

# **ANNUAL REPORT**

OF THE

**SIGNAL OFFICER OF THE ARMY**

TO THE

**SECRETARY OF WAR.**

*Rare Book*  
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*1866*

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**WASHINGTON, D. C.**  
**1866.**

# **National Oceanic and Atmospheric Administration**

## **Annual Report of the Chief Signal Officer, U.S. Army Signal Corps**

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# REPORT.

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OFFICE OF THE SIGNAL OFFICER,  
Washington, D. C., October 20th, 1866. }

HON. E. M. STANTON,  
Secretary of War,  
Washington, D. C.

SIR :

In compliance with the Circular issued from the Adjutant General's Office, of date October 5th, 1866, I have the honor to submit the following report of the operations and expenditures of the Signal Service for the year ending October 20th, 1866.

At the date of my last Annual Report, (October 20th, 1865,) there remained in service, of the Signal Corps, U. S. Army, exclusive of this Office, two detachments: one consisting of nine commissioned officers, two non-commissioned officers, and thirty-five enlisted men, serving in the Military Division of the Mississippi, and operating with the troops upon the Plains; the other, consisting of fifteen commissioned officers, thirteen non-commissioned officers, and eighty-six enlisted men, serving in the Military Division of the Gulf, and operating with the troops in Louisiana, Central Texas, and along the South Western boundary.

Upon November 9th, 1865, Special Orders No. 593, War Department, Adjutant General's Office, were issued, directing the muster out of all officers and enlisted men of the Signal corps then on duty within the Department of Major General G. M. Dodge, commanding in Kansas and the Territories.

By Special Orders No. 90, dated Headquarters, Department of Texas, Galveston, Texas, April 30th, 1866, all the enlisted men of the Signal Corps, serving in said Department, were discharged, and by Special Orders No. 91, Paragraph 4, (afterwards confirmed by the War Department,) dated Headquarters, Department of

Texas, Galveston, Texas, May 1st, 1866, all the commissioned officers of the Signal Corps, serving in said Department, were mustered out. There then remained, exclusive of this Office, but three officers in the Military Division of the Mississippi, and two in the Military Division of the Gulf, and these were mustered out in pursuance of Special Orders No. 262, War Department, Adjutant General's Office, dated June 4th, 1866.

As these various Detachments of the Corps and those which had been mustered out at a prior date, were discharged, the records of them severally were forwarded to this Office, where, during the last year, they have been assorted, filed, or otherwise arranged for preservation and future reference. This with the ordinary duties of the office, has, and will for some time to come, keep employed the limited clerical force allotted to this Department, as it is proposed to put in durable shape the thousands of messages and reports which passed through or emanated from the Corps, and now only exists in loose scraps of paper. These, it is presumed, will yet play an important part in securing for a comprehensive history of the late war much that will throw light upon the details of the same.

#### EXPENDITURES, &c.

Early in March of the present year the collection at this Office of all the unserviceable and surplus Signal Supplies from the several Armies and Military Departments having been concluded, they were disposed of at public auction, that the spirit of General Orders No. 77, War Department, Adjutant General's Office, series of 1865, (for reducing the expenses of the Military establishment,) might be complied with by this branch of the service.

There were expended during the year ending September 30th, 1866, of the sums previously appropriated by Congress for the Signal Service,	\$3,900 15
There were realized from the sales of surplus and unserviceable Signal Supplies, during the same period,	
: : : : : : :	2,455 18

Making an excess of expenses above receipts of : \$1,444 97

The books of the treasury show a balance of appropriations remaining untouched, and still subject to requisition, on September 30th, 1866, of 245,856 49

Balance remaining on deposit, to the credit of the Disbursing Officer of the Signal Department, on September 30th, 1866, : : : : : 6,709 48

Total amount available for Signal Service on September 30th, 1866, : : : : : 252,565 97

No appropriation for Signal Service was requested of last Congress, nor will any be required of this.

Signal operations in the field during the past year, though there was little demand for the same, were prevented by a combination of circumstances growing out of the re-organization of the Army. However, it was proposed and recommended by this Office that certain Signal Surveys be made of the vicinity of all permanent fortifications, and the same mapped for future use; but the authorities not having as yet acted upon said recommendations, we have not been able to enter upon this, a series of operations, to the great prospective value of which, I am convinced, both prudence and reason will bear ample testimony.

Though I have little hope that the tenure of my office will be sufficiently prolonged to enable me to carry into execution the suggestions above referred to, and made in my communication to the Adjutant Genral, of date May 5th, 1866, still I deem it eminently proper, on account of the undoubted advantage that must result from their being carried into effect, to embody the same in this report in order to place them upon record, and thus secure their possible adoption by my successor, whoever he may be. To this end I incorporate the following extract from said communication, to-wit :

“ It has been conclusively demonstrated that great advantage and security are afforded a Military Post in possessing means of communication with a friendly force over the heads of a besieging

enemy, and in as much as many permanent Military Posts will be established in various parts of the country, which will be liable, in the event of future wars, to be besieged and captured, I would recommend it as eminently prudent and important that charts showing Signal lines of communication, radiating in all directions from the several forts, be prepared; one copy of which to be given to the commandant of each fort, and duplicates to be filed in this Office. Should it then at any time become necessary, one or the other of these lines can be, with little delay, occupied by Signalists, and communication opened.

“Were it necessary, in order to bring the advantage of this more forcibly to view, I might instance Allatoona, which was saved by such communication, and Harper’s Ferry, which was lost from the want of it.”

I would also take this opportunity to recommend to the authorities the adoption into our national Military and Naval Schools, as a special branch of study, the Principles of Signals. I do not mean by this simply the acquirements of any special alphabetic code now in use or which may be hereafter adopted. Time so devoted would be misspent. Such knowledge would be forgotten long before any opportunity might be had to put it to practical use. Furthermore, my experience has clearly demonstrated to my judgment, that the introduction into the service, as was recommended some years since, of what was termed a General Service Code, to be used in its *simple form*, would be anything but a benefit, as no simple Code can be contrived which an expert cannot read after a few trials. The mere waving of a flag or torch is certainly, to the inexperienced, very mysterious, and would, at first, seem unintelligible to all save those in possession of the particular Code in use. It was thus accepted at the commencement of the late war, by those most acquainted with our Signal Service. But when opportunity was given to those in the field to see the signals of the enemy, it was made apparent that secrecy was impossible with the Simple Code. The attention of the Signal Officer of the Army having been called to this, ciphers were introduced, and the officers instructed, thenceforth, to send no important messages save in cipher. The Signal Cipher is,

therefore, one of the principal components of safe signalizing, and that alone which gives any peculiar value to the system as now in use in the Army.

The importance connected with all military communication is sufficient to cause it to be regarded in the light of a science. This science is, perhaps, in no manner so well developed or made susceptible of being systematically acquired as in the study of the principles of Signals as now used in our Army. Then let all officers of the Army and Navy be thoroughly instructed in the principles underlying this system of signalizing, and they will never be at a loss for means of communication, under almost all circumstances, in some mode to be understood alone by those for whom the communication may be intended, and this, too, when all ordinary means of communicating are impossible.

The old system of signalizing, in use in the Navy, is very good as far as it goes, but it is too arbitrary and unwieldy. The mobility given to signalizing by the investigations and experiments of A. J. Myer, late Signal Officer of the Army, in connection with the improvements added by the combined experience of the Corps during the late war, is a great advance upon all former systems, and now offers to the government a complete science of the art of secret communication, whether in the manner of day or night visual telegraphing in ordinary secret official transactions, or in communicating from the enemy's camp or citadel.

I have the honor to be, Sir,

Very respectfully,

Your obedient servant,

(Signed,)

B. F. FISHER,

Chief Signal Officer, and Colonel U. S. A.

Through

Brig. General E. D. TOWNSEND,

Assistant Adjutant General,

War Department,

Washington, D. C.