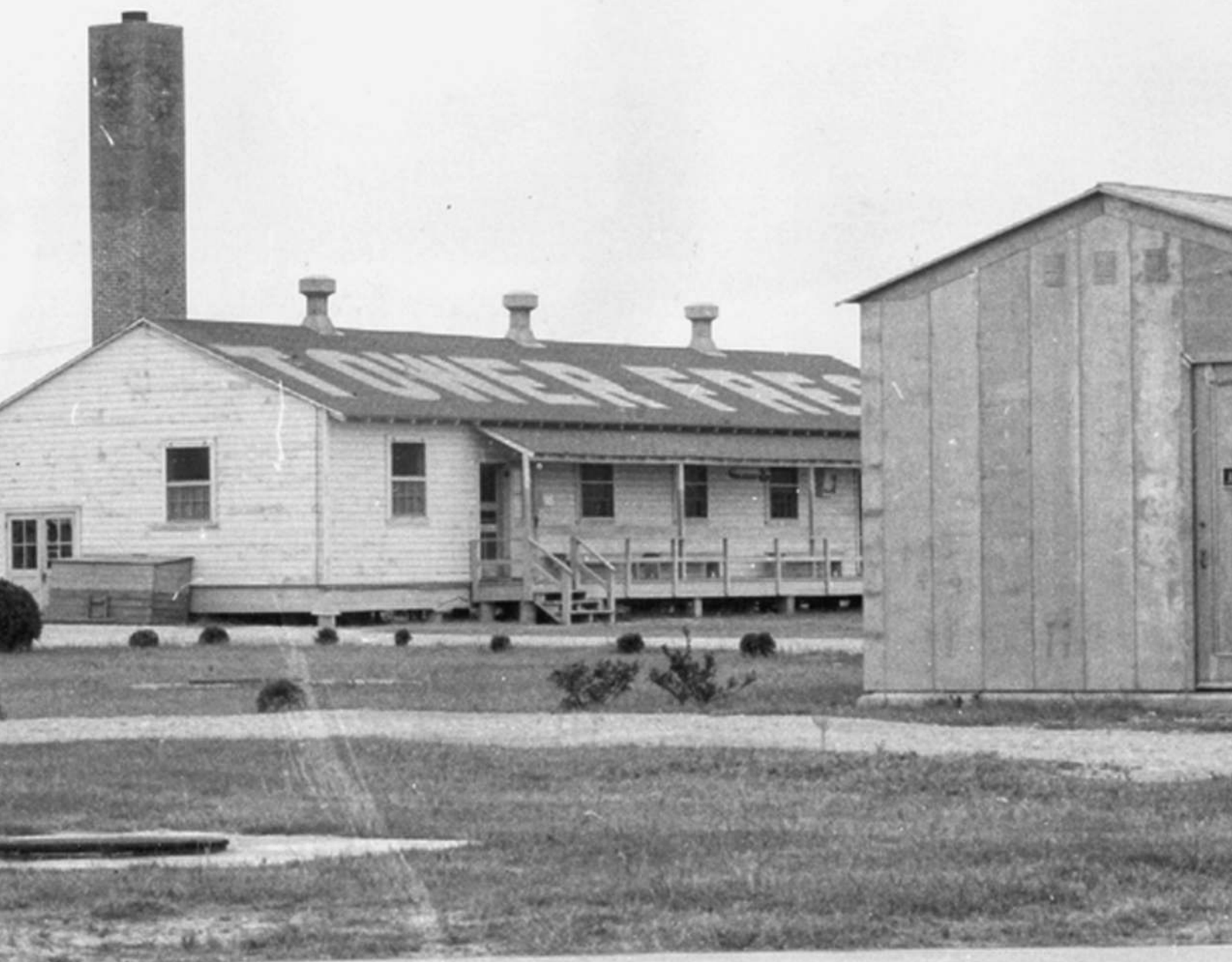


TUSKEGEE (WEATHER) AIRMEN: BLACK METEOROLOGISTS IN WORLD WAR II





Gerald A. White, Jr.

RACIAL SEGREGATION ALLOWED ONLY A VERY FEW THE FULL RANGE OF OPPORTUNITIES ... THOSE WHO BROKE THROUGH THE NUMEROUS BARRIERS BUILT A RECORD OF SIGNIFICANT ACCOMPLISHMENT

World War II saw the breakthrough of blacks¹ into many areas of military service previously denied them. Although racial segregation allowed only a very few the full range of opportunities available, those who broke through the numerous barriers built a record of significant accomplishment. One area denied to blacks was service in Army Air Corps (later Army Air Forces²).³ This denial extended to any support position in the Air Corps, including meteorological observing and forecasting. Creation of segregated flying units during World War II required they be manned by personnel fully trained in all support and technical specialties. How this process unfolded during and after the war illustrates some of the problems and contradictions created by the institutionalized segregation of the American military and society it reflected as the U.S. entered World War II.

Expansion of the Air Corps Weather Service

Although plans for U.S. Army expansion were already underway, it was the German invasion of Poland, on September 1, 1939, that signaled the threat of war as real. As the Air Corps started its wartime buildup, it was transitioning from a small and exclusive organization. An Air Corps officer, like most of the rest of the Army before World War II, was by custom a white male⁴ and, by law, with few exceptions, a pilot. To appreciate the growth of the Air Corps into the Army Air Forces (AAF) during World War II, there were only 2,727 Air Corps officers serving, 2,058 of them Regular Army, in September 1939. By 1945, the number of officers assigned or detailed to the AAF peaked at 388,295, which included 193,000 pilots and almost 95,000 navigators and bombardiers trained since 1939. Overall, the AAF went from a force of approximately 26,000 in September 1939 to almost 2,400,000 in the fall of 1944.⁵

This growth reflected both the world-wide nature of the AAF's wartime responsibilities and the quantum increase in aircraft capabilities from a short-range daylight (and good weather) force to a transcontinental organization capable of operating at night and in all but the most severe weather. The rapid improvement in aircraft technology

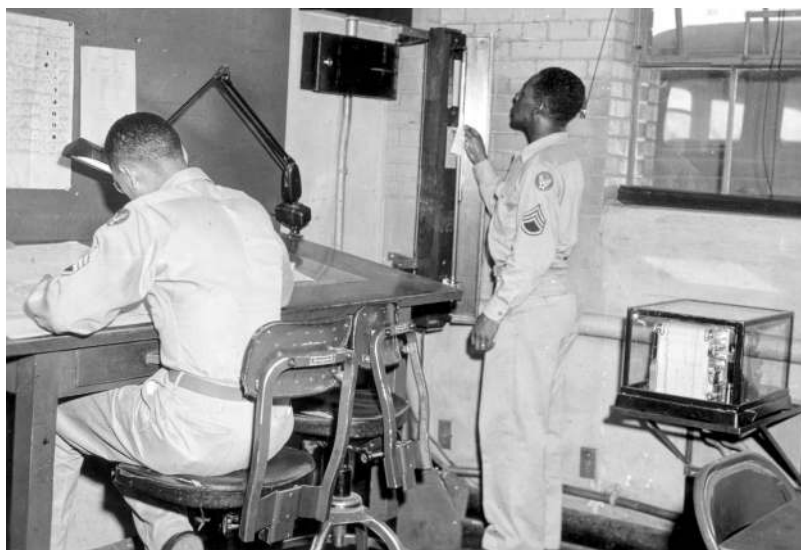
through the 1920s and 1930s was reflected in the greatly increased performance, range, altitude, and payload of aircraft.

Concurrent with growth of the relatively new science of aeronautics was a revolution in meteorology, one of mankind's oldest subjects of interest, both assisted with and driven by the advancement of aviation. The ability to plan military and civilian flying activities with more than a forecast based on scattered ground observations, verified by the observations of a "dawn patrol" observation flight, was becoming a commercial and military necessity. Even without aviation requirements, public and business interests demanded more accurate forecasts to avoid losses to commercial fishing and shipping, transportation, agriculture, recreation and emergency planning for forecasting extreme weather phenomena such as tornadoes, blizzards, hurricanes, and thunderstorms.⁶

Despite the increasing interest, growth in civilian and military meteorological programs was slow prior to the war. Developing academic programs to explore this evolving science was costly and the impact of the Great Depression made it more difficult. By 1937, only three American universities offered graduate degrees in meteorology. The Massachusetts Institute of Technology (MIT) was first; Dr. Carl Gustav Rossby estimated that MIT spent "in the vicinity of \$200,000 over the years from 1928-1938 to maintain such a department while, at the same time, the total tuition income probably did not exceed \$25,000." The California Institute of Technology (Caltech) had created their meteorological department in 1933, and New York University (NYU) had established one by 1937.⁷ As the Army's primary user of meteorological services, beginning in 1933, the Air Corps had sent a handful of pilots to MIT and Caltech for graduate work in meteorology, even though the Army's Weather Service did not move from the Signal Corps to the Air Corps until 1937.⁸

In July 1940, the Army had only 62 qualified weather forecasters, primarily in the Air Corps. This was part of only an estimated 377 in the entire country, counting 150 with the Weather Bureau, 94 with commercial airlines, 46 in the Navy and 25 in various educational institutions.⁹ The rapid pro-

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Godman Field weather station.

THERE WAS A GREAT INTEREST IN AVIATION IN THE BLACK COMMUNITY ...HOWEVER, THEY WERE GREATLY UNDER-REPRESENTED DUE TO THEIR LIMITED ECONOMIC CIRCUMSTANCES, MADE WORSE BY JIM CROW LAWS

jected growth of the Air Corps required a growing number of weather officers, at one point estimated at many as 10,000, with another 20,000 enlisted observers and forecasters.

The answer was to create a training course at several leading universities to “mass produce” weather officers; a program set up by AAF weather officers and leading academics including Dr. Rossby, formerly of MIT and then at the Weather Bureau. In addition to MIT, Caltech, and NYU, departments were established subsequently at the University of Chicago and University of California at Los Angeles (UCLA) to meet the demand.¹⁰ Initially, twenty aviation cadets who had washed out of flying training for other than academic reasons received an abbreviated (ten and a half week) course at MIT in the summer of 1940 to qualify them for teaching applied meteorology to aviation cadets. In conjunction with the universities and the Weather Bureau, this course was expanded into a thirty-three-week course, starting in September 1940, leading to a certificate in meteorology.

The course was free but applicants had to agree that “upon completion of the course [they] will take the next Junior Professional Assistant — meteorological option — Civil Service examination” if not already enrolled as a Flying Cadet or accepted into the Army, Navy, or other government agency by graduation. Prospective candidates needed to apply to the university of their choice, have an engineering degree or another degree with two years in mathematics (including differential equations and integral calculus) and one year in physics, as well as being able to pass a Reserve Officer physical and not be older than 26 when commissioned.¹¹ Those who met the academic requirements had their applications reviewed by the Air Corps before they started the course. There were 116 cadets in the 1940 class, in addition to several Navy aerology officers and civilians for the Weather Bureau. With continuing Air Corps expansion, the next class started in July 1941, with 182 cadets enrolled.¹² Once the U.S. entered the war, applicants were screened by Aviation Cadet selec-

tion boards before they could be admitted, the degree requirement was dropped so long as they met the science and math requirements and the maximum age was raised to 30. The first wartime class started with 440 cadets on March 16, 1942, another 400 started in September 1942 and 1,750 started in November 1942.

Blacks and Military Aviation

Like the rest of America, there was a great interest in aviation in the black community prior to World War II. However, they were greatly under-represented due to their limited economic circumstances, made worse by Jim Crow laws and practices that restricted or denied their entrance into military and commercial aviation.¹³ This started to change in 1939, with the creation of the Civilian Pilot Training (CPT) Program. The growing political influence of the black community resulted in the program initially being offered at six historically black colleges, including the Tuskegee Institute. In addition, some blacks who attended integrated colleges outside the south also entered the CPT program through their schools and two non-college affiliated programs run by blacks were set up in the Chicago area. It is estimated that as many as 2,000 black men and women completed one or more CPT courses between 1939 and the program's termination in 1944.¹⁴

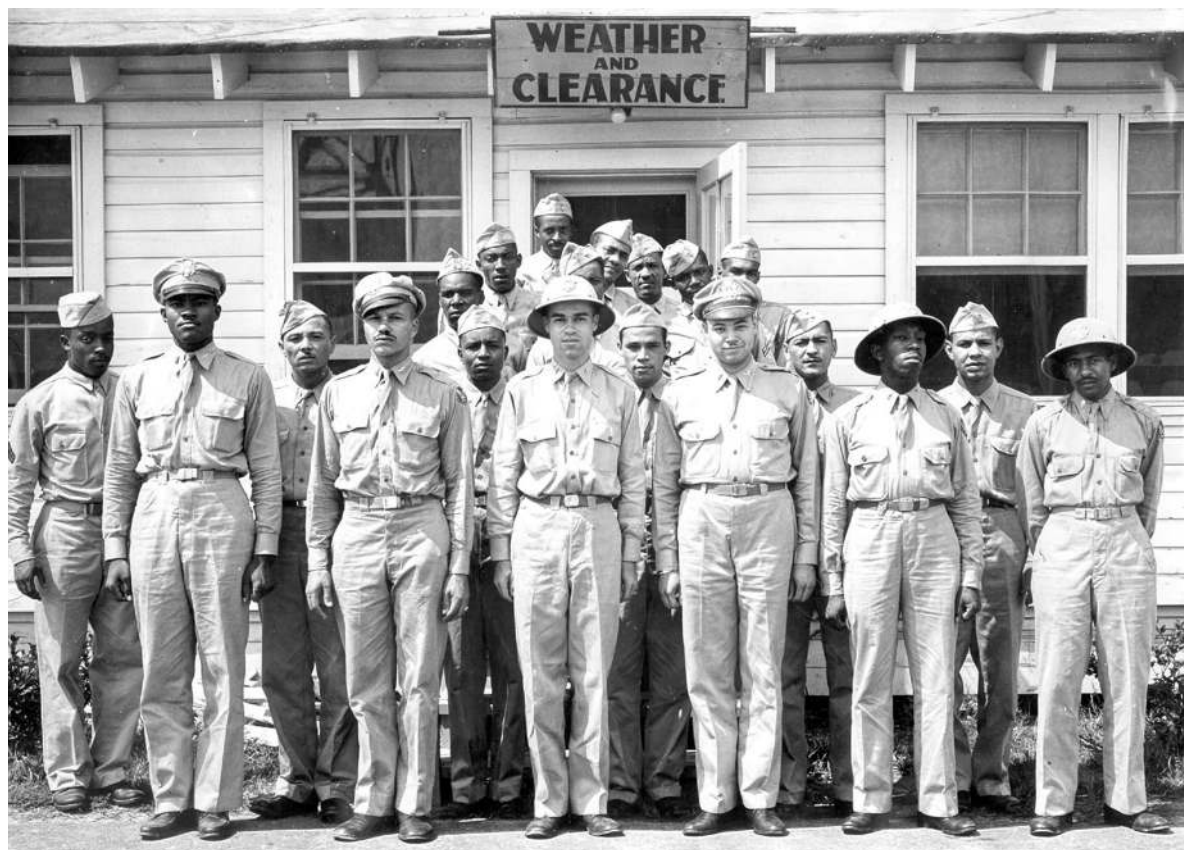
The black military aviation experience started with activation of the 99th Pursuit (later Fighter) Squadron, activated at Chanute Field, Illinois, on March 22, 1941. Even though flight training did not begin at Tuskegee until July 19, 1941, this somewhat unusual arrangement allowed the Air Corps to segregate the enlisted trainees, given that the Army normally had each unit in their own barracks and mess-hall. When it came to race, separate was seldom completely equal.¹⁵

In many ways, the Air Corps approached the question of training these first black airmen in a somewhat contradictory manner. While planning for a segregated base located in the deep south, the AAF ignored calls to use a civilian school or import instructors to Tuskegee and pragmatically concentrated technical training for the 99th Pursuit Squadron at Chanute Field, an Air Corps training center since World War I. Instructors from other training centers at Scott Field, Illinois, as well as Lowry Field and Fort Logan, Colorado, were brought to Chanute and all courses were taught by white instructors. Through a recruitment and training program for civilian instructors across the military, one or more black civilians were weather instructors at Chanute by November 1942.¹⁶ From the limited documentation available, it appears enlisted weather personnel were in integrated classrooms.

The Tuskegee Weather Detachment

The enlisted portion of the 99th Pursuit Squadron was manned by a small cadre of black

The staff of the Tuskegee weather station.



WALLACE PATILLO REED ... WAS ...SELECTED AS THE FIRST "COLORED" CADET AFTER AN EXTENSIVE SEARCH BY MIT OFFICIALS AT THE BEHEST OF THE AAF

Regular Army troops of the 24th Infantry Regiment and new enlistees, all with high school diplomas and many with college experience or degrees. In addition to training enlisted men in a wide range of mechanical skills and other specialties needed for an operational combat squadron, the 99th included five weather observers; John B. Branche, Victor O. Campbell, Walter E. Moore, Paul V. Freeman and James G. Johnson. After completing observer school, Branche and Moore completed the enlisted forecaster's course and Campbell, Freeman, and Johnson completed the teletype maintenance course.¹⁷

Wallace Patillo Reed, a 1941 University of New Hampshire mathematics graduate, was one of the MIT cadets who started in July 1941, having been selected as the first "colored" cadet after an extensive search by MIT officials at the behest of the AAF.¹⁸ Graduated and commissioned as the Air Corps Weather Service's first black weather officer on February 14, 1942, the second lieutenant was assigned as the Tuskegee base weather officer on March 27, after a three-week orientation at Mitchel Field on Long Island, New York. He was joined on April 6 by the five enlisted weathermen trained at Chanute Field, the first of possibly as many as forty enlisted men who served there. Except for an eleven-week absence to attend a meteorology refresher course at Chanute Field in early 1945, Reed, promoted to captain in January 1944, held that position until the end of the war.

The Tuskegee Weather Detachment was formed on March 21, 1942. Originally organized as part of the Tuskegee Army Flying School, it was

located at the Tuskegee Army Airfield, Tuskegee, Alabama. Detachment personnel received technical supervision and guidance from the 4th Weather Region at Maxwell Field, and, after April 1943, the Weather Wing at Asheville, North Carolina. On March 17, 1944, they were placed directly under the 4th Weather Region, by then relocated to Atlanta, Georgia. In September 1944, the detachment was redesignated the 67th Army Air Force Base Unit. A white officer from Maxwell Field, down the road at Montgomery, Alabama, was initially assigned but there is no evidence he ever appeared at Tuskegee.¹⁹ This was in contrast to most other key functions at Tuskegee, where white officers remained in charge through the end of the war.

As Lieutenant Reed endeavored to get his detachment operational, he had to establish from scratch the business of a base weather station to collect, record and report weather observations, make forecasts and provide weather briefings for flying students and instructors. This, while also training his staff and working under the handicaps of no other weather officers, limited enlisted experience and staff turnover. Not only was there no core of military experience past schoolhouse training to build around, there were no black Weather Bureau professional staff who could be commissioned or enlisted for weather service or even made available for detail as civilian instructors.²⁰ While new enlisted personnel arrived on a regular basis throughout 1942, valuable, if limited, experience departed almost as fast. Sgt. James Johnson left to become an aviation cadet in July

1942 but would wash out and return by November. One of two school-trained enlisted forecasters, SSgt. Walter Moore went to Officer Candidate School (OCS) in August. He was followed at OCS a month later by the other forecaster, SSgt. John Branche and Sgt Paul Freeman, a weather observer. Sergeant Johnson and Technical Sergeant Campbell remained in the weather detachment through mid-1943 before going to OCS, graduating in April and June 1943, respectively.

The rest of the enlisted staff of the base weather detachment, like much of the rest of the rapidly expanding Air Weather Service, were assigned from base personnel and trained as observers through an on-the-job training program.²¹ However, at least four enlisted observers were sent to Chanute Field for the teletype maintenance technician course and one for the enlisted weather forecaster course.²²

How Many Officers?

While specialized technical training such as weather training for blacks was limited to those personnel needed to staff current and projected combat and support units, rapid growth of the entire AAF created confusion as to the size and extent of the training program planned. On July 30, 1942, the Army Air Forces Technical Training Command (AAF TTC) sent an inquiry to their training district commanders stating: "These Headquarters [are] in receipt of information that Negro Aviation Cadets are entered into the Meteorology courses under this command." The letter went on to request a list of names and graduation dates and notification "whenever a Negro Aviation Cadet is entered into any type of training conducted under this command." Responses from district offices, all received by August 17, showed seven cadets in training.²³ This appeared to be the required number with just one base, Tuskegee, and four tactical units in training, three of them just activated.

Shortly after this the subject of blacks in the meteorology cadet program was very publicly spotlighted with the resignation of Judge William H. Hastie as Civilian Aide on Negro Affairs to Secretary of War Henry L. Stimson, a position he had assumed on October 25, 1940.²⁴ During the last half of 1942, Judge Hastie was increasingly frustrated with what he saw as AAF attempts to institutionalize segregated training and minimize black access to skilled positions to only those required to support flying units, a very small percentage of the total black manpower in service. By then, the 99th Fighter Squadron had been joined by the 100th, 301st and 302d Fighter Squadrons, under the newly activated 332d Fighter Group. With estimated requirements for weather officers reaching 10,000 at one point (this was later reduced; only about 6,200 were actually trained and commissioned and most of the last class was not assigned weather duties), he received many complaints from qualified black applicants who

were unable to enter the program. Judge Hastie resigned his position in January 1943 and, through the auspices of the National Association for the Advancement of Colored People (NAACP), published a pamphlet on July 1943 titled *On Clipped Wings: The Story of Jim Crow in the Army Air Corps*, laying out the situation of blacks in the AAF and his experiences in trying to open the doors of opportunity.²⁵

On February 26, 1943, AAF TTC wrote to the Director of Individual Training at HQ AAF, asking if the August 27, 1941, requirement for seven weather officers was still valid? This requirement was confirmed, but a census of black weather officers in training was made showing that with six already qualified, three about to graduate, and five more in training, a total of 14 officers were projected. No reason was given for this apparent doubling of the quota, as a second black combat unit, the 447th Bombardment Group, wouldn't be activated until January 1944.²⁶ It is important to note that the training for these meteorological aviation cadets was fully integrated. Black cadets attended class at every school except Caltech.²⁷

In early December 1942, the next four cadet course graduates arrived at Tuskegee; Lts. Paul F. Byrd (MS, Mathematics, 1941, University of Chicago) and Benjamin F. Bullock, Jr. (BS, Mathematics, Morehouse College, 1941) reported from the University of Chicago, followed by Roosevelt Richardson and Luther L. Blakeney from New York University.²⁸ They were joined by 2d Lt. John Branche who returned from OCS and was reassigned to the Weather Detachment on December 15. Apparently his enlisted training and experience was sufficient to let him bypass the weather officer course. 2d Lt. Paul Freeman also returned from OCS and served as a weather officer for four months after commissioning before moving to a series of other jobs on Tuskegee.²⁹

Lieutenants Byrd, Bullock, Richardson, and Blakeney transferred to the recently activated 332d Fighter Group in late December 1942, initially training at Tuskegee before moving to Selfridge Field, Michigan, in March 1943. Lt. Richardson was assigned to the Group and Lieutenants Blakeney, Byrd, and Bullock were assigned to the 100th, 301st and 302d Fighter Squadrons respectively.³⁰ The function of a squadron weather officer was to brief his crews on target and en-route weather, based on information provided by the base weather station.³¹

The departed officers were eventually replaced at Tuskegee, although it was May 1943 before Horace M. King (Mathematics major, Knoxville College, Tennessee) and Charles E. Anderson (BS, Chemistry, Lincoln University, Missouri) arrived, both from the University of Chicago cadet program. The next officer to arrive, on June 7, 1943, was M. Milton Hopkins (BS, Physics, Xavier University, Louisiana), who also graduated from Chicago, although he originally started in the UCLA program. Hopkins had transferred to Chicago with most of his class part-way through the course to

AT LEAST THIRTEEN ENLISTED MEN WERE AWARDED THE AAF WEATHER OBSERVER BADGE, BASED ON DEMONSTRATED PERFORMANCE AND PASSING STANDARDIZED TESTS

even out classroom and living space at UCLA in preparation for a large incoming class.³² He was at Tuskegee for just seven weeks before being sent to the 100th Fighter Squadron on July 29, then trained at Oscoda, Michigan, to replace Luther Blakeney, killed in an aircraft accident on June 16, 1943.³³

The last black weather officers were assigned in September 1943. Grant L. Franklin (BS, Mathematics, Langston University, Oklahoma) and Paul Wise arrived from the Grand Rapids AAF Weather Training Center. Trained as meteorology instructors for Tuskegee pilot cadets but, for reasons yet undetermined, they were instead assigned to the Tuskegee weather station, serving as Assistant Weather Officers and receiving instruction in forecasting. Also arriving, from UCLA, was Archie F. Williams (BS, Engineering, UC Berkeley). Previously a civilian flight instructor at Tuskegee, he was, at almost 27, too old to enter flight training, and so was sent to UCLA for the weather officer course.³⁴

The last two wartime cadets trained, coming from MIT, were John T. Willis (Education, Trenton State Teachers College, N.J., and Howard University, D.C.), and Robert M. Preer (BS, Chemistry, Morehouse College, Georgia). So far as can be determined, no other black meteorological aviation cadets were admitted to training before the last class graduated in June 1944.

Expanding Past Tuskegee

The nine officers assigned to the base weather detachment by September 1943, represented the high point of officer manning for Tuskegee but soon started to decrease. Charles Anderson departed on January 13, 1944, for Selfridge Field, serving as weather officer for the 553d Fighter Squadron, the replacement training unit for the 332d FG, later moving to Walterboro Army Air Base (AAB), S.C., in May 1944.³⁵ John Willis left Tuskegee on January 31, also assigned to the 553d FS. He then transferred at the end of March to the 477th Bombardment Group, reactivated at Selfridge Field as a segregated B-25 unit where he was joined by Horace King. Archie Williams, after completing a qualification course and rated a Service Pilot in fall 1944, was reassigned as a basic instrument flight instructor in the central instrument school. This put Captain Reed back to just four other officers for most of the rest of the war.³⁶

Despite the turbulence and constant training required, the weather detachment completed its mission. The only negative inspection item noted in any history was the lack of a teletype circuit in the station and this was beyond the detachment's control.³⁷ John Branche was an accomplished forecaster, rated 46th among the top 100 AAF forecasters (of more than 2,000) in the continental United States from October 1943 through May 1944, and was normally in the top 100 forecasters for the remainder of the war.³⁸ At least thirteen enlisted men were awarded the AAF Weather Observer

Badge, based on demonstrated performance and passing standardized tests from the Regional Control Office.³⁹

The 332d Fighter Group deployed to Italy on January 30, 1944, with Lieutenants Richardson, Hopkins, Byrd, and Bullock, and was initially stationed at Capodichino Air Base near Naples. Lieutenant Byrd, injured in a non-hostile shooting accident within a month of arrival, was returned to the U.S. and not replaced. The other weather officers remained with the 332d FG through the end of the war.⁴⁰ Milton Hopkins relates that while at Capodichino, he periodically augmented the base weather station; that duty was cancelled after a general passing through objected to Hopkins's presence.⁴¹ In June 1944, the 332d moved to Ramitelli Air Base, on the Adriatic coast near Foggia, where they were joined by the 99th Fighter Squadron. Equipped with the P-47 and then P-51, they assumed the bomber escort mission, for which they would become justifiably famous in not losing a single escorted bomber to enemy aircraft. The 332d returned to the United States in October 1945. There are few references to the weather officers in the 332d history; no weather officer was decorated but Richardson was promoted to captain and both Bullock and Hopkins were promoted to 1st Lieutenant. One may infer they performed well enough for Col. Benjamin O. Davis, Jr., noted as a demanding but fair taskmaster.

The only other segregated AAF combat unit, the 477th Bombardment Group, moved from Selfridge Field to Godman Field, Kentucky (adjacent to Fort Knox) in July 1944, entering a prolonged period of training. Elements moved at various times for training to Atterbury Field and Freeman AAB in Indiana, Sturgis AAB, Kentucky, and Walterboro AAB in South Carolina. While at Freeman Field in April 1945, an incident erupted concerning access by black officers to a "white" officers club. Termed a mutiny by some, it culminated a long series of improper, if not illegal actions by senior white leadership. The group commander was relieved in late June and Colonel Davis was brought back from the 332d FG to take over.⁴²

The 477th BG was scheduled to deploy to the Pacific and training was stepped up. John Willis left Godman Field in late June to start pilot training at Tuskegee so the weather section was augmented in early July with John Branche from Tuskegee, joined by Robert Preer and Paul Wise and a cadre of enlisted weather observers, all transferred from Tuskegee.⁴³ Charles Anderson transferred to Godman from Walterboro AAB in October 1945. This made Godman Field the second of what would be only three all-black weather detachments in the Air Corps/Air Force between 1942 and 1949.

Postwar Changes

As the war came to an end in 1945, the Tuskegee weather officers faced the same decision to get out or stay in as most others in the wartime military. Complicating this decision was uncer-



A weather briefing at the 477th Composite Group.

THE POST-WAR AIR WEATHER SERVICE FOR REASONS YET NOT DISCOVERED, STEPPED OUT AHEAD OF THE REST OF THE AIR FORCE AND PRESIDENT HARRY TRUMAN'S EXECUTIVE ORDER 9981

tainty over how large a place blacks would have in the postwar military, offset by concern about what opportunities might be available in civilian life.⁴⁴

Wallace Reed was among the first to leave the military, separating in December 1945. He went to the Philippines in 1946 as a Pan American Airways meteorologist under contract to the Air Weather Service. He later transferred to the Weather Bureau as part of the Philippine Weather Service rehabilitation program; this may have made him the first black civilian meteorologist in the Weather Bureau. When that program ended in late 1949, he was released and chose to stay in the Philippines where he operated several small businesses. He retired and returned to the U.S. in 1976, passing away in 1999. Of others who separated soon after the war (where information is available), Benjamin Bullock graduated Western Reserve University in 1950 with a degree in dentistry and Grant Franklin graduated medical school.

The 447th, now a Composite Group with two bomber squadrons and a fighter squadron and transferred to Lockbourne AFB, Columbus, Ohio, in March 1946. This move included the Godman Field weather detachment officers John Branche, Robert Preer, Horace King, Charles Anderson, and Paul Wise.⁴⁵ John Willis washed out of pilot training in the last phase during this time; he was transferred to the Lockbourne AFB weather detachment in July 1946. This was the last all-black weather detachment.

Paul Byrd was reassigned to the Tuskegee weather detachment in November 1944, after his release from the hospital and Archie Williams returned to weather duty in March 1946, as flying training at Tuskegee wound down. Also returning to Tuskegee was Milton Hopkins, reassigned when the 332d FG rotated back to the U.S. from Italy. All three then moved to Lockbourne in October 1946, when Tuskegee Army Airfield closed.⁴⁶

The 477th CG inactivated on June 30, 1947, replaced the next day by a reactivated 332d FG, which, in turn, was inactivated on June 30, 1949. Lockbourne AFB then closed and all base personnel selected for retention by a "fitness for service" screening board run by then-Colonel Davis in 1949 were reassigned to other bases and units based on their skills and needs of the now-United States Air Force (USAF). It is unknown if Air Weather Service personnel were part of this review process.⁴⁷

Almost as soon as this group was brought together at Lockbourne AFB, they started heading in diverse directions. Charles Anderson had already left for Brooklyn Polytechnic College and graduate work in plastics chemistry in July 1946. After serving with the Geophysical Research Division, he left active duty in July 1948 and went to work as a civilian for the Air Force's Cambridge Research Laboratory's Cloud Physics Branch. He worked there through 1962, where he did pioneering work on eliminating high-altitude contrails. While there, he earned a doctorate in meteorology from MIT in 1960, believed the first meteorology Ph.D. earned by a black. He later taught and was an Associate Dean at the University of Wisconsin-Madison. His last teaching post was at North Carolina State University. An American Meteorological Society award for promoting diversity in the atmospheric sciences is named for him. He retired from teaching in 1990 and passed away in 1994.

John Branche separated in late 1946, graduating from Queens College in Flushing, N.Y. with a BS in Biochemistry and Cornell University with a medical degree, specializing in pediatrics. Paul Wise was stationed at Lockbourne Field at the time of his death in an aircraft accident on April 3, 1947.⁴⁸ Paul Byrd separated in August 1948; his post-service career is unknown.

Air Weather Service Desegregates

The postwar Air Weather Service centrally managed all AAF/USAF weather personnel.⁴⁹ AWS, for reasons yet not discovered, stepped out ahead of the rest of the Air Force and President Harry Truman's Executive Order 9981 on July 26, 1948 that started the process of desegregating the military.⁵⁰

Robert Preer was the first weather officer to leave Lockbourne AFB and enter a "desegregated" Air Force.⁵¹ He transferred to Alaska in September 1947 with service at Elmendorf AFB and Shemya AFB in the Aleutian Islands. This was followed by staff tours and detachment command in both state-side and overseas assignments; he retired as a lieutenant colonel in 1963.

John Willis was sent to Keesler AFB, MS, in January 1948 for advanced training in radar and then went to Alaska where he worked on an automated weather station project. He retired as a major in 1963, also from the Cambridge Research Laboratory, after spending most of his postwar career in weather equipment research, development, testing and procurement.

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Horace King left Lockbourne AFB in April 1948 for an assignment at Ft. Richardson, Alaska. In 1951, he attended the Air Force Institute of Technology (AFIT) at Wright-Patterson AFB, Ohio, and then taught at the weather school at Chanute AFB from 1952 to 1955. He had several detachment command tours in the Far East before retiring in 1964 as a lieutenant colonel at March AFB.

In August 1948, Archie Williams and Milton Hopkins were accepted to AFIT for graduate engineering work in a two year course, becoming the third and fourth African-American officers to attend this school. Their normal “payback” tour in some form of engineering or research and development assignment was cancelled with the start of the Korean War, as weather officers were in short supply. Archie Williams was assigned as a weather officer in Japan where he also flew at least four combat missions in B-29s. He later served in operational assignments as a weather detachment commander in New York and Alaska before retiring as a lieutenant colonel in 1964 at March AFB, California.

Milton Hopkins was stationed in Germany after his AFIT tour and spent much of his career in high altitude weather research, primarily at Holloman AFB, New Mexico, and the Cambridge Research Laboratory at L.G. Hanscom AFB, Massachusetts, before retiring as a lieutenant colonel in 1965.

It may be worthwhile to look at these men as a group. John Branche, the only Tuskegee weather officer who didn’t go through the cadet program, enlisted in 1941, shortly after graduation from high school. Of the twelve of fourteen men who went through the cadet program and whose records are available, eight had college degrees (one masters and seven bachelors) and the others had three or more years of college, all in mathematics, physics,

engineering, or chemistry. Of those who worked in other jobs prior to entering the military, there was a wide range of experience. In addition to Archie Williams (flight instructor), Grant Franklin and Paul Wise were schoolteachers in Oklahoma and Delaware respectively. Paul Byrd was a statistical clerk for the Work Project Administration’s Sociological Research Project while working on his MS and John Willis was a photogrammetric engineering assistant, compiling mapping data from aerial photographs for the Alaskan Branch of the U.S. Geological Survey. Benjamin Bullock was a mail carrier and Charles Anderson was a construction helper. Like their white peers, these officers had passed muster with both the Aviation Cadet screening boards and the university’s academic screening process before entering the program to complete a rigorous course of study and earn both their certificate and commission.

Of this group as a whole, numbering only 14 of approximately 6,200 meteorological aviation cadets graduated, the Tuskegee meteorologists numbered just 0.2 percent of all weather officers; this percentage greatly under-represented the black population as a whole or even those who served in the AAF. While blacks represented approximately 10 percent of the American population in 1940, they comprised just 6.2 percent of the overall AAF by August 1945 and only 0.4 percent of the AAF officer corps.⁵² How many potential candidates were eligible and not selected is unknown. Five of the original fifteen Tuskegee weather officers remained in service after the war, a retention rate of 33 percent, compared to an overall weather officer retention rate of less than 20 percent.⁵³

Postwar Tuskegee Weather Officers

Five more Tuskegee Airmen became weather

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PIONEERS**

officers after World War II. Claude A. Rowe graduated with the last pilot training class at Tuskegee in July 1946 and went directly into weather. He had earned his wings with the Royal Canadian Air Force as a Sergeant Pilot in 1944 before entering the AAF. He was passed over for promotion to major in 1958 and separated from the Air Force. He enlisted and served as a staff sergeant weather forecaster until retirement as a captain in 1964. While in pre-meteorology training at Keesler AFB in 1946, followed by weather officer training at Chanute AFB, he was joined by William L. Hill, a pilot, Carl B. Fountain, a navigator, and Harold C. Hayes, a non-rated officer, all of whom cross-trained into weather.

Little is known about William L. Hill. He served as a fighter pilot in World War II in the 302d FS, where he was credited with one aerial victory, earning three Air Medals and a Purple Heart. After training as a weather officer in 1947, he had at least two overseas tours, one in Taiwan. He retired as a major from Grand Forks AFB in 1964 and died in 1981.

While not a rated officer, Harold C. Hayes was an instructor in navigation and flight training at Tuskegee from 1941 to 1945, first as a contract civilian instructor and from June 1943 as a military instructor. When flight training ended at Tuskegee, he moved to Lockbourne Field and served as an administrative officer before training as a weather officer. His service included extensive overseas service and a tour with the National Security Agency. His last two assignments were with Aerospace Defense Command in California as both a detachment commander and staff weather officer for Air Defense Sectors. He retired in 1966 and died in 1980.

The last known World War II Tuskegee Airmen to train as a weather officer, Weldon K. Groves, cross-trained to weather in 1949 after the 332d Fighter Wing was inactivated. As a pilot in World War II, flying at various times the P-39, P-47 and P-51, also with the 302d FS in Italy, he was credited with shooting down one enemy aircraft during 93 combat missions. He retired in 1964 as a major at McChord AFB, Washington, having also commanded several weather detachments.

Carl Fountain stayed on duty longer than any other World War II veteran, alternating weather and flying assignments with AWS and Military Airlift Command until retirement as a lieutenant colonel in 1973. Commissioned as a B-25 bombardier, he cross-trained as a weather officer in July 1946, even before the 447th Composite Group's move to Ohio. Reporting to Lockbourne AFB for his initial weather assignment in 1947, he also went to Ladd Field at Fort Richardson, Alaska, in May 1948. There he flew weather reconnaissance missions over the North Pole and later a combat tour in B-29s over Korea at the end of the war. Other assignments included a tour in Korea as the staff weather officer for the U.S. Eighth Army and United Nations Command and several weather detachment commands.

Conclusion

Carl Fountain was the only Tuskegee weather officer to receive a regular commission, concurrent with completing the weather officer course.⁵⁴ None of the ten officers who remained until retirement was promoted to full colonel or selected to command a squadron, although almost all held detachment commands, some two or three in their career, or other responsible positions and continued with advanced technical and military education. Some had combat service, an important aspect of service for promotion. Weldon Groves and William Hill were both decorated pilots with service in Italy during World War II with the 332d FG where Milton Hopkins had served as a weather officer. Carl Fountain had nineteen B-29 combat missions as a bombardier and Archie Williams had four B-29 combat missions as a weather pilot, both over Korea.

At least five of these officers had served in Alaska, four in the late 1940s, when the isolation, relatively primitive conditions and severe weather made it the closest peacetime equivalent of a war zone, especially for weather officers. Almost all served multiple overseas tours, primarily in the Pacific. That nine of ten retired between 1963 and early 1966, soon after qualifying for a pension, perhaps should not be surprising, given these circumstances. For some, this might raise the question of potential opportunities missed in the buildup for the Vietnam War. When Carl Fountain fell short, despite a regular commission, outstanding evaluations and aviation service right to the end of his career, (admittedly a very small statistical sampling), it was quite possibly a sign they had made the right choice in getting out and starting second careers. How many factors impacting career progression were unique to the somewhat closed culture of the Air Weather Service or perhaps reflects a situation common across the Air Force is a question that deserves closer examination.

In retrospect, these men, like the rest of their Tuskegee peers, were pioneers. In joining the Army and becoming weather officers, a career choice unimaginable before World War II, they met the high entry standards and successfully completed the most academically rigorous course offered by the Army in World War II, a noteworthy achievement in its own right. From this group of twenty, that ten of them persevered to complete a military career as weather officers, despite prejudices and institutional practices slow to disappear, is perhaps their most enduring legacy. Their performance in one of the technically demanding military career fields helped lay to rest any doubts in all but the most bigoted minds about the ability of blacks to serve their country and succeed in any skill or profession. It laid a foundation for others to advance, based on their technical skill and record of accomplishment rather than on prejudices based on race or skin color. ■

1. The racial terms of Negro or colored appeared throughout documentation of this period. African-American came into vogue later, but many who served in the military prefer the term black. Except where quoting sources, I have elected to follow their lead. See Gen. Benjamin O. Davis, Jr. *American*, Smithsonian Institution Press, Washington D.C., 1991, p. 423, (hereafter Davis) and Alan L. Gropman, *The Air Force Integrates, 1945-1974*, 2d Edition, Smithsonian Institution Press, Washington D.C., 1998 (hereafter Gropman).
2. The Army Air Corps was redesignated the Army Air Forces on June 20, 1941; the terms Air Corps and Army Air Forces (AAF) were used interchangeably thereafter in official documents and the media; AAF is used here.
3. This story has become well known and is well documented, see Davis; Gropman; Robert J. Jakeman, *The Divided Skies: Establishing Segregated Flight Training at Tuskegee, Alabama, 1934-1942*, The University of Alabama Press, Tuscaloosa, Ala., 1992 (hereafter Jakeman); Lee, Ulysses, *United States Army in World War II*, Special Studies, *The Employment of Negro Troops*, Center of Military History, Washington, D.C., 1966 (republished 2000) (hereafter Lee); Alan M. Osur, *Blacks in the Army Air Forces during World War II*, Office of Air Force History, Washington, D.C., 1977 (hereafter Osur), and Sandler, Stanley, *Segregated Skies; All Black Combat Squadrons of World War II*, Smithsonian Institution Press, Washington, D.C., 1992 (hereafter Sandler).
4. Specifically, in September 1939, there were two black Regular Army officers, Col. (later Brig. Gen. USA) Benjamin O. Davis, Sr. and 1st Lt. (later General, USAF) Benjamin O. Davis, Jr., along with 3 chaplains. There were an additional 150 National Guard and 353 Reserve officers; Lee, 192-93, Tables 3 and 4.
5. Wesley F. Craven and James L. Cate, editors, *The Army Air Forces in World War II, Volume VI: Men and Planes*, xxvii, University of Chicago Press, Ill. 1953, reprinted, Office of Air Force History, Washington D.C., 1983.
6. Donald R. Whitnah, *A History of the United States Weather Bureau*, University of Illinois Press, Urbana, Ill, 1965 (hereafter Whitnah).
7. Letter, Dr. Carl-Gustav Rossby to Dr. Edward Steidle, (Dean, School of Mineral Industries, Pennsylvania State College), March 11, 1943, Air Weather Service Training, MIT Correspondence File Folder 4, 360.711-4, IRIS 182468, USAF Collection, Air Force Historical Research Agency (AFHRA), Maxwell AFB.
8. For an overview of this shift, see Charles C. Bates, and John F. Fuller, *America's Weather Warriors; 1814-1985*, Texas A&M University Press, College Station, 1986, Chapter 3 (hereafter Bates & Fuller), and Wesley F. Craven and James L. Cate, editors, *The Army Air Forces in World War II, Volume VII: Services Around the World*, Jonas A. Jonasson, *The AAF Weather Service*, pp 311-38, University of Chicago Press, 1953, reprinted, Office of Air Force History, Washington, D.C., 1983.
9. Sgt. Raymond Walters, USAF Historical Study Number 56, *Weather Training in the AAF, 1937-1945*, 1952, pp. 62 (hereafter Walters); Bates & Fuller, pp. 52-53.
10. Walters, Chapter III; Bates & Fuller, pp. 52-53.
11. "Announcement of Special Course in Meteorology to be offered at the Massachusetts Institute of Technology," Air Weather Service Training MIT Correspondence File Folder 4, 360.711-4, IRIS 182468, AFHRA.
12. Walters, pp. 63-65; Bates & Fuller, pp. 52-53. A May 16, 1941 letter to R. M. Kimball of MIT from Maj A. F. Merewether stated they had "over 300 applications for the 150 vacancies to study meteorology," this for the September 1941 course; MIT Correspondence File Folder 4, 360.711-4, IRIS 182468, AFHRA.
13. Jakeman, Chapters 1-5; Osur, Chapters 1-2, and Sandler, Chapter 1.
14. Dominick A. Pisano, *To Fill the Skies With Pilots: The Civilian Pilot Training Program, 1939-1946*, Smithsonian Institution Press, Washington D.C., 2001, p. 76; Patricia Strickland, *The PUTT-PUTT AIR FORCE: The Story of the Civilian Pilot Training Program and The War Training Service (1939-1944)*, Federal Aviation Administration, Department of Transportation, 1971, pp. 39-47; Jakeman, Chapters 5-6.
15. *History of Tuskegee Army Airfield, 21 Jul 1941-6 Dec 1941*; Appendix I, Correspondence and Interviews Relative to study for Pilot Training at Tuskegee, Alabama, Volume 1, 289.28-1, IRIS 00179144, AFHRA.
16. Group photograph, Civilian Weather Instructors at Chanute Field, Nov 1942. Identities of what appear to be two black instructors have not been determined; there are also several Asians as well, Chanute Technical Training Center Collection, Octave Chanute Aerospace Museum, Rantoul, Ill.
17. HQ Air Corps Technical School, Chanute Field, Illinois, Special Order No. 263, paragraph 29, Nov 7, 1941, K146.002-61, IRIS 1151362, Octave Chanute Aerospace Museum Collection, AFHRA. This order sent the 99th Pursuit Squadron and Air Base Detachment personnel from Chanute Field, IL, to Maxwell Field, AL, "for temporary change of station pending completion of facilities at Tuskegee, Alabama" and shows all five listed as part of the Weather Detachment. This order, along with review of "History of the 67th Army Air Forces Base Unit (Tuskegee Weather Detachment) for 21 Mar 42 - 30 Sep 44" (289.28-3, V. 3, IRIS 00179153); 1 Oct 44 - 31 Dec 44 (289.28-6, V. 2, IRIS 00179162); 1 Jan - 31 Mar 45 (289.28-8, V. 2, IRIS 00179166) and 1 Apr - 1 Jun 45 (289.28-9, V.2, IRIS 00179168), (hereafter History, 67 AAFBU, date), AFHRA, and available personnel records of the five original weathermen contradict Bates & Fuller, pg 56, which indicates all enlisted training occurred at Tuskegee.
18. Letter, R. M. Kimball to Maj Merewether, June 19, 1941, Air Weather Service Training MIT Correspondence File Folder 4, 360.711-4, IRIS 182468, AFHRA.
19. "History, 67 AAFBU," 21 Mar 42 - 30 Sep 44; 1 Oct 44 - 31 Dec 44; 1 Jan - 31 Mar 45 and 1 Apr - 1 Jun 45.
20. E-mail, Albert Theberge [NOAA Historian] to Gerald White, Nov 28, 2005; it was the mid-1960's before there were any blacks on the Weather Bureau (now National Weather Service) professional staff, although Mr. Theberge notes that George Washington Carver was a Volunteer Observer for many years and those records are on file at the National Oceanographic and Atmospheric Administration Library. Approximately 700 Weather Bureau staff, mostly junior observers, entered all branches of the military in WW II, see Whitnah, p. 201.
21. Walters, pp. 26-29, see Appendix C for suggested curriculum.
22. "History, 67 AAFBU, 21 Mar 42 - 30 Sep 44."
23. Army Air Forces Training Command, Negro Personnel In Army Air Forces, Consolidated File Of Documents, HQ AAF TTC to Commanding General [] District, July 30, 1942, 220.765-3, IRIS 146003, AFHRA. Part of this confusion may stem from the fact that control of the meteorological aviation cadet program was just then passing from the Weather Directorate to the AAF Technical Training Command. Cadet candidates, once approved by the Aviation Cadet selection boards, were still being selected by the individual universities based on academic qualifications. The universities, in turn,

shortly thereafter ceded their role in evaluation and selection to a University Meteorological Committee (UMC) established in fall 1942; less than 10,000 applicants of some 30,000 total met both military and academic requirements; see Walters, pp. 68-70. How the schools and UMC received guidance on how many black cadets to admit is not yet clear.

24. Lee, p. 79.

25. Lee, pp. 162 – 74; a copy of Judge Hastie's pamphlet is found in the Alan Gropman Collection, 168.7061-69, IRIS 1012295, AFHRA.

26. Letter, AAF TTC to CG, HQ AAF (Attn: AFRIT), Subject: Weather Officers (Colored), 26 Feb 42 [apparently a typo; the outgoing date/time-stamp reads 27 Feb 1943] with 1st Indorsement to CG AAF TTC, 7 Apr 1943, Consolidated File, 220.765-3, IRIS 146003, AFHRA.

27. Except for the above mentioned references concerning Wallace Reed, review of University training detachment historical reports and official documentation on file at AFHRA has not yet uncovered any mention the race of any other black cadet; see histories for the Training Detachments at New York University, 234.605, and University of Chicago, 234.842 as examples. Each had two black cadets in wartime class #3, graduating Nov 30, 1942 and without knowledge of specific names, their race could not be determined. It is possible other materials on file at individual schools may reference race but the author was unable to review such material for this article.

28. All personal data is from the respective individual personnel file unless otherwise noted and is on file at National Military Personnel Records Center, St. Louis, Missouri. For numerous reasons, the 1973 fire among them, the quality and quantity of material in each personnel record varies widely. Little information was available on these enlisted personnel unless they were later commissioned; James Johnson's file contains one pay document from OCS. No information has been uncovered on Luther Blakeney and Roosevelt Richardson.

29. He served as an administrative officer, Adjutant, communications officer and Special Services officer, ending up as an Intelligence officer with the 477th Bombardment Group before discharge in March 1945.

30. There is no record any weather officer was assigned to the 99th FS.

31. "History, Selfridge Field Detachment, 2d Weather Squadron, Jul 37 – May 44," pp 58-59, SQ-Wea-2-HI, IRIS 00076205, AFHRA.

32. Interview, Dr. Todd Moye with Dr. Milton Hopkins, Tuskegee Airmen Oral History Project, National Park Service, August 2, 2001, (hereafter Hopkins Interview); my thanks to Dr. Moye for its use.

33. Accident report 43-06-16-01, microfilm reel 163, Microfilm 46214, IRIS 877161, AFHRA. 2d Lt. Blakeney was a passenger in a BT-13 piloted by 2d Lt. Nathaniel N. Hill on a local flight to check the weather. They impacted the waters of Lake Huron after Hill apparently became disoriented in low clouds; he was not qualified for instrument flying and the aircraft had a malfunctioning artificial horizon indicator.

34. Personnel file; interview, Gabrielle Morris with Archie Williams, *The Joy of Flying: Olympic Gold, Air Force Colonel, and Teacher: Archie F. Williams*, Feb 11, 1992; interview, George A. Hodak with Archie Williams, *Archie F. Williams, 1936 Olympic Games; Track & Field*, June 1988; article, Jerry White, Air Force Weather Agency History Office, "Archie Williams," *OBSERVER*, April-May 2005, p. 23.

35. As part of the move to Walterboro, the 553 FS was inactivated and the training mission was assigned to the 126th Army Air Forces Base Unit. Lt Anderson briefed aircrews and taught meteorology in the ground school until it closed in September 1945.

36. History, 67 AAFBU, 21 Mar 42 – 30 Sep 44, pg 32

and 1 Jan – 31 Mar 45, pg 13.

37. History, 67 AAFBU, 1 Jan – 31 Mar 45, pg 1.

38. Forecaster accuracy listings are found in the AAF Weather Service Bulletins, 1944-45; copies are on file at the Air Force Weather Agency History Office, Offutt AFB, NE.

39. History, 67 AAFBU, 21 Mar 42 – 30 Sep 44, Appendix, pg 32, and 1 Jan – 31 Mar 45, pg 13. Comparison of enlisted observer qualification rates with other detachments may be impossible. Unlike other base weather stations, Tuskegee did not send men overseas because of segregation. Turnover that did occur appears to be in part due to men leaving for various commissioning programs such as OCS, aviation cadets and the Army Specialized Training Program. In addition to the original five assigned to the 99 FS and later commissioned, at least six other weather observers were sent to these various programs.

40. It is interesting to note that both Hopkins and Bullock also have time as personal equipment (flying gear) officers in their records during their 332d FG service. No reference to support of the 332d FG can be found in the 12th Weather Squadron History for this period (SQ-Wea-12-HI, 1 Apr 44 – 30 Sep 45, IRIS, 76547, AFHRA); the 12 WS had responsibility for Italy and Central Mediterranean during this period and operated the base weather stations supporting the flying units.

41. Hopkins Interview.

42. James C. Warren, *The Freeman Field Mutiny*, Conyers Publishing Co., Vacaville, Calif., 1996; Gropman, pp.11-18; Davis, pp. 140-46.

43. "History of the 69th AAF Base Unit (2d Weather Region) 30 Jun – 30 Sep 1945," REG-WEA-2-HI, Microfilm Reel A0398, Frame 1581 (report pp 20-22), AFHRA. At this point, the Tuskegee weather Detachment was part of the 71st AAFBU but a review of the 71 AAFBU History, filed as the "104th Weather Group History, 1 July – 31 Dec 46," GP-Wea-104-HI, IRIS 00103385, AFHRA, makes no reference to the move; the reason for the omission is unknown.

44. Hopkins interview; Hodak interview.

45. Detachment History, Weather Detachment 0266, 74th AAFBU (102d Weather Group), 12 Mar – 30 Jun 46," GP-Wea-102-HI, Oct 45-Jun 46, Vol 2, IRIS 00103356, AFHRA.

46. Detachment History, Weather Detachment 0266, 71st AAFBU (104th Weather Group), 1 July – 31 Dec 46," GP-Wea-104-HI, Oct 45-Jun 46, Vol 2, IRIS 00103385, AFHRA. HQ 71 AAFBU General Order 56, 18 Sep 46 (Inclosure #2) closed the detachment and HQ 71 AAFBU Special Order 206, 3 Oct 46, (Inclosure #6) sent the 3 officers to Lockbourne; there is no mention of transferring enlisted men.

47. Gropman, pp. 57-62; Davis, pp. 154-61.

48. Accident Report 47-4-3-2, AFHRA; Lt. Wise was a passenger in an A-26 that crashed near Richmond, Va., while flying from Myrtle Beach, S.C. to Bolling AFB, Washington, D.C.

49. Bates & Fuller, pp. 137 – 39.

50. *Ibid.*, p. 187; Gropman, Chapter 3.

51. Gropman, p. xiii; in the Preface, he makes a distinction between desegregation and integration with desegregation the first step in the process and integration reflecting a level of cohesion that took time to appear.

52. Gropman, Tables 1 & 2, Statistical Appendix.

53. Bates & Fuller, p. 134; AWS dropped from more than 5,000 officers in 1945 to fewer than 1,000 weather officers by 1946, and fell to approximately 850 by 1948 before rebounding to approximately 2,000 in the Korean War, where it remained (with minor fluctuations) until the post-Vietnam drawdown in the early 1970s.

54. This, with no combat record, while many deserving combat veterans of the 332d FG were overlooked, much to General Davis's concern; Davis, pp. 154-55.