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TALKING PAPER

ON

HISTORY OF ENLISTED WEATHER TRAINING BEFORE CHANUTE AFB

Like almost every enlisted weatherman in the Air Force, I began my weather training at Chanute AFB, IL. In 1993, the Weather School moved to Keesler AFB, MS. A long, distinguished era came to an end. In fact, this era was so long that the vast majority of weather people have never even heard of the formative era which preceded it. In this history, I will look at the four periods of that era:

- a. Signal Corps Weather School at Fort Monmouth, NJ.
- b. Air Corps Forecaster School at Patterson Field, OH.
- c. Air Corps Observer School at Scott Field, IL.
- d. Schools combined and transferred to Chanute Field, IL.

During this period, the weatherman was unique in the army. His was probably the first highly technical career field open to enlisted men. Less than 2 percent of the enlisted force was thought to have the temperament and intelligence to pursue this endeavor, and of those only about half could complete the training. There are now many highly technical career fields to chose from, but weather remains a unique opportunity and challenge. Let's look back to the "roots" of the Air Force weatherman. (15:7)

The Army first pioneered the field of meteorology in the Nineteenth Century. Between 1819 and 1870, the Medical Department had the best observational network in the country. In 1870, the weather service was inaugurated. The Army's Chief Signal Officer, General Albert J. Myer, was given the responsibility. The first weather warning was issued November 1, 1870. On January 1, 1871, the United States became the fourth country to issue a daily weather map. In July 1891, Congress made the weather service a civilian bureau, ending the Army's involvement. (1:4)

The air first became a battleground during World War I. In response to this development, the Signal Corps was again tasked with providing the necessary weather information. This began a period of close cooperation with the U.S. Weather Bureau, an agency of the Department of Agriculture. (1:4-5)

"Under the direction of the Army's Science and Research Department, approximately 200 inductees were assigned to the Signal Corps between September 1917 and April 1918 and sent in small groups to Weather Bureau stations throughout the country for 8 to 10 weeks of practical training as weather observers. After they arrived in France they were given a review course and special instruction on weather problems peculiar to the fighting fronts." (1:4-5)

The Science and Research Department soon decided that not enough weather observers could be trained at Weather Bureau stations alone. So, the Air

Corps School of Meteorology, a school for weather observers, was opened at Camp McArthur, Texas in the early spring of 1918. In late April, it was moved to Texas Agricultural and Mechanical College. The course consisted of 41 hours of lecture, practical laboratory, and field exercises in surface and upper-air observing. (1:5)

The school, which was closed following the Armistice, graduated 550 men. The students had been either college graduates or trained observers from the U.S. Weather Bureau, and most saw service overseas. (1:5)

In January 1920, a regular course for Signal Corps enlisted men was established at Camp Alfred Vail, N.J. "For a decade following the establishment of the Air Corps in 1926, weather observation and forecasting for all of the Army were performed by the Signal Corps. Enlisted forecasters and observers were trained in a 4-1/2 month course at Fort Monmouth, N.J., the successor to Camp Vail. . . . But up to 1937 weather training, like the weather service itself, was a neglected child of the Army." (1:6)

The Instructional Circular for the Signal Corps School at Fort Monmouth in 1936-37 does not provide much detail. It lists the following subjects for the Meteorological Observers' Course: observations and records, instruments, typewriter and teletype operation, meteorological codes, preparation of weather maps and auxiliary charts, meteorology, physics, algebra, and athletics. The Meteorological Forecasters' Course consisted of meteorology, forecasting, field station organization service, algebra, physics, and athletics. (4:13-16)

Apparently, failure of one or more of these subjects did not result in dismissal. The circular states "To each student who satisfactorily completes one or more of the subjects pertaining to the various subcourses and is declared proficient therein and who obtains a composite personal rating of 3 with no individual personal rating below 2.5 a certificate of proficiency will be issued covering all subjects completed by him during the subcourse." (A 70% was required to complete the subject and the personal ratings were subjectively based on cooperation, application, neatness, reliability, initiative, and aptitude.) This policy continued until the Chanute AFB era. (4:2-4)

"The expansion of the Air Corps during the 1930s, actual and contemplated, made it clear that the functional position of the weather service lay within the air branch of the Army." (2:768) The transfer from the Signal Corps to the Air Corps occurred 1 July 1937. The Air Corps Weather Service was born.

The last observing class at Fort Monmouth, containing 9 men, graduated on 30 Jun 1937. There were 9 forecasting students still receiving instruction when the school closed. They transferred to Patterson Field, OH and eventually completed the course between August 30th and October 17th. In those days, students were apparently not grouped together in a class, but progressed through the course at a pace based on his intellect. One of these students, Sgt. Donald F. Yatteau, was promoted to Staff Sergeant and remained at the school as a Laboratory Assistant. (5:11)

The process of opening the Air Corps Meteorology School began on March 31, 1937 when Captains Randolph Williams and Don McNeal inspected the facilities at Patterson Field, Ohio. Captain McNeal had enlisted in the Army during World War I and was one of the first graduates of the observer's course at Camp Vail. He was one of six who were commissioned as Second Lieutenants in the Signal Corps Reserve following graduation from that school. At this time he was in charge of the school at Fort Monmouth. (1:5) (2:780-781)

The survey noted that "excellent arrangements can conveniently be made for the school classrooms and laboratories in the present headquarters building." Quarters were readily available for the married NCOs assigned to the permanent school detachment. The barracks for the single enlisted men, students and permanent party, were less desirable. "The barracks is a temporary building and certain sanitary improvements should be made after July 31, 1937." The survey also said that Air Corps Building and Grounds Division had plans to use this barracks space for a prison camp. (10:1-2)

On May 25, 1937 a letter was sent throughout the Air Corps requesting recommendations for enlisted men to attend the initial forecaster's course at Patterson Field. The qualifications for selection were:

- a. "At least six months' duty with a meteorological office to which a commissioned officer was assigned; or, two years' duty at a meteorological office to which no commissioned meteorologist was assigned.
- b. "Ability to perform the duties of a meteorological observer.
- c. "Alert, intelligent appearance.
- d. "Possession of a clear, legible handwriting.
- e. "High school graduation. This qualification may be waived in the case of enlisted men of grade five or above."

It was also noted that "In order to qualify senior meteorological enlisted personnel for further promotion, it is desirable that all such enlisted men be trained in modern meteorology as rapidly as possible." (11:1-2)

During this era, most weather training was done in-house and completion of a formal school was not required. School was considered supplementary for existing stations and a way to prepare enlisted men for newly established stations. The letters of reply from the Air Corps areas nominating individuals for the school were interesting. The Third Corps Area stated "No chiefs of Meteorological Stations of the first three grades have been recommended for this detail, as it is believed that during the period of expansion and reorganization immediately after July 1, 1937, these men will be urgently needed at their present stations." (11:2) Other replies suggest that many stations did not volunteer their best people because they were afraid that they might not get them back.

The curriculum from Fort Monmouth was reviewed by the Air Corps and approved without modification and school personnel from Fort Monmouth

transferred to the new school. The first class began on 1 Sep 1937 and ended 28 Jan 1938. The school personnel were: (6:1)

Commandant	Lt. Col. J. H. Houghton
Ass't Commandant and Senior Instructor	Capt. Don McNeal
Ass't Instructor (2)	Tech. Sgt. Wm. F. Bernheisel
	Staff Sgt. James L. Hubbard
Laboratory Assistant (3)	Staff Sgt. Charles A. Franz
	Sgt. Donald F. Yateau
	Pvt. 1cl Myron H. Feitchans
Radio Operator	Staff Sgt. Louis D. Laurin
Clerk	Pvt. 1cl David Bolden

Comparing this list to the Table of Organization, it seems they were shorthanded three enlisted men. They did well however because by the time the report of the second class was written on 30 Jul 1938, Bernheisel, Hubbard, Yateau, and Bolden had been promoted. (7:1,12)

The school was designed to have about 25 students per class and two classes per year. Of the 25 students in the first class, 5 did not make it to course end. Three were relieved due to academic deficiencies, one for sickness, and one was discharged. Of the 20 who completed the school, only eight "graduated" meaning they had passed every subject (Mathematics, Physics, Meteorology, and Weather Forecasting). They were:

James E. Arnold Jr., Pfc Sp.3
Ralph W. Beatty, St. Sgt.
Otis Dixon, Sgt.
Ernest J. Fawbush, Sgt.
James H. Gilman, Corp.
John S. Hambleton, St. Sgt.
Henry A. Mooney, Sgt.
Leonard G. Smith, Pfc Sp.3

Of the 12 who completed the school but did not "graduate"; 2 qualified in three subjects, 5 in two subjects, 3 in one subject, and 2 individuals "Failed to qualify in any subject due to scholastic deficiencies"! (6:1-3)

The commandant recommended in his final report that "the course of instruction in this school should be extended to cover a seven month period, with the last two months being reserved for intensive training in such synoptic analysis, bearing closest on the nature of the work to be expected of the graduate." This was his only recommendation! There was no apparent concern about the results of the first class. The Chief of the Air Corps only recommended an increase from five to six months because the school year had to end by 31 July IAW AR 350-560. The Adjutant General approved this request. (6:3-4)

The second class began on 31 Jan 1938 and ended 29 Jul 1938. It began with 26 students and fared a little better. Twelve students graduated while only two was relieved early. Of the twelve who didn't "graduate", 3 qualified

in three subjects, 5 in two subjects, 3 in one subject, and only 1 individual didn't qualify in any. (7:1-2)

The corporal who didn't pass any subjects scored 65.8 in Mathematics, 37.0 in Physics, 58.7 in Meteorology, and 69.1 in Weather Forecasting. He was rated unsatisfactory in Application, Aptitude, and Initiative! It's hard to imagine how he was nominated for the school and why he was allowed to continue until the end. The two students sent home from the school were having problems in algebra. They had each completed the first 4 tests (out of 9) in algebra scoring 42, 00, 33, 00 in one case and 19, 00, 14, 10 in the other. Apparently you had to be doing really bad to be relieved from the school! (7:4-10)

Recommendations at course end included extending the course to 'nine or ten months in order to provide a longer period of instruction in the practical exercises of map analysis and weather forecasting.' It was also believed that more time was needed for mathematics and physics. (7:3-4)

The school continued in this fashion until it was time to move again. In the meantime, weather observers would get their school back.

After the closing of the Signal Corps School at Fort Monmouth in June 1937, there was no formal training school for weather observers. The number of weather observers required was not large however. 'The Regional Control Officers of the various weather regions into which this country was divided at that time selected likely Air Corps recruits in such numbers as needed and trained them under an apprentice in-station training program in the weather stations under their control.' (2:771)

'When plans were being drawn up for the establishment of a separate Air Corps weather service late in 1936, Col. Rush B. Lincoln, Chief of the Plans Section, OC/AC, spoke approvingly of the 'local training' of enlisted observers being conducted by the 2d Weather Wing at Langley Field and recommend it be copied at other important bases. This system, Colonel Lincoln wrote, 'will continue to produce good results wherever a trained meteorological officer is assigned to the weather station. The principle advantage of this system over that of centralizing the observer training in one place are economy of transportation costs, economy of barracks space, and the reduction of lost motion in training men who have no future in meteorology.' . . . Following the authorization of the separate Air Corps weather service in March 1937, steps were taken to implement Colonel Lincoln's suggestion.' (1:15)

During the spring of 1939, the Air Corps was setting up training facilities to meet the requirements of the first of its great expansion programs. It was decided that virtually all Air Corps recruits would be sent to Scott Field for a one month training program. Following their basic training, the recruits would then go to either Chanute Field, IL or Lowry Field, CO for more specialized technical training. The Post Weather Officer at Scott Field, Lt Robert Eaton, pointed out an inherent danger in this program. 'Recruits would arrive at Air Corps bases already trained in a technical specialty and would thus be unavailable for assignment to the local

weather station. The situation was all the worse because only 2 per cent of the Air Corps recruits possessed 'an educational background and temperament suitable for weather training.'" Lt Eaton also proposed that a 'centralized three-month school for observers be established at Scott Field, operated largely by personnel from the Scott weather station.' (1:17-18)

This suggestion made it all the way to the Chief of the Air Corps, General Arnold, who took action. In May 1939, he decided that more weather observers would soon be needed. He wrote to the Commanding Officer of Scott Field, Illinois suggesting that 'the increased number of enlisted men who will be required for the Air Corps Weather Service be selected upon completion of the basic course at Scott Field and then given their basic instruction as weather observers at your station.' At that time, he estimated that 134 men would be needed to bring the weather service up to full strength.' (12:1)

It was not desirable to establish this school at Patterson Field because there was no instructional or barracks space available. There was also the cost of transporting students from Scott to Patterson. If the course was established at Patterson, the instructors would probably have to be taken from the weather unit at Scott anyway. But this was not originally designed to be a permanent addition to the technical training of recruits. 'Presumably, after training the observers required for operation of weather units at proposed stations, the course will be discontinued and replacements trained as at present at the larger stations.' (12:5)

In August 1939 a temporary building, 20' by 75', was constructed by the Constructing Quartermaster at a cost of \$4800 to serve as the classroom. (12:3)

The Commanding Officer at Scott had requested a weather officer and 7 enlisted men to be instructors. The Chief of the Air Corps responded by reducing the requirement for Scott Field from a Base Weather Station to a Post Weather Station which freed up five forecasters for instructor duty. He did promise to transfer a couple more well-qualified weather instructors but a weather officer was not available. He wrote '. . . it is believed that the Base Weather Officer can handle both the observers course and the weather station work in view of the limited air operations anticipated at Scott Field during the coming year.' (12:1-5)

'Under these conditions the first 7 students met at Scott Field early in September 1939; additional classes, usually numbering 10 men, were started every four weeks thereafter. The acute need of the GHQ Air Force for more trained observers led OC/AC to permit the combat arm to send five of its assigned personnel to the course each month. Such requirements as these led to a gradual increase in the size of classes at Scott, until the one entering early in April 1940 numbered 40 men.' (1:18)

'In the spring of 1940, as the demand for enlisted weathermen mounted, it was decided that it would be in best to concentrate all Air Corps training at one place so that training might be more easily standardized and the scope and extent of the training more readily developed to meet the growing need.' (1:18-19)

There other pressures as well. In August 1938, the Inspector General visited the Fairfield Air Depot and noted the poor living conditions of the students of the weather school. (3:1) These condition were described in a letter from BGEN George Brett, Chief of the Materiel Division, to the Chief of the Air Corps. "Enlisted students of the Meteorological School at Fairfield Air Depot are now quartered in an unsanitary garage and in the old Post Hospital building. The latter has eliminated proper medical facilities for the Patterson Field garrison." The letter detailed several other reasons why the school should be moved, including the need to have the headquarters building office space used by the school to support the large personnel increase of the depot. He demanded that the school be moved by March 1940. (13:1)

The letter was answered by Lt. Col. Ira C. Eaker, then the Air Corps Executive Officer. It was apparently doubtful that facilities at Chanute Field would be ready by March. There were also no existing facilities that could be used temporarily at Chanute. He advised that the move would be possible in July 1940, however. (13:1-2)

At this time, the weather service proposed making the observer course a permanent part of enlisted weather training. "In view of the duty hours operative at most Air Corps weather stations, incident to 24-hour service, and the increasing volume of work required with the general expanding of all weather work throughout the country, it appears desirable that, as a general policy, students of the weather observers' school be not obtained from weather stations but from unassigned enlisted men of the Air Corps." (14:1)

The Chief of the Air Corps responded "The facilities at Scott and Patterson Fields are not adequate to properly care for the needs of these courses and in view of the basic functions for which Scott and Patterson Fields were organized, it would be undesirable and unsatisfactory to permanently locate the Weather School at either of these places." (15:1) "Authorization was obtained for the transfer of both the observer course at Scott and the course for forecasters being given at Patterson Field to . . . Chanute Field." (1:19) The move was effective 1 Jun 1940, and to be completed no later than 1 July. The cost of the moving the observer school was \$386.89, the cost for the forecaster's school was \$1644.60! (15:1)

In this way the Weather School made its way to Chanute Field where it remained until 1993. It's first test would be rapid expansion to meet the needs of the Air Corps in World War II. For a brief period, a second observers' school was started at Grand Rapids. In the observers school, the numbers rose steadily from the middle of 1940 to the middle of 1943. During the fiscal year 1941 a total of 374 men were graduated; the fiscal year 1942 saw 1,334 graduates; and during the fiscal year 1943 there was a total of 4,651 graduates. An all-time high was attained during the month of June 1943, when . . . a total of 1,763 men were under instruction. . . . During the six-year period, 1939 to 1944, 8,514 men were graduated. . . ." (1:20)

"Quantitatively, the course in forecaster training paralleled that for observers. . . . In the fiscal year 1937 there were 2 classes with a total of 35 graduates; during 1938, 2 classes with a total of 51 graduates; during

1939, 2 classes with a total of 50 graduates; during 1940, 2 classes with a total of 77 graduates. The fiscal years 1941-43, however, saw tremendous increases: in the former year 258 men were graduated; in 1942, 1,040; and during 1943, 931. Over the 7-year period there were 2,263 graduates." (1:34)

The progress of the weather courses at Chanute AFB have been fairly well documented. The purpose of this paper was to describe its history prior to Chanute. The early history in the Signal Corps at Fort Monmouth, the transfer to the Air Corps, the development of courses at Patterson and Scott Fields, and the transfer to Chanute Field were discussed. The words of Sergeant Edward D. Steel in the Air Corps News Letter, 1 Mar 1938, proved prophetic: "Future years, with the constant research and development of instruments for observation purposes, should serve to strengthen the importance of meteorology not only to the Air Corps, but to the people as a whole." (14:5)

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