiver pilot. The boom operator flew the boom into position and guided the nozzle into the receptacle. Coordination between the tanker's boom operator and flight engineer controlled the transfer of fuel into the receiver so as to stay within the center-of-gravity limits for both aircraft. As the refueling operation progressed, the weights and center of gravities of the two aircraft changed. The receiver pilot used the director lights to adjust the position of his aircraft to compensate for these changes. Upon completion of the refueling, the aircraft disconnected and the boom operator purged the refueling manifold with nitrogen to prevent an explosion of any trapped fuel.

The 2nd Bomb Group operated both the B-50A and B-50D between late 1949 and November 25, 1953 when the unit transitioned into the B-47 *Stratojet*. The B-50 was designed as a nuclear weapons carrier. Generally the weapon was carried in the forward bomb bay while a fuel tank was installed in the aft bomb bay.

1949¹¹

1949 was a year of continuous training, with emphasis on 4,000-mile cruise-control missions, and simulated bombing of selected U.S. cities that had an adjacent Radar Bomb Scoring (RBS) site.

In January, as the 2nd Bomb Group was transferring to Chatham AFB, the Group changed to the new SAC-directed Bomb Wing-Bombardment Group organization. Under this new structure,

there was an umbrella Wing over a bombardment group for combat operations. Several other subordinate organizations were created. These included an Air Base Group to provide and maintain the base facilities, a Supply Group to maintain the combat and base support aircraft, a Medical Group, and a Wing Headquarters Squadron. The "Bombardment" designation was retained for the Group. The "Bomb" designation was retained for the Wing. Thus there was a 2nd Bomb Wing, and a 2nd Bombardment Group. The Wing reported to the Eighth Air Force. It was not unusual at that time for the Bomb Wing commander to be also the Bombardment Group Commander. Col. William E. Eubank Jr., was the commanding officer at the time of this organizational change.

Because SAC gave priority to the 509th and 43rd Bomb Wings, the 2nd Bomb Wing was delayed in receiving its authorized manning and aircraft. It was not until the April-May period that the Wing received its authorized personnel and aircraft. Because of the transition in equipment, the Wing had a variety of aircraft in January, that inhibited training and operations. The Wing had 19 B-29s, 15 B-29As, 13 B-29Bs, and 10 B-50As for a total of 57 aircraft. This mix did not last long as B-50As continued to arrive and the B-29s were transferred to other SAC units.¹²

As a new airplane, the B-50s suffered through a shake-down period which required maintenance and field modifications. Another complicating factor, common to all new equipment, was inadequate spare parts. Initially, the Group experienced a high out-of-commission time. The causes and effect of this lost time for January were lack of parts (588 hours), Technical Order compliance (165 hours), and aircraft modifications (288 hours).

The trend toward classifying many of the Group's missions started in 1949. This generally coincided with the beginning of the Group's mission as an atomic bomb carrier. Many missions then and thereafter remain classified, even to the date of this writing. This fact is commented on periodically to explain the paucity of information regarding some Group/Wing operations. Not every instance, by any means, is commented on because the effect of classification is so extensive. If a seemingly important mission, exercise or major operation is not presented in the detail it seems to deserve, the reader may rightly conclude that it was probably classified.

The B-50A was equipped with a new series radar, the AN/APQ-23. This radar was much superior to the older AN/APQ-13. It had a smaller, higher resolution beam width and a better bomb computer. However, like all new, highly technical equipment, it required special servicing. The manufacturer, The General Electric Company, assigned two civilian technical representatives to the Group to assist in maintenance and trouble-shooting the new radar.

On January 1, the 2nd Air Refueling Squadron was assigned to the Wing. The Squadron was equipped with the KB-29M hose tankers to furnish refueling service for the B-50s.

CHATHAM AFB, GEORGIA¹³

The move from Davis-Monthan to Chatham started in January 1949. Combat crews remained at Davis Monthan to complete transition train-

ing to the B-50. The Group became operational at Chatham on May 1.

Chatham was located seven miles northwest of Savannah, Georgia. It was not the most inviting base in the Air Force. Much of the base was in disrepair and much work had to be done to make it serviceable and survivable. Radio interference was encountered between Chatham control tower and Savannah Approach Control. The Group worked with the Civil Aeronautics Authority (predecessor to Federal Aviation Administration — FAA) to implement a change in frequencies. Tanker trucks assigned to the refueling squadron only had a 4,000 gallon capacity. Because the B-50A carried 8,000 gallons of fuel, it took two tanker trucks to service each airplane. The Group received authorization to double the number of assigned trucks.

By May all of the B-29s had been transferred and replaced by B-50As. Had SAC implemented an Emergency War Order (EWO) during this period of transition, the Group would have been only partially prepared to execute the order. With the transition complete, training for operational readiness accelerated. The Group flew bomb scoring, radar bombing, round-robin navigational, and refueling missions.¹⁴

JULY-SEPTEMBER 1949¹⁵

On July 19, the 2nd Bomb Wing directed the 2nd Bomb Group to conduct a daylight penetration of the Eglin AFB, Florida area at an altitude of 500 feet, and a night penetration at 1,000 feet on the July 22. (Penetration was the term used for bombers entering airspace which is defended by anti-aircraft guns and fighters; not to be confused with the term *jet penetration* which was a maneuver employed by jet aircraft to quickly descend into a base.) The formation for both of these penetrations was to be line abreast with a spacing of 10-20 miles. On the first mission, eight of the nine assigned aircraft attacked at altitudes ranging between 175-500 feet. This formation was intercepted and attacked by one F-80 *Shooting Star* and one F-82 *Twin Mustang* which each made passes at B-50A, s/n 49-110, flying at an altitude of 400 feet. Eight B-50As completed the night mission while flying at an altitude of 1,000 feet. During this mission, single F-82 passes were made against B-50As, 49-013, 49-054, and 49-107. Navigation on these missions was done by dead reckoning, pilotage, and radio/radar fixes.

Again on July 26, the Group was directed to fly a daylight and night penetration mission of the Eglin Area at an altitude of 35,000 feet. A summary of these missions follows:

- Aircraft 47-111 aborted after an engine failure and returned to base.
- Aircraft 47-105 made both penetrations at an altitude of 35,000 feet without interception. The aircraft experienced an oil leak in the No. 2 engine and a leak in the hydraulic system. Next there was a fire warning in the No. 2 engine, it was immediately feathered and the fire extinguished.
- Aircraft 46-012 lost the No. 2 turbosupercharger. It continued on course and lost the No. 2 engine. The aircraft completed

the RBS run at an altitude of 30,000 feet and returned directly to Chatham AFB.

- Aircraft 47-106 was low on fuel and shortened its second penetration. It was intercepted by a single F-51 which barely

could catch them at 35,000 feet. A second fighter was unable to make the intercept at that altitude.

- The Electronic Counter Measures (ECM) runs were made at such a low altitude that



A 20th Squadron new B-50A at Andrews Air Force Base, Maryland, February 1949. Note Pineapple Pete insignia on the nose and green waist band. When the Triangle S markings were applied, the waist band color changed to blue. This aircraft was equipped for aerial hose refueling. The refueling receptacle appears aft of the tail skid. (Courtesy of S. Williams)



Major General Roger M. Ramey (right), commander, Eighth Air Force, paid a visit to Colonel Frederic E. Glantzberg (left), 2nd bombardment Group commander. (Courtesy of the United States Air Force)



This 49th Bomb Squadron B-50A, 46-007, also visited Andrews Air Force Base. The aircraft had a yellow waist band, and the squadron insignia was carried on both sides of the nose. The aircraft shared the ramp with a North American B-45A Tornado, 47-013, and the first Boeing XB-47, 46-065. (Courtesy of S. Williams)

some aircraft were probably beyond the sight range of the stations.

- While three ECM operators reported fighter interceptions, two of the signals were jammed on the first run.

Subsequent missions were flown on August 9 and August 19, with similar results.

OCTOBER-DECEMBER AND A TRAGIC LOSS^{16,11}

During October, the Group experienced eight KB-29 aborts and twenty four B-50 aborts.

On November 15, the Group launched 36 B-50As in a formation attack. There were 12

aircraft from each squadron, which formed three elements of 4 aircraft each. Interception was provided by F-80s from the 158th Fighter Squadron (Jet), Georgia Air National Guard, which was also based at Chatham AFB. The 36 bombers took off individually at one-minute intervals to join in formation using a series of double drifts or a 360° turn, at the discretion of the element leader. The bombers were loaded with 500-lb. general purpose M64A1 bombs. The bombing was scored by K-17 or K-22 cameras aboard the lead, deputy lead, and each element leader's aircraft.

B-50A Loss

Tragedy struck on December 22, when B-50A, s/n 47-110, from the 96th Bomb Squadron took off from Chatham AFB at 9:15 in the evening on a long-range cruise mission to Abilene, Texas; Kansas City, Kansas via El Paso, Texas; Birmingham, Alabama via New Orleans, Louisiana; and return to Chatham. The aircraft commander was Capt. Andrew G. Walker, a 28 year-old pilot who had logged 1,278 hours of flying time. The aircraft, which had flown a total of 392 hours and 45 minutes, weighed 136,030 pounds and carried 8,050 gallons of 115/145 octane aviation gasoline.

The weather at 9:17 p.m. was clear with a south-southwest wind at 10-15 knots, the temperature was 62°, and an altimeter setting of 29.98. The 7,000-foot-long runway 36-18 was dry.

The Chatham tower operator watched the takeoff and until the aircraft was approximately five miles south of the base, at which time he had no further contact.

The tower operator at Hunter Field, located 7.2 miles at 151° from Chatham, spotted the aircraft at an altitude of 500 feet as it made a normal climbing turn to the left to about 1,000 feet. His attention was drawn to the airplane by its blinking navigation lights and unusually low altitude. Hunter tower personnel then lost sight of the airplane against the lights of Savannah. A few moments later they saw a huge fire ball coming from below the horizon. No evidence of an aircraft fire had been noted as it passed near Hunter.

A second B-50A, under the command of Lt. Col. Frank P. Bender, was making a descending right turn from an altitude of 2,500 feet to 1,200 feet while flying almost due east on his approach to Chatham. Col. Bender spotted another B-50 ahead and approximately 1,000 feet above him. As Col. Bender continued his approach, both he and his copilot saw the other B-50 go into a steep, spiraling dive to the right, crash into the ground and explode. Neither pilot saw any flames or evidence of fire while the aircraft was still in flight.

Two eyewitnesses, on the ground, reported that they had seen evidence of a fire from their first sighting until impact. The flames were apparently emanating from the center of the aircraft, and the explosion occurred when the plane was about 300 feet above the ground.

The Accident Investigation Board believed that the accident was caused by a disintegrating engine part penetrating the bomb bay or belly radome, starting the fire and possibly cutting some of the control cables, thus throwing the



When Georgia Governor Herman Talmadge flew into Hunter Air Force Base on October 13, 1949, he was greeted by Colonel James B. Knapp. (Courtesy of the United States Air Force Base)



The tail of B-50A, 46-007, reveals its BK-007 buzz number, Eighth Air Force insignia on the fin fillet, and open square for the 2nd Bombardment Group. These aircraft were equipped with three .50 caliber machine guns in the tail and the AN/APG-15 gun-laying radar, as indicated by the suspended spherical antenna. (Courtesy of S. Williams)

aircraft out of control. In a matter of seconds the fire reached the bomb bay fuel tank, resulting in the explosion just prior to impact.

As a result of the Aircraft Investigation Board's report, all B-50A were grounded pending modification of the C-11A turbo supercharger regulators. Further, all superchargers for the R-4360 engines were to be redesigned to raise the operational ceiling from 26,000 feet to the operational limit of the aircraft itself, and that all *Ruralist* aircraft be modified so that the bomb bay fuel tank could be jettisoned. (*Ruralist* was the code name for the installation of a single-point aerial refueling system and its associated radio beacon on B-29 and B-50 aircraft.)¹⁷

1950

In 1950, with the approval of the Chief of Staff, USAF, the Group continued the *Tactical Evaluation of Electronic Counter Measures* ECM test project.

During 1950, the USAF directed a reorganization at base level to replace the group, as the prime unit, with the wing.

The 2nd made another 90-day deployment to England between February and April 1950 where the unit worked closely with the RAF and other Allied air forces. (See Appendix 23.)

In September, the unit moved to Hunter AFB and became a major aircraft ferry agent for the expanding units within SAC.

Some B-29s remained in the Group's inventory until sometime in 1950.

The January 1950 unit history for the 2nd Bomb Group and Wing is still classified.

FEBRUARY-APRIL — OFF TO JOLLY OLD ENGLAND¹⁸

Orders were received in February for another overseas deployment to England. There, extensive training was performed in conjunction with the Royal Air Force and Allied air forces. In addition, lessons on deployment sustainability, primarily through logistics support, were recorded during which the unit operated out of flyaway kits that were replenished from state-side stores.

On February 18, the Group Headquarters and the 20th Bomb Squadron went to RAF Marham, the 49th Squadron went to RAF Sculthorpe, and the 96th went to RAF Lakenheath. Because the Squadrons were dispersed, a small administrative echelon was assigned to each squadron. The entire Group did not deploy. The main administrative portion of the Group and a tactical unit with fifteen crews and aircraft remained at Chatham. Thirty combat crews and B-50As deployed to England. Nineteen support personnel per aircraft also deployed and were transported across by MATS or commercial airlines.

An advance party from the Group had deployed in January for indoctrination and to coordinate the Group's deployment with other deployed SAC units. A major area of indoctrination and interest was 3rd Air Division's operations and procedures. While deployed, the Group would be under the operational control of the 3rd Air Division Headquarters at South Ryslip, Middlesex, England, about 35 miles west of London.



Boeing Tech Reps L to R: John Cantrill and Milo Schnee pour over the wreckage of B-50A 47-110 on January 9, 1950 in search of clues. (Courtesy of the United States Air Force)



20th Squadron B-50A, 46-036 during deployment to England, February 1950. Note the nose wheel steering cylinders on the nose gear strut. (Courtesy of the United States Air Force)



The first crew from the 20th Squadron to arrive at RAF Marham on February 22, 1950. (Courtesy of the United States Air Force)



A B-50A crew was undergoing preflight inspection. Each crewman had his parachute and flight kit on the ground before him as the aircraft commander briefed the mission. Note the mixture of dark blue and khaki summer flight suits. The Mae West water survival vest was part of the standard flight gear. (Courtesy of the United States Air Force)

The MATS support flights arrived between February 21 and 24. Coordination by the advance party resulted in a smooth deployment to RAF Lakenheath and RAF Marham. Problems arose at RAF Sculthorpe. The 23rd Strategic Reconnaissance Squadron was still at Sculthorpe and not scheduled to return to the U.S. for another two weeks. Somehow the two units managed to operate together for those two weeks.

Other problems nagged the deployment start-up. The payroll staff was too small to administer payroll and some officers and enlisted men had

to wait for a second payroll to make up shortages. Mess halls were understaffed. Forty-four cooks had deployed, were divided among the three bases, and integrated into existing base complements, but they were insufficient to handle the job. Five more cooks were brought over from Chatham, which seemed to solve the problem. The Air Police deployed one officer and fifteen air policemen. Divided among the three bases, they were not enough. Some relief was furnished through the 3rd Air Division, but base security was still left wanting. Because of

the fifteen bombers still at Chatham, no more air police would be sent to England.

One medical officer and twenty-two medics were deployed. The medics were assigned to the existing base dispensaries. At RAF Marham, the base surgeon was a naval officer. As with previous deployments to England, medical personnel were confronted with ten to fifteen respiratory disorders per day at morning sick call. There was a higher rate of disorders at RAF Lakenheath, probably due to the lack of adequate quarters heating.

The Group was also supported by civilian technical representatives from Boeing, Curtiss Wright, and Pratt & Whitney.

Twenty-four B-50As and six KB-29Ms were deployed from Chatham between February 18 and 21. The B-50s flew via Kindley AFB, Bermuda and Lagens AB, Azores. Two of the B-50s were delayed at Lagens AB due to mechanical problems and did not arrive in England until March 1 and March 7. The KB-29Ms flew via Westover AFB, Massachusetts, and Keflavik, Iceland. Extremely cold weather (-25° F) caused a number of technical difficulties with the KB-29Ms, resulting in them being delayed at Westover. Mechanical problems caused an additional delay for one of the KB-29Ms. MATS services at Westover were inadequate for the KB-29Ms and contributed to the difficulties. The transiting air crews were quartered in inadequately heated barracks with only cold running water.

Upon arrival of the bombers, the Group commander ordered all aircraft in commission to be ready to fly radar bomb missions against the radar bomb scoring (RBS) site at Heston near London. This was quite a feat since the ground crews were incomplete and no radar maintenance could be performed. The 20th Squadron flew on February 23, followed four days later by the 49th.

The 96th was also scheduled to fly on February 27, but severe overnight icing prevented the aircraft from taking off.

The first 3rd Air Division-directed mission was flown on February 28 when six B-50s from the 20th and eight from the 49th Squadrons flew visual and radar target orientation missions. (Target orientation consisted of crews visually inspecting the targets and comparing their sightings with the radar pictures painted on their screens.) The 96th flew this mission the next day with eight aircraft. The aircraft took off at 15-minute intervals, and flew the same route to targets at Heligoland gunnery range, Kiddington RBS Site No. 1, Heston RBS Site No. 2, Wainfleet visual bombing range, and Brest Sands visual bombing range.

For several reasons, the results of this mission were not too spectacular. One 20th Squadron aircraft failed to takeoff due to mechanical difficulties. Three aircraft each from the 20th and 49th Bomb Squadrons and one from the 96th Bomb Squadron aborted en route due to radar malfunctions. Weather delayed takeoff for 49th Squadron crews causing them to arrive too late over the target to drop bombs. A lack of proper communications equipment on board 49th Squadron aircraft precluded radar bomb runs at Kiddington. The only squadron to drop its bombs was the 96th and the bombardiers complained that the sun was too low on the horizon, making the run extremely difficult. The radio operators complained about too much traffic on one of the assigned frequencies.

By the end of February, and since departing Chatham, the Group flew 973 hour during 135 sorties. Of these hours, 683 were flown from bases outside the U.S. The crews had forty-eight Ground Controlled Approaches, twelve of which were under actual instrument conditions. During the last week in February, the Group had a remarkably low AOC rate of 5%. There were concerns about replacing the critically depleted fly-away kits. The kits had been used extensively to maintain a high dispatch reliability. Future training sorties were planned around anticipated aircraft in-commission rates.

One real lesson learned from this deployment was the need for more ground support personnel. The Air Police had deployed sixteen people — the requirement turned out to be ninety-six! Other shortages in military specialties included, bombsight repairmen, automatic flight control system repairmen, cryptographic technicians, supply technicians, airplane armorers, airborne radar repairmen, remote control turret technicians, and mess hall personnel.

There were personnel at Chatham to make up these shortages, but they could not be spared because of the aircraft remaining there and their Emergency War Order assignments.

The operating tempo picked up and crews flew more multi-purpose training missions. To assure that training requirements were met, the Group operations staff amended 3rd Division operations orders to permit crews to stay airborne longer, and fly RBS runs after completing the 3rd Division's plan. These missions included RBS missions at Heston Site No. 2, visual bombing at Heligoland, gunnery, and fighter affiliation missions (camera gunnery).

Group crews flew fighter affiliation missions against fighters from the USAF, RAF, and Dutch



A formal ceremony was held on March 22, 1950 when the first United States Air Force B-29 Superfortresses were handed over to the RAF at RAF Marham. These aircraft served in the RAF as interim strategic bombers until the V-bomber force was established. In RAF service, the B-29s were known as Washington Mk. B.I.s. (Courtesy of the United States Air Force)



This is the 2nd Air Refueling Squadron's KB-29M, s/n 44-86280, that experienced a gear failure on landing at Chatham Air Force Base, April 3, 1950. (Courtesy of the United States Air Force)

Air Force. Affiliation missions permitted fighter pilots to gain experience attacking bombers and bomber gunners got experience firing at attacking fighters. All firing was done with gun cameras. When the film was processed on the ground, the gunners were critiqued on their effectiveness, or lack thereof.

On the night of March 9, two special sorties were flown. One was a photo mission to permit a 20th Squadron crew to accomplish additional runs against an RBS site. The other was a test of night target illumination in which an RAF Avro Lincoln bomber dropped flares over the target. Visual bombing credit was not given because of the heavy undercast.

During March the Group logged a total of 1,159:80 hours — 948:55 by the twenty four B-50s, and 211:25 by the six KB-29s.

Two B-50s left England in March and flew to Johannesburg, South Africa where they were placed on static display. These aircraft did not return until the following month, therefore their flying time was not included in the above totals.

The AOC rate for March was kept at 3.8 aircraft per day. In order to maintain the aircraft, a constant flow of parts requests was sent to Chatham. In return, there was a weekly shipment of B-50 and KB-29M parts via C-54 from Chatham. B-29 parts were procured from the RAF base at Burtonwood, but all B-50 parts had to come from the U. S. During March, Group maintenance technicians changed four KB-29M and two B-50 engines as a result of internal failures. Broken turbo supercharger turnbuckle eyes were a major problem with the B-50s. These parts were fabricated at RAF Burtonwood.

There was one B-50 accident during the month when a nose gear retracted due to an excessively hard landing. The gear collapsed because the bolts attaching the strut to the aircraft structure failed.

When malfunctions arose with the KB-29M air refueling system, the Group went directly to the equipment manufacturer — Air Refuelling Limited in Dorset, England. Malfunctions in the air refueling equipment on the KB-29Ms precluded their use in actual wet refuelings. Only dry hook-ups could be made for training purposes. (In a dry hook-up the tanker and receiver fly in formation and perform the actual hook-up but no fuel is transferred. In a wet hook-up, fuel is actually off-loaded from the tanker to the receiver.) The inner and outer seal rings were leaking; thus posing a potential fire hazard. There were an insufficient number of hauling lines in stock to permit extensive training. A ground pressure check of receiver aircraft revealed leakage in all lines and the connections had to be checked and tightened.

A group of 16 RAF navigators visited the Group at RAF Marham on March 9. They flew in with Avro Lincolns. Views on navigational techniques were exchanged during the visit.

RAF WASHINGTONS¹⁹

Under the military assistance program, the USAF loaned 88 B-29s to the RAF as interim bombers until their all-jet V-bombers,—the Victor, Valiant, and Vulcan—were ready to replace the aging piston-powered fleet of Lancasters and Lincolns. While in RAF service, the B-29s were known as B. Mk I Washingtons. These air-

craft served in the RAF between 1950 and 1958. Although the RAF had its own names for crew positions; i.e. wireless operator for radio operator, they used the USAF manuals and crew position names. At least two of the RAF B-29s came from the 2nd Bomb Group — B-29, s/n 42-65274, "*Bad Penny*", from the 96th Squadron, and B-29 s/n 44-62231, "*Forever Ambling*", from the 20th Squadron.

RAF Marham became the home of some of the B-29s going to the RAF. On March 22, the first four of these aircraft arrived and the 2nd Bombardment Group's detachment commander, Col. James B. Knapp was among the welcoming officials which included Maj. Gen. Leon W. Johnson, Commanding General of the 3rd Air Division, and British Secretary of State the Right Honorable Arthur Henderson.

Under the auspices of the Atlantic Pact, officers of the French Air Force visited the 96th Squadron, were briefed on the aircraft, the mission and flew on the KB-29s.

On another occasion approximately 50 members of a British Home Guard anti-aircraft artillery battery got to inspect a B-50 with the assistance of a squadron intelligence officer, and members of the Office of Special Investigation and Provost Marshall's office.

During of March, the Group flew 10 of the 11 missions which were directed by the 3rd Air Division. The one mission was postponed until May 1 to allow the Division staff to complete their planning. Five of the 10 missions were flown TDY to West Germany. Crews flew to Furstenfeldbruck, over a prescribed route, making simulated radar attacks on two industrial targets, and performing fighter-bomber affinity operations. The arriving crew turned the aircraft over to a crew which had spent a week TDY in Germany performing ground training. The average flying mission was 10 hours..

Nine aircraft participated in a simulated radar bombing attack on Munich, West Germany and Southall, England on April 4.

Six KB-29Ms from the 2nd Air Refueling Squadron departed Davis-Monthan AFB and made a stopover at Chatham AFB prior to making the trans-Atlantic hop. One of the tankers washed out its landing gear at Chatham during the landing. No personnel injuries were sustained. A replacement aircraft was flown in from Davis-Monthan prior to the flight's departure. Two tankers were provided to each of the bomber bases in England at which the 2nd Bombardment Group resided.

The air refueling squadron crews, and bomber combat and armament crews went TDY to RAF Bournemouth where they attended a four-day class at the RAF air refueling school.

On April 7, 8, and 10, the Group dispatched three aircraft to support a 3rd Air Division-directed mission to provide radar photographic coverage of 18 targets in Germany.

On April 29, the 2nd Air Refueling Squadron was to provide its six KB-29Ms for an RAF exercise to test the radar and fighter defenses of southern England. For two days, the aircraft were to penetrate British airspace from several directions from the northeast and east. Weather forced the RAF to call off the mission. A similar mission was successfully flown by 20 B-50s on April 30.

Each squadron conducted its intelligence briefings in addition to the routine mission briefings and debriefings. At the direction of the 3rd Air Division, classes in escape and evasion were taught and a 1944-vintage survival film was shown to the crews. Intelligence personnel routinely put in 12-hour days to get their job done.

During April all B-50s were grounded for inspection of fuel lines and fittings. No fuel leaks were found on the Group's aircraft. In addition, the KB-29s were grounded for inspection of the CO₂ fire extinguishers. A total of 15 fire bottles were overdue for servicing. At the end of the month, several aircraft were still grounded because the spare bottles also required servicing!

Two minor accidents occurred in April. In one, an intercooler flap came loose and flew into a propeller, damaging two propeller blades and a flap. In the second incident, the propeller of a taxiing aircraft struck a flight line fire bottle resulting in damage to the propeller.

The third accident was more severe. A 20th Squadron B-50 had undergone a change of the No. 2 engine. During takeoff on the test flight, the No. 2 propeller ran away and could not be feathered. The crew struggled with the airplane for fifteen minutes and brought it back to RAF Marham. The crew left the aircraft and in about thirty minutes a fire broke out in the No. 2 engine accessory case. Flight line personnel quickly extinguished the fire, however considerable damage was done. A subsequent investigation indicated that a leaking acceleration pump caused the fire. The engine and power package had to be replaced.

The Group experienced seven engine changes during April. Maintenance personnel did not have a spare engine, so that a failed engine could be replaced while being repaired. This caused lost flying time and considerable effort to repair installed engines. The R-4360 engines ran an average of 152 hours before needing maintenance.

The AOC rate for April was at 19%. The items in critical supply were electrical inverters (devices which convert DC to AC current), fuel transmitters, and fuel boost pumps. The supply pipeline for electronic equipment was much better and maintenance technicians did not have to frequently raid the flyaway kits for these components.

On April 6, Col. James B. Knapp, and members of the Group and 20th Squadron staffs, drove to Norwich, England for a gala event and the premier showing of *12 O'Clock High*, a film script written by one of the Group's former members, Bierne Lay Jr. The story was based on a Langley great, Maj. Gen. Frank A. Armstrong.

The Group redeployed to Chatham in late April. Support personnel returned via commercial airlines.

NUMBERED AIR FORCE CHANGE¹⁵

Effective April 1, 1950, the 2nd Bombardment Group was reassigned from the Eighth Air Force to the Second Air Force in accordance with SAC General Order No. 12, dated March 6, 1950. This required a change in aircraft markings.

Initially the B-50As assigned to the Group had a large open square on the tail like their B-

29s. The Group's aircraft carried a large open triangle with the letter S within it on the vertical tail and an Eighth Air Force emblem was located on the fin fillet. After assignment to the Second Air Force, the Triangle S was replaced by a large open square with the letter T applied within the square. Belly band colors assigned to the Squadrons were then blue (from green) for the 20th, yellow (no change) for the 49th, red (no change) for the 96th, and green (from none) for the 2nd RefS.

During May and June, the Group transitioned from B-50As to B-50Ds and the 2nd Air Refueling Squadron replaced its KB-29Ms with KB-29Ps. The existing experienced single and dual-rated observers had to be replaced with new triple-rated observers from the Navigator-Bombardier-Observer School at Mather AFB, California. The change was needed because the B-50Ds were equipped with the new AN/APQ-24 radar in lieu of the former AN/APQ-23 system. Extensive ground simulator training time was required of each incoming triple-rated observer. This school lasted 30 days, in which time the observers were expected to become qualified on the new equipment.

JUNE 1950

In late 1949 and early 1950, the SAC staff and SAC bombardment unit staffs had come to the conclusion that additional test and evaluation of electronic countermeasures were needed. Headquarters USAF approved such a project titled, "Tactical Evaluation of Electronic Countermeasures." The 2nd Bomb Group was to be the test unit. The test was postponed because of the deployment to England. This, combined with the fact that Group operations for January 1950 are classified, would lead one to conclude that the deployment to England was made for reasons in addition to mere training. The ECM test set aside in January was reinstituted in June, with the 20th Squadron as the test unit.

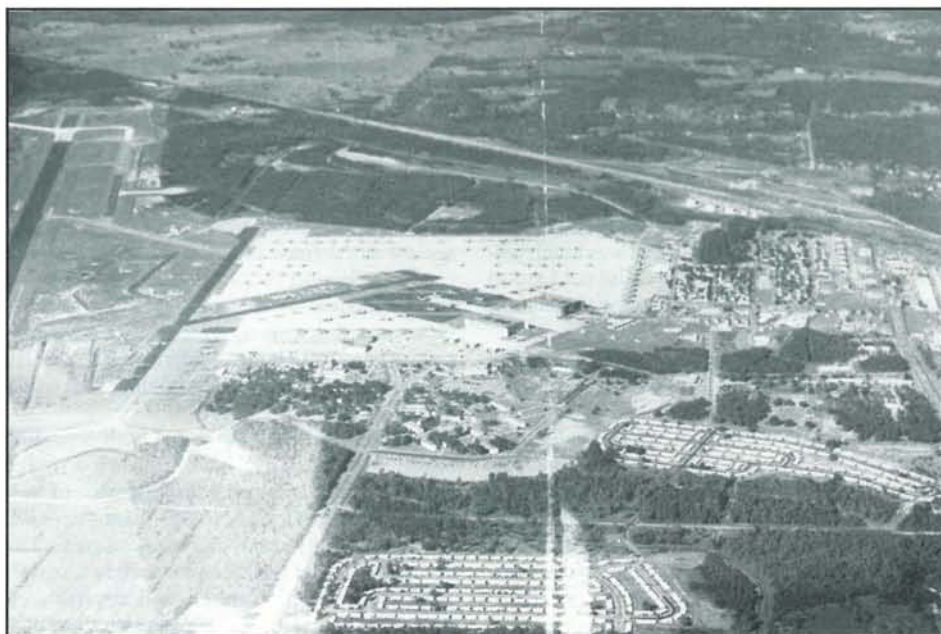
Earlier, in November 1949, the Group had participated in a number of limited ECM test exercises. The Group flew penetration missions against air defense radars at the Eglin AFB Air Proving Ground range. Both high — 35,000 feet — and low — 500 to 1,000 feet — penetrations were flown. Tests were considered inconclusive. Aircraft aborts, equipment failures and personnel shortages, all contributed to the limited results.

In June and July 1950, the 20th Squadron began working closely with the Air Proving Ground Command in the development of new Mk4GL (AN/APT-5), AN/APS-1, and AN/APS-59 ECM equipment and procedures. The Squadron's radar maintenance section was only 38% manned. This severely and adversely affected the program. Much Squadron time was dedicated to overhaul and refurbishment of ECM equipment. Where possible, tests were flown against ground-base gun-laying radars. Other tests were performed against Very High Frequency (VHF) fighter communications and ground controlled intercept (GCI) stations belonging to ADC. Another development was installation of a new chaff dispenser on the B-50Ds.

During August, the 20th flew 190 hours as they tested a number of pieces of ECM gear over



All personnel had to qualify with the M-1 carbine. This airman was assigned to the air police. (Courtesy of the United States Air Force)



Chatham Air Force Base with its flight lines and maintenance ramps in the center, runways to the left, and base housing tracts in the foreground. The houses were part of the famous Wherry Housing Project during the early 1950s. (Courtesy of the United States Air Force)

the Eglin Range. The Squadron tested the AN/APT-5 and the AN/APT-1 radios in addition to dropping chaff. ECM equipment maintenance and supply problems adversely effected test results. During the chaff dropping test mission,

seven B-50s, in a cross-type formation, eight miles long and two miles wide, covered the Eglin Range. Lack of planning and anticipation by Air Proving Ground Command resulted in no useable data from this mission.

The B-50D transition program, shortage of radar maintenance personnel, shortage of ground radar technical personnel at the Eglin Range, and the excessive time spent repairing and updating aircraft ECM equipment, all led to postponement of further tests until 1951.

The month of June was spent settling back into the routine training operations at Chatham AFB.

JULY 1950²⁰

Training at Chatham continued at a steady pace throughout July. Almost half of the missions flown were directed by higher headquarters and were over and above the flying training requirements prescribed by SAC. During the month, 38 of the 45 crews assigned to the Group were combat qualified. Bombing accuracy improved, with a Circular Error Average (CEA) being 109 feet. For the 26 bombs dropped from altitudes ranging between 25,000 and 30,000 feet, the CEA was 192 feet. Both intensive training and the improved bombing equipment on the B-50Ds were responsible for the improved bombing scores.

On July 3, the Group was tasked to make a test simulated bombing strike on a target in St. Louis, Missouri. There was no previous visual or radar reconnaissance of the target area. Any relevant data in the Group headquarters was withdrawn and secured by the Group Intelligence Officer. Crew radar bombardiers had to develop their own radar scope predictions which were critiqued and checked against a finished study which had been prepared by the 4303rd Photo Technical Squadron. Overlays showing building heights and type of construction were added. After much preparation for the mission, orders came down canceling the strike.

On July 12, Group personnel assisted the rotation of the 93rd Bombardment Group, Castle AFB, CA, and the 97th Bombardment Group, Biggs AFB, TX, to England. To assist the deployment, experienced air traffic controllers, air policemen, and armament personnel from the Group were temporarily assigned to Camp Campbell, Kentucky, Kindley AFB, Bermuda, and Lagens Field, in the Azores.

Shortly after the opening phases of the Korean conflict in late June 1950, training of reserve officers having mobilization assignments, and ground training of Group personnel were given particular emphasis. Reserve officers with mobilization assignment with the Group were sent messages asking them to volunteer for active duty. Fifty three volunteered. Training programs for these reservists were devised and started. A total of 163 training periods were conducted, which included 65 hours of flying time and 1,735 hours of ground training. Only 15 of the 53 completed their training that month.

Ground training for Group personnel included water survival for air crews. They were screened for swimming competence. Those unable to swim, or only poorly, were given lessons until certified. The final test certification required that trainees, in flying gear and parachute harness, jump into the base swimming pool, swim fifty yards, and get into a one-man raft. The latter was a tricky operation and had to be mastered for certification.

A base school was established for the AN/

APQ-24 radar bombing equipment to be attended by both flight and ground crews. This radar system had many "bugs" and was difficult to maintain. More training was needed. The AN/APQ-24 was the most advanced, state of the art, airborne navigation and bombing system at the time, but it required skillful operation and meticulous maintenance.

All gunners were given gunnery instruction, and aircrews were given classes in aircraft recognition and physiological training. Aircrews and ground personnel were given training in small arms. During July, the firing range was in heavy use. Four hundred thirty-five personnel were qualified in the cal. 30 carbine, and another 175 were qualified in the cal. 45 pistol. A high percentage of trainees qualified as sharpshooters or marksmen.

Flying was kept at a high tempo during the month. Base Operations processed 880 clearances with 85 locals, 360 outbounds, 346 inbound, and 89 round-robins. During the month, the B-50s flew a total of 1,302 hours, while the KB-29Ms flew only three hours.

A new organization, the 4210th Organizational (Periodic) Maintenance Squadron was added to the Group during the month. This new squadron was responsible for the new B-50D aircraft. The 4210th Squadron relieved the individual bomb squadrons of performing any periodic inspections on their tactical aircraft. The Squadron was authorized 198 officers and enlisted personnel.

The Group received seven B-50Ds from MacDill AFB during the first week of August 1950. The Group was slated to have 30 B-50Ds. The Group's existing aircraft being replaced by the B-50Ds were transferred to other units.

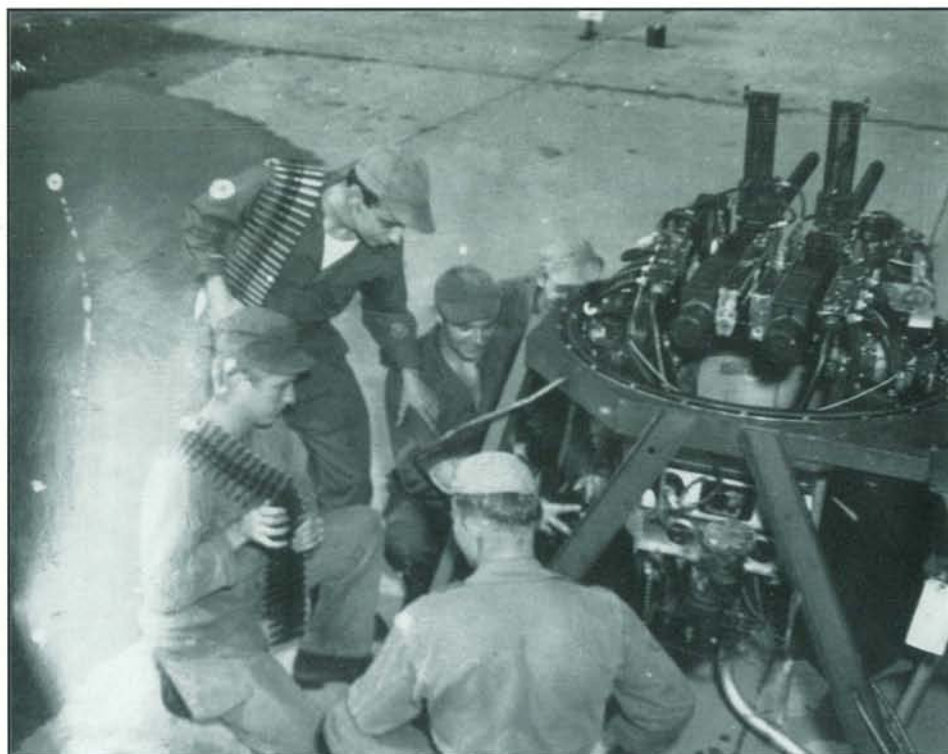
Another new unit assigned to the Group was the Communications Section within the Electronics Section. This new section was responsible for the organizational maintenance of the auxiliary radar, radios, and ECM equipment.

The Group's Refueling Section operated three 10-man shifts daily to ensure efficient around-the-clock service. This section averaged 60 fuel and oil deliveries per day.

The Motor Vehicle Maintenance Section converted two half-ton trucks into *Follow-Me* taxi vehicles. This innovation with the larger vehicles had a number of advantages over the previously used jeeps. First, the signs were higher and easier to see by the flight crews. The vehicles also served as alert crew transports and could carry fire extinguishers, chocks, and tools, all in the same trip. The trucks were painted yellow for better visibility by aircrews and the base tower operators.

The 2nd Medical Group had 18 officers and 73 airmen assigned, although only 18 officers and 35 enlisted personnel were authorized by the Readiness Table of Organization & Equipment. However, the Group commander requested that the 100-bed hospital at Hunter AFB be opened when the unit moved. Previously the 2nd Bomb Wing had been authorized 30 officers and 114 enlisted medical personnel. The Medical Group also used the services of five local physicians.

The city of Savannah wanted Chatham AFB for a commercial airport and negotiations were conducted to transfer the property deeds from the Air Force to the city and the transfer of the



Aerial gunners received instruction on the .50 caliber turret at the Chatham Air Force Base gunnery range. (Courtesy of the United States Air Force)



Observers assigned to the 2nd Bombardment Group flight crews prepared for their missions in this study room at Chatham. (Courtesy of the United States Air Force)

Group across town to Hunter AFB. Time was needed to lengthen the Hunter runways for the bombers. While construction activities proceeded, each of the Group's sections was required to provide additional personnel to assist in security at Hunter. This activity impeded routine operations.

The Air Installations Officer (AIO) and his engineering staff did major work to prepare

Hunter for the Group. A large number of local tradesmen were employed on the project. Particular attention was given to the special weapons facilities, gunnery range, and perimeter fences. A B-50 was flown from Chatham to Hunter to perform wheel load tests of all storm drainage lines under the ramp. During this test a small dent broke through the ramp causing the wheels to sink to the depth of the rims. Bulldoz-



A common hangout for the Group personnel was Maggie's coffee shop. (Courtesy of the United States Air Force)



The Group Supply Officer, Capt. Delmar P. Bolick, chats with two of his airmen. Note the radiator for steam heat and the first class desks. (Courtesy of the United States Air Force)

ers working the right-of-way round the perimeter fences destroyed some of the geodetic bench markers and new triangulation surveys for the metes and bounds of the base had to be re-established. The AIO was successful in getting an agreement with the city and county engineers to accept the survey of record for the base boundaries. Heavy rains delayed construction of the storm drainage system. The AIO succeeded in

having the squadron commanders request their airmen to volunteer to help refurbish the barracks. This approach proved to be quite successful.

After the outbreak of hostilities in Korea, the Group was put on 10-hour work days, but with weekends off. All members of the command were issued side arms. The air police provided sentries for the aircraft around-the-clock. Additional air police were obtained from Lackland AFB, TX. Members of the

organization were told to get their personal affairs in order for the care of their dependents in the event the Group was sent overseas.

AUGUST 1950²¹

The CEA with the new AN/APQ-24 radar was down to 1,094 feet in August compared to the 2,348 feet in July. The CEA with the earlier AN-APQ-23 radar on the B-50As was between 105 and 192 feet. It was obvious that training was required to get the CEA to a more acceptable level.

Six B-50Ds flew a profile (a simulated combat mission) mission on August 9, to gain data for higher headquarters. Two aircraft from each squadron were scheduled to drop bombs on a target at Eglin Field Target No. 36. Two of the aircraft aborted at Chatham because of engine malfunctions, another two salvoed their bombs over the Caution Range south of the target, while the last two successfully hit the target.

Between August 14 and 18, two B-50Ds flew a special mission at the request of the Second Air Force. Radar and engineering maintenance personnel were included in the test. A summary of the test follows:

The first test called for the use of a ground-based AN/MSQ-2 (modified SCR-584) radar to obtain the bomb release point. This was similar to a system used during WW II. A total of 40 drops from four different Initial Points (IPs) were accomplished with a CEA of 1,400 feet. A major problem with use of the AN/MSQ-2 was that it had to be transported over a variety of terrain conditions and put in place for immediate operational use.

A second test using an AN/CPN-6 X-band radar beacon to provide an offset aiming point for the AN/APQ-24 radar was tried. In 20 drops the CEA was 2,100 feet. The AN/CPN-6 was not well suited to the solution of the test objective because its high power output gave an unsatisfactory aim point on the bomber's radar scope. Another problem with the AN/CPN-6 was that it weighed 200 lbs. and required considerable engineering effort to erect.

A third test used various reflectors to determine their efficacy for radar bombing. The first radar reflectors were 20 liferaft corner reflectors set in a square field. These reflectors were never detected from any altitude. A second set of reflectors consisted of a group of five angle iron and copper screen reflectors. The latter screens could be picked up to a maximum altitude of 10,000 feet. A third design consisting of four precision-built pyramidal reflectors 16 feet high. The last type of reflectors were trucked in on flatbed trailers and positioned in a 100-foot square. While these reflectors could be detected at altitudes up to 25,000 feet, the CEA using this equipment was between 15,000 and 20,000 feet. Needless to say, reflector systems were the least effective.

The 20th Squadron and the Air Proving Ground Command, opted to pursue a modification to the AN/APQ-24 airborne radar to com-



Base civil engineering personnel repaired the runways at Hunter Air Force Base in August 1950. (Courtesy of the United States Air Force)

pensate for a slow ground return from the AN/CPN-6 ground radar and to develop a lighter weight, more transportable ground radar.

General LeMay had insisted on having a sentry on duty for each SAC aircraft on the flight line. A force of 240 air police arrived from Lackland AFB, TX to comply with the new security requirement. Once processed and in place these police relieved other base units of detailing their people to guard duty.

The Group conducted extensive training in all areas during August. A new AN/APQ-24 trainer was installed on the base.

Combat crews flew a total of 1,526 hours in August. Ferry flights and missions directed by higher headquarters accounted for 652 hours of the total flying time, or 43%. A total of 198 hours and 10 minutes of primarily celestial navigation was conducted. Twenty-seven RBS runs had to be aborted because practice bombs failed to release. Scheduling problems accounted for the loss of another 75 RBS bombing runs.

Maintenance performed 29 inspections on the B-50s during the month; five of them were major. Due to superlative maintenance efforts, the AOCP rate for August dropped to zero.

As facilities opened at Hunter AFB, equipment and materiel was moved across town from Chatham.

An elaborate mobility plan for movement was drawn up during August. The plan would permit deployment of 45 B-50Ds and their required support materiel and personnel. The plan called for MATS to provide twenty-three C-54-equivalent aircraft to transport 759 support personnel, while the B-50Ds would transport 16 personnel each, for a total of 1,479 individuals. In addition,

a total of 22 flyaway kits would be carried aboard the B-50Ds.

HUNTER AFB, GEORGIA

Hunter AFB was located adjacent to the southern city limits of Savannah, Georgia. The base was named in honor of Maj. Gen. Frank O'Driscoll Hunter, a Savannah native who was a pioneer aviator and WW I ace. He was a Distinguished Service Cross recipient and one of a few individuals to have a base named for him while still living.²² The 2nd Bombardment Wing took up residence at Hunter on September 22, 1950 and remained there until April 1, 1963. While the move across town to Hunter did not materially affect training operations, it did place an added burden on all personnel. The 10-hour work day for base personnel was reduced to the traditional eight hours after the move. Chatham was officially turned over to the city of Savannah on September 30 when Mayor Olin Fulmer presented the deed to Hunter AFB wing commander, Col. Frederic E. Glantzberg, and Lt. Col. Robert Erlenkotter presented the mayor a dollar for Hunter AFB, on behalf of the United States Government.

SEPTEMBER 1950²³

During August, SAC designated the 2nd Bomb Group as a ferry agent for B-50Ds to be delivered to the 93rd Bombardment Wing at Mildenhall, England from the Boeing plant in Seattle, and to return non-receiver-capable B-50Ds from the 93rd to the United States. The first crews for the ferry operation were dispatched on September 15. During the first two



The two flight surgeons posed with their medics in front of the Station Sick Quarters. Remember when you could only get sick in the morning? (Courtesy of the United States Air Force)

weeks of the operation, the Group crews ferried 11 B-50Ds to England and returned another five aircraft to Castle AFB, CA. These flights accounted for 386:20 hours of the unit's total flying time for the month, or about 43%. While of little direct benefit to combat readiness, this flying did give the crews excellent experience in long-range, overwater navigation. This operation was scheduled for completion in November.

The Group was also tasked with ferrying M-



If it were not for folks like this in the Base Photo Section, these photographs would not be available. (Courtesy of the United States Air Force)

107 practice bombs to units at overseas locations on an indefinite schedule. The 2nd delivered 15 M-107 training bombs and three N-1 dollies to the 43rd Bombardment Wing at Goose Bay, Labrador. Eight of the M-107s were provided from the 2nd's stock, while the remaining seven bombs came from the 301st Bombardment Wing at Barksdale. Crews used 13 B-50Ds for this work and accrued 256:20 hours of flying time. The mission gave crews additional experience in weapons handling, and valuable celestial navigation experience.

The ferry flights, and profile missions, which were designed to provide combat crews with experience under simulated combat conditions, cut into the time for more basic flying training such as takeoffs and landings, emergency procedures, night landings, and in general basic airplane flying proficiency. By the end of the month, the Wing had 16 lead crews, 19 combat ready crews, and 10 non-combat ready crews. A shortage of triple-rated crewmen caused combat crew members to perform those duties in addition to their own.

A *profile mission* is a simulated combat mission divided into specifically defined segments that can be measured to determine crew proficiency and equipment performance and reliability. A typical profile missions consisted of:²⁴

- Engine warm-up
- Taxi and takeoff
- Climb on course to 5,000 feet at normal power
- Cruise at long-range cruise speeds and altitude for best range but not less than 5,000 feet
- Climb on course to reach cruising ceiling 500 nautical miles from the target
- Cruise in level flight to target

- Conduct 15-minute bomb run at normal power
- Drop bomb when carried or make simulated run on an RBS
- Conduct 2 minutes of evasive action at combat altitude (with no distance credit) and an 8-minute run-out from target area with normal power
- Cruise back to base at long-range speeds at not less than 5,000 feet for best range
- Aerial refueling would be included as required

A number of profile missions were flown during the month. The results caused serious debate on several fine points such as using check points established immediately after level-off at altitude or later when cruise speed had been established, and whether a turn should be made directly over a check point or the turn made at the estimated time of arrival over that check point. These missions were generally flown at a pressure altitude of 30,000 feet.

A total of 1,114:25 hours of flying time was accrued during September. The CEA for RBS runs was 1,752 feet. The CEA for actual visual releases was 692 feet.

The runways at Hunter posed some serious operational problems. The east-west runway, used for GCA approaches, was only 5,000 feet long. It was to be converted to ramp space. The southeast-northwest runway was also only 5,000 feet long. A fully grossed B-50D at 145,000 lbs. on a 90° F day required 4,750 feet to takeoff, seriously compromising safety particularly in the event of an aborted takeoff. The southwest-northeast runway was a bit better at 7,000 feet. The present profile missions called for a 165,900-lb. gross weight. Takeoffs were nominally made at an ambient temperature of 70° F, requiring a 6,528-foot takeoff roll. The stopping distance



In September 1950, the Air Force adopted the blue serge wool winter uniforms. (Courtesy of the United States Air Force)

required for a B-50D at 165,900 lbs. using all four propellers in reverse was 2,660 feet. Assuming an abort at near lift-off and assuming that all four propellers can be reversed, a runway of approximately 9,300 feet would be required. Generally speaking, an abort occurs because of an engine failure resulting in only three reversible propellers to aid in stopping and causing an asymmetric reverse thrust condition.

Gen. LeMay had taken a dim view of the overall atomic mission program as far back as November 1948 and expressed his dismay to Air

Force Chief of Staff Gen. Hoyt S. Vandenberg. LeMay complained about the deficiencies of the air bases and forward airfields slated for SAC use in its atomic mission. He stated, "I maintain that to be able to dispatch aircraft into and out of these fields at night during marginal weather is ridiculous." He went on to state that most of the bases were devoid of the elementary operational facilities, such as adequate control towers, night lighting, radio aids, crash and fire fighting equipment, and had runways too short for the heavier bombers. In addition to the necessary air base upgrading, there was an urgent requirement for standardized procedures to prevent the disaster of an accidental atomic detonation.²⁵

The Wing was scheduled to convert to B-47s, and a 10,000-foot runway was an absolute necessity. Plans were made to extend one of the 5,000-foot runways to 10,000 feet in fiscal year 1951.

The 4210th Organizational Maintenance Squadron completed installation of external wing tanks on 31 B-50Ds. The Squadron expended 22,533 manhours performing 12 major and 12 minor inspections during the month. It made 44 flight line calls to repair aircraft radars.

The Supply Squadron was unusually busy because of the conversion from Army greens to the new Air Force blue uniforms. A total of 2,740 sets of blues were issued through the Clothing Sales Section during the month. The majority of the airmen were very pleased with the new blues and the distinctive new uniform instilled new pride in the personnel.

The new 100-bed hospital opened at Hunter during September. However, there was a shortage of both doctors and nurses which necessitated that some of the services be obtained from the local economy.

The new Officers' Mess at Hunter was officially opened on September 30, with a dinner dance attended by 500 guests.

The organizational command structure in September was as in above chart.

Two other units attached to the 2nd Bombardment Wing were Det. 1926-4 Airways & Air Communications Squadron and Det. 25-13L, 25th Weather Squadron. These two units were part of MATS.

OCTOBER 1950²⁶

B-50 ferry flights to the 93rd Bombardment Wing in England consumed about 40% of the scheduled flying time that preempted the Wing's own flying training. Twenty-nine (29) crews were required to ferry 12 B-50Ds to England, return another 12 B-50Ds to Castle AFB, and take 9 more B-50Ds from Boeing in Seattle to Castle.

The long-delayed simulated bombing mission against industrial targets in the St. Louis, Missouri area finally came to fruition. Originally scheduled and canceled in July, the operations order from Second Air Force called for 12 B-50Ds to attack 12 targets on the night of October 9. Ground aborts resulted in only 10 aircraft getting airborne at 15-minute intervals, with one being one hour and 45 minutes late. Of these aircraft, three aborted en route to the target. The remaining seven aircraft with operational AN/APQ-24 radars

Organization

- 2nd Bombardment Wing
- 2nd Bombardment Group (M)
- 2nd Air Base Group
- 2nd Maintenance & Supply Group
- 2nd Medical Group
- Hq. & Hq. Squadron

Commander

- Col. Frederic E. Glantzberg
- Col. James B. Knapp
- Col. William H. Hanson
- Col. Adam K. Breckenridge
- Col. William H. Lawton
- Maj. Gordon Garner, Jr.

- Bomb Carrier 5 Ground abort due to inoperative radar.
- Bomb Carrier 6 Made three bomb runs, but bomb release system failed over target. Five generators failed and mission was aborted en route to Birmingham. Total flying time 8:10.
- Bomb Carrier 7 Flew mission as briefed, including 5 RBS runs at Birmingham. Weather at Hunter AFB forced a diversion to Warner Robins AFB. Total flying time 10:10.
- Support Acft 6 Took off from Hunter AFB and developed problems with the No. 4 turbosupercharger. Returned to Hunter AFB. Total flying time 2:30.
- Support Acft 7 Ground abort due to inoperative radar and fuel leak.
- Support Acft 8 Took off on briefed route and experienced problems with the No. 4 engine carburetor air temperature gauge. Returned to Hunter AFB. Total flying time 2:05.
- Spare Bomber Ground aborted due to fuel leak in bomb bay.
- Spare Support Took off and experienced an oil leak in the No. 1 engine, a fuel leak in the No. 2 engine, and failure of the No. 3 engine carburetor air temperature gauge. Total flying time 00:45.

completed the mission as briefed, hitting targets No. 2, 4, 5, 7, 8, 10, and 12. On the following night ten B-50Ds were scheduled; five to hit the remaining targets and five to serve as spares. All ten aircraft got airborne, but two were over an hour late. Three of these aircraft aborted prior to reaching the target. Six aircraft, with operational radar, made runs at the remaining targets. While the primary crews had time to study the targets, the secondary crews had limited preparation time and three crews had limited training on the bombing system. The CEAs for the mission ranged between 1,720 and 8,860 feet for the primary crews, and 4,260 and 21,100 feet for the secondary crews. The total flying time for the mission was 148 hours and 15 minutes.

Two profile missions were flown on October 13. On the first mission the support aircraft had to abort because of a severe fuel leak in the No. 1 engine; however the bomb carrier proceeded to the Eglin Range and dropped its M-107 training bomb as briefed. On the second mission three runs had to be made over the target because the ground radar could not pick up the aircraft on its radar scope. The bomb was dropped on the third pass. Unpredicted winds prevented the prescribed 1.5-minute interval between the bomb carrier and the support aircraft.

Four B-50Ds departed Hunter on October 17 to fly another profile mission. The two cells proceeded to target No. 36 at the Eglin Range. They dropped their M-107 training bombs by radar from 25,000 feet at a true indicated air speed of 190 mph, then flew to the RBS site at Sylacauga, Alabama, before returning to Hunter. The total flying time was planned at 9.5 hours. Each aircraft were serviced for 14 hours of flying. In the

last minute the flight plan was changed due to bad weather, but excess fuel was not drained, necessitating higher power settings for the flight. Heavy traffic in the target area resulted in longer flying time. The bomb carriers were scheduled to fly 2,282 nautical miles and the support aircraft, 2,276 nautical miles. The first bomb carrier flew 2,649 nautical miles and its support aircraft flew 2,327 nautical miles. The second bomb carrier did better, flying only 2,115 nautical miles, however its support aircraft traveled 2,503 nautical miles. Lessons learned from this mission showed that predicted fuel burn was short and could have effected mission safety.

Equipment malfunctions plagued the profile mission flown on October 30 with three bomb carriers, three support aircraft, and a spare aircraft of each type. A summary of their problems is listed above.

A total of 121 hours and 30 minutes of flying time was dedicated to ECM testing and training.

The Mobile Training Unit from Chanute conducted 4,518 manhours of training at Hunter AFB.

As the first stage in communications security, SAC introduced daily changes in call signs. The purpose of this change was to foil the attempts of any foreign power from determining SAC's activities by monitoring communications between aircraft and ground stations.

The 2nd Maintenance & Supply Group added a radio-equipped jeep to the flight line. The jeep-patrolled the flight line and crew chiefs used it to order needed parts for their aircraft. The jeep driver called a dispatcher in the supply warehouse, parts were pulled, and delivered by vehicles assigned to the Mobile Supply Unit. Capt. Lawrence B.

Russell, Base Supply Officer, was responsible for developing the mobile supply system.

The 2nd Air Refueling Squadron, formerly attached to the 43rd Bombardment Wing at Davis-Monthan, moved to Hunter in October, adding to the complexity of the operation on the base.

NOVEMBER 1950²⁷

The difficulties attendant to having a nuclear bombing mission become apparent in a review of the unit's history for this month. The Group had 45 combat crews, 43 of which were combat ready. Three crews had no bomb commander assigned, and on nine other crews the bomb commander was the only one cleared to arm the bombs. In total, the Group had 75 officers who were not cleared or trained. Operations required a cleared bomb officer to be aboard an aircraft who was capable of In-Flight-Insertion (IFI); i.e. arming the weapon. Consequently, the wing had 12 crews without this capability; thereby reducing the Wing's readiness by 25-30%. In order to become a bomb commander, the individual had to obtain appropriate security clearances and attend a special weapons school at Sandia, New Mexico. Untrained crews were used for support missions. Adding to the problem, the Group had only three sets of IFI devices in its possession and these were requisitioned as required to support the profile training missions. The bomb commander's job was absolutely essential to the success of an atomic bomb mission. In brief, his task was to arm the bomb in flight. He carried the "nuclear pill" (core of enriched uranium) in a lead box, usually under the commander's seat. During arming, the bomb commander went into the bomb bay, opened part of the bomb cover, removed several wedges of TNT and their initiators from the bomb. He placed the "nuclear pill" into the bomb's geometrical exact center, then replaced the TNT wedges and initiators, and replaced the outside cover. This was the procedure for the Hiroshima and Nagasaki, implosion-type bombs. At detonation, all of the TNT wedges exerted pressure on the center core of uranium, creating a critical mass and starting the nuclear reaction that is the awesome power of the atomic bomb. Training of bomb commanders was barely complete, when a crude "robot-type" mechanism did the job of in-flight insertion.

Of the 1,521:15 hours flown by the Wing in November, 634:10 hours were consumed by ferry flights in support of the 93rd Bombardment Wing. These operations were suspended on November 28 but were expected to resume the next year.

During November, the Group flew three profile missions for a total of 76 hours and 25 minutes. A summary of these three missions follows:

On November 1, six B-50Ds, including two ground spares, participated in this mission to drop two M-107 training bombs on Eglin Target No. 36 and perform an RBS run over Birmingham. One aircraft had an air abort due to a loss of fuel pressure in the No. 3 engine and a loose cowl

flap. Two aircraft had ground aborts; one for a major fuel leak in a drop tank and the other because of severe backfiring of the No. 2 and No. 3 engines.

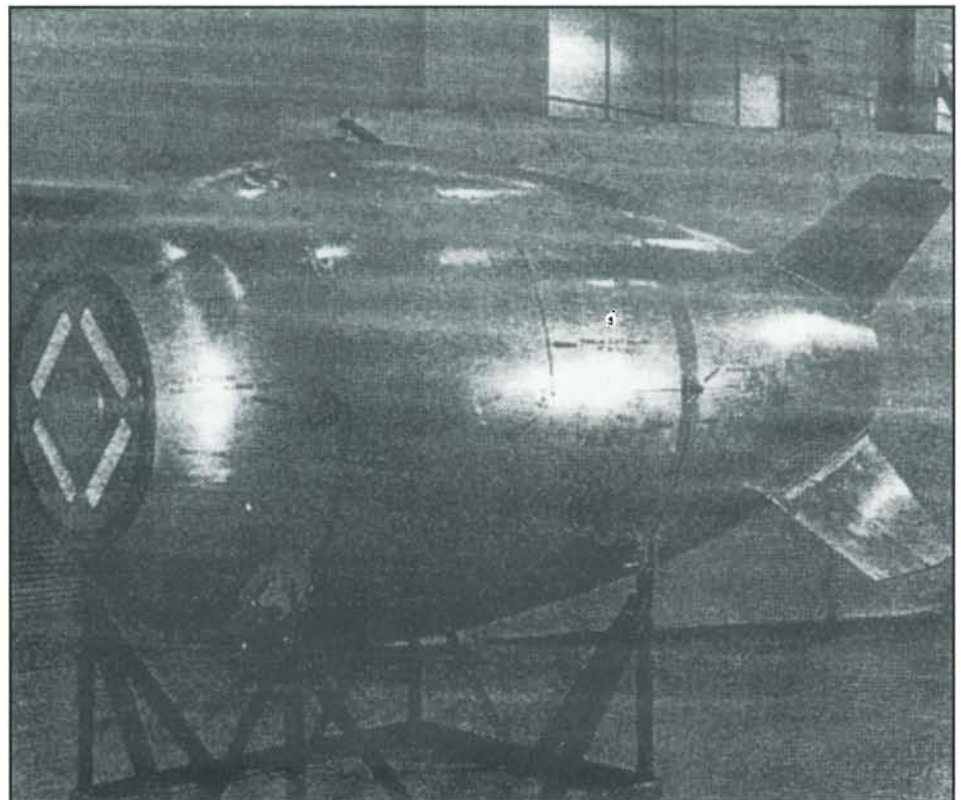
Regardless of these difficulties, the mission was considered a success.

DECEMBER 1950²⁸

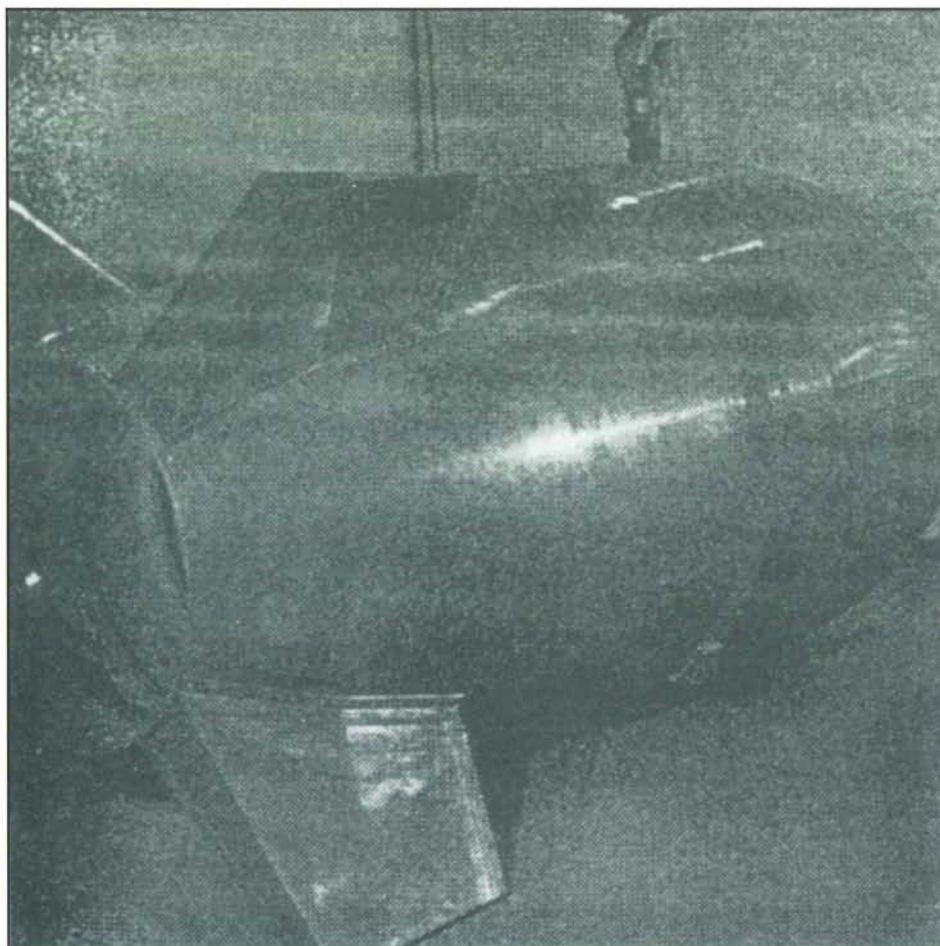
In December, President Truman declared a state of National Emergency because of the armed conflict raging on the Korean Peninsula. While the Soviet Union was not visibly deployed there, its support and influence were quite obvi-



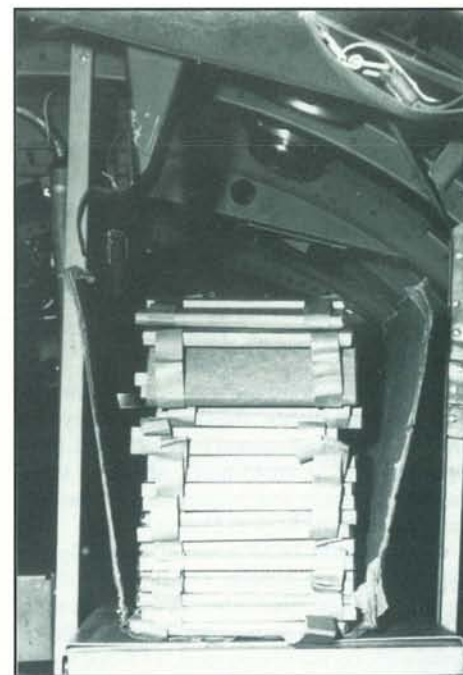
This B-50D had its nose raised on a jack to afford clearance for the loading of a Mk. 4 atomic bomb into the forward bomb bay. Note that the forward bomb bay door was also removed to permit clearance for the huge weapon. The aft bomb bay housed a fuel tank. (Courtesy of National Atomic Museum)



The Northrop Mk. 4 bomb had a riveted case and weighed 581 lbs. The arming device was inserted through the front of the bomb. Qualified flight crew personnel had to be certified in In-Flight Insertions (IFIs) and In-Flight Extractions (IFE's), for arming and disarming the weapons while airborne. There was limited space for the flight crew member to work through the bomb bay forward pressure bulkhead hatch for performing the IFI/IFE operations. (Courtesy of Sandia National Laboratories)



The AFC Mk. 4 bomb case was constructed of welded aluminum and weighed 716 lbs. The Mk. 3 Fat Man bomb which was dropped on Nagasaki was of similar design, but had a steel case weighing 2,975 lbs. and was 60" in diameter and 10'8" long. The loaded Mk.3 weighed 10,800 lbs. and had a yield of 20,000 tons of TNT. (Courtesy of Sandia National Laboratories)



The new chaff chute was loaded with bundles of chaff. (Courtesy of the United States Air Force)

mingham and Minneapolis was flown by another 12 B-50Ds on the night of December 15. Three aircraft aborted — one ground abort was due to engine problems, one air abort due to a radar malfunction resulting in no visible radar picture, and one air abort due to a radar malfunction resulting in three azimuth markers and no cross-hairs. The CEA for this mission was 2,835 feet.

An analysis of the high CEA scores are shown in the chart on the next page.

Aircraft acquired and assigned during the month of December were as in chart to the left.

The 158th Fighter Squadron (Jet), Georgia Air National Guard, equipped with F-80C *Shooting Stars*, was relocated from Chatham to Hunter on March 31, 1949. The unit was federalized on October 10, 1950 as part of the Korean conflict call-up, and transferred to George AFB, CA. During December, the Squadron's 158th Utility Flight was attached to the 2nd Air Base Group, redesignated as the 44th Tow Target Flight (TTF), and assigned to Hunter for an infinite period. The 44th TTF received three B-26 *In-* ²⁹*Invaders* in December.

Col. Frederic E. Glantzberg, commander of the 2nd Bombardment Wing (M), was promoted to brigadier general on December 22, 1950. (See Appendix 6.)

1951

During 1951, the Group flew a number of SAC-directed ECM missions against early warning, ground controlled intercept (GCI), and gun laying radars at the Eglin Range. This was a continuation of tests done in 1950. After major exercises were flown in both January and March, the mission summary reports showed questionable results from the antiquated WW II ECM equipment. As a result, Gen. Glantzberg wrote a report to SAC headquarters stating, in effect, that the ECM equipment available to bomber units would not allow them to adequately perform operations per the

Squadron	Type	Number Added	Total Assigned
• 2nd ARS	KB-29P	5	6
• 20th BS	B-50D	0	14
• 49th BS	B-50D	1	13
• 96th BS	B-50D	2	13
• Base Flight	C-47	-	3
• Base Flight	B-25	-	2

ous. The state of world affairs gave greater impetus to the Group's own training. Only two aircraft were ferried to England in December, and another two ferried back to Castle AFB. Three more were ferried from Castle to Hunter. The Wing was relieved from the ferry operation when the 93rd Bombardment Wing took over its own ferry tasks.

2nd ARS training and operations were adversely effected by a shortage of qualified KB-29 pilots. The condition was aggravated by the absence the volunteer reservists taking transition training at MacDill AFB, thereby severely curtailing air refueling training. The latter training did not get into full swing until February 5, 1951.

The 20th Squadron continued with its ECM testing and a new RR-20A/U chaff dispenser was

developed. Five B-50Ds deployed to Biggs AFB, Texas on December 9 and remained for five days evaluating the effectiveness of the new chaff dispenser and its jamming effects on ground-based intercept radar. Fourteen aircraft were retrofitted with the new dispenser during the month.

Twelve B-50Ds flew a simulated bombing mission directed by higher headquarters on targets at Birmingham, AL and Minneapolis, MN on the night of December 12. The mission was to be flown at 25,000 feet; however one aircraft was unable to reach that altitude and completed the mission at 24,000 feet. There were no aborts, but several equipment malfunctions and severe winds effected the bombing runs. The average CEA rate was 7,960 feet.

A second mission against the targets at Bir-

SAC doctrine, and there was an urgent requirement to update the equipment and provide adequate training for ECM operators.

The Group deployed a detachment of personnel and B-50s to Goose Bay, Labrador for cold weather training during February. In May, the unit departed on another 90-day deployment to England. The 2nd also lost some of its experienced personnel to form a new wing, much the same as was done from Langley Field in 1940 and 1941.

JANUARY 1951³⁰

Although the 93rd had assumed responsibility for its ferry flights, the Group did ferry one aircraft back from England to Castle AFB. This flight resulted in 46:45 hours of flying time. Another 25 hours was logged ferrying an airplane from Castle back to Hunter.

SAC-directed ECM missions flown by the 20th Squadron resulted in 323:10 hours of flying time. The first mission was flown on the night of January 4, and the second on the night of January 25. On the first mission, 14 B-50Ds participated, with ten aircraft for the mission support and four as airborne spares. As planned, the test called for aircraft equipped as follows:

- 10 aircraft with RR-20A/U (S-band chaff)
- 9 aircraft with AN/APT-10 (S-band transmitters)
- 5 aircraft with AN/APT-5 (L-band transmitters)
- 6 aircraft with AN/APT-1 (VHF-band transmitters)
- 5 aircraft with MD/23/ARA-3 (HF-band modulators)
- 10 aircraft with AN/APR-4 receivers
- 10 aircraft with panoramic adaptors

The aircraft took off at 1-minute intervals, assembled at 1,600 feet and headed for Wichita Falls, TX. The aircraft then climbed to 26,000 feet and headed towards Abilene, TX. En route they calibrated their pressure altimeters and made a minimum of four comparisons with their AN/APQ-24 radar. At Abilene, the aircraft separated vertically by 400 feet to form an ECM cell. This vertical stack was designed to confuse ground intercept radar. The formation then proceeded towards Goodfellow AFB near San Angelo, TX. Using stop watches and an electronic tone, the formation was able to determine the time lag between the strike aircraft, (BC-1, Bomb Carrier), and the other aircraft in the formation. Electronic jamming and chaff dropping commenced 300 miles from the Eglin Range. The bomb carrier took evasive action from the IP until 30 seconds from the target. Evasive action was resumed for ten minutes after target time. The aircraft then continued to other RBSs for bomb runs and returned to Hunter. Because of the aborts, only 50% of the chaff potential and 40% of the electronic jamming potential was available over the target area. On this mission, one aircraft ground aborted due to a radar malfunction, and a second was unable to complete its preflight on time. There were four air aborts for the following reasons:

- Unable to retract the left main landing gear

HIGH CEO SCORES ANALYSIS

Aircraft Mission Results

- 48-126 Windshear resulted in a bomb run which was 190° at 168 MPH relative to what the bombardier set into the computer. The CEA was 7,320 feet.
- 49-350 The aircraft had to make a 360° turn to permit aircraft 48-126 to complete its run. During the turn, the radar set went out due to a cracked tube, causing the crew to make a dry run.
- 49-314 The radar operator had trouble with the radar set and had to manually set the wind into the computer. A pre-IP track and ground speed wind of 317° at 35 MPH was insufficient for the target area. In fact, the wind was 335° at 120 MPH, resulting in a difference of 18° at 85 MPH from that set into the computer. The CEA was 5,400 feet. Considering the equipment malfunction, had the radar operator been able to synchronize the wind he would have had a CEA of 940 feet.
- 49-348 Radar problems resulted in a malfunction run without score.
- 49-334 Despite minor radar malfunctions, the bombardier obtained a good target picture, identified the target early, and kept the cross-hairs on the target until just before bombs away.
- 49-339 The bombardier set a pre-IP wind of 318° at 41 MPH into his computer, however the wind encountered was actually 328° at 120 MPH; resulting in a difference of 10° at 79 MPH. He spent the entire bomb run trying to reconcile the wind and align the cross-hairs, resulting in a CEA of 12,840 feet. (Crew error.)
- 49-346 A suspected gyrosyn compass failure resulted in a track which was 30° greater than intended. When the navigator turned the aircraft over to the bombardier, at what he thought was the IP, but they were within 15 miles of the target and the bombardier could not get a good radar return. A malfunction run was called. The RBS was unable to obtain a score because it was off the board and mis-oriented by 30°; however the radar scope photos showed that the CEA would have been 37,000 feet.
- 49-316 The radar operator identified the IP, put the cross-hairs on it but turned south of the IP and headed east until the track was achieved between the IP and the target. He spent the remainder of the bomb run moving the cross-hairs around and never got closer than 3.5 miles from the target. By using an incorrect bombing procedure, his CEA was 29,700 feet.
- 48-064 While the radar operator turned five miles short of the IP, he managed to get the cross-hairs on the target early in the run. He had a pre-IP wind of 325° at 30 MPH and encountered a wind of 288° at 90 MPH over the target. The difference was 47° at 60 MPH. Despite the wind drift, he managed to obtain a CEA of 5,700 feet.
- 49-060 The bombardier had good bomb run procedures, flew over the IP and identified the target early in the run. After he got the cross-hairs aligned, they began moving east of the target. With each drift, the bombardier brought the cross-hairs back onto the target. The pre-IP wind was set at 302° at 53 MPH. However, the actual wind was 317° at 94 MPH, resulting in a 15°, 41 MPH error. The operator lost the picture of the aiming point.
- 49-311 A malfunction run was called due to considerable spoking of the radar and a complete lack of definition on the scope.
- 49-330 A considerable amount of equipment problems were encountered. A radar wave guide split, the measured altitude was 2,800 feet off, the true airspeed indicator was inoperative and the radar scope had poor definition. A malfunction run was called. The CEA was 32,430 feet. (A wave guide is a square-cross-sectioned plastic tube which carries the radar impulse from the receiving antenna to the radar scope.)

- At 1:30 after takeoff a power surge disabled the radar
- Experienced an antenna or synchro malfunction
- High cylinder head temperature prevented the aircraft from maintaining formation

For the second ECM test mission, 14 aircraft, including three spares flew. The 2nd used the techniques developed by the 509th Bombardment Group for dropping the atomic bombs on Hiroshima and Nagasaki. The BC was equipped to drop an atomic weapon, while it was accom-

panied by a non-atomic-capable Support Aircraft, (S). The aircraft were divided into three forces as follows:

Task Force Green

- BC-1 flew as briefed with some radar difficulty.
- BC-2 flew as briefed and encountered one F-94 *Starfire* fighter intercept.
- BC-3 flew as briefed and encountered one F-94 intercept.
- BC-4 flew as briefed, but the radar was

inoperative for bombing. The aircraft encountered an F-94 intercept.

- S-1 flew as briefed.
- S-2 took off an hour late due to high voltage on engine generators. Replaced voltage regulator. Intercepted formation near Lubbock, Texas. Radar was used for navigation but was inoperative for runs on briefed points. Intercepted by an F-94.
- S-3 flew mission as briefed with slight radar malfunction. They were intercepted by a B-45 *Tornado*!
- S-4 flew mission as briefed with an inoperative radar. Intercepted by an F-94.
- Spare No. 2 ground aborted due to an electrical failure.
- Spare No. 3 ground aborted due to fire detection system malfunction.

Task Force Red

- BC-5 experienced an air abort when it was one hour and ten minutes into the flight due to the loss of manifold pressure on the No. 1 engine at 20,000 feet. In addition, the airplane had excessive cylinder head and carburetor temperature on the No. 2 engine.
- Spare aircraft No. 1 took up the position of BC-5 and completed the mission as briefed.

Task Force Blue

- Support Aircraft S-5 flew the mission as briefed. Loss of the airborne radar resulted in the crew employing pilotage as an aid to fix the target.

- Support Aircraft S-6 also flew the mission as briefed, despite losing an engine at altitude.

Varying ECM tactics within each bomber force were used during this mission to ascertain the effectiveness of each. As expected, varying results were experienced, as follows:

- Despite numerous equipment failures; good jamming results were obtained with some equipment and tactics. From the lessons learned, subsequent missions would incorporate the better tactics.
- Light chaff only enhanced the ground radar capability to detect the bomber stream; whereas heavy chaff was significantly more effective.
- Continuous chaff was not effective on this mission due to the spread of the bomber cell structure.
- A misunderstanding between the navigator and ECM operator on one aircraft resulted in the excessive dispensing of chaff and the aircraft's supply was exhausted 15 minutes prior to entering the target area.
- Random chaff was effective against interceptors as indicated when several fighters intercepted the chaff rather than the bombers.

FEBRUARY 1951³¹

Training continued throughout February, including an arctic deployment. An advanced party from the Group went to Goose Bay, Labrador in January to survey the facilities and coordinate with the Royal Canadian Air Force

(RCAF). Tanker support came from the 43rd Bombardment Group which was TDY at Harmon CAFB, New Foundland.

Arctic operations are very unforgiving to the untrained and over zealous. To assure that the flight crews wore their complete winter flying gear, all missions were to be flown without cabin heat!

Between February 1 and 21, the Group conducted a cold weather exercise at Goose Bay, Labrador. This was part of the SAC plan to give certain units operating experience at different geographical locations and under different climatic conditions. The training in this exercise consisted of rendezvous and aerial refueling, arctic survival techniques, and deployment operations.

Fighter affiliation support was provided by F-80Cs from the 132nd Fighter Squadron, Maine Air National Guard, Dow AFB, MA, and *Vampire Mk. 5s* from the RCAF's No. 421 Squadron, at Chatham RCAF, New Foundland.³²

The Group's support personnel, designated as Detachment A, deployed to Goose Bay on January 29, to prepare for the arrival of the B-50Ds from Hunter. The Detachment was at maximum strength of 434 officers and airmen by February 8. Included in this total were 29 officers and 91 airmen from the 97th Air Refueling Squadron (ARS), 97th Bombardment Wing, stationed at Biggs AFB, TX. Because of incomplete coordination, the 97th ARS brought 15 air policemen who were not required, while the necessary truck drivers, cooks and cook's helpers, who were sorely needed, were not deployed. As a result, the excess air policemen got some additional training as cooks' helpers, and drivers.

Nine B-50Ds left Hunter on February 1 for a 10-day deployment which included flying three maximum effort missions, as follows:

- Mission Baker - was flown on February 4 with four B-50Ds, which included two bomb carriers, BC-1 and BC-2, and two support aircraft, S-1 and S-2. This mission included tanker rendezvous and hook-up, cell structure formation, cruise control, simulated radar bombing runs, radar and celestial navigation, and fighter rendezvous and camera gunnery. The aircraft flew through the Eastern Air Defense (EADF) Area using all of the ECM capability available to them - three aircraft were unable to use ECM because of a lack of antenna mounting provisions. Three aircraft were equipped with AQ-1 chaff dispensers with modified chutes and four boxes of chaff. Another aircraft was equipped with the standard A-1 chaff dispenser and four boxes of chaff. While flying through the EADF corridors, the aircraft with the standard chaff dispenser experienced jams and ECM was unsatisfactory. One aircraft also experienced an ECM receiver failure. Results could not be determined because of a lack of air-to-ground communications with six of the seven GCI installations. Three aircraft, BC-1, BC-2 and S-1 completed the mission as briefed. Aircraft S-2 had an engine failure on takeoff and aborted.
- Mission Fox - was also flown on February 4 by four aircraft. The purpose of this



When the 2nd Bombardment Group deployed to England in 1951, they were represented by "Big Ed" Rafalko's select B-50D crew from the 96th Bomb Squadron. Standing L to R: Maj. Edmund A. Rafalko, A/C; Capt. Westley K. Hoffman, P; Maj. Hubert Polansky, BN; and Maj. McElroy, RN. Front L to R: M/Sgt. Glendon MacAvoy, FE; M/Sgt. Warren G. Spenser, RIECM; M/Sgt. Thomas W. "Obie" O'Brien, Jr., Central Fire Control Gunner; T/Sgt. Richard Hines, LG; M/Sgt. Vincent J. Murphy, RG; and M/Sgt. Henry A. Luck, TG. (Courtesy of W. O'Brien, Jr.)

mission was to accomplish photography and daylight celestial navigation.

- Mission Easy - was flown on February 7 and included training in tanker rendezvous and refueling hook-up, cell structure formation, cruise control, simulated radar bombing runs, radar and celestial navigation, and fighter rendezvous and camera gunnery. Nine B-50Ds — four bomb carriers, four support aircraft, and one spare — and five KB-29Ps from the 97th ARS were scheduled for this mission. An air refueling rendezvous was made using the head-on approach technique with AN/APN-68 and AN/APN-2B beacon equipment. Then the B-50s proceeded to the rendezvous point to join the support aircraft. When BC-1 lost its gyrosyn compass, BC-4 assumed the lead position. Ice build-up made target acquisition by the radar observers difficult and caused bad ETA timing at the target area.

The return trip from Goose Bay to Hunter was flown on February 11. It provided navigational training and additional opportunity for fighter intercept training. The first flight of six B-50Ds was followed by a second flight of two B-50Ds. The first flight flew from Goose Bay, Labrador, to Lake Mistassmi, Quebec, to Lake Abitibi, Quebec, to Sault St. Marie, then Detroit, MI, Huntington, Indiana and on to Hunter AFB. Mechanical malfunctions caused delayed departures for two aircraft, so the formation flew with only four B-50Ds. One aircraft made a simulated radar bomb run on Sault St. Marie. When in the vicinity of Flint, Michigan about 2 P.M., the formation was attacked by two F-86As from the 56th Fighter Interceptor Wing based at Selfridge AFB. These attacks lasted about five minutes.

The second flight went from Goose Bay via Quebec, New York City, Cherry Point, NC, and back to Hunter. Four F9F Panthers from Marine Corps Air Station, Cherry Point, NC made several passes through the formation at an altitude of 24,000 feet.

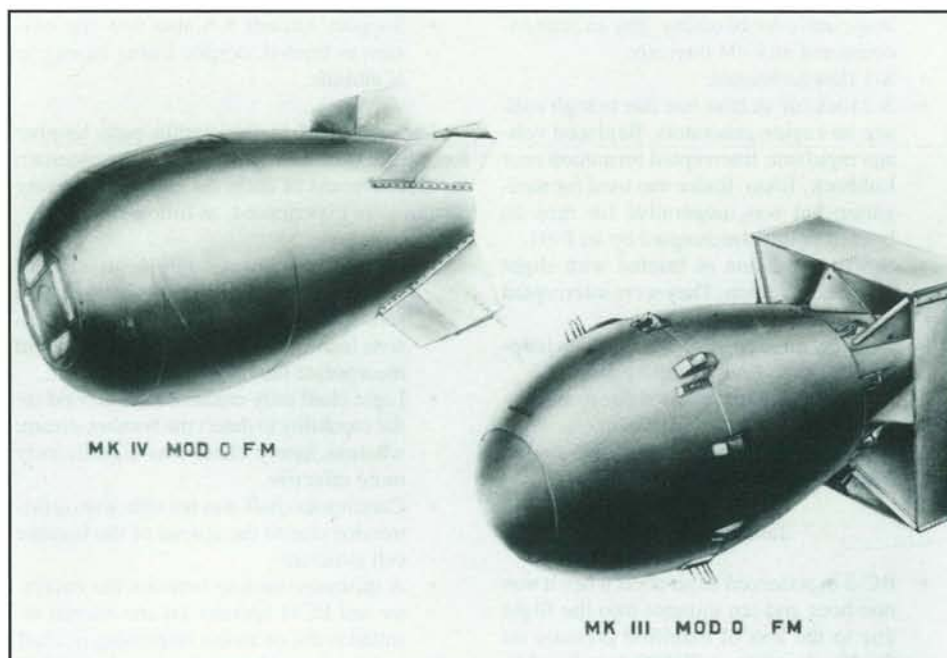
The Goose Bay deployment was of great benefit to the Group in cold weather operations. Returning personnel briefed those who remained at Hunter on the lessons learned.

A high rate of malfunctions in the AN/APQ-24 radar bombing equipment plagued the Group resulting in a 25% degradation in the unit's performance. Of the 1,501 AN/APQ-24 malfunctions corrected, 1,298 were caused by defective vacuum tubes. An intensive effort was made to assure adequate stock levels of these components. To reduce the premature failure of these critical tubes, the Group developed a tube aging rack to *burn in* (test and age) the components prior to installation on the equipment.

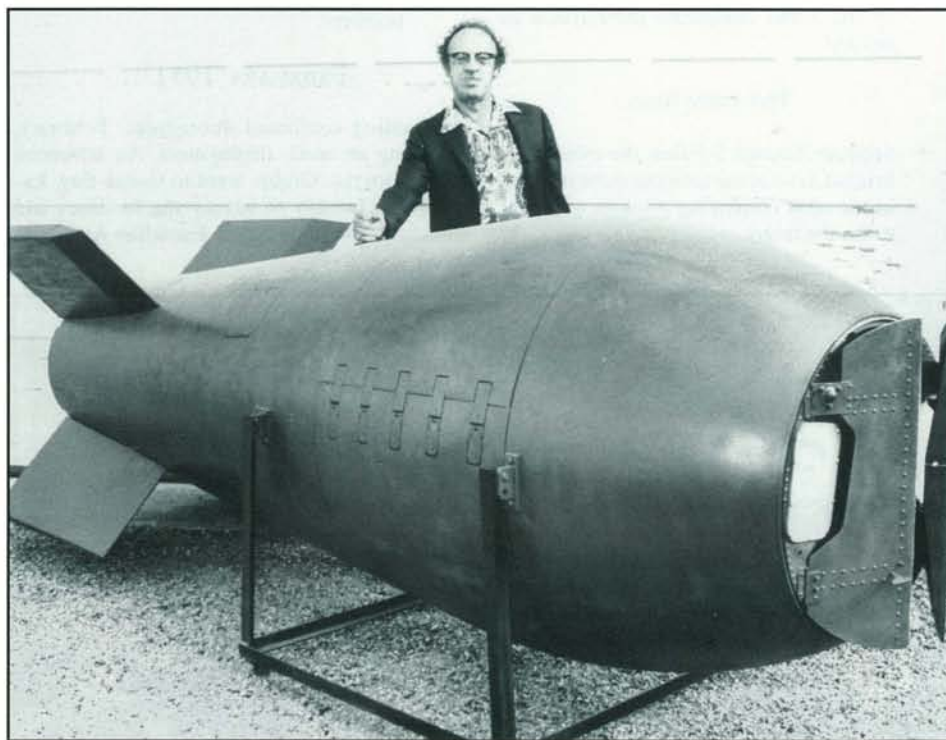
An interesting support operation occurred when Hunter AFB was required to provide food for the U.S. Navy when the Destroyer Escort DE 685, *U.S.S. Coates*, docked in Savannah on February 20 for repairs. Supply arrangements were made through the base commissary.

USAF REORGANIZATION

A major Air Force base level reorganization occurred on February 10. The base commander



This comparative view shows the Mk. 3 Fat Man with its box fins and the Mk. 4 bomb with four wedge-shaped fins without a box and different external configuration. The improved aerodynamics of the Mk. 4 bomb greatly improved its trajectory. (Courtesy of Sandia National Laboratories)



Mk. 5 bomb with a 40 megaton yield. (Courtesy of Sandia National Laboratories)

lost his overall command authority, and was made subordinate to the wing commander. The effective result was that the wing commander, responsible for the operational unit mission on the base, became the senior officer on the base. The former base commander became the base group commander responsible for the so-called housekeeping support of the wing. Housekeeping support included such functions as base housing, security, medical, transportation, and civil engineering.

At Hunter, Col. William H. Hanson became the 2d Air Base Group commander and Brig. Gen.

Frederic E. Glantzberg became overall commander of the 2d Bomb Wing and its supporting elements. SAC's mission-oriented philosophy was that the operational unit commander should have authority over the base. (Note that the *n* was also dropped from the designation and 2nd became just 2d.) This change included a major realignment of all functions not directly concerned with operations of the Wing. The new 2d Air Base Group had the following subordinate functions:

- Legal Section
- Finance Section

- 2d BW Commander
- 2d BW Deputy Commander
- 2d BW Executive Officer
- 2d BW Dir. Operations & Tng.
- 2d BW Asst. Dir. Ops. & Tng.
- 2d BW Dir. of Maintenance
- 2d BW Intelligence Officer
- 2d Air Refueling Sq. Commander
- 20th Bomb Sq. Commander
- 49th Bomb Sq. Commander
- 96th Bomb Sq. Commander
- 3d Strategic Support Sq. Commander
- 2d Air Base Group Commander
- 2d Air Base Group Executive Officer

Brig. Gen. Frederic E. Glantzberg
 Col. Cecil E. Combs
 Col. Oscar R. Schaaf
 Col. James B. Knapp
 Col. Earl R. Tash
 Col. Adam K. Brackenridge
 Maj. William N. Tumlin
 Lt. Col. Charles C. Fishburne, Jr.
 Lt. Col. Lyle C. Maritzen
 Lt. Col. Robert T. Calhoun
 Lt. Col. Harry E. Stengele III
 Lt. Col. James R. Wiley
 Col. William H. Hanson
 Lt. Col. Charles C. Trendley



This was the control tower at RAF Bassingbourn, temporary home of the 96th Bomb Squadron in 1951. (Courtesy of the United States Air Force)

- Provost Marshal Section
- Chaplains
- Commercial Transportation Section
- The 2d Medical Squadron (a redesignation of the The 2nd Medial Group)

Concurrent with these changes, a new organization was created, the 4210th Operations Squadron, comprised of the following components:

- Base Operations
- Base Flight Maintenance
- Base Photo Laboratory

With these changes, the 2nd BOMBARDMENT GROUP (M) ceased to exist on February 10, 1951, and its assets were absorbed into the 2d BOMBARDMENT WING (M). Key personnel of the Wing at the time of this change are listed in chart on this page.

The Savannah Chapter of the Air Force Association held a meeting at the Officers' Mess on February 21. General Carl A. "Tooey" Spaatz was the featured speaker of the evening. In attendance were Brig. Gen. Frederic E. Glantzberg, Col. William H. Hanson, and numerous local civilian dignitaries. Also present was Maj. Gen. Frank O'Driscoll Hunter, USAAF (Ret.), a WW I ace for whom the base was named.

MARCH 1951³³

There is a difference between flying operational missions and flying training. Training requires strict adherence to measurable parameters which include not only those aspects which may be found in routine operational flying, but also intensive transition work to assure safe takeoffs and landings, and instant recall of emergency procedures. The 2d Wing failed to meet the minimum SAC training requirements for the first

quarter of 1951. There were a number of factors over which the unit had no control that caused this shortfall. Chief among them was the number of missions directed by higher headquarters. While the Wing flew 3,217 hours during the quarter, 1,817 hours (56%) of that time was expended on ferry flights, ECM evaluation missions, and simulated combat missions ordered by higher headquarters. The Wing lacked a suitable target for completion of the bombing training requirements. The missions ordered by higher headquarters did not allow sufficient time over the RBS sites. There were insufficient fighters available for gunnery training. One suggestion was to have a dedicated B-45 authorized for high-speed target towing.

A Second Air force-ordered mission was flown on March 13, with 15 primary and 7 spare B-50Ds, 5 of which belonged to the 93d Bombardment Wing, but were placed under operational control of the 2d. The aircraft were divided into three cells of five aircraft for the mission. The aircraft were stacked vertically in two waves of two and three aircraft, respectively, flying pressure pattern altitudes at 1.5 minute intervals. A summary of this mission follows:

- Able Cell (2d BW) - All aircraft, except one Spare which ground aborted, got airborne on time. One primary aircraft lost the No. 4 engine and was replaced by Spare A-1, but the latter's radar became inoperative and it too was replaced by Spare A-2. The mission was completed as briefed, with the aircraft staggered at altitudes ranging between 28,000 and 32,000 feet.
- Baker Cell (2d BW) - All aircraft departed on schedule, but one of the primary aircraft air aborted after losing power in the No. 1 engine. Spare B-1 took its place. The mission was completed as briefed, with the aircraft staggered at altitudes between 25,000 and 29,000 feet. Spare B-2 was not needed and returned to base.
- Charlie Cell (93d BW) - All aircraft departed on schedule. A primary aircraft aborted when the cowl flaps on the No. 1 engine became stuck in the full open position causing considerable control problems at high power settings. A second primary aircraft replaced this aircraft, but it in turn was replaced by Spare C-1. Then Spare C-1 aborted because of power loss in the No. 1 engine and it was replaced by Spare C-2. The mission was completed as briefed, with the bombers staggered between 23,200 and 26,400 feet
- A shortage of line filters caused excessive noise when the crews attempted to operate the AN/APT-5 and AN/ATP-10 ECM transmitters.
- All five aircraft from the 93d Bomb Wing had earlier-type chaff dispensers which resulted in complete failure of their equipment. As a result of this experience, all chaff dispensers were ordered to be upgraded.

The 20th Squadron had worked in SAC-directed ECM testing for 10 months with a seri-

ous impact on the Wing's operations. Despite an intensive maintenance program, the equipment proved to be inadequate and unreliable. As a result, Gen. Glantzberg recommended that the engineering phase of the ECM test program be conducted on aircraft other than his bombers until such time a viable ECM system had been developed. He went on to state that further tests involving the current SAC Tactical Doctrine be suspended until new ECM equipment became available. Then, such upgraded equipment should be supplied to the Wing for further evaluation.

Difficulties with AN/APQ-24 bombing radar prompted radar maintenance personnel from the 20th Bomb Squadron to develop a guide for in-flight maintenance to be performed by the radar operator. They produced a 10-page mimeographed troubleshooting outline for this purpose.

In addition to performing maintenance on the Wing B-50Ds and KB-29P, the 4210th Organizational Maintenance Squadron also worked on the C-124s assigned to the 3d Strategic Support Squadron (SSS).

During March, the Second Air Force ordered the 53 Reserve officers to active duty who were on temporary M-Day assignments with the Wing.

The 2d Aviation Squadron, the unit responsible for management of atomic bombs, was on TDY to the Pacific during the month. It is presumed they may have been working on contingency plans related to possible use of atomic weapons during the Korean Conflict.

A plan was developed by the Wing in preparation for another 90-day TDY deployment to England.

APRIL-AUGUST 1951³⁴

Spot inspections by teams from SAC Headquarters were given to all SAC bombardment wings which had targets assigned under the current war plans. Interviews were conducted with radar observers on select crews to determine their proficiency. The 2d Wing received an unsatisfactory rating. Corrective measures were immediately taken and within 48 hours all of the Wing's radar observers were combat ready. This incident pointed out a need for even closer supervision of combat crews and the following measures were instituted:

- Each radar observer would understudy the Target Prediction Team when his target was being predicted
- Additional tests were prepared to be given to the strike commander, each member of the bombing team, and to the flight engineer of each crew
- Reduce use of combat crew members in support roles not related directly to their mission job
- Testing would be performed at frequent intervals to assure the combat readiness of select crews at all times

Two night profile missions were flown in April. The first, with 21 B-50Ds, was flown on the night of April 2. The second was flown with 16 aircraft on the night of April 5. Limited fighter interception was encountered on both nights when the formations were caught by F-47 *Thunderbolts* in the vicinity of Dublin, GA.

On April 12, a formation of 10 Wing B-50Ds successfully penetrated the Eastern Air Defense Force area on an ECM mission in which all aircraft employed electronic and chaff jamming.

ANOTHER DEPLOYMENT TO ENGLAND

The magnitude and complexity of the planning and effort necessary to move a bomber wing overseas, successfully and in minimum time, may be better appreciated if one understands what has to be moved. For this deployment, the Wing took 36 B-50s, 19 KB-29s, 2,180 people, and the necessary support equipment, tools and spare parts to sustain operations for 90 days. The deployment used all the crew and cargo space on the Wing's own airplanes, plus sufficient MATS C-54 airlift to move 1,060 personnel from Hunter. The deployment started May 2. Because this was a Wing move, four RAF bases were needed to support the operation. The Wing headquarters, 49th Squadron, 2d Field Maintenance Squadron, 4210th Organizational Maintenance Squadron, and the 4210th Armament & Electronics Squadron went to RAF Mildenhall. The 20th Squadron went to RAF Wyton. The 96th Squadron went to RAF Bassingbourn, and the 2d Air Refueling Squadron went to RAF Lakenheath.

Since the Wing's last deployment in 1950, SAC had organized the 7th Air Division. The 7th was to coordinate the deployment of SAC units to the UK, to exercise command and control over the deployed SAC units, and to manage their training programs. The 7th Air Division was co-located with the 3rd Air Division (USAFE) at South Ruislip, Middlesex, England.

Flying over England for new American bomber crews was not easy. One new second lieutenant, only recently out of flight school, had deployed with the 20th Squadron to RAF Wyton. He was mesmerized by the patchwork quilt appearance of the English countryside. In the left seat was Gen. Glantzberg. In the general's inimitable style, he appeared to have gone to sleep and left the flying to the new copilot. The lieutenant, somewhat befuddled by the terrain below, called on the radio: "RAF WYTON" several times. Finally Wyton tower replied: "Yank aircraft calling RAF Wyton, go ahead." The copilot asked for a directional steer to the field. The tower replied: "Yank, if you look off to your left nose you'll see the runway." The copilot entered the pattern and made his descent. When a few hundred feet in the air he heard a voice saying: "I've got it." It was Gen. Glantzberg who had been playing possum while observing the copilots' abilities.

Of the Wing's 36 B-50s available for deployment, 33 departed on schedule. All 36 of these aircraft were to fly ORI on May 9. The KB-29s from the 2d ARS were not included in this test because of their recent activation, and deficiencies in manning and proficiency. 7th AD postponed the test until May 16, when 21 of the 29 B-50s airborne that day dropped bombs, while 8 aircraft flew RBS runs on the No. 6 Heston Bomb Plot. The overall operation consisted of six cells performing ECM and chaff jamming on GCI and gun-laying radars. Unreliable AN/APQ-24 bombing radars hampered mission results.

Between May 23 and 25, Wing B-50s took part in NATO exercise. The exercise assumed an

enemy force had opened hostilities by advancing across Germany without warning. The bombers played the role of the invading force and were opposed by 287 fighters from the RAF's Northern and Central Tactical Air Forces and NATO forces based in France, Belgium, Luxembourg, and the Netherlands. The fighters employed were *Meteor IVs*, *Vampire IIs*, F-84Es, *Spitfire XXIs*, and *Mosquito XXXVIs*. The bombers had to evade or jam 20 early warning, GCI, and gun-laying radar sites. Little fighter opposition was encountered, probably as a result of the jamming.

The 49th and 96th Squadrons each furnished two airplanes for eight days, beginning May 28, for ECM tests conducted by the Trials Establishment, Royal Artillery, at RAF Station Valley, Wales. The Wing also tested its ECM capabilities against British naval radars stationed at Fort Pulbrook and along the southern coast of England.

In early June, ECM tests were again run with the Royal Artillery Trials Establishment in Wales. The trials determined that dropping 15 chaff bundles per minute would still permit ground radars to track the bombers however, albeit, gun effectiveness was degraded by 50%. By increasing the rate to 30 bundles per minute, the fire control radar consistently lost the target aircraft when these aircraft flew through the heaviest concentration of chaff. Also, it was determined that ECM jamming, in this case, could be 100% effective if the equipment was accurately tuned.

A mission in June emphasized formation flying, fighter rendezvous, air refueling, camera gunnery, and night bomber cell tactics. As many as two wings of RAF fighters participated in the exercise. F-84s from the 31st Fighter Escort Wing (SAC), based at Manston, provided escort for the bombers, and also made camera gunnery attacks on the B-50s. The bombing ranges at Heligoland and Brest Sands were used for these exercises. Emphasis was placed on timing and fighter escort rendezvous.

A major challenge confronted the 4210th Armament & Electronics Squadron in converting 50-cycle electrical power to 400-cycle power for electronics maintenance on the AN/APQ-24 bombing radar. There were no local generators available that met the need. But Yankee ingenuity prevailed! Technicians modified an available generator. They disconnected the direct drive coupling between the motor and the generator and repositioned the motor to permit a pulley-and-V-belt step-up from the motor to the generator. This step-up, at a six-to-five ratio, provided the desired frequency. This modification was done at minimum expense and permitted reconversion when the unit returned to the United States. The modification consisted of fabricating one angle iron motor mount and a bracket. The material cost was \$1.00, labor cost was \$6.00, plus local purchase of V-belts and sheaves at \$12.40, and a few fasteners, for a total cost of less than \$20.00!

On June 13 and 16 tests were conducted to determine the maximum personnel load of a B-50 in the event of an emergency aerial evacuation of SAC bases in England had to be made. It was determined that up to six additional men could be loaded onto each aircraft, for a total of 17. This exercise was aptly named Operation SARDINE.

Disaster struck on June 7. A KB-29P with pilot 1st Lt. Joseph A. O'Leary Jr., and crew from the 2d ARS, crashed near Kircudreighshire, Scotland while on a training flight. The aircraft, with 9,000 gallons of fuel aboard, gave a position report one hour and forty minutes after takeoff. The tanker was flying at an altitude of 14,500 feet on a day celestial mission. Seven minutes later 2d ARS Operations was notified by Preswick Control that the aircraft had crashed. All eleven aboard were killed.

The 2d ARS had the distinction of performing the first USAF refueling of RAF aircraft when a KB-29P piloted by Lt. Lowell B. Green refueled three RAF *Meteors* from RAF Tarrant, Tuston.

In another accident, one of the bombers from the 49th Squadron was struck by an F-84. The fighter pilot was killed. A wing panel on the B-50 had to be replaced. Because the part was not available in England, the aircraft's departure for the United States was delayed.

On July 1, the Wing flew over European capitals in a show of NATO air power. These flights no doubt alerted the air defenses of the Soviet Eastern Bloc countries. In another show of NATO force, six aircraft from each of the Wing's squadrons deployed to North Africa on July 13. Capt. George F. Gephardt, from the 2nd ARS landed the first heavy aircraft on the unfinished runway at Sidi Slimane, French Morocco. Gen. Glantzberg followed with the first B-50 to land on the first 6,000 completed feet of a 12,000-foot runway. This deployment to Africa, though modest in number, demonstrated the capability for a bomber threat to the Soviets through the Crimea and the Black Sea. Such a threat complicated Soviet air defense planning. (See Annex 23.)

BASTILLE DAY CELEBRATION³⁵

The French Bastille Day celebration was held at Sidi Slimane Air Base on July 14, 1951. For this event, six F-84E *Thunderjets* from the 36th Fighter Bomber Wing at Furstenfeldbruck Air Base, West Germany were flown in. This unit formed USAFE's famed aerial demonstration team known as *The Skyblazers*. They presented a dazzling aerial ballet at both Sidi Slimane and Nouasseur Air Bases, for the celebration.

Also present were the six B-50s and two KB-29s from the 2d Bomb Wing which had deployed from England. These aircraft followed *The Skyblazers* demonstrations. This was the only deployment of B-50s from the 2d Bomb Wing to Morocco.

Two of the six B-50s were delayed at Sidi Slimane for repairs — one for an engine change and the other for a cylinder change. Maintenance personnel borrowed a crane from the engineers constructing the base to pull the propeller and engine, and fabricated workstands from materials obtained from the base.

On the redeployment to the United States on August 31, all 19 of the 2d ARS KB-29Ps were to fly direct from Lakenheath to Hunter via a great circle route. One of the tankers was delayed two hours because of magneto synchronization drops. A second had gear retraction problems and circled the area for an hour and forty-five minutes while the gear was manually re-



With the No. 2 and 3 engines pulling minimal power, Maj. Leman M. Herridge's crew managed to get this B-50D back to Lajes AB. A MATS Air Rescue Service SB-17G accompanied the laboring bomber. For their actions, they were selected as Crew of the Month by SAC's *Combat Crew* magazine. (Courtesy of M. Herridge)

tracted, causing a fuel stop at Westover AFB, MA. A third tanker had to feather the No. 2 engine four hours out of Lakenheath. It was met by three air rescue aircraft off Nova Scotia and escorted to Boston where it proceeded unescorted to Hunter without further mishap. The remaining 13 aircraft flew the mission as originally planned. This was the largest over-water non-stop flight across the Atlantic in which all aircraft departed the same day and landed the next. These flights included all of the deployed aircraft assigned to the 2d ARS.

SEPTEMBER 1951³⁶

All of the bombers returned to Hunter September 23 except four that were delayed in the Azores. As the bombers approached the United States, they were met by the KB-29Ps. It took 47 hook-ups and 125 flying hours to refuel the 20th and 49th Squadron's airplanes with 23,790 gallons of aviation gasoline. Subsequently the 2d ARS flew 75.5 hours and 20 hook-ups to refuel the 96th's airplanes with 10,140 gallons of gas.

The last of the Wing's personnel arrived at Hunter during September. A total of 37 MATS flights were required to return 800 personnel and 413,800 pounds of cargo.

The 3rd Strategic Support Squadron (SSS) was assigned to the Wing in September. These SAC squadrons were equipped with heavy transports (C-97s or C-124s) to provide heavy airlift for the bombardment units; in particular the movement of atomic weapons. The Squadron flew 27 missions in September, of which 17 were classified.

OCTOBER 1951³⁷

The last deployed aircraft, flown by Maj. Leman M. Herridge of the 96th Squadron, arrived on October 6. Maj. Herridge had been forced to return to Lajes because of engine failures that required replacement of three engines! The following narrative is quoted from SAC's *Combat Crew* magazine in which Maj. Herridge and crew were selected as *Crew of the Month*:³⁸

According to SAC Flying Safety Year campaign rules, the *Crew of the Month* is

named from the base winning the trophy that month. Carswell's crew was outstanding. However, the judges agree that the actions of Major Leman M. Herridge's Hunter AFB crew was an excellent example of good crew technique and discipline.

Their flight started as a routine flight from the Azores to Hunter. Takeoff gross weight was 151,000 pounds. The flight was normal until three hours five minutes out of Lajes at 12,500 feet, when No. 2 engine backfired violently and started belching white smoke. The engine continued to backfire violently and was feathered. As a 180-degree turn was being executed, No. 3 engine began to backfire and overheat. External tanks were dropped. With full power on the two remaining outboard engines, the rate of descent was approximately 250 FPM. The flight engineer transferred gas from main tanks to receiver tank in the rear bomb bay. Preparations were made for ditching.

Upon reaching 3,300 feet, it was necessary to salvo all loose equipment and the rear bomb bay tank. Except for water survival equipment, 21,000 pounds were salvaged.

It was then possible to climb to 6,000 feet and reduce power on the outboard engines. Later the two inboards were started and produced 80 pounds of torque on No. 2 and 50 pounds on No. 3. This helped lighten the load and power obtained carried the engines' weight. No. 3 was feathered again when it ran dangerously low of oil prior to reaching Lajes. Upon reaching Lajes, No. 1 engine backfired violently and would not give full power. An excellent single engine-landing was made.

Return flight lasted four hours, five minutes. Examination revealed internal failure on No. 1, 2, and 3 engines with No. 4 showing indications of overheating and oil leaks.

Following deployment the Wing returned to normal training. The Wing logged 1,784:30 hours of flying time in October, of which 153 hours were for pilot proficiency. Crews flew 28 long-range missions during October. On October 17 and 18, the 2d ARS sent seven tankers in search of a C-97 reported missing off the

coast of Nova Scotia. The tankers logged 135 hours of flying time.

Although practice bombing and radar scoring missions were flown during the deployment, the triple-threat observers needed more airborne training. To meet this urgent need, SAC suspended the usual training requirements so the Wing could concentrate on the observer training.

A new combat mission survival technique was tested by six B-50s from the 20th Bomb Squadron on the night of 24 October. Maj. Earle F. MacDonald, the Squadron Operations Officer, expected the new technique to increase the probability of bomber survival from fighter interception by 30%. The normal cell formation was altered to accommodate flying formation while the bombers were blacked out. The bombers flew without lights using only the glow of the supercharger exhausts for reference points. The formation crossed the target at 30,000 feet. Attempted fighter interception resulted in no contacts.

During the month, the newly assigned 3d SSS logged 611:22 hours, flying 22 missions, 14 of which were classified. The 3d SSS flew 639,553 passenger-miles and 311,834 ton-miles on these missions, in addition to making 58 practice GCA's and one actual GCA.

Leaks were found in the bomb bay fuel tanks of the KB-29Ps, which resulted in an emergency unsatisfactory report. Technical representatives from Air Material Command and Boeing were brought in to investigate. After several days of testing, it was decided to remove a sample forward tank and ship it to the manufacturer for further testing. By the end of the month the problem had not been resolved.

The 308th Bombardment Wing (M) was activated at Forbes AFB, Kansas, with B-29s. As with the build-up prior to WW II, key personnel of the 2d Bomb Wing were transferred to be part of the initial cadre of this new wing. The cadre composed of Col. Ralph C. Jenkins, Lt. Col. Ralph H. Schneek, Maj. George Nogas, Maj. Joseph Norris, and CWO Charles Fahnestock left on October 31.

NOVEMBER 1951³⁹

The 49th Squadron protested the fact that at least five of its crews had failed to become "scored crews," because of excessive scores on visual RBS missions. To become a scored crew, a circular error of not more than 700 feet was required. It was recommended that a study be made of the scoring procedures at the various RBS sites to assure more equitable scoring. The RBS site had an admitted error of at least 600 feet. Such an error narrowed the proficiency requirement to less than 100 feet!

The first night refueling was accomplished by the 2d ARS in November during a large-scale Second Air Force mission. Eight wet hook-ups were completed and 4,000 gallons of fuel were transferred to 20th Squadron bombers returning from a simulated combat mission. Capt. Henry Morris of the 20th was credited with being the Wing's first night receiver.

The Wing flew 93 jamming sorties against a variety of radars during the month testing AN/APT-4 equipment.

Lt. Fred D. Goeckel of the 2d ARS and Capt. Gerard F. Finnegan of the 96th Squadron and

their crews went to Eielson AFB, Alaska to learn polar grid navigation. They initiated similar training within the Wing upon their return. Polar grid navigation is quite different from normal navigation. It requires use of a different north orientation. Practice in the polar region helped to assure that the crew knew and had confidence in the technique.

An alert plan for the 20th Squadron was tested during the first week of November. The unit was well prepared and assembled for briefing within two hours of notification.

The 3d SSS accrued 819 hours of flying time during November with their C-124s, flying 14 missions, two of which were classified. Five of their aircraft returned from a classified mission to the Pacific. Maj. Robert E. Copely was commander of the 3d SSS during this period.

DECEMBER 1951⁴⁰

The 2d Aviation Squadron sent five officers and 16 enlisted men to Kirtland AFB, NM, December 10 to practice erecting a *Palmer House* and check out of its associated utilities. A *Palmer House* was a structure used for field assembly, storage and checkout of atomic weapons. It was a temporary, prefabricated structure. The personnel were airlifted on a 3d SSS C-124, which departed Hunter on a classified mission that day. The following day, the crew erected the house and checked its equipment within six hours. The next day they dismantled the house in two and a half hours.

The Wing flew a total of 365 bombing sorties performing radar RBS, visual RBS, radar strange-target runs, visual target runs, visual strange-target runs and visual releases. Total flying time for the month was 1,737:15. The 3d SSS flew only 20 missions, with a quarter of them being classified. A total of 27,000 gallons of gas was off-loaded by 2d ARS tankers during 54 wet hook-ups. Another 29 dry hook-ups were made. Cell tactics were practiced on 59 missions. Over 50,000 rounds of .50 caliber ammunition were expended during the month, with over 80% fired in the air.

Wing alert plans were worked on throughout the month, and Gen. Glantzberg believed it time that they be practiced. The siren sounded at 4:00 A.M. on December 22 and the base switchboard was jammed with calls from duty officers and Charge of Quarters personnel. Within 11 minutes officers and airmen began streaming to their assigned duty locations. There was much relief when it was learned that the alert was only a drill. The test revealed deficiencies and improvements to the alert plan were immediately developed.

1952

In another reorganization, the 2d Air Base Group was reassigned directly to the 38th Air Division in anticipation of the arrival of the newly reactivated 308th Bombardment Wing to be co-located with the 2d Wing on the base. The 2d Bombardment Group was officially inactivated.

Training and special missions occupied the Wing during the year. When a major flood hit the mid-west, C-124s from the 3d SSS flew relief missions. 2d ARS tankers participated in the first trans-Pacific fighter deployment. An-

other 90-day deployment to England commenced in September. While overseas, the 2d participated in exercises with the RAF and other Allied air forces. Another major study was made of using flyaway kits to service the aircraft, and restocking the kits from the U.S. The Wing competed in the annual SAC Bombing and Navigation Competition and one of its crews brought home a number of trophies.

JANUARY 1952⁴¹

SAC relieved the Wing of performing SAC-directed missions. Some of the SAC requirements were accomplished coincident with Wing normal training. The AOCP rate became critical during the month and became the subject of higher headquarters attention. The resulting shortage of available aircraft severely hampered operations.

Two KB-29Ps were scheduled to refuel fighters deploying to England. Bad weather and other difficulties caused the mission to not be completed successfully.

On January 21, a C-124 from the 3d SSS landed gear up at Goose Bay, Labrador. There were no injuries.

Mk. 6 atomic bombs became available to the Wing in January. Training in the assembly of these weapons was conducted by personnel of the 2d Aviation Squadron.

Gen. Glantzberg had served with the 2nd Bombardment Group at Langley Field prior to WW II. He became commander of the unit on April 4, 1949. On January 13, 1952 he was informed that he was to be transferred to command Air Task Force 132.4 at Sandia Base, New Mexico. At a staff meeting the next day he announced his forthcoming transfer and stated: "I have never had a command which I left with such regret. You have been an inspiration to me, and as a team, we have achieved many things. I only hope that when this mission is completed that I will be reassigned to this station." The 38th Air Division staged a review for Gen. Glantzberg on Thursday, January 31, and 6,000 officers and airmen from the 2d and 308th Bombardment Wings participated. Two awards were presented at the review. Mrs. Carl M. Oelschig, Jr. was presented the Distinguished Flying Cross for her husband who was missing in action in Korea, and Cpl. Edward B. Madden, from the 4210th Organizational Maintenance Squadron was awarded the Bronze Star for action in the Pacific in 1944. Brig. Gen. Sydney D. Grubbs, from Ramey AFB, Puerto Rico where he had commanded the 55th Strategic Reconnaissance Wing, assumed command of the 38th Air Division at Hunter. Col. John M. Reynolds, commander of the 307th Bombardment Wing at MacDill AFB, Florida, replaced Gen. Glantzberg as commander of the 2d Bombardment Wing. At the same time, Col. Charles B. Dougher, former 2d Bombardment Wing Deputy Commander assumed command of the 308th Bombardment Wing.

The histories for the 2d Bombardment Wing for February and March remain classified.

APRIL 1952⁴²

The 38th Air Division (AD) became fully operational in April, with the the 2d Bombard-



Maj. Robert E. Copely, commander of the 3rd Strategic Support Squadron, sucked up the gear on his lightly loaded C-124 as he lifted off the runway at Chatham Air Force Base. (Courtesy of E. Copely)

Unit	Authorized Strength	
	Officers	Airmen
Headquarters Squadron	50	108
2d Aviation Squadron	22	26
2d Air Refueling Squadron	90	209
20th Bomb Squadron	72	193
49th Bomb Squadron	72	193
96th Bomb Squadron	72	193
2d Field Maintenance Squadron	8	362
2d Periodic Maintenance Squadron	5	143
2d Armament & Electronics Maintenance Squadron	14	291
Total	405	1,720

ment Wing and 2d Air Base Group as subordinate units.

When a major flood hit the midwest, three C-124s from the 3d SSS ferried food, blankets, emergency medical supplies and equipment to Omaha. Despite poor landing facilities and unfavorable flying conditions, the crews airlifted two battalions of troops and 324,373 pounds of cargo to the beleaguered cities in the flood area. At some of the landing fields, trees had to be tied back so that the aircraft, with their 173-foot, 10-inch wing spans, could be taxied.

A colorful new *Thunderbird* marking was developed for the C-124s of the 3d SSS and was applied just in time for the base Armed Forces Day celebrations.

Airman housing at Hunter underwent major renovation as the existing open bay barracks were converted into four-man dormitories. With the influx of personnel from the 308th Bombardment Wing shortages in base housing became critical and airmen in the upper three grades, married and single, were granted permission to seek off-base housing.

There was a lapse in military courtesies and discipline at Hunter AFB which was remedied by the opening of *Fort Grubbs* — a retraining program for errant airmen. The school was patterned after an infantry company. The deficient airmen were given a 30-day refresher course in

the basic knowledge of wearing of the uniform, military courtesy, and drill.

The 2d ARS provided tanker support for 49th Air Division exercise.

The 2d Aviation Squadron had two training operations with Mk. 4 and Mk. 6 atomic bombs under the supervision of a Special Weapons Technical Board team from Sandia Base, NM. Eighty-one B-50 crews performed in-flight insertions as required by Second Air Force.

A specially designed pit for changing bomb bay fuel tanks was developed by Capt. Warren S. Ludlow of the 2d ARS.

ROUNDUP IN THE SKY

A forest fire and unusual cloud conditions on April 5 resulted in a C-45 *Expeditor* becoming lost in the Savannah area while en route from Pope AFB, NC to Warner Robins AFB, GA. The crew called for a GCA approach with less than 45 minutes of fuel remaining and its radio compass malfunctioning. The controllers were unsuccessful in locating the stricken aircraft. Lt. Robert Rechsteiner and Capt. C.L. Bell were flying a 2d ARS KB-29P, on a routine test hop about 10 miles north of Hunter at an altitude of 3,500 feet, when they heard the distress call. They were flying towards the ocean. When the tower and GCA reported that they had lost contact with the lost C-

45, Brunswick and Jacksonville radios both acknowledged that they had made contact with the airplane. The KB-29 was turned to a southwesterly heading and called the C-45 crew asking them to turn east toward the coastline. The tanker crew then asked the C-45 crew if they could see the column of smoke from the forest fire. When the C-45 crew answered affirmatively, they were directed to circle the plume. Lt. Rechsteiner did the same until he spotted the C-45. Lt. Rechsteiner lowered his landing gear to slow the tanker so the C-45 could catch up. Lt. Rechsteiner and his tanker crew then led the nervous C-45 crew to the Hunter runway. Capt. Bell called the Hunter tower to clear the runway for the C-45 which was now down to 10 minutes of remaining fuel. The relieved C-45 crew made a normal landing and thanked the tanker crew for their assistance.

MAY 1952⁴³

The 3d SSS was reassigned from the 2d Bombardment Wing to the 38th Air Division. A nation-wide strike of oil workers reduced aviation gasoline supplies and cut available flying hours. A major SAC exercise was flown during May to test the bomber capability to penetrate ADC radar nets. In another test exercise bomber crews flew through an actual atomic cloud during a test shot in Nevada. The returning aircraft were washed down at Hunter. The Wing sent 23 B-50s to the Sacramento Air Materiel Depot at McClellan AFB for modifications. One mechanic per airplane went to California to assist in the modifications. Wing crews flight tested the aircraft as they came off the modification line. The modification was to upgrade the ailing AN/APQ-24 radar bombing system. The remainder of the Wing's B-50s were sent later for modification. Modification of the Wing's full complement of 45 airplanes was completed in August. Maj. Gen. C.S. Irvine, Commander of the Sacramento Air Depot, commended the Wing on the quality of the aircraft sent to his depot which greatly helped in moving the aircraft through the modification program.

With the reduced flying time available during the month because of both the fuel shortage and aircraft undergoing modification, the Wing concentrated its available flying time on keeping its lead and select crews current. The non-flying time was used to concentrate on ground training.

JUNE 1952⁴⁴

Further reorganizations within SAC resulted in the renaming the 2d Headquarters and Headquarters Squadron to just 2d Headquarters Squadron, and changed the designation of the 2d Maintenance Squadron to the 2d Field Maintenance Squadron. The 4210th Organizational Maintenance Squadron became the 2d Periodic Maintenance Squadron; and the 4210th Armament & Electronics Maintenance Squadron became the 2d Armament & Electronics Maintenance Squadron. Though not operational since February 10, 1951, the 2d Bombardment Group was officially inactivated on June 16, 1952.

The new Table of Organization & Equipment (TO&E) for the 2d Bombardment Wing provided for the manning listed in chart on this page.

Each of the bomb squadrons was equipped with 15 B-50Ds. The 2d ARS had 20 KB-20Ps assigned. The sister 308th Bombardment Wing had three bomb squadrons each equipped with 10 B-29s. These two wings comprised the 38th AD.

Extensive training was given in the effects of atomic and hydrogen bomb blasts. Damage phenomena, based on weapon yield and height of burst, was discussed.

JULY 1952⁴⁵

Higher headquarters directed more special missions during July. Fifty percent of the flying being was devoted to these missions. To accomplish this training, the originally authorized flying hours for the B-50s was increased from 1,040 to 1,336, and that of the KB-29s from 600 to 805 hours.

The 2d ARS supported deployment of the F-84s of the 31st Fighter Escort Wing (SAC) from Turner AFB, GA to Japan. The tankers accrued 427:55 flying time, while off-loading 30,320 gallons of JP-4 jet fuel in 588 hook-ups. This was the first trans-Pacific, air-refueled fighter deployment. The operation began on July 4, when the tankers rendezvoused with the fighters over Wink, TX. The refueled F-84Gs then flew to Castle AFB, CA. Trans-Pacific refuelings were accomplished on July 6, 7, and 8. The 2d ARS was joined by tankers from the 91st and 93d ARSs as they island-hopped from Castle to Hickam AFB, Hawaii, Midway Island, Wake Island, Eniwetok Atoll, Guam, Iwo Jima, and on to Japan in a 10,919-mile sojourn.^{46, 47} The tankers returned on July 11.

The Wing was to continue tests to determine the logistic support requirements during deployment. Under a concept developed by HQ USAF, there would be reduced stock levels at the forward bases, but they would be resupplied by airlift from the U.S. Deployed units were to use flyaway kits that would likewise be replenished by aerial supply. Data on all aspects of logistic support would be gathered, including usage rates, transportation, supply and maintenance operations, consumption from flyaway kits, and manpower needs. The test would be conducted in conjunction with the Wing's deployment to England. Of the 2,868 personnel assigned to the Wing, 2,586 were to be deployed to England.

The Wing was also informed that it would be required to drop a 1,000-lb. general purpose bomb while in England. Tests were conducted prior to the deployment. By removing the auxiliary bomb rack in the forward bomb bay, up to six 1,000-lb. bombs could be carried. Without this removal none of these bombs could be carried.

AOCp rates continued to plague the Wing during July; however through planned cannibalization, 68 B-50Ds and 30 KB-29Ps were prevented from going out of service due to a lack of parts. A total of 209 manhours were required to salvage 106 items in the cannibalization program.

AUGUST 1952⁴⁷

Plans for next month's deployment to England were in high gear. The 2d Aviation Squad-

Date	Mission Type
• Sept. 8	Emergency War Plan
• Sept. 13	Canned Mission AC&W Belgium
• Sept. 17	Canned Mission AC&W Belgium
• Sept. 22, 26	Canned Missions
• Oct. 1	Canned Unit Mission
• Oct. 5	Operation ARDENT
• Oct. 11	Operation ARDENT
• Oct. 15	Emergency War Plan Unit Mission
• Oct. 20	Canned Mission
• Oct. 24	Canned Mission and Live Bombing
• Oct. 29	Canned Mission & Operation DRAGO
• Nov. 2	Emergency War Plan Mission
Nov. 7, 11, 15, 19, 23	Canned Missions

ron, 804th Air Base Group, and 2d Medical Group would not deploy, but would be temporarily reassigned to one of the units of the 38th Air Division. Personnel from these units would perform much-needed face-lift maintenance on the base during the next few months.

Flying activity was markedly reduced in August as the Wing prepared for deployment. The B-50s flew only 1,176 hours and the KB-29Ps only 190 hours. The Wing Staff Observers' Section developed a new method of radar bomb scoring using scope photography. The Section briefed representatives from Headquarters Fifteenth Air Force on the new technique.

Five B-50 crews were sent TDY to Forbes AFB, KN for SHORAN training. SHORAN, for short range navigation, was an all-weather bombing system that used short-range radio lines of bearing. The training consisted of 24 hours of ground school, two hours of trainer time, and an average of 15 bomb releases per crew.

While deployed to England, the Wing was to be located at the following bases (see Appendix 23):

- RAF Lakenheath - 2d ARS used hardstands 1 through 14. They would share the ramp with four RB-29s from the 111th Strategic Reconnaissance Squadron and two RB-50s and KB-29s from the 55th Strategic Reconnaissance Wing. Under an agreement with the 509th ARS, its tankers were to be flown out of RAF Lakenheath the day the 2d ARS arrived.
- RAF Upper Heyford - 2d Wing B-50s.
 - Hardstands 1 through 9 were used for two periodic docks, backline maintenance, and refueling trucks.
 - Hardstands 10 through 17 remained open for possible fighter assignment and overflow from backline maintenance.
 - Hardstands 18 through 33 were for 20th Squadron B-50s.
 - Hardstands 34 through 48 were for 96th Squadron B-50s.
 - Hardstands 49 through 63 were for 49th Squadron B-50s.

Headquarters USAFE was requested to provide two C-82 *Packets* to provide shuttle service between RAF Lakenheath and RAF Upper Heyford. These bases are 78 nautical air miles apart.

SEPTEMBER-DECEMBER 1952⁴⁸

Wing tactical aircraft departed for England on September 3, 4, and 5. Only a few support aircraft remained at Hunter AFB. The deployment was completed by September 16 with the following personnel and equipment being moved:

	Personnel	Cargo
• Tactical Aircraft	979	135,000 lbs.
• Support Aircraft	1,644	454,290 lbs.
Total	2,623	589,290 lbs.

The 306th Bombardment Wing from MacDill AFB, FL sent 14 of its KC-97s to Harmon AFB to support the deployment. MATS furnished additional airlift with 16 C-97 Stratofreighters, 5 C-73 Globemaster Is, and 14 C-124 Globemaster IIs.

Finally, SAC flew 80 passengers to Upper Heyford aboard one of its C-97s.

The planned flying schedule for the 2d Bomb Wing was as in chart on this page.

Twenty-two B-50s, loaded with 22 M-107 training bombs, were scheduled to fly the Emergency War Plan mission on September 8. Nineteen bomb carriers took off and 15 dropped their bombs. Four bombs were salvoed when the aircraft experienced engine failures. All bomb loading was accomplished by the 1st Aviation Field Depot Squadron.

The 2d ARS was required to provide weekly air refueling practice for the 137th Fighter Wing, Oklahoma ANG which was deployed to England during this period.

Fifteen B-50s flew each day against Belgium's radar and fighter defenses on September 13 and 17.

Operation ARDENT consisted of two 15-aircraft missions flown in conjunction with the RAF Fighter Command Fall Exercise on October 5 and 11. The Wing received congratulations for its efforts from the British Air Ministry.

Exercise DRAGO, October 29, required an unspecified number of B-50s to fly against the Southern European Air Forces.

One B-50 was dispatched to North Africa for a 5-day TDY so that 5th Air Division personnel could accomplish special weapons loading practice.

As a testament to the logistics planning, the AOC rate for the Wing dropped significantly from 11.28% to 0.65% between August and September for the B-50s and from 32.5% to 1.73% for the KB-29s. Logistical resupply support was provided by C-82 crews from the 60th Troop Carrier Group, at Rhein-Main AB, West Germany. In addition to flying a daily courier service between RAF Lakenheath and RAF Upper Heyford, these aircraft ferried parts from the Warner Robins Air Materiel Depot in Georgia to the bases in England. That's quite a trek for the twin-engined C-82 *Packet*! In recognition of their efforts, Col. John M. Reynolds, Wing commander, sent a letter of appreciation to the 60th Troop Carrier Group stating that: "Your C-82 aircraft and flight crews provided the means of delivering the required equipment and personnel with minimum loss of time to the mission of the 2d Bombardment Wing...timely re-supply of that organizations supply requirements would not have been successful had it not been for the whole hearted cooperation of the flight crews manning the C-82 aircraft."

Reliability of the AN/APQ-24 bombing radar plagued the Wing until remedied by the improved logistics program.

Even though the Wing was deployed to England, it participated in the Annual SAC Bombing and Navigation Competition which was held at Davis-Monthan AFB in October. The Wing placed third in the overall standings. The crew of Lt. Col. William F. Seith of the 20th Squadron earned *Best Overall Crew* for the second consecutive year. This crew also garnered the *Best Crew Combined Bombing* and *Best Crew Navigation* Awards. Of the 42 trophies awarded, Col. Seith's crew took 39. For their accomplishments, the entire crew was advanced one grade as part of General LeMay's *Spot Promotion Program*. The crew consisted of personnel listed in chart on this page.

Gen. LeMay instituted the *Spot Promotion* program in SAC to reward outstanding crews. These promotions were over and above the ones allocated to the command as part of the overall USAF promotion plan. Under the *Spot Promotions* program the entire crew was advanced one grade and was recognized as a *Select Crew*. However, if any one member of the crew caused them to fail in an operational task, the entire crew was immediately reduced one grade. General LeMay sure knew how to run an incentive program.

Tragedy struck again on November 6, when a 49th Squadron lost a B-50 and its entire 11-man crew. Aircraft s/n 8-091 was lost over Great Dunmow, England. Apparently an electrical failure in the turn and bank indicator was the cause. The accident board recommended that all pilots and flight engineers be familiar with all pertinent Technical Orders and Standing Operating Procedures regarding the B-50 electrical flight instrument system and its limitations, emergency procedures to be used in case of an electrical fire or other electrical failure, and the procedure for

39 TROPHY - SELECT CREW

• Aircraft Commander	Lt. Col. William F. Seith
• Copilot	Capt. C. Torres
• Navigator-Bombardier	Lt. Col. Maurice F. McVicker
• Radar Operator	Lt. Col. Herbert L. Keiger
• Flight Engineer	1st Lt. F.A. Romero
• Radio Operator	M/Sgt. D.C. Lyons
• Gunner	M/Sgt. A.H. Beltz
• Gunner	M/Sgt. J.J. Cassidy
• Gunner	M/Sgt. E.J. Sieler
• Gunner	T/Sgt. J.J. Seman
• Radar Mechanic	S/Sgt. J.C. Huddleson

rewiring the turn and bank indicator to the battery circuit in the event of normal system power failure.

The RAF provided fighters for gun camera gunnery exercises on many missions.

The Wing began redeploying to the United States on December 3. The first aircraft arrived at Hunter the following day. The first wave consisted of 15 B-50s and seven KB-29s which returned via Lajes. The support aircraft flew from England to Lajes, Kindley AFB, and on to Hunter AFB.

MATS provided airlift for 1,373 personnel and 380,000 pounds of cargo from RAF Upper Heyford, and for another 268 personnel and 75,000 pounds of cargo from RAF Lakenheath for the return trip.

A second wave left England on December 4, but was forced to return due to bad weather in the Azores. This weather caused a delay of eight days. Two additional deployments followed on December 12 and 13. All of the redeploying aircraft made the trip as planned, except for the following four:

- One KB-29P was delayed at Lajes for two days for an engine change.
- One B-50 was delayed at Lajes one day for an engine change.
- One B-50 was delayed at Lajes for two days to clear engine oil leaks. Both left main gear tires were blown on landing in gusty wind conditions with only three engines.
- One KB-29 remained at Lajes for 14 days due to a landing accident. The No. 2 engine was feathered when it surged and exceeded its power limits. This aircraft had all four propellers removed for inspection. The left aileron was replaced. Right rear bomb bay door was replaced. Inspection of the wings and fuselage revealed no major damage. The left outboard wing needed five ribs, skin panels, and tip replacement. Three holes had to be repaired in the left inboard flap. The right horizontal stabilizer required replacement of three feet of the leading edge and repair of one rib and three stringers. Sheetmetal repair of the boom pod was required. All four main gear tires had to be replaced. The total manhours to make the repairs was 1,051. Subsequently it was found that the nose gear

strut and one tire had to be replaced due to excessive leaks and two engines had to be replaced. The accident investigation board recommended that a closer evaluation be made of crew qualifications to make take-offs or landings under marginal conditions.

Adverse weather conditions also caused a number of delays for the returning MATS aircraft.

1953 — TWO TRAGEDIES^{49, 53}

1953 started on a very sad note, when the Wing lost nine of its finest, had another three injured, one seriously, and two B-50s were destroyed.

At 8 P.M. on Thursday, January 8, Lt. Col. Colin C. Hamilton and his crew in B-50, s/n 48-098, and 1st Lt. Chester J. Kinzie, and his crew in aircraft 48-089, were on training missions in the Hunter AFB area. Col. Hamilton experienced a violent shudder while flying at 14,000 feet. The crew notified Hunter tower that they had been struck by lightning and had not yet determined if the crew would have to abandon the aircraft. The crew was notified that they should prepare to abandon the aircraft. All of the escape hatches were opened and one of the gunners reported that the about ten feet of the vertical fin and rudder were missing. The nature of the damage was reported to the tower, who inquired if the crew had been in a collision. When it was determined that the airplane was under control, the bail out consideration was abandoned. Col Hamilton flew the airplane back to the base and made a safe landing.

Col. Hamilton's airplane had collided with that of Lt. Kinzie near the Isle of Hope. Kinzie's airplane crashed in a river bed and all the crew perished. Besides Lt. Kinzie, the crew included 1st Lt. Bernard G. Lane, copilot; Capt. Roy C. Plog, bombardier-navigator; 1st Lt. Carl D. Blankenship, radar operator; M/Sgt. Loyal D. Latimer, flight engineer; S/Sgt. James R. Edwards, radio operator; and A/IC Jerome R. Barnes, John J. Eland Jr., and James R. Hendrix, all gunners. Of those who perished, only the body of Capt. Plog could be identified. His remains were escorted to his home town of Fresno, CA where he was buried on January 24. In accor-



This 60th Troop Carrier Group C-82A Packet, s/n 45-7734, was typical of the aircraft which supported the 2nd Bombardment Group's Project REDHEAD supply operation. The C-82s provided daily shuttle service between RAF Lakenheath and RAF Upper Heyford, and hauled material across the Atlantic Ocean from Hunter Air Force Base to backfill the Group's flyway kits. (Courtesy of S. Williams)

dance with military regulations, the remains of the rest of the crew were buried at Jefferson Barracks National Cemetery with a common grave marker. The site was selected because it was the most central to the next of kin.

On January 30 Capts. Link and Wagamon took off in B-50, s/n 48-035 on a test hop. The airplane crashed. M/Sgts. Louis W. Hubbard and Floyd Sweet were thrown clear of the wreckage and survived with minor burns. Sgt. Hampton was seriously injured with second and third degree burns over more than half of his body. Armed Forces burn specialists were flown in from San Antonio to assist in his treatment.

Between January 17 and 21, the 2d Aviation Squadron underwent a thorough inspection by a team from the Air Force Inspector General. Only two ratings were possible - satisfactory and unsatisfactory. The 2d Aviation Squadron earned a satisfactory rating. This inspection was a precursor to the special weapons exercise conducted by the Wing on January 21 and 22 to gain experience with the Mk. 6 atomic bomb. All but two lead and select crews were qualified during this exercise. These two crews were qualified in February.

Training operations continued throughout the year, but declined in the latter half. The Wing was relieved of any duties pertaining to the SAC War Plan and went non-operational in preparation for transition to the B-47 *Stratojet* in June. In November, the Wing converted to a B-47 Table of Organization & Equipment and formed 50 B-47 crews. During the latter half of the year, the 20th Squadron made a mini-deployment to England with five of its SHORAN-equipped B-50s. They were sent over to support B-47s of the 306th Bombardment Wing which were there on TDY.

FEBRUARY-MAY 1953⁵⁰

In February a requirement was established that a rated officer must be in the control tower during flying operations. When the 2d ARS was the only squadron flying, that unit had to provide the tower officer. The tower officer had to be a qualified aircraft commander in possession of a valid instrument card.

An enhanced flight line security was instituted in May. New flight line identity badges were issued that authorized access to the flight line. Flight and maintenance crews were authorized to hold unauthorized personnel attempting to gain access to the flight line until air police were called.

The Wing placed first in Operations for SAC's May Training Quarter.

MINI-DEPLOYMENT TO ENGLAND⁵¹

The AN/APT-3 SHORAN was a very accurate SHORt-RANge navigation system which had a range of about 280 miles at an altitude of 30,000 feet. This equipment came into limited use during WW II by the Eighth Air Force in March 1945, but its potential was not fully exploited until the 1950s.

On May 25, five SHORAN-equipped B-50s and necessary flight crews and support personnel from the Wing were scheduled for another 90-day TDY deployment to England in support of the B-47s from the 306th Bombardment Wing from McCoy AFB, FL. The 20th Squadron was selected for this deployment and was designated Detachment 1, 2d Bombardment Wing. In addition, the 2d ARS provided three KB-29Ps to refuel the deploying B-50s and another tanker to serve as a weather ship and airborne spare tanker. The crews were instructed not to overfly Ireland because of the continuing unrest there. The deployed aircraft would operate out of RAF Lakenheath for 90-days.

Deployment of the aircraft and 156 personnel commenced on June 3 when the five B-50s departed with their complement of 55 combat personnel. Another four SHORAN mechanics from the 5th SHORAN Beacon Flight, at Topeka AFB, KN, deployed in support of the mission.

Three MATS aircraft airlifted 101 support personnel and 83,145 pounds of cargo.

One of the bombers made an emergency landing at Westover AFB, Massachusetts for an engine change.

Air refueling training for the crews of Detachment 1 was provided by the KC-97 assigned to the 306th Bombardment Wing.

The deployed crews maintained their Emergency War Plan atomic weapons capability by receiving in-flight-insertion training and Mk. 6 refresher training from the 8th Aviation Field Depot Squadron stationed in England. Crews had ECM training in June. This training was enhanced in July by the assignment of a C-47 ECM trainer. In addition, a ground ECM trainer was installed on the base.

Support for the B-50s was provided by the 3909th Air Base Group at RAF Lakenheath. When it was learned that this Group was being replaced by an air base squadron in August, the unit determined that services would be markedly reduced. In addition, the 8th Aviation Field Depot Squadron was also departing RAF Lakenheath. To assure continued support, the Detachment commander requested that the 7th Air Division relocate the B-50s to another base, preferably RAF Upper Heyford which had an aviation depot squadron to provide the requisite support. Another plus was that Upper Heyford was currently unoccupied by another TDY unit. The 7th Air Division approved and the B-50s move to Upper Heyford between July 11 and 14.

The 20th Squadron participated in the annual *RAF Bombing Competition* in November. This was the equivalent of the *SAC Annual Bombing and Navigation Competition*. One crew from the 20th Bomb Squadron placed first in the Blind Bombing portion of the competition. This marked the third consecutive year in which a SAC crew won this event.

UNIT SIMULATED COMBAT MISSION

The highlight for June was a Unit Simulated Combat Mission (USCM) flown on the June 10. The Wing launched 27 B-50s which were supported by eight KB-29Ps from the 2d ARS and another six KC-97 tankers from the 26th ARS, 26th Strategic Reconnaissance Wing at Lockbourne AFB, OH. The aircraft were divided into 11 task forces. Twenty-six, of the 27 B-50s scheduled, made it over the target and 18 completed the mission as briefed. Eight post-strike aircraft failed to meet the tankers for refueling — 1 bomber had to feather No. 4 engine, 3 experienced excessive fuel consumption, and 3 excessive oil consumption, and 1 had incomplete fuel transfer due to low hydraulic pressure. All eight KB-29Ps completed the mission as briefed. The Wing Comptroller calculated a mission score of 72.4 points out of a possible 80 in accordance with the parameters of the SAC Management Control System. The potential for air space congestion or air traffic interference was averted when the Wing Operations Controller, Maj. Wesley K. Hoffman, worked with the Jacksonville Air Traffic Control Center, to reserve nearly the entire airspace over the Florida peninsula between the altitudes of 6,000 and 14,000 feet for the B-50s and the KC-97s. An ECM phase, which included chaff drops and electronic jamming, was included in the mission and was generally successful.

SPECIAL WEAPONS TRAINING

During June, the 2d Aviation Squadron conducted training for both the 2d and 308th Bombardment Wings at Hunter. The course covered

two new fuses and a new type of power supply as defined by the SAC Emergency War Plan. The 2d Aviation Squadron also provided training using four Mk. 6 bombs and fuses, and special salvage procedures with the M-107 training bomb.

The Wing completed an Atomic Standard Operating Procedure for the 38th Air Division during June. This was a special project of the Second Air Force which called for use of atomic weapons flotation devices on ferry flights.

Arrangements were made to work with the 156th Fighter Bomber Squadron, North Carolina ANG so that B-50 gunners could retain proficiency in camera gunnery. The 156th provided F-51D Mustangs for the training in the Charlotte Bomb Plot area.

During May and June the Wing sent 7 aircraft commanders and 16 copilots to B-47 schools.

END OF AN ERA

The 2d Bomb Wing was relieved of all duties pertaining to the SAC War Plan and went non-operational in the latter part of 1953 as its personnel left on TDY to various training schools in preparation for the unit's transition from B-50s and KB-29s to B-47s and KC-97s. In August, the entire 2d ARS stood down. All KB-29 crews were disbanded and 20 new KC-97 crews were formed. The first KC-97 arrived at Hunter in October, and the 22nd and last tanker arrived in January 1954. On November 25, the Wing was reorganized under a B-47 Table of Organization & Equipment, and during the month 50 B-47 crews were formed. The last B-50 departed the Wing in December 1953, ending the piston-engine era in which the crews trained hard and proved equipment, tactics, and the SAC Tactical Doctrine.⁵² From the time the 2nd Bombardment Group had been reactivated in 1947 and started gaining assets, until November 1953, the unit had deployed overseas seven times, with one deployment extending to North Africa (see Appendix 23). It seemed that each time international tensions flared, the 2nd Bombardment Group/Wing was deployed to England. As the cold war persisted, so did SAC persist in demonstrating its world-wide mobility to Soviet defense planners. The 2nd was an integral and important part of those demonstrations. Someday, perhaps, the Soviet military archives will be available to military historians, and the effectiveness of the 2nd's presence and its deployments can be evaluated with that more definitive perspective. But the end of one era meant the beginning of another — the jet age.

Endnotes:

¹ Lawrence K. Rossinger & Associates, "The State of Asia," (Alfred A. Knopf, NY 1953) pp 3-21

² Rossinger, *Ibid* p 3

³ Thomas M. Coffey, "Iron Eagle," (Crown Publishers Inc. NY 1966) pp 276, 277

⁴ Coffey, *Ibid*, pp, 280, 281

⁵ Coffey, *Ibid*, p 307

⁶ Boeing Field Service News, Issue No. 88, June 1947, pp 1-11

⁷ Marcelle S. Knaack, "Post-World War II Bombers," (Office of Air Force History, Wash DC, 1988) pp 188, 189

⁸ Peter M. Bowers, "Boeing Aircraft Since 1916,"

(Naval Institute Press, Annapolis, MD 1989) pp 345-34

⁹ Alwyn T. Lloyd, "B-29 Superfortress, Part 2 Derivatives in Detail & Scale," Vol 25 (Klambach Publishing, Waukesha, WI 1987) pp 22-25

¹⁰ *Ibid*, pp 29-32

¹¹ Wing History January 1949

¹² Alwyn T. Lloyd, "B-29 Superfortress", Part 1 Vol 10, (Tab Books, Blue Ridge Summit, PA 1983) pp 24-27

¹³ Mark L. Morgan, "Air Force Bases 1947-1987," (American Aviation Historical Society Journal, Vol 32, No. 4, Winter 1947) p 275

¹⁴ Wing Consolidated Histories, February - June 1949

¹⁵ *Ibid*, July - September 1949

¹⁶ *Ibid*, October-December 1949

¹⁷ Aircraft Accident Report

¹⁸ Wing Consolidated Histories February - April 1950

¹⁹ Michael A. Fopp, "The Washington File," (Air-Britain [Historians] Ltd. Kent, England 1983) pp 3, 26-28

²⁰ Wing History July 1950

²¹ *Ibid*, August 1950

²² Mark L. Morgan, "Air Force Bases: 1947-1987," (American Aviation Historical Society Journal, Vol 32, No. 4 Winter 1987) p275

²³ Wing History September 1950

²⁴ Knaack, *Ibid* p 202

²⁵ *Ibid* pp 171, 172

²⁶ Wing History, October 1950

²⁷ *Ibid*, November 1950

²⁸ Group History, December 1950

²⁹ Rene J. Francillion, "The United States Air National Guard," (World Air Power Journal, Airtime Publishing, Westport CT 1193) pp 115, 116

³⁰ Wing History January 1951

³¹ *Ibid* February 1951

³² Francillion *Ibid* p 128

Samuel Kostenuk and John Griffith, "RCAF Squadrons and Aircraft 1924-1968," (Samuel Steven, Hakkert & Company, Toronto, Canada 1977) p 179

³³ Wing History March 1951

³⁴ *Ibid*, April, May, June, July, August 1951

³⁵ Gerald M. Adams, "A History of U.S. Strategic Bases in Morocco 1951-1963," (The Moroccan Reunion Association, Omaha, NE) pp 4, 5

³⁶ Wing History, September 1951

³⁷ *Ibid*, October 1951

³⁸ "Crew of the Month," (Combat Crew Magazine Vol II, No. 5, Strategic Air Command, Offutt AFB, Omaha, NE, November 1951)

³⁹ Wing History November 1951

⁴⁰ *Ibid*, December 1951

⁴¹ *Ibid*, January 1952

⁴² *Ibid*, April 1952

⁴³ *Ibid*, May 1952

⁴⁴ *Ibid*, June 1952

⁴⁵ *Ibid*, July 1952

⁴⁶ Lloyd, "B-29 Superfortress, Part 2 Derivatives," *Ibid*, p 30

⁴⁷ Wing History August 1952

⁴⁸ *Ibid*, September, October, November, December 1952

⁴⁹ *Ibid*, January 1953

⁵⁰ *Ibid*, February, March, April, May, 1953

⁵¹ *Ibid*, June 1953

⁵² M/Sgt Jimmy L. Dannels, Brief History of the 2d Bombardment Wing (Heavy), September 1918 to Present, 2 BMW History Office, 1986

CHAPTER XX

THE 2D ENTERS JET AGE AND THE NERVOUS YEARS

(THE B-47 ERA)

The 2d Wing was one of the first to transition to the B-47 Stratojet. The B-47 would be the

Wing's airplane for the 1953-1963 decade — a tense and nervous period in world affairs.

After Stalin's death in 1953, relations between the Soviets and the West improved briefly. Nikita Khrushchev, the new Soviet Premier, condemned Stalin, started a program of de-Stalinization, and eased repression. Resentment of long Stalinist repression, newly aroused nationalist hopes after his death, and the recent liberalization of Soviet policy, stirred rebellion and riots in eastern Europe. Workers rioted in East Berlin and Poland, and a broad-based revolution broke out in Hungary. All were suppressed, some brutally, by Soviet force or threats. A mass exodus of east Germans poured into West Berlin, and the Berlin wall went up.

Khrushchev did make an unprecedented visit to the U.S. He professed peaceful co-existence but didn't curb Soviet expansionism. He built up the Soviet nuclear arsenal and put the Soviet missiles in Cuba.

In 1953 the Soviets exploded their first H-bomb, and in 1957 they launched Sputnik, the first earth satellite. This spurred a rush to science and technology aimed at supremacy in space. In the resulting arms race, the two great powers built unimaginable arsenals of intercontinental nuclear missiles. In 1960, the U.S. U-2 spy plane was shot down over Russia in one of the most embarrassing episodes of the Cold War. Tensions mounted. Then, as if to confirm the worst fears, President Kennedy announced October 22, 1962 that the Soviets were covertly installing offensive missiles in Cuba.¹ The face-off over their removal brought the two great powers to the brink of what could have been nuclear war.

The combination of the technologies of intercontinental missiles and nuclear arms enabled this decade of the Cold War to escalate in its ominous potential for global conflict through space. The specter of the ready-made means of mutual nuclear annihilation hung threateningly over the populations of both great powers. Each was consumed by the need to know the capabilities and intentions of the other, and sought frantically for every bit of intelligence, and for every military advantage in the name of national defense and survival. Heavy investments were made in intelligence gathering — in institutions, in agents and in spies. Communications and technical intelligence surveillance and gathering systems were organized and installed. A world-wide network of seismic, and acoustic data gathering, and of airborne and ground air sampling stations was set up to collect intelligence about the Soviet nuclear weapons capability. The data and samples gathered by the network were rushed to laboratories for analysis. Analysis could confirm the time of nuclear blasts and the essentials of bomb design.

Early warning radars sprouted from the far reaches of the North American continent. Warships maintained a "presence" in distant waters. Nuclear submarines prowled the seas, dared into the enemy's coastal waters, and played at war with one another by stealth and sonar in the cold, murky depths of the oceans.

There was justifiable obsession with security and survival. Elaborate civil defense plans were devised and tested. Individual citizens built bomb shelters, and survivalists cached provisions and

weapons in remote hideaways. Areas around U.S. nuclear forces fairly bristled with security. Flight line areas were accessible only by security passes, and armed guards with dogs patrolled individual aircraft. Military base security was tested by friendly-force, trained "saboteurs" who sought, and sometimes succeeded, to infiltrate base defenses.

It was the decade of Senator Joseph McCarthy's televised hearings into alleged communist influence in the Army. And the decade when SAC started continuous airborne alert of armed, strategic bombers that lasted for seven years. It was indeed a period of tense and nervous years.

In the mid-1950s, a SAC B-47 wing was assigned to Lincoln AFB, NE. On a warm, clear, fall Sunday, a smattering of diners, including two B-47 officer crews and their families, were having dinner at the officer's club. The crews were in flight gear and had arrived in two official Air Force blue station wagons with red beacons on the top. The cars were parked in reserved spots immediately outside the club door. Suddenly an alarm sounded! The crews leaped to their feet as one. Chairs went flying across the wooden dining room floor as the crewmen dashed for the exit. Above the din and commotion a small voice cried, "Mommy! Mommy! Where is daddy going." Mommy didn't know and neither did daddy. The daddies could have been on journeys as short as a jaunt to the flightline or as long as a one-way trip to Russia. As it turned out, the alarm signalled an ORI test that ended when the planes reached take off position.

The young son's plaintive plea was symbolic of the turmoil and uncertainty that tore at the fabric of an airman's family during the tumultuous years of uncompromising demand for commitment to duty during the Cold War. At the most elemental level it was the families of servicemen who were frequently the innocent victims of the nation's need for instant military readiness. The known and planned-for separations were bad enough, but the short-notice, emergency separations were particularly wrenching.

BEGINNING OF THE JET AGE

The 2d Bombardment Wing (M) operated with the B-47B and B-47E at Hunter AFB between November 25, 1953 and April 1, 1963, together with its WW II squadrons, the 20th, 49th, 96th, and 429th. The 308th Bombardment Wing was co-located at Hunter with the 2d. Both Wings reported to the 38th Air Division, also headquartered at Hunter, which in turn reported to the Second Air Force at Barksdale AFB, LA. The two Wings had a total of 90 B-47s and 40 KC-97 tankers.

The B-47 *Stratojet*, came into the Air Force inventory through a development program similar to that used for the B-29. The USAAF issued a specification for a new bomber on November 17, 1944. The aircraft was to have the following characteristics:

- Top Speed - 500 mph (434 knots)
- Tactical Operating Altitude - 35,000-40,000 feet

- Range - 2,500-3,500 statute miles (2,171-3,039 nautical miles)
- Takeoff over a 50-foot obstacle from a 5,000-6,500-foot runway
- Bomb Load - 16 x 500-lb. bombs
- Defensive Armament - Either a nose or tail turret with a 0.50 caliber gun

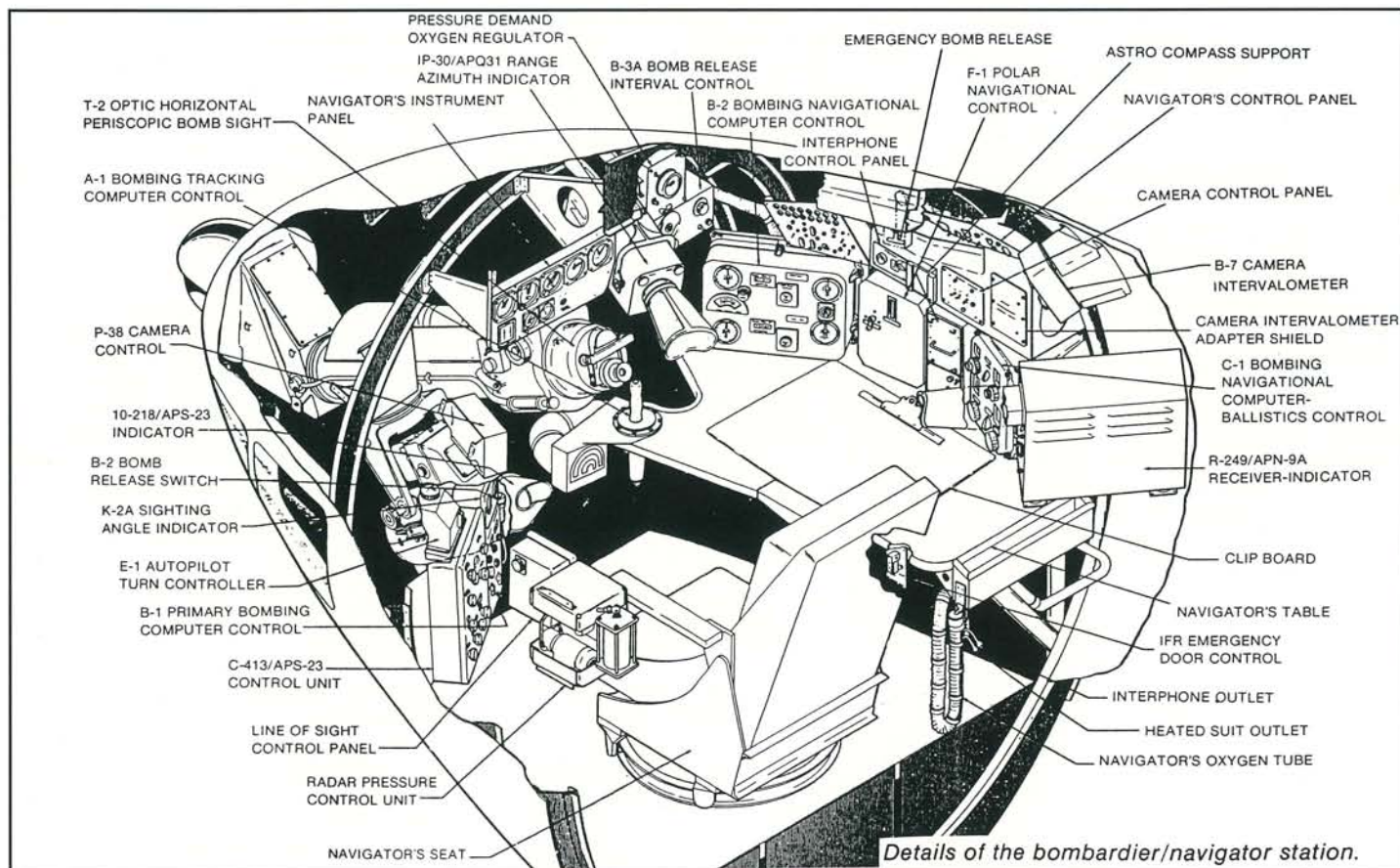
The challenge was taken up by four manufacturers and the USAAF issued the specifications and the mission-design-series numbers of B-45 to North American, B-46 to Convair, B-47 to Boeing, and B-48 to Martin.²

BOEING B-47 *STRATOJET*³

The winner of the competition was the Boeing entry, basically because it had the additional capability of carrying the out-sized nuclear weapons of the day.

The B-47 *Stratojet* was a medium-range, strategic bombardment aircraft developed around a shoulder-mounted wing with a 35° sweep-back and six podded and slung engines. A pair of dual-wheeled main landing gear straddled the bomb bay and the aircraft was stabilized by a pair of outrigger gear mounted in the inboard engine nacelles. The forward main gear was steerable.

A crew of three manned the aircraft. There was a radar bombardier-navigator in the nose, and two pilots housed beneath a bubble canopy. The forward pilot was the aircraft commander; while the aft pilot was a triple-threat man - copilot, celestial navigator, and tail gunner. The copilot's seat



Details of the bombardier/navigator station.

This is the "front office" of B-47 where the navigator/bombardier resided. He truly had his hands full with all of the equipment he had to operate. Note the air refueling receptacle manifold inlet located just above his station.



With the canopy removed, the compact tandem pilots' stations are visible. The copilot operated the fuel and communications panels from the right side console. The A-5 defensive fire control system was located behind the copilot whose seat rotated 180°. (Boeing Photo)



The City of Savannah was B-47E s/n 53-1944 assigned to the 2d Bombardment Wing. It had the partial white anti-radiation finish. Each of the pallets in the foreground held 32 RATO bottles used to boost the heavily loaded bomber off the ground. (Courtesy of Eighth Air Force Museum)

rotated 180° so he could control the radar-directed tail guns.

An inflight refueling receptacle was added to the B-47s. In addition, a pair of 1,700-gallon drop tanks were mounted on the wings of the B-47Es. Because of the critical nature of the weight and takeoff performance of the B-47s, it was not unusual to takeoff with a light fuel load and required bomb load, and then take on the required fuel load in the air. The receptacle for the inflight refueling system was located in the nose to the right of the navigator. A manifold from the receptacle carried fuel to the B-47's fuel tanks. The receptacle/manifold joint was located above the navigator's electronic equipment. On occa-

sion a major fuel leak occurred at this joint. At which point the navigator attempted to torque down the bolts with a box, open-end wrench to secure the joint. If he failed, he called for a breakaway from the tanker.

The engines were either axial-flow General Electric J47-GE-23 or J47-GE-25 turbojets which developed 5,910 or 6,000-lb. thrust, respectively. For safety reasons, the engines were podded and slung beneath the wings. In the event of a catastrophic failure, the engines could explode, burn, and fall off the airplane without causing fatal damage to the primary structure. For added thrust to ensure takeoff at nominal gross weights, the B-47Bs were equipped with 18 internally-mounted

rocket assisted takeoff (RATO) bottles located aft of the aft wheel well. Later B-47s had droppable horsecollar, or split-mounted RATO racks with 33 or 30 bottles, respectively. When empty, these racks were dropped along corridors off the ends of runways.

The defensive armament system on the B-47s changed over time. Initially the aircraft were equipped with twin 0.50 caliber tail guns without a fire control system which allowed the copilot/gunner to cut loose with harassing fire only. Subsequently, an A-4 fire control system was installed on all production B-47Es and retrofitted on the B-47Bs. Later, the A-5 system was introduced. It incorporated a gun-laying radar and a pair of 20-mm M24A-1 cannons. Each gun was fed with up to 350 rounds of ammunition. This system was adapted from the Convair B-36.

At the heart of the B-47's offensive system were the K-2 bombing system and the large-capacity bomb bay which was capable of carrying a variety of either conventional or nuclear stores. Nuclear weapons were relatively cheap to produce given their vastly superior power over that of conventional weapons. Thus they were the weapons of choice during the Cold War. The K-2 and K-4 bombing systems used in the B-47 consisted of the H-21D automatic pilot, a large computer, interconnecting equipment, and AN/APS-23 radar, and the Y-4 or Y-4A bomb sight. The K-2 system underwent a series of modifications which resulted in the K-4 system. The K-4 system was extensively tested and the results were used, beginning in 1953, to modify and improve the system.

While designed as a nuclear weapons carrier, a few B-47s were equipped to carry conventional stores. The B-47 was designed with a long bomb bay which was capable of accepting the out-sized nuclear weapons of the day or a single 25,000-lb. general purpose bomb. With the reduction in size of the nuclear weapons, the aft portion of the bomb bay could be shortened by installation of a 3,400-gallon fuel tank. Only three SAC B-47 wings had a conventional bombing capability. In the conventional configuration a B-47 could carry 6 x 1,000-lb. bombs or 14 x 500-lb. bombs in the short bomb bay with the extra fuel tank, or 18 x 1,000-lb. bombs or 25 x 500-lb. bombs in the long bomb bay.

The requirement for B-47s was so great and urgent that production contracts were given to Douglas at Tulsa and Lockheed-Marietta to speed delivery. A total of 2,292 were produced.

The combat radius for the non-refuelable B-47 B and B-47E-VI with a pair of 1,700-gallon external fuel tanks was 1,704 nautical miles and 2,050 nautical miles, respectively. Aerial refueling greatly extended the range of the B-47Bs, and the B-47Es which were modified to incorporate such a system. With aerial refueling the B-47's range was limited by crew endurance and engine oil capacity. A typical mission profile for the non-inflight-refuelable B-47B was as follows:

- Take off and climb on course to optimum cruise altitude for the given aircraft weight, at normal power.
- Cruise at long-range speeds, increasing altitude with decreasing fuel weight.
- Climb to reach cruise ceiling 15 minutes from the target.

- Run in to the target at normal power, drop bombs, and conduct 2 minutes of evasive action and an 8-minute escape run from the target at normal power.
- Cruise back to base at long-range cruise speeds, increasing altitude with decreasing fuel weight.
- Allowances included 5 minutes at normal-power fuel consumption for starting engines and takeoff, 2 minutes normal power fuel consumption at combat altitude for evasive action, 30 minutes for maximum endurance fuel consumption (on four engines) at sea level, plus 5% of initial fuel load for landing reserve.

A typical mission profile for the inflight-refuelable B-47Bs and Es was the same as for the B-47B, above, except as follows:

- Cruise at long-range speeds, increasing altitudes, *dropping external fuel tanks when empty.*
- Drop bomb load *and chaff*, and conduct 2 minutes of evasive action, and an 8-minute escape run from the target at normal power.⁴

KC-97 STRATOFREIGHTER⁵

Boeing developed the C-97 *Stratofreighter* as a strategic transport for both MATS and SAC. The latter employed the C-97s in its three Strategic Support Squadrons. Boeing also developed a larger-capacity tanker from the C-97. This new airplane was designated a KC-97. The 2nd Air Refueling Squadron replaced its KB-29Ps with KC-97s. Three XC-97s and six YC-97s were built around the B-29 airframe. All subsequent *Stratofreighters* were essentially built around a B-50 airframe (wings, powerplants, empennage, and landing gear). The C-97 had a large double-lobed fuselage permitting it to be employed as either a transport or a tanker. These airplanes had a distinct advantage over bomber conversions in that they also retained their cargo-carrying capabilities. The prototype tanker was designated a KC-97A; however, the first production series were known as KC-97Es. They were followed by KC-97Fs and KC-97Gs.

The basic fuel capacity of a C-97 is 14,000 gallons. This was augmented by installation of two 700-gallon droppable external tanks. The system was capable of transferring up to 600 gallons of fuel per minute.

For cargo purposes, a large, upward-hinged door was cut into the right side of the forward fuselage. Conversion between the cargo and tanker versions was relatively straightforward. Four large fuel tanks, which were cradle-mounted, would be loaded through the aft clam-shell cargo doors. The tanks were secured on either side of the cargo floor; two forward and two aft. The clam-shell cargo doors were replaced by a self-contained refueling pod. A Boeing-designed flying boom was then attached to the hinge on the pod. A refueling manifold system was connected to the tanks, refueling pod, and boom.

The flight deck was essentially the same size as that of the KB-29; however the capacious upper deck cabin made crew movement for the



The pilots' seats in the B-47 were located above the catwalk. At the aft end of the catwalk was an access panel known as the hell hole through which the crew members would enter the bomb bay to practice in-flight arming of nuclear weapons (IFI/IFE). (Boeing Photo)



This KC-97F s/n 51-297, carried the sterile SAC markings of the day. The empennage was painted red for Arctic operations. Only a SAC Milky Way band appears on the waist, denoting the command in which it served. (Courtesy of David W. Menard)