

# ANNUAL REPORT

OF

BRIGADIER GENERAL H. A. GREENE

UNITED STATES ARMY

COMMANDANT

## THE ARMY SERVICE SCHOOLS

FORT LEAVENWORTH, KANSAS

1916



PRESS OF  
THE ARMY SERVICE SCHOOLS



## THE ARMY SERVICE SCHOOLS

FORT LEAVENWORTH, KANSAS

(Headquarters, Eagle Pass District, Eagle Pass, Texas)

*June 21, 1916.*

**From:** The Commandant, Army Service Schools.  
**To:** The Adjutant General, U. S. Army.  
**Subject:** Annual Report for 1916.

1. I served as Commandant of The Army Service Schools from end of period covered by the last annual report until May 17, 1916, when I left them in obedience to par. 26, Special Orders, No. 112, current series, War Department, for "temporary duty" under the Commanding General, Southern Department. In performance of said duty I am now stationed at Eagle Pass, Texas, in command of the Eagle Pass District.

Having little time aside from that necessary for the performance of my present duties and in the absence of memoranda and other records, my report must necessarily be very brief and general in character. Inasmuch as the Assistant Commandant and the heads of the several departments have made full and comprehensive reports a more extended report by me is hardly necessary to enable a clear understanding of the work of the several schools during the year. I heartily concur in their remarks and recommendations.

2. The only radical change during the last year in the scope of work of the schools was the initiation of the Supply Section of the Staff Class. The course pursued was in general that given in prospective outline in last year's report and was ably

conducted by Captain W. K. Naylor, 9th Infantry, to whose report attention is specially invited.

3. The work of the several schools was conducted in a highly satisfactory manner. The instructors were of a very high order of merit and in event of the re-opening of the schools I earnestly recommend that in so far as they may be available or eligible they be re-detailed in the several departments.

I have already covered the above recommendation in a letter to The Adjutant General of the Army, dated May 15, 1916, in connection with a recommendation that the schools be re-opened on September 1, 1916. In my opinion every effort possible should be made to avoid a serious interruption to their regular sessions. A break in the continuity of their operation means a considerable loss of time in getting back to the high standard which they have attained by gradual evolution. Even a short interruption is regrettable, but its effect is minimized by resuming operations with, as far as practicable, the experienced men who were controlling its efforts at the time of the interruption.

I have repeatedly stated my opinion of the potency of these schools as an agency for promoting the efficiency of the army, and just at this time of a material increase in the size of the army and its practical reorganization, the necessity for their output of officers trained for the higher duties of command and of staff duty seems sufficiently great to justify their uninterrupted operation at considerable effort and expense.

4. I wish to renew my recommendations, made in last year's report, with reference to the number of officers detailed to the several schools and to their qualifications as to rank and age. Also as to the

necessity for special appropriations for construction of buildings and quarters to meet the desired increase in number of officers who may be given the benefit of instruction. Specifically, suitable additional quarters should be provided to accommodate about 30 more officers. A new wing for Signal School and other purposes, costing about \$75,000 should be built.

5. A special appropriation of about \$10,000 for laboratory purposes for the Supply Section work seems to be needed very much.

6. The annual allotment should be increased from \$15,000 to \$20,000.

7. The special allotment for the Signal School should be increased to \$6,000.

7. Attention is especially invited to the value of the work gotten out by the Book Department and circulated by means of the Mailing List. This dissemination of professional literature, to the army, National Guard, and to the world generally, is believed to be very beneficial in bringing about increased interest in the military profession and its relation to the general subject of preparedness.

8. I wish to express my appreciation of the earnest, industrious efforts in their several departments of all the officials of the school and of their unswerving loyalty to its interests. Their zeal and patient industry are most highly commendable.

H. A. GREENE,  
*Brigadier General, U. S. Army.*

## THE ARMY SERVICE SCHOOLS

FORT LEAVENWORTH, KANSAS

*June 8, 1916.*

From: The Assistant Commandant.

To: The Commandant.

Subject: Annual Report.

1. Lieutenant Colonel W. A. Holbrook, 8th Cavalry, who had been on duty at these schools as Senior Instructor, Department of Military Art, since September, 1913, and also as Assistant Commandant since September, 1914, was, on account of the requirements of the detached service law, relieved from duty at these schools on April 12, 1916, by paragraph 17, S. O. 75, W.D., March 30, 1916.

Under the provisions of paragraph 4, G. O. 128, W. D. 1911, I succeeded him in the duties of Assistant Commandant.

The work carried on in the Army School of the Line and in the Army Staff College since the relief of Lieut. Colonel Holbrook has been entirely according to the plans and schedules prepared by, and under the direction of that officer, and this report is mainly a record of his labors and of the consequent results.

War Department orders of May 10th directed that the classes then under instruction be graduated and that instructors and student officers, with certain exceptions, join their respective regiments. The termination, due to exigencies of the service, of the courses about one month and a half prior to the time scheduled was unfortunate and is to be regretted.

The schedules of instruction for the course in Army School of the Line and for the Army Staff College were satisfactorily followed to May 10th, inclusive.

THE ARMY SCHOOL OF THE LINE

2. The following officers were graduated May 10th:

*Honor Graduates*

Captain Charles M. Bundel, 16th Infantry,  
Captain Offnere Hope, Coast Artillery Corps.  
Captain Edgar A. Myer, 11th Infantry,  
Captain Ira C. Welborn, 9th Infantry,  
Major William J. Lutz, 9th Infantry.

*Distinguished Graduates*

Captain Christian A. Bach, 14th Cavalry,  
Captain Frank C. Bolles, 3d Infantry,  
Major William D. Davis, 5th Infantry,  
Captain Robert C. Foy, 3d Cavalry,  
Major Melville S. Jarvis, Infantry,  
Captain Rufus E. Longan, 25th Infantry  
Captain Joseph R. McAndrews, 6th Cavalry,  
Captain Perry L. Miles, 14th Infantry,  
Captain John M. Morgan, 12th Cavalry,  
Captain James S. Parker, 4th Cavalry,  
Captain Sherman A. White, 12th Cavalry.

*Graduates*

Captain Edward H. Andres, 18th Infantry,  
Captain Julian L. Dodge, 22d Infantry,  
Captain Moor N. Falls, 28th Infantry,  
Captain Samuel Frankenberger, 1st Field Artillery,  
Captain Paul C. Galleher, 19th Infantry,  
Captain Henry Gibbins, 7th Cavalry,  
Captain Oscar A. McGee, 5th Cavalry.  
Captain Carl A. Martin, 2d Infantry,  
Captain Elliott M. Norton, 20th Infantry,  
Captain Thomas J. Powers, 23d Infantry,  
Captain Lewis S. Ryan, Coast Artillery Corps,  
Captain John R. Thomas, jr., 1st Infantry,

Major Hiram I. Bearss, U. S. Marine Corps,  
Captain Arthur T. Marix, U. S. Marine Corps,  
1st Lieut. Federico de la Vega, Cuban Army.

The following officers started in with this class, but, owing to physical condition, were relieved from duty at these schools:

Captain C. G. Lawrence, 17th Infantry, relieved by par. 3, S. O. 298, W. D., 1915, and left the schools Dec. 30, 1915.

Captain J. D. Taylor, 7th Infantry, relieved by par. 1, S. O. 297, W. D., and left the schools Dec. 28, 1915.

*Died in Post Hospital*

Captain W. F. Nesbitt, 4th Infantry, January 1, 1916.

Before the beginning of the course the Academic Board decided to amend its former ruling not to inform the students of the marks given on their work and in future to give the students an approximate idea of the character of the work done by them. With this view papers submitted were grouped in order of excellence and a letter was assigned to each group from A to E. The letter and not the exact per cent mark was placed upon papers marked and returned to the students. It is believed that the results have been beneficial.

Instruction in sanitation and the care of troops was given by The Army Field Service and Correspondence School for Medical Officers and is covered in the Annual Report of the director of that school.

Instruction in Military Engineering was given by The Army Field Engineer School, and is covered in the Annual Report of the director of that school.

The course of instruction in Law is covered in the Annual Report of the Senior Instructor, Department of Law, which is attached and marked Exhibit A.

THE ARMY STAFF COLLEGE

3. The following officers constituted the Staff Class and were graduated:

- <sup>2</sup> Captain Joseph W. Beacham, 29th Infantry.
- <sup>1</sup> Captain Charles T. Boyd, 10th Cavalry,
- <sup>2</sup> Captain H. La T. Cavenaugh, 10th Cavalry,
- <sup>1</sup> Captain Henry C. Clement, jr., 29th Infantry,
- <sup>1</sup> Captain Clarence M. Condon, Coast Artillery Corps,
- <sup>2</sup> Captain Daniel F. Craig, 4th Field Artillery,
- <sup>1</sup> Captain Lawrence C. Crawford, Coast Artillery Corps.
- <sup>1</sup> Captain Varien D. Dixon, 4th Cavalry,
- <sup>1</sup> Major Otho W. B. Farr, Field Artillery,
- <sup>1</sup> Captain James B. Gowen, 10th Infantry, reported Oct. 14, 1915,
- <sup>1</sup> Captain Roscoe H. Hearn, 9th Infantry,
- <sup>2</sup> Captain George A. Herbst, 14th Infantry,
- <sup>2</sup> Captain Conrad H. Lanza, 5th Field Artillery,
- <sup>1</sup> Captain Robert J. Maxey, 18th Infantry,
- <sup>1</sup> Major William A. Mitchell, Corps of Engineers,
- <sup>2</sup> Captain Frank J. Morrow, 18th Infantry,
- <sup>1</sup> Captain Hu B. Myers, 6th Cavalry,
- <sup>1</sup> Captain Louis M. Nuttman, 4th Infantry,
- <sup>1</sup> Captain Herschel Tupes, 1st Infantry,
- <sup>2</sup> Captain George P. Tyner, 14th Cavalry,
- <sup>1</sup> Captain Kirby Walker, 14th Cavalry,
- <sup>1</sup> Captain Ralph T. Ward, Corps of Engineers,
- <sup>2</sup> Captain Charles C. Winnia, 14th Cavalry.

Captains Boyd, Craig, Gowen, Morrow and Walker are graduates of the School of the Line of 1912; Captain Condon graduated from the School of the Line in 1913; and joined this staff class under the provisions of par. 34, a, G. O. 128, W. D. 1911.

The following members of the Staff Class were relieved from duty at the schools and ordered to join their regiments on the Mexican border:

- Captain Hu B. Myers, 6th Cavalry, May 3, 1916.
- Captain George P. Tyner, 14th Cavalry,
- Captain Kirby Walker, 14th Cavalry,
- Captain Charles C. Winnia, 14th Cavalry, } May 9, 1916

All the members of the Staff Class pursued the compulsory course and, in addition, those marked thus (1) the course in Modern Languages and those marked thus (2) the course in Staff Supply, which latter two are elective courses (par. 35, G. O. 128, W. D., 1911, amended by G. O. 29, W. D., 1915).

Instruction in the care of troops was given by The Army Field Service and Correspondence School for Medical Officers and is covered in the Annual Report of the director of that school.

Instruction in Military Engineering was given by The Army Field Engineer School and is covered in the Annual Report of the director of that school.

The course of instruction in Military Law is covered in the Annual Report of the senior instructor, Department of Law, which is attached and marked Exhibit A.

The course of instruction in Modern Languages is covered in the Annual Report of the senior instructor, Department of Languages, which is attached and marked Exhibit B.

For the first time in the history of these schools there has been conducted a regular course in the Department of Staff Supply. By War Department orders, upon the recommendation of the Academic Board, the Staff Class courses are divided into two groups -- compulsory (comprising the departments of Military Art, Military Engineering and Military Law), and elective (comprising the departments of Modern Languages and Staff Supply).

A course in the duties of Staff Supply had been recommended from time to time in the past, though perhaps not always on the lines followed in the present course.

While the graduating of only 8 student officers, who were permitted to take this course, may be a small beginning, it is a start, nevertheless, and it is

believed that the course fills a former void in the schedule of training for the higher duties of staff and command.

It is hoped that it may soon be possible to assign a greater number of student officers to pursue this course.

The duty of organizing and conducting this course was assigned to Captain W. K. Naylor, 9th Infantry, one of the instructors in the Department of Military Art, in addition to other duties which devolved upon this officer. It was fortunate, indeed, to have so able and competent an officer as Captain Naylor to take hold of this work at this time. Great credit is due him for the decided success achieved.

His report concerning the operations of the Department of Staff Supply is attached and marked Exhibit C.

#### SPECIAL CLASS FOR FIELD OFFICERS

4. The following officers constituted this class:

Colonel S. E. Allen, Coast Artillery Corps,  
Colonel F. B. Jones, 7th Infantry,  
Colonel D. E. McCarthy, Q. M. Corps,  
Lieut. Colonel E. F. McGlachlin, jr., 5th Field Artillery,  
Lieut. Colonel Herbert Deakyne, Corps of Engineers,  
Lieut. Colonel C. C. Ballou, 24th Infantry,  
Lieut. Colonel T. B. Lamoreux, Coast Artillery Corps,  
Lieut. Colonel A. W. Catlin, U. S. Marine Corps,  
Lieut. Colonel Edward Olmstead, New York National  
Guard,  
Major C. H. Martin, 18th Infantry,  
Major Samuel Burkhardt, jr., 19th Infantry,  
Major H. T. Ferguson, 30th Infantry,  
Major J. J. Hornbrook, 6th Cavalry,  
Major L. J. Fleming, Cavalry,  
Major W. J. Glasgow, 5th Cavalry,  
Major J. H. Parker, 24th Infantry.

Majors Fleming and Glasgow were relieved from duty at the schools March 24, 1916. Major C. H.

Martin was relieved from duty at the schools March 20, 1916.

The course extended from January 5, 1916 to March 30, 1916, and embraced map problems, tactical rides and terrain exercises, exercises in troop leading, conferences and lectures.

The course was satisfactorily completed. It is believed that this course is of much benefit to the students in particular and to the service in general, and it is the opinion that it should continue for several years more.

The recommendations of last year, that field officers under 43 years of age should enter the School of the Line rather than the Special Class, and that no officer over 60 years of age be sent here except upon his own request, are renewed.

#### THE DEPARTMENT OF MILITARY ART

##### 5. (a) *Instructor Personnel:*

The school year opened with the following instructor personnel:

##### *Senior Instructor*

Lieut. Colonel W. A. Holbrook, Cavalry.

##### *Instructors*

Major N. F. McClure, 5th Cavalry,  
Captain E. D. Scott, Field Artillery,  
Captain LeRoy Eltinge, 8th Cavalry,  
Captain H. B. Fiske, 28th Infantry,  
Captain W. K. Naylor, 9th Infantry,  
Captain Willey Howell, 4th Infantry,  
Captain A. L. Conger, 26th Infantry,  
Captain Stuart Heintzelman, 6th Cavalry,  
Captain H. A. Drum, 23d Infantry,  
Captain C. W. Weeks, 28th Infantry,  
1st Lieut. H. E. Mann, 5th Cavalry,  
Veterinarian Robert Vans Agnew, 5th Cavalry.

The following were detailed during the year:

Captain A. W. Bjornstad, 16th Infantry, joined Sept. 28, 1915.

Captain Campbell King, 7th Infantry, joined Dec. 18, 1915.

Captain Ben Lear, jr., 8th Cavalry, joined April 29, 1916.

The following were relieved during the year:

Lieut. Colonel W. A. Holbrook, 8th Cavalry, April 12, 1916.

Major N. F. McClure, 5th Cavalry, March 24, 1916.

Captain C. Weeks, 28th Infantry, March 19, 1916.

1st Lieut. H. E. Mann, 5th Cavalry, March 24, 1916.

At the beginning of November Captain Willey Howell was transferred as instructor to the Department of Law. From March 23d to May 10th Captains L. M. Nuttman, 4th Infantry, and Conrad H. Lanza, 5th Field Artillery, members of the Staff Class, were on duty as assistant instructors. From April 13, 1916, to the end of the school year Captain E. D. Scott, filled the office of Senior Instructor.

The work of the instructors has been uniformly excellent, and whatever good results have been obtained in the year's work were made possible by their earnest devotion to their work. The zeal shown and the loyal support given by them to this department merit unstinted praise.

Under the requirements of the detached service law, Lieut. Colonel W. A. Holbrook and Captain C. W. Weeks, had, unfortunately, to be relieved before the closing of the schools. Colonel Holbrook, as senior instructor of this department, had its work so well planned and arranged that the courses suffered no interruption. Captain E. D. Scott, Field Artillery, efficiently performed the duties of senior instructor since the relief of Lieut. Colonel Holbrook.

It is hoped that the work of the schools will again be taken up next September. The advantage, even necessity, of having returned here, on re-opening, as many as possible of the instructors on duty at the schools in the past year, is quite evident. It is recommended that efforts to that effect be made.

(b) *Changes in the Courses of Study:*

No radical changes have been made in the courses of study nor in the method of instruction. Minor changes, dictated by experience, and marking the continued progress of the schools, are constantly taking place.

In the School of the Line course 10 exercises in verbal and dictated orders and 12 discussions of map problems have been added.

A revision of "Troop Leading Problems" by Fiske, written in 1912, is expected to come off the Service Schools Press in the early summer and will take the place in next year's course of the former mimeographed edition.

It is also contemplated in next year's course to have 6 conferences in Minor Tactics, using therefor "Studies in Minor Tactics," Army Service Schools, 1915.

The changes made in the Staff College course relating to the course in Historical Research, and which were indicated in the last Annual Report, have been found to work an improvement of the course.

(c) *American Textbooks:*

There continues to exist a general demand for American textbooks to replace those of foreign origin. Efforts on the part of this department to meet this demand have been continuous through-

out the year. The progress is necessarily slow and the handicaps are many.

The following books and pamphlets were printed here during 1915:

- "Studies in Minor Tactics, 1915"—Army Service Schools.
- "Divisional Outposts"—Conger and Eltinge.
- "The German Army"—Captain Bjornstad.
- "The Swiss Army"—Captain Howell.
- "Balkan Wars"—Major Ford.
- "Lectures on Cavalry"—Captain Hayne.
- "Sample Map Maneuvers"—Army Service Schools.
- "Manual of Cipher Codes"—Captain Hitt.
- "Preparing Tactical Problems"—Captain Conger.
- "Notes on the Solution of Tactical Problems"—Captain Fiske.

The following are in press and will be available about July 1st:

- "Studies in Minor Tactics"—2d revised edition. (So great has been the demand for this book that the 1st edition of 10,000 copies is almost exhausted).
- "Troop Leading"—Captain Fiske.
- "Minor Problems for Infantry"—Captain Bjornstad.

The production of American textbooks on the art and science of war and their use at these schools, and throughout the country, should be encouraged and facilitated wherever possible. The experiences of the present European conflict will doubtlessly necessitate a revision of many of the present military textbooks. This would therefore seem to be a favorable time for this country to abandon its reliance in this respect upon foreign productions. That this country possesses the requisite talent for such a task admits of no doubt.

CHARLES MILLER,  
*Major of Infantry,*  
*Assistant Commandant.*

Exhibit B. Report of Senior Instructor, Department of Languages.

Exhibit C. Report of Instructor, Department of Staff Supply.

EXHIBIT A

DEPARTMENT OF LAW  
FORT LEAVENWORTH, KANSAS

*May 27, 1916.*

From: The Senior Instructor, Department of Law,  
The Army Service Schools.  
To: The Commandant, The Army Service  
Schools.  
Subject: Report of operations, Department of Law,  
for the school year 1915-16.

1. I reported for duty at these schools on August 10, 1915, to take the place of Lieut. Colonel John Biddle Porter, whose untimely death in June had left this Department without a head. The Assistant Instructor had been relieved prior to Colonel Porter's death and did not return after that time.

2. The work of the Department of Law for this year was scheduled to begin September 1st, about two months earlier than formerly, and comprised, in addition to the course of last year, an entirely new course, Staff Supply, which trebled the work thrown on this department for the Staff Class.

3. The course of the School of the Line was divided into four periods covering the following subjects: (1) (a) Elements of Law, and (b) Army Contracts. (2) Criminal Law. (3) Law of Evidence, and (4) Laws of Land Warfare. This course was practically the same as for the previous year, with the addition of the last cited subject.

A recommendation has already been made with a view to a change in this course that will devote the

time assigned, with practical elimination of text-books, to lectures and conferences on and practical exercises in Administrative and Fiscal Law, including Army Contracts, Martial Law and Military Government. The idea of the change is to cover the field of difficulties, without devoting too much time to an abstract study of law, that commanding and staff officers will encounter in army posts, at headquarters, on the march, maneuvers, in permanent and temporary camps, in the transportation of troops, animals and supplies by rail and water, on border duty, during campaigns, and in military occupation of foreign country. The course as outlined should provide an Administrative Manual for Peace and War, that would familiarize officers with such duties as arise in the acquisition of lands by purchase or condemnation, in the creation or extinguishment of servitudes, as to leases, licenses and permits, the abatement of nuisances, making and carrying out contracts for the construction of buildings, regular and emergency purchase of supplies, apparent conflicts of authority in the administration of state and national quarantine regulations, in the observance of the eight-hour law, and as to the various other subjects that obviously suggest themselves in the progression from post duties to those connected with military occupation. It has been my observation that law learned from a careful and well-reasoned solution of practical difficulties is much less readily forgotten than that which comes from abstract study. It is my opinion, moreover, that it is the only practical means of instruction for men of more than forty years of age, about the average of the student officers of the line and staff at these schools.

It is believed that all of the 51 half-days assigned to the Line Class in this department might well be wholly consumed in the studies just outlined. While

it is not intended to depreciate the value of the study of Criminal Law and the Law of Evidence, it is believed that, if more time cannot be assigned for the course in law, Criminal Law and the Law of Evidence should give way entirely for Administrative and Fiscal Law.

4. The course in Staff Supply, taken by that part of the Staff Class not designated for the study of languages, consisted of eight lectures on Administrative and Fiscal Law, the Use of Law Books, and the Interpretation of Statutes, and the solution and discussion of practical problems along the lines indicated above in the recommended change of course for the Line Class.

If the change of course for the Line Class should be made as recommended, then the course for the Staff Class two years hence might consist of the practical solution of more advanced problems along the same line.

5. The course of the Staff Class as a whole consisted of lectures and conferences on the Rules of Land Warfare and Military Government, and the solution and discussion of problems in these subjects.

6. The special course for Field Officers consisted of six lectures and conferences on the subjects of Land Warfare and Military Government.

7. I was without an assistant until early in November when Captain Willey Howell was loaned to this department for such time as he could be spared from his duties in the Department of Military Art to which he was regularly assigned. He has been most industrious and efficient.

BLANTON WINSHIP,  
*Major, Judge Advocate.*

**EXHIBIT B**

**DEPARTMENT OF MODERN LANGUAGES  
THE ARMY STAFF COLLEGE**

*Fort Leavenworth, Kansas, May 15, 1916.*

**From:** Senior Instructor, Department of Languages.  
**To:** Assistant Commandant.  
**Subject:** Annual Report.

Fifteen members of the Staff Class pursued the course in foreign languages, the remaining eight taking the course in "Staff Supply."

1. *Object of the Course:*

This is stated in paragraph 35, IV, General Orders No. 128, War Department, 1911, as follows:

"The course of instruction in languages will be elective for the student officer and will comprise instruction in French, German, Spanish, or any other foreign language in which it may be practicable to give instruction. \* \* \* The course in each language will comprise instruction in reading, writing and speaking, with a special view of acquiring a conversational knowledge of the language."

2. *Allotment of Time:*

One hundred and sixty-four half-days were allotted to this department. These were distributed over the entire length of the course. The length of each conference was one and one-half hours. War Department orders of May 10th terminated the course with the 140th conference.

3. *Textbooks:*

Prior to the beginning of the course the War Department, on the recommendation of the Academic

Board, had authorized the use of the Spanish Grammar by Olmsted and Gordon (1912) in place of that by Monsanto & Languellier, and of the Elementary French Grammar by Olmsted in place of that by Aldrich & Foster. Both books were found satisfactory. In the review of "Elementary French" Méras and Stern's "Grammaire Francaise" was used with satisfactory results. In the review of "Elementary German" the "Practical Exercises," prepared by 1st Lieut. Walter Krueger, 3d Inf., were used. This was found to add much to the practical value of the course.

4. *The language courses:*

(a) The French course—1st Lieut. Aristides Moreno, 28th Inf., Instructor.

Three students pursued this course:

Major O. W. B. Farr, Field Artillery,  
Major W. A. Mitchell, Corps of Engineers,  
Captain H. C. Clement, jr., 29th Infantry.

(b) The German course—1st Lieut. Henry Hossfeld, 3d Inf., Instructor.

Three students pursued this course:

Captain Herschel Tupes, 1st Infantry,  
Captain C. T. Boyd, 10th Cavalry,  
Captain James B. Gowen, 10th Infantry.

(c) The Spanish course—2d Lieut. Thom Catron, 23d Infantry, Instructor.

Nine students pursued this course:

*First Section*

Captain V. D. Dixon, 4th Cavalry,  
Captain R. J. Maxey, 18th Inf., from Nov. 1, 1915.  
Captain H. B. Myers, 6th Cavalry.  
Captain L. M. Nuttman, 4th Infantry.  
Captain Kirby Walker, 14th Cavalry.  
Captain R. T. Ward, Corps of Engineers.

*Second Section*

Captain C. M. Condon, C. A. C.

Captain L. C. Crawford, C. A. C.

Captain R. H. Hearn, 9th Infantry.

Captain R. J. Maxey, 18th Inf., to Nov. 1, 1915.

The progress made and the results accomplished were, considering the shortness of the course, satisfactory, especially good work being done by the 1st section in Spanish, the members of which section possessed considerable knowledge of that language at the beginning of the course. The best students in the French and German courses also did noticeably good work and made excellent progress.

Captain Myers was relieved from duty at these schools by par. 29, S. O. 99, W. D., 1916, and left May 3, 1916.

Captain Walker was similarly relieved by par. 8, S. O. 107, W. D. 1916, and left May 9, 1916.

The course was terminated on May 10th by orders from the War Department. It is to be regretted that the course could not be completed as the latter portion of the language course is especially valuable to the student.

5. *Instructors:*

There has been no change of instructors in this department during the term. The very satisfactory results obtained are largely due to the exceptional qualifications for the work possessed by the assistant instructors, and to their untiring devotion to the work.

Lieutenant Hossfeld compiled a partial vocabulary to "Der Kleine Deutsche," one of the books used in the German course, which has been printed. Should these schools open again next fall, it would be necessary to obtain the detail of new instructors in French, German and Spanish. Lieutenants

Moreno and Catron will not be eligible for further detail owing to the requirements of the detached service law. Lieutenant Hossfeld, after a service of 5½ months with troops, will again be eligible under the detached service law, for a further detail of two years. As experience has shown that instructors do their best work after one or two years of instruction, it will be to the advantage of these schools to have Lieutenant Hossfeld returned for two more years should the schools reopen in the fall.

CHARLES MILLER,  
*Major of Infantry,*  
*Senior Instructor.*

EXHIBIT C

---

DEPARTMENT OF STAFF SUPPLY  
THE ARMY STAFF COLLEGE  
FORT LEAVENWORTH, KANSAS

(Camp U. S. Troops, Laredo, Texas)

*May 18, 1916.*

From: The Instructor.  
To: The Assistant Commandant, The Army  
Service Schools.  
Subject: Report on the operations of the Department of Staff Supply, year 1915-16.

The Department was placed under my charge by the Commandant before the commencement of the academic year, and I was directed to arrange the schedule. I was informed that I could call upon the other departments for assistance; I did, and received a great deal.

I wish at this time to express my appreciation for this assistance, particularly that given by Majors L. D. Wildman, Signal Corps, and Blanton Winship, Judge Advocate's Department. There being very little data available of how a department of this kind should be run, I finally decided that the object of the course should be, to instruct prospective General Staff Officers in their duties as members of the administrative section, particularly in questions of supply, oversea, rail, river, gas and electric transport, so that they could give intelligent aid to their chiefs, and not compel the latter to rely solely upon the commercial world for advice.

The course started with a series of conferences and practical problems in administrative law, law pertaining to exploitation of the zone of the advance and the home country, to common carriers, to condemnations, to contributions, etc. This part of the course was of great benefit, which became more noticeable as the conclusion of the course was approached.

Contemporaneously with this course, we studied the supply systems of the foreign armies, with a view of taking from them what might be of benefit to us, paying particular attention to the present European War.

A series of problems was run through the early part of the year, which will be published by the schools. The series is not complete, as the interruption of the course, by the breaking up of the schools, prevented proper proof reading of some of the later problems.

Six of the problems will be embodied in a pamphlet called a "Study in Staff Supply."

The series takes up the establishment of a brigade cantonment and camp, with all the details of construction as to design of buildings, method of heating and lighting, water supply, trackage most suited, operating force, etc. The next problem takes up the question of the proper equipment for this brigade; the next, its transportation to a sea-port town, with a view of embarking on an oversea expedition. This last problem takes up questions such as routing of trains, transportation necessary, entraining and loading schedules, etc.

The various railroad people gave great assistance by furnishing printed matter and answers to questions.

The next problem takes up the question of chartering suitable transports. In this problem we

discussed at length designs of ships, etc. The remaining problems take up questions of loading, and embarking of all kinds; and the last problem the tactics of the descent on a hostile coast, paying particular attention to what the supply officer would be expected to do. Not all the matters discussed in the conferences appear in the problems, only sufficient to indicate what we tried to do. A series of problems on the military railroad, its control and operation were given, also a series of problems on the exploitation of a particular section of our country for supplies and the best methods to be used in so doing.

Each student was required to prepare a monograph on the terminal facilities of a certain principal railroad center in the United States. In these monographs we communicated extensively with the railroad authorities with great result. We accumulated so much data that we were able to start a military railroad map of the United States with the assistance of the Engineering Department and the Secretary. When this map is completed it will be invaluable not only in time of war, but in time of peace. M. S. E. Howry, of the Engineering Department, is doing the hard work of drafting all data.

In our study of railroading we made a trip of two days to Kansas City, Mo.; as the guests of the Missouri Pacific Terminal Company. All the officials gave us their time, and great benefit was derived by both the instructors and students. It seems unfair that the officers should be forced to bear a part of the expenses of such trips themselves.

Major L. D. Wildman took up the propositions of mechanical transport in general. We studied the various types of motor cars, gas engines, etc.

Major Wildman succeeded in getting expert demonstrators to come to the school at their own

expense, and give lectures and demonstrate cars. He accumulated thousands of pages of data on these lines. An expert on pumps came out to explain the systems of water supply best suited for camps in various localities. This was virtually done at no expense to the Government. In this connection in particular and for all other branches of the Department, I suggest that a fund be appropriated sufficiently large to enable us to carry on this most beneficial work without being more or less the object of the generosity of our friends.

Major M. A. W. Shockley, M. C., conducted a course in medical transportation, evacuation of the wounded, proper balanced ration and how to obtain it, hospital ships, etc.

Captain E. D. Scott, F. A., gave a number of problems in the supply of ammunition in the zone of the advance, and the Chief of Ordnance sent an expert to lecture to us on the subject in general. The Bureau of Explosives also sent an expert to lecture to us on the shipment of explosives, at no expense to the Schools. The Quartermaster General of the Army also sent an expert to conduct conferences on subjects pertaining to his department.

The problem that was being worked when the School closed was the laying out of a division camp on the Fort Leavenworth reservation, and the detailed arrangements for shipping the Division to Galveston, Texas.

The contents of the above report will give an idea of the scope of the work.

#### RECOMMENDATIONS

1. Reference has been made earlier in this report to the necessity for having a liberal allotment of funds to conduct the work so that we can take full advantage of the many opportunities for making

visits, buying books and papers, and for the establishment of a laboratory.

2. The officer in charge of the Department should have a competent clerk for his exclusive use.

3. More officers should be allowed to take this course, extending the privilege, if necessary, to officers who failed to make the Staff Class.

In closing I wish to express my appreciation for the support and encouragement afforded me by the Commandant, Brigadier General H. A. Greene, and his Secretary, Captain A. M. Ferguson, 14th Infantry. This support and encouragement made the work a pleasure.

W. K. NAYLOR,  
*Captain, 9th Infantry.*

## REPORT OF SECRETARY AND DISBURSING OFFICER

*June 30, 1916.*

From: The Secretary, Army Service Schools.  
To: The Commandant, Army Service Schools.  
Subject: Annual Report.

1. The following report is submitted for the year 1915-16. The annual allotment of \$15,000 has been disbursed as follows:

Pay of translator, at \$100 per month .....	\$1,176.67
Purchase of office furniture, stationery, apparatus and various supplies for blue-printing, photographic, and laboratory purposes; purchase and repair of instruments; office, library and lecture room equipment; printing-shop equipment, and other miscellaneous supplies .....	11,749.80
Purchase of books and periodicals .....	507.93
Telephone service; printing and binding ...	1,548.95
Transportation of persons .....	16.65
	<hr/>
	\$15,000.00

As mentioned in last year's report the present allotment is not sufficient for the needs of the schools. With their progress and development comes greater needs and demands. The allotment should be increased to at least \$20,000.

2. Mr. J. W. Healey, chief clerk of these schools since their reestablishment after the Spanish-American war, through ill health has been obliged to sever his connections with the schools. The schools and the service owe a debt of gratitude to Mr. Healey for his long and faithful service in a trying position. His position has been filled by the promotion and

assignment of Mr. Seth C. Williams, who has been on duty at the schools for the past nine years, and who is most thoroughly competent to fill the position.

3. The excellent work of the Army Service Schools Detachment, white, continues. In the various departments and shops the work has been very heavy throughout the year. The book department, printing office, bookbindery, photographic, lithographic and drafting rooms have been rushed to full capacity during the entire year and the work is constantly increasing. With the increase in the Army and National Guard will come an increase in the demands made upon these schools. The interest aroused throughout the country during the past year in the question of "National Defence" has been felt in a marked degree by this office. The various publications of the schools upon matters of military interest have been in great demand and at times we have been hard put to supply them. Correspondence, from all over the country, on matters of military interest, has increased many fold.

4. The mailing list has had a very successful year. This list numbers 4,033 members, an increase of about 350 during the year.

A. M. FERGUSON,  
*Captain, 14th Infantry.*

## REPORT OF LIBRARIAN

*May 15, 1916.*

From: The Librarian, Army Service Schools.  
 To: The Secretary, Army Service Schools.  
 Subject: Annual Report.

1. The following tabulation shows the number of books on hand at the commencement of the present fiscal year, the accessions on account of purchase, donations, periodicals bound, etc., and the number on hand at this date:

	<i>Vols.</i>
On hand last report, June 30, 1915.....	28,336
<b>ACCESSIONS:</b>	
Public Documents .....	24
From War College Division, G. S. ....	336
From Bindery (service periodicals) .....	319
By Purchase .....	79
By Donation .....	530
Total .....	1,288
Dropped (obsolete publications and books not worth rebinding) .....	854
On hand, May 15, 1916 .....	28,770

**LIST OF DONATORS:**

Captain L. M. Adams, U. S. Army .....	128 vols.
Veterinarian R. Vans Agnew, U. S. Army .....	1 "
Mr. Bion J. Arnold, Chicago .....	2 "
Book Department, Army Service Schools .....	1 "
Captain C. deF. Chandler, U. S. Army .....	3 "
Chemical Rubber Company, Cleveland .....	1 "
Captain J. L. Dodge, U. S. Army .....	1 "
Colonel G. H. H. Gale, U. S. Army .....	1 "
General H. A. Greene, U. S. Army .....	130 "
Kansas State Historical Society .....	2 "
Mrs. R. C. Langdon .....	1 "
Captain W. K. Naylor, U. S. Army .....	3 "
Mr. O. W. Norton .....	1 "

Mr. W. M. Polk .....	2	“
Mrs. John Biddle Porter .....	106	“
Captain J. K. Shellenberger .....	2	“
Colonel C. W. Taylor, U. S. Army .....	128	“
Mr. Slason Thompson .....	1	“
U. S. Cavalry Association .....	15	“
General Leonard Wood, U. S. Army .....	1	“

Total .....	530 vols.
-------------	-----------

Number of books loaned out during year (10 months)	2,625
--	-------

2. The new library building was completed in December last at a total cost of \$54,072.42, nearly \$6,000 less than the amount appropriated for the same.

It is a solid, substantial, fireproof and impressive building that fills a long felt want. It not only gives the much needed additional room in the main college building, but more particularly does it furnish the required additional shelving for this ever growing and most important adjunct of the Service Schools. But above all, our valuable collection of books is now housed in a fireproof structure.

Furthermore, the long needed facilities for the work of the Staff Class in original research is now amply provided for by study rooms in close proximity to the books required in this work.

3. Master Signal Electrician Harry Bell, retired, performed his duties as principal assistant in the Library in the same conscientious and intelligent manner as has been heretofore reported for the last several years, until his retirement on July 6, 1915. Since that date he has been employed as translator under the Act of Congress of March 4, 1915, and in that capacity has rendered valuable service.

4. Regimental Sergeant Major James B. Rousseau has performed his duty as assistant librarian with the same faithful and intelligent manner as heretofore.

EZRA B. FULLER.

*Lieut-Colonel, U. S. Army, retired.*

## ARMY FIELD ENGINEER SCHOOL

*May 16, 1916.*

From: The Director, Army Field Engineer School.  
To: The Commandant, Army Service Schools,  
Subject: Annual Report.

1. The purpose of the Army Field Engineer School, as set forth in paragraph 47, General Orders 128, War Department, 1911, is two-fold:

(a) The instruction of officers of the Corps of Engineers, and of engineer officers of the Organized Militia, in their military duties.

(b) To furnish such instruction in Military Engineering as the schedules of the other Schools comprised in The Army Service Schools may call for.

2. In addition to the undersigned the following officers have been on duty during the entire school year as instructors in this School.

Major M. C. Tyler, Corps of Engineers,  
Captain L. M. Adams, Corps of Engineers.

3. The following officers have been under instruction during the year just closed.

Major W. T. Hannum, Corps of Engineers,  
Captain D. C. Jones, Corps of Engineers,  
Captain E. L. Daley, Corps of Engineers,  
Captain L. H. Watkins, Corps of Engineers.

All of these officers were graduated on May 10, 1916, as Honor Graduates.

In addition to these officers the course in the Army Field Engineer School was successfully pursued by Mr. Waan Wai Lau, of China, by special permission of the War Department. Mr. Lau re-

ceived a diploma as a graduate of the Army Field Engineer School.

4. Under the provisions of par. 34, c. G. O. 128, War Department, 1911, there may be detailed annually by the War Department upon the recommendation of the Academic Board, approved by the Commandant, not to exceed two graduates of the Army Field Engineer School, who may so desire, to receive instruction in the Army Staff College. To become eligible for such detail, graduates of the Army Field Engineer School must attain a percentage in the course in Military Art as high as the student officer graduating No. 18 in that course of the Army School of the Line.

This year, all four of the Engineer officers attending the Army Field Engineer School qualified, so far as standing is concerned, to take the Staff Class Course, all having attained a percentage in the course in Military Art higher than the student officer graduating No. 1 in that course of the Army School of the Line.

All of these officers desire to take the course in the Army Staff College.

In view of the high standing made by these four officers, and of the fact that on account of the small size of the Line Class this year, but 16 officers were recommended to take the Staff Class Course next year, I would recommend that authority be asked to permit all four of the honor graduates of the Army Field Engineer School this year to enter the next Staff Class.

5. The Course in Military Engineering for the Army School of the Line has comprised, for the last several years, 110 half-days devoted to military sketching and surveying, and to field fortifications. During the year just closed the instruction

was carried on along the lines already developed at the Schools, only minor changes in the order of work being made. On account of the early closing of the Schools, but 75 out of the 110 half-days' work were completed.

6. The course in Military Engineering for the Staff Class has for the last three years comprised 55 half-days and 10 lectures. The general character of the course has not changed during the last three years. By authority of the Commandant three of the lectures were omitted from the course during the year just closed. For the coming year schedules have been drawn to give 6 lectures in Engineering and Fortification.

On account of the early closing of the Schools but 43 out of the 55 half-days' work were completed this year.

7. For the Special Class for Field Officers a short review of map reading and field fortifications was made in 7 half-days and three lectures.

8. The work of the map reproducing department, which is under my supervision, has gone on increasing in volume and importance.

During the period from July 1, 1915, to date the following work has been accomplished in the several departments:

DRAFTING DEPARTMENT

Field work filling in enlarged Geological Map to scale of 6"=1 mile on extension of Gettysburg-Antietam War Game Map in States of West Virginia and Maryland, 2 parties for the month of July and August, 1915. Area covered about 270 square miles=(6 War Game Rectangles).

Tracings made of the above 6 Rectangles 36"x45" each.	
Other tracings made .....	85
Made original drawings, such as charts, etc., for different departments .....	43

Tracing of enlarged French General Staff Map in the vicinity of Verdun scale 3"=1 mile in ten sheets 19"x30", area about 768 square miles.

Compiling and adjusting 3 different European War Zone Maps.

Compiling and adjusting General Map of Mexico.

Making 360 paper negatives and 360 black line prints of enlarged Geological Maps (3"=1 mile) for the Department of the East.

Other blue and black prints made about (8,450 square yards) 4,240 prints.

Worked on railroad map to a scale of  $\frac{1}{750000}$  of the United States, Canada and Northern Mexico, in 28 sheets 40"x48". This map will show the different Railroad systems in different colors and number of tracks in conventional signs. Total size of map 16'x24'. Seven sheets of the eastern section have been completed.

Made wood model and drawings for interchangeable relief map, scale 24"=1 mile in 8 blocks 2'x2' each.

#### LITHOGRAPHIC DEPARTMENT

Total number of impressions made of all colors, June 25, 1915 to May 15, 1916 .....	116,327
---	---------

#### PHOTOGRAPHIC DEPARTMENT

Wet plates (over 11x14) .....	310
"    "    (over 11x14 and 8x10) .....	72
Dry plates, various sizes .....	730
Prints, photographic .....	825
Bromide enlargements 16x20 and larger .....	860
Lantern slides, negative .....	340
Lantern slides .....	340

#### INSTRUMENT ROOM

Sketching Boards, made for School .....	50
"    "    "    "    Book Department .....	125
Alidades, made for School .....	50
"    "    "    Book Department .....	3,000

The entire instrument equipment used in the topographical work of the Schools and the clocks in the School buildings have been kept in repair.

S. A. CHENEY,  
*Major, Corps of Engineers.*

FIELD SERVICE AND CORRESPONDENCE  
SCHOOL FOR MEDICAL OFFICERS

*May 15, 1916.*

From: Director, Department Care of Troops,  
Army Service Schools.

To: Secretary, Army Service Schools.

Subject: Report of Instruction, Session 1915-16.

1. Following the program adopted by the Academic Board, instruction was given during the session 1915-16, by the Director of this School, as follows:

ARMY SCHOOL OF THE LINE

Eight lectures covering the organization and management of the Sanitary Service, Military Hygiene, and Care of Troops, with one Map Problem relating to management of the Sanitary Service.

The interest and understanding shown by the class in these subjects was satisfactory.

THE ARMY STAFF COLLEGE

Eight lectures covering advanced work in organization and management of the Sanitary Service, Military Hygiene, and Care of Troops, with one Map Problem, were given.

SUPPLY SECTION, ARMY STAFF COLLEGE

The programme of instruction prescribed eight lectures and conferences, with one problem relating to transportation and supply for the Sanitary Service; owing to the closure of the Army Service Schools, May, 1916, instruction could be given to the extent of only five lectures.

The results of the instruction of the Army Staff College have been satisfactory.

#### SPECIAL CLASS FOR FIELD OFFICERS

Four lectures and one problem were given relating to management of the Sanitary Service, in which the class showed marked interest and profit.

#### CORRESPONDENCE COURSE FOR OFFICERS OF THE MEDICAL CORPS, U. S. ARMY

The second session of the four years course, inaugurated last year, began January 1, 1916, with 35 participating from last year, and 33 new names added this year, giving a total of 68 participants.

Five problems covering organization and management of the Sanitary Service, arranged as to subjects, with the intent to make the course progressive throughout the entire four years, were sent out January 10, 1916. The solutions are not required to be returned prior to June 1, 1916. It is not possible, at this time, to determine the progress made. From such solutions as have been received it would seem that the officers participating in this course show high interest and gratifying diligence and understanding of the work.

#### THE CORRESPONDENCE COURSE FOR OFFICERS OF THE MEDICAL RESERVE CORPS

By direction of the Secretary of War, a correspondence course for officers of the Medical Reserve Corps was begun by this office September 25, 1915.

This course contemplated instruction by sending out papers and problems, requiring written answers and solutions, together with bulletins covering discussions of various subjects over a course of four years; the sessions covering a period from October

1st, to May 31st, of each year. In these sessions the various service manuals, Organization of the Army and Sanitary Service, Military Hygiene, Map Reading, etc., are covered by papers and problems.

During the 1915-16 session 682 officers (inactive list) have signified their intention; 437 participated and 125 withdrew, usually on account of stated inability to devote the time required to the work. 120 have not submitted replies. 72 officers (active list) participated.

As the course will not be closed until May 21st, the final result of the work cannot be determined.

During the present session of the course, ten correspondence papers, with three bulletins, have been sent out to each of the 509 correspondents (active and inactive list), and 3,743 papers have been corrected and returned to date.

Owing to the necessity of much work in correcting the correspondence papers, Captain George P. Peed, M. C., U. S. Army, and Captain Howard H. Baily, M. C., U. S. Army were assigned for duty in this office, and have been constantly on duty in connection with this course.

The officers of the Medical Reserve Corps participating show much interest, zeal, and industry, and it is believed that this course supplemented by practical training in Camps of Instruction, will serve to give a knowledge of field duty to a Reserve of medical officers, who on account of the requirements of their civil profession, can be instructed at present in no other manner, which will be exceedingly valuable to the nation.

#### FIELD SERVICE SCHOOL FOR MEDICAL OFFICERS

No officers were ordered to report for instruction and no session held this year.

No recommendations.

M. A. W. SHOCKLEY,  
*Major, Medical Corps.*

## THE ARMY SIGNAL SCHOOL

*May 10, 1916.*

From: Director, Army Signal School.  
To: Commandant, The Army Service Schools.  
Subject: Annual Report.

1. The following report for the school year 1915-16 is submitted:

The following officers were on duty at the Army Signal School:

Major L. D. Wildman, Signal Corps, Director.

Captain C. De F. Chandler, Signal Corps, Instructor. Reported for duty November 26, 1915. Temporarily detached for duty on the Mexican border since March 15, 1916.

Captain J. B. Christian, Signal Corps, Commanding Company B, Signal Corps. Reported for duty December 8, 1915. Temporarily detached since March 26, 1915, for duty on the Mexican border.

First Lieutenant D. D. Gregory, 5th Cavalry, Instructor and Property Officer.

First Lieutenant Frank Moorman, 18th Infantry, Instructor. Reported July 1, 1915. Temporarily commanding Company B, Signal Corps, from July 24, 1915, to December 12, 1916, and since March 26, 1916.

Captain E. G. Abbott, Signal Corps, Instructor, was relieved July 31, 1915.

Captain J. B. Douglas, Signal Corps, Commanding Company B, Signal Corps, was relieved July 24, 1915.

First Lieutenant Forrest E. Overholser, Signal Corps, Instructor, was relieved December 17, 1915.

Captain Paul M. Goodrich, Signal Corps, commanding Field Company A, Signal Corps, was relieved September 19, 1915.

First Lieutenant T. L. Sherburne, Signal Corps, on duty with Field Co. A, Signal Corps, was relieved September 19, 1915.

### STUDENT OFFICERS

The following student officers in their alphabetical order were graduated from the Army Signal School on May 10, 1916.

1st Lieut. James Blyth, 30th Infantry,  
2d Lieut. Roy H. Coles, 23d Infantry,  
1st Lieut. John F. Franklin, 7th Infantry,  
1st Lieut. James S. Greene, 10th Cavalry,  
1st Lieut. Charles A. Lewis, 9th Infantry,  
1st Lieut. C. A. Meals, 25th Infantry,  
1st Lieut. John H. Muncaster, 4th Infantry,  
Captain Henry C. Rexach, P. R. R. I.,  
1st Lieut. Thomas C. Spencer, 2d Infantry,  
2d Lieut. John H. Statesman, 23d Infantry,  
1st Lieut. Charles E. Swartz, Infantry.

In accordance with the custom heretofore established, it is announced that First Lieut. Charles A. Lewis, 9th Infantry, is considered to have made the highest standing in academic work for the past year. Each student officer has been officially recommended as being fitted for detail in the Signal Corps.

It is particularly unfortunate that the class had to be graduated early and that during the entire school year no field company was stationed at Fort Leavenworth. For these two reasons the class graduates with little practical experience with the actual lines of communication of an army in the field, or in radio work at long range. It is believed, however, that each student officer is fully capable of handling the field radio sets.

### DEPARTMENT OF SIGNAL ENGINEERING

The scope of this department in its more condensed form has proved advantageous in the direction of thoroughness. It is recommended that "Photography" be omitted in the future in order that the time formerly devoted to this subject may

be given to special electrical work in the laboratory, particularly on the subject of internal combustion engines and the motor truck. These two subjects have become of greater importance to the Signal Corps than photography, and it is necessary to increase the number of half-days devoted to them. While photography is valuable to the Signal officer, it is believed that a knowledge of the rudiments, at least, is more easily obtained by the personal efforts of the individual officer at some other place than would the principles of the internal combustion motor.

The course this year included instruction in:

- Electricity.
- Units and Electrical Measurements.
- Batteries, primary and secondary.
- Telegraphy.
- Radiotelegraphy.
- Telephony.
- Visual Signaling.
- Military Lines of Information.
- Gas and Oil Engines.
- Photography.
- Practical Operation and Repair of Signal Corps Instruments.
- Line Construction.
- Codes and Ciphers.
- Signal Corps Manuals.
- Logistics as Applied to Signal Troops.

The standard textbooks used during the year were as follows:

- Lessons in Practical Electricity, Swoope.
- Primary Batteries, I.C.S.
- Storage Batteries, I.C.S.
- Management of Military Telegraph Lines, Signal Corps Manual No. 2.
- Electrical Instruments and Telephones of the U. S. Signal Corps, Signal Corps Manual No. 3.
- Visual Signaling, Signal Corps Manual.
- Property and Disbursing Regulations of the U. S. Sig-

nal Corps, Signal Corps Manual No. 7.  
Principles of Gas Engines, I.C.S.  
Carbureters, I.C.S.  
Electric Ignition Devices, I.C.S.  
Troubles and Remedies, I.C.S.  
Alternating Currents, I.C.S.  
Alternators, I.C.S.  
Alternating Current Apparatus, I.C.S.  
Radiotelegraphy, Andrews.  
Manual of Wireless Telegraphy for the use of Naval  
Electricians.  
Manual of Codes and Ciphers, Hitt.

Following the experience of former years, textbooks have formed merely the basis of conferences and recitations, while the laboratory work has been and will be considered the more satisfactory way of gaining thorough knowledge of principles. The War Game as applied to Signal Corps tactics was not entirely satisfactory on account of the fact that Signal work is so largely the result of particular circumstances that it is impossible to lay down any general rules for this particular class of instruction. The War Game will therefore be omitted from next year's schedule and more problems will be introduced covering the use of the field and telegraph companies in the construction, maintenance and repair of theoretical lines of information over selected areas. These problems will be for the purpose of enabling the student officer to become familiar with the property, materials, and instruments used by the Signal Corps for field use.

#### FIELD WORK

On account of the absence of a field company at Fort Leavenworth and the shortening of the course due to graduation in May, the scheduled field work was much reduced. Each member of the class, however, has had practical experience with the field radio sets.

#### STAFF CLASS SUPPLY SECTION

The Director of the Signal School was this year ordered to formulate and conduct a course in "The Mechanics of Transportation." This included the subject of internal explosion engines, motor trucks, railroad organization and operation, storage batteries, fuels, oils, and similar allied subjects. While this was the first year of such instruction, it is believed that the course was satisfactory and that the experience gained by the first attempt in this direction will result in making this course permanent and in enlarging it to a considerable extent. It is recommended that three months of the course of the Supply Class be allotted to the Director of the Signal School.

#### INSTRUCTORS

The paragraph on the subject of instructors in the Annual Report for 1915 is emphasized. With the additional duties assigned to the Director in connection with the Supply Section of the Staff Class, it is believed that the course in the Signal School cannot be carried out satisfactorily unless these recommendations are followed.

#### SCHOOL FACILITIES

The present facilities for work are entirely inadequate, both for the laboratory of the Enlisted Men's School and the laboratory of the Army Signal School. The recommendation of last year calling for the erection of a separate building for the Signal School is repeated in this report. With the necessity for teaching the subject of MECHANICAL TRANSPORTATION to both the Signal Class and the Supply Class, comes the need for additional laboratory facilities for this line of work. During the past

year there were no funds available and the Director borrowed from different manufacturers about \$10,000 worth of engines, trucks, parts of automobiles and other apparatus. This material has all been returned and it is probable that the manufacturers will not consent to loans of this kind indefinitely. It is therefore recommended that the funds already requested from the War Department be made available for this purpose, and that extra space for the installation of this class of laboratory equipment be provided.

#### SIGNAL SCHOOL FOR ENLISTED MEN

This school has been an extremely important adjunct to the Signal Corps and in order to be maintained, should remain under the command of one officer during the entire year. All the officers who have been put in charge of this school have done hard, conscientious and faithful work, and, while their efforts have produced good results it is probable that the results would have been much better had one officer been allowed to work out his policy for the entire time. The report of the present Commanding Officer of Company B is inclosed. The non-commissioned officers who have been acting as instructors in this school are entitled to special credit.

It is recommended that in the future both the non-commissioned officers and the commissioned officer in charge of the school be considered as permanent for the entire year.

#### SUMMARY

In order to emphasize certain recommendations which have been made in the body of this report in a way that will produce the most direct action, it is suggested that the Commandant approve the following summary:

- First: That all instructors assigned to the Signal School be detailed with a reasonable expectation that they may remain on duty as such for at least three years.
- Second: That the force of instructors be considered to consist of the Director and four competent technical officers, one for the laboratory, one for the theoretical work, one for a general assistant, and one for the Enlisted Men's School.
- Third: That a new building be requested for the occupation of the Army Signal School, costing approximately \$75,000, and situated at the west end of Sheridan Hall.
- Fourth: That the appropriation at the disposal of the Director for the ensuing year be \$6,000 from Signal Corps funds.
- Fifth: That the Supply Section of the Staff Class be given a three months' course in electricity and the mechanics of transportation with the Director of the Signal School.

L. D. WILDMAN,  
*Major, Signal Corps.*

FORT LEAVENWORTH, KANSAS,

May 18, 1916.

From: Officer in Charge, Signal Corps School for Enlisted Men.

To: To the Director, Army Signal School.

Subject: Annual Report.

1. The following report of the Signal Corps School for Enlisted Men is submitted:

2. The following instruction has been given:

<i>Subject</i>	<i>Number of students attending</i>	<i>Number of students qualified</i>	<i>Per cent. of students who completed course</i>
Morse telegraphy . . . . .	163	51	31%
Radio telegraphy . . . . .	34	31	90%
Visual signaling . . . . .	163	53	33%
Signal Book . . . . .	120	68	57%
Electricity . . . . .	129	13	10%
Manuals 2 and 2-A . . . . .	13	7	51%
Gas engines . . . . .	15	8	60%
Telephony . . . . .	51	24	47%
Radio-theory . . . . .	10	7	70%
Totals . . . . .	698	262	38%

3. It thus appears that out of 698 courses begun only 262, or 38% were completed. Failure to complete courses has been due almost entirely to transfers.

4. Students are expected to complete three courses per month. A total of 163 men have attended the school and the showing of 262 courses completed would indicate an average stay of less than one month at the school. This is misleading since no partial month's work is included in the

total. However, as a man derives little benefit from a course of instruction of less than one month, it may be said that the past year's work has been equivalent to that which would be accomplished in one month by 88 students.

5. The school has facilities for instructing 100 students. Quarters are available for necessary instructors and 60 students. If the Army Service School Detachment could be assigned separate quarters the number of students could be increased to 90.

6. The showing made is most unsatisfactory from the point of view of the student, the instructor, and the government. As a remedy I recommend that enlisted men of the infantry, cavalry and artillery be detailed for a course of instruction and, if found qualified, that they be transferred to the Signal Corps. Men not suited to Signal Corps work to be relieved as soon as their disqualification becomes apparent.

7. I am confident that if the school is worked up to capacity for a year its value will become so great that thereafter it will be continued. Since Signal Corps men cannot be spared long enough for a course of instruction to be of much value to themselves or the government it would seem good policy to give the instruction before they become members of the Corps.

8. A class of twenty men per month would provide for all present requirements of the Signal Corps and furnish a reserve from which an unforeseen need, such as that on the Mexican border, could be met.

9. The school has great possibilities but, through no fault of instructors or students, the past year

has been far from satisfactory, a valuable plant is deteriorating through non-use and recruits with no idea of what is to be required of them are now en route to the Mexican border.

FRANK MOORMAN,  
*1st Lieut., 18th Infantry.*

## REPORT ON EQUITATION

*June 1, 1916.*

From: Instructor in Equitation.  
To: The Secretary, Army Service Schools.  
Subject: Report on Equitation.

1. The former instructor, 1st Lieutenant Herbert E. Mann, 5th Cavalry, was relieved from duty at the Schools on March 23, 1916. The necessity for his immediate departure for service in Mexico made it impossible for him to submit this report.

2. The course in Equitation for 1915-16 began on November 1, 1915. All officers of the Line, Engineer and Signal classes were required to take the course, except graduates of the Mounted Service School. In addition, the course was optional to members of the Faculty and the Staff Class, a considerable number of whom availed themselves of the opportunity. In all a total of eighty-one officers received instruction in equitation during the year. The classes were divided into three platoons, each platoon riding for fifty minutes on Mondays, Tuesdays, Thursdays and Fridays, during the five months of instruction from November to April.

3. The course is modeled upon that of the Mounted Service School at Fort Riley, modified, necessarily, to suit the conditions here. The principal points covered are: (a) saddling; (b) bridling; (c) biting; (d) mounting and dismounting; (e) seat; (f) hands; (g) use of aids; (h) instruction in using the double bridle; (i) rising to the trot; (j) jumping, both with and without stirrups; (k) explanation and

illustration of progressive system of training and developing young mounts, including the use of the cavesson and longe, saddling and mounting an unbroken horse, suppling exercises for the haunches and forehand, bending lessons, two-track work, backing, and the progressive method of obtaining and perfecting the gallop leads.

4. It is the aim of the course, in addition to giving the officers the physical exercise called for in General Orders No. 148, War Department, 1910, to instruct them in the training of an officer's mount, to instil a general interest and pleasure in riding and horsemanship, and to try, in the limited time devoted to the course, to give each officer a good seat, good hands, and to teach him to jump with ease, grace and confidence, the ordinary obstacles met with in the field or on the Officer's Russian Ride Course.

5. Although a number of Infantry members of the class had done but very little riding before coming here, and practically no work on the flat saddle, their progress was rapid and pleasing.

6. The school is equipped with sufficient horses to mount the different platoons. Twenty-five additional flat saddles of the Saumur type are needed, and an effort will be made to obtain them from the Ordnance Department, the Rock Island Arsenal having recently undertaken the manufacture of such saddles.

7. The undersigned reported for duty at the Schools on April 29, 1916.

BEN LEAR, jr.  
*Captain, 8th Cavalry.*