Storm Watch

by Rebecca Robbins

In an advanced technological world, there remain a few things man has been unable to control. Acts of God, and foremost among them is the weather, have become rather predictable, though. We may not be able to prevent the rains but we can predict when and where they will fall with amazing accuracy. Just as impressive as the ability to predict is the knowledge that, with the turn of a knob or the push of a button, the weather situation from all over the country, indeed the world, is readily accessible information.

Weather observation and reporting were not undertaken on a truly nationwide basis, though, until the Signal Corps acquired these functions in 1870. The assignment of meteorological duties to the Signal Corps has been described as an "historical accident" because, among other reasons, the application of weather forecasting to military strategy had not been recognized at that time.

Following the Civil War, the general population lost interest in military matters, concentrating instead on business and industrial expansion. Concurrently, a movement for professionalism within the Army, led by Emory Upton, fostered the growth of military schools and professional military journals. To Uptonians, scientific pursuits, such as those of the weather service, had no place in the Army. These prevailing attitudes, within the Army and without, shaped the debate over the Signal Corps' weather service.

Expanding commercial and agricultural enterprises in the post-Civil War era spurred the movement for a nation-wide weather system. Congressman Halbert E. Paine of Wisconsin introduced legislation in 1869 authorizing the Secretary of War "to provide for taking meteorological observations at the military stations and other points in the interior of the continent, and for giving notice on the northern lakes and seaboard of the approach and force of storms." Paine's reason for assigning these duties to the War Department was that "military discipline would probably secure the greatest promptness, regularity, and accuracy in the required observations." Paine's proposal was passed as a joint resolution and signed into law 9 Feb 1870.

General order is issued

The subsequent assignment of meteorological observation to the Signal Corps can largely be attributed to the efforts of BG Albert J. Myer, who recognized the potential of weather observation as a peacetime function for the corps. Myer had previously proposed a plan to the Secretary of War for making weather reports and posting storm signals which had been turned down because of the lack of legislative authority for such activity. Paine's legislation provided this authority. On 15 March 1870, the Adjutant General's Office issued General Orders Number 29, which charged the chief signal officer "with the special duties of the observation and giving notice, by telegraph and signal, of the approach and force of storms. . ." as

The Signal Corps became the nation's first official weathermen in March, 1870

set forth in Paine's resolution. With cooperation from commercial telegraph companies, the first weather reports were transmitted on 1 Nov 1870. The instruction for officers in military signalling was conducted at Fort Whipple, now Fort Myer, VA. As head of the weather service, Myer achieved national renown and earned the nickname "Old Probabilities."

The Signal Corps functions steadily increased. The corps was further assigned to report changes in the depths of the principal western rivers, to construct and operate telegraph lines between lighthouses and lifestations along the east coast, and to build military telegraph lines in the southwest. These new lines were quickly integrated into the weather reporting system. Including newspaper circulation, it was estimated that information from the signal office was reaching one-third of the country's households daily.

But criticism accompanied these expanded efforts. As a result of the decline in its prestige during the Reconstruction era and the collapse of the economy in 1873, Army appropriations were reduced throughout the 1870's. Meanwhile, the Signal Corps budget skyrocketed. From the $15,000 initially recommended by Myer, the appropriation for the observation and report of storms had risen to $355,325 by 1874. In 1876, a sizeable cut was made in the budget, amounting to approximately $115,000, which forced Myer to close several weather stations.

The revelation of the embezzlement of Army funds by CPT Henry Howgate of the Signal Corps considerably damaged the corps' reputation and provided an excellent rationale for further reduction of the budget. Moreover, there was a general debate at the time over the growth of scientific bureaus in government. Finally, in 1884, a joint commission was created to investigate the signal service and several other scientific agencies. The commission was known as the Allison Commission after its chairman, Senator William B. Allison. GEN William B. Hazen, Myer's successor, described to the commission the advantages resulting from the Army's control of the weather service. The military telegraph operators performed ". . . a double duty, that of manning the telegraph service for the military posts, and of furnishing meteorological reports from the most exposed regions." But harsh criticism came from Secretary of War Robert Lincoln, who said that "the Signal Service does no duty whatever of a military nature, except telegraphing at a few posts . . . " He did not believe the Army needed a Signal Corps because signalling duties could be handled by enlisted men at each post.

Votes are split after scandal, budget controversy

Significantly, the commission split evenly on a proposal to establish a civilian weather service. Three members proposed a bill to abolish the Signal Service Bureau, as they called it, effective 1 July 1886, and to establish a civilian Weather Bureau under the

Secretary of War. It was estimated that this change would result in a savings of $100,000 per annum. Despite the commission's lengthy and thorough investigation, though, the only immediate action taken by Congress to affect the Signal Corps was the abandonment of the training program at Fort Myer.

In 1887, GEN Adolphus W. Greely became chief signal officer. He recognized the unfortunate fact that the corps had become preoccupied with meteorological duties, neglecting its original combat duties. Greely feared the officers would "soon become unfitted for practical work under difficult conditions." Finding the quality of personnel deteriorating, Greely felt a reorganization of the officer corps was necessary. His concern for the welfare of the Signal Corps guided his subsequent actions, which determined the fate of the weather service.

Reorganization entangled with Weather Bureau debate

Pressures constantly mounted for the transfer of the weather duties. Agricultural interests wanted the service to be part of the new cabinet-level Department of Agriculture. Even President Benjamin Harrison recommended in his Annual Message of 1889:

> that the weather service be separated from the War Department and established as a bureau in the Department of Agriculture. This will involve an entire reorganization both of the Weather Bureau and of the Signal Corps, making of the first a purely civil organization, of the other a purely military staff corps.

The reorganization of the Signal Corps, which Greely desired, became entangled with the debate over the Weather Bureau. One could not be resolved apart from the other.

It became increasingly apparent that it was only a matter of time before the Signal Corps would cease to have a weather service. But Greely did not view the separation of duties as a loss. Rather, he saw it resulting in "more independence and increased power for the chief signal officer." Accordingly, he advocated legislation providing for a reduction in the size of the Signal Corps and a division of its duties into the meteorological service and the signal service (to include performing signal duties and operating the military telegraph lines). With fewer, more competent officers, Greely felt the corps would function more efficiently.

On 1 Oct 1890, President Harrison signed a bill making the weather service part of the Department of Agriculture. The new civilian Weather Bureau began operation 1 July 1891. It was not until World War I, however, that the importance of military meteorology was recognized and a Meteorological Division of the Signal Corps was set up in France.

Caught in a bind

The Signal Corps had been caught in a technological bind. The development of the telegraph made simultaneous weather reporting and forecasting possible. The Army, in particular the Signal Corps, took on this function as a peacetime activity, although the direct military application was not clear. The introduction into battle of long-range artillery and aircraft did not come soon enough to justify the Army's meteorological function. Massive military operations such as the Normandy invasion, in which the weather played a decisive role, were still far in the future. Despite the loss of the weather service, though, the Signal Corps was not harmed. In fact, it was soon involved in another important development . . . the airplane.

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