

HEADQUARTERS
NINTH COAST ARTILLERY DISTRICT
SAN FRANCISCO, CAL.

File

February 28, 1922.

Captain William R. Carlson,
Coast Artillery Corps,
Fort Stevens, Oregon.

My dear Captain:

After an inspection of the Coast Defenses of the Columbia by Colonel Cole, in going over the conditions in the different defenses with General Kennedy, Colonel Cole seemed to feel that the general conditions in your coast defenses were satisfactory. However, he told General Kennedy that the conditions at Fort Columbia would not be considered satisfactory if a detailed inspection were made.

General Kennedy realizes that with the small command you have and the extent of the property and armament embraced in your coast defenses, your job is a very difficult one. This is particularly aggravated at this time by the lack of adequate boat transportation. However he wishes me to invite your attention to Colonel Cole's general impression and to urge you to exert your best efforts not only to the up-keep of armament, but to the maintenance of the posts in general so that they will present a favorable impression upon an inspector.

General Kennedy intends to inspect your coast defenses some time in the early spring, and General Morton also intends to inspect about the same time. I might say for your information that General Morton, having been for years an inspector general, is a most critical inspector, and every effort should be exerted to have things in the best possible shape for his inspection. Colonel Cole seemed to feel that Fort Columbia particularly needed attention at this time.

General Kennedy is endeavoring to have the two men at Columbia and the two men at Canby put on a commutation basis, and I hope shortly that you will get an order to this effect.

I had a letter yesterday from Colonel Cole, at Galveston, and he mentioned the fact that the navy transport bringing ammunition to this coast was unloading at San Diego. He said that you were expecting some ammunition on the same boat, but that you felt that the ship would anchor in mid-stream instead of tying up at the dock at Fort Stevens for unloading. He suggested that we help bring to the attention of the naval authorities the fact that there is ample room at the dock at Fort Stevens to enable the ship to get in. I have talked this matter over with Major Wing and we have both come to the conclusion that the most practicable way to handle the situation is for you to take this matter up personally

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To Gen. Cole

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*This had
now done
etc*

with the captain of the transport. It might be a good idea for you to write a letter to the admiral in command of your naval district at Bremerton. However, I am satisfied that the responsibility of anchoring the transport and unloading will be left to the captain of the ship.

General Kennedy realizes that you have a very difficult job in the maintenance and up-keep of these defenses, and he wants you to feel that this office is more than anxious to help you in every way. Quite frequently your communications of an administrative nature do not pass through this office, but are handled by the different staff departments here at Corps Area headquarters. For this reason, I wish you would once a month write me a personal letter covering the work that you are doing, your plans and any problems that you think we could be of assistance in solving for you.

Major Wing is now on duty in this office in charge of the organization of the organized reserve pertaining to coast artillery, and his knowledge of conditions at Fort Columbia will be of the greatest assistance to us in helping you to keep things going.

Very sincerely,

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(COPY)

Fort Stevens, Oregon,
March 6, 1922.

Major Arthur G. Campbell,
Coast Artillery Corps,
Ninth Coast Artillery District,
Presidio of San Francisco, California.

My dear Major:

Your offer to assist us in solving our problems is greatly appreciated.

Colonel Cole made a very casual inspection of these defenses and expressed himself as being satisfied. Recently we sold some Hornsby Akroid engines at Fort Columbia, the contractor had just removed them, and unfortunately, had not cleaned up the premises. I feel certain that Fort Columbia will be ready for inspection at any time.

Orders were received yesterday placing the two men at Fort Canby and the two men at Fort Columbia on a commutation basis. This makes these details particularly desirable, and we can in turn demand and secure more from the men stationed there.

Our chief trouble has been crating and shipping quartermaster supplies. We are also preparing some 200 tons for shipment on the "Nitro" from which we will receive some 350 tons which must be stored. I sent a radiogram to the master of the "Nitro" some days ago and he answered that he would land at our dock. This will facilitate the loading of the anti-aircraft guns.

Our only trouble at ~~the~~ present is a proposal by the Corps Area Commander to shut down our power plant and require us to burn oil lamps. To this correspondence I responded with a two page indorsement giving many reasons why we should operate the plant, it being a combination artillery and quartermaster plant. We also submitted the details of work necessary to connect up our D.C. circuit with the commercial A.C. circuits. We can secure light and power for one third of the cost of manufacture once the installation is made.

I feel certain that we can keep these defenses in readiness for inspection at all times. The greatest difficulty at present being shipping and storing of supplies. We are doing our best to be ready for inspection.

Sincerely yours,

William R. Carlson,
Captain, C.A.C.

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WAR DEPARTMENT
OFFICE OF THE CHIEF OF COAST ARTILLERY
WASHINGTON

May 5, 1925.

Subject: Inspection of the Coast Defenses of The Columbia made pursuant to A. R. 265-10.

To: Chief of Coast Artillery.

I. The Coast Defenses of The Columbia were inspected by me on April 13th and 14th, 1925. During my inspection I was accompanied by Colonel Alston Hamilton, Ninth Coast Artillery District. The last inspection of these Coast Defenses by a representative from the Office, Chief of Coast Artillery was made by Colonel, W. E. Cole, C.A.C. on November 19, 1923.

II. The Coast Defenses of The Columbia are commanded by 1st Lieut. S. P. Huff, C.A.C. The only other Coast Artillery Officer on duty in these Coast Defenses is 1st Lieut F. R. Chamberlain, Jr. C.A.C. The Coast Defenses of The Columbia are on a caretaking status. The present authorized strength is 35. Battery "E" (caretaking) and Batteries F and G (Inactive), 3rd Coast Artillery, constitute the only Regular Army Units assigned to these Coast Defenses under the War Department General Mobilization Plan. Their assignment is as follows:

<u>Battery</u>	<u>Primary Assignment</u>	<u>Secondary Assignment.</u>
"E"	Mines - Fort Columbia	None.
"F"	Mines - Fort Stevens	None.
"G"	Btry. Guenther 4 - 12" Mortars	None.

III. SCOPE AND RESULTS OF INSPECTION -

1. Programs and Schedules - The annual training programs and monthly training programs of the Coast Defense Command were examined and found to conform with training orders of higher authority.

2. Troop Training - Inspection and Drills - The troops presented a very good appearance at inspection. Uniforms were neat and clean and well fitted. Brasses polished and shoes shined. Equipment was in good condition. Inspection was followed by Infantry drill. The results of the drill were very satisfactory.

3. War Plans and Projects - An examination was made of -

a. Mobilization Plans, 1923.

b. Seaward and Landward Defense Plans and Projects.

c. Defensive Sea Area Plan.

d. Fort Record Book.

e. Emplacement Books.

The Mobilization Plan, 1923 is in need of revision to make it conform to the War Department General Mobilization Plan. Revision has been suspended by the Corps Area Commander pending the receipt of certain directives from the War Department.

The Seaward Defense Plans are now being revised. Headquarters, Ninth Coast Artillery District are making arrangements to finish certain maps necessary in connection with this plan. Landward Defense Plans have been prepared but require some revision. This revision is under way.

Due to limited personnel and lack of floating equipment, it would be impossible to execute the Defensive Sea Area Plan within the time allowed.

Both the Fort Record Book and Emplacement Books need to be revised and brought up to date.

Recommendations - That Mobilization Plans, Seaward and Landward Defense Plans and Projects and the Fort Record and Emplacement Books be revised and brought up to date as soon as practicable.

4. Battery Administration, Condition of Quarters, Armament, Public Buildings, etc.

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The Battery is well administered. The squad room, messroom, kitchen and lavatories are neat and clean and well painted. The enlisted personnel appear well contented. The armament is in very good condition in all three forts in the Coast Defenses. The ammunition at Forts Canby and Columbia is in good condition. That at Fort Stevens is in good condition except that stored at Batteries Mishler, Lewis and Walker (the guns in Lewis and Walker have been dismantled) where the projectiles and powder cases are rusty. This condition is due to condensation in the magazine and shell rooms rather than leakage. A large number of projectiles are on hand in the Coast Defenses of The Columbia in excess of these called for as war reserve. On account of the large number of projectiles on hand and due to the conditions of powder magazines and shell rooms in these Coast Defenses it is very difficult for the detachment on duty to maintain the ammunition on hand in a satisfactory condition.

Battery Allen 2 - 6" guns at Fort Canby has only 40 projectiles at the Battery while 1023 projectiles are on hand at Battery O'Flyng where 2 - 6" guns have been dismantled. Both of these batteries are located on high hills. No roads connect the two batteries. The only means of reaching the batteries being by paths. The ammunition on hand at Battery O'Flyng should be transferred to Battery Allen. Personnel is not available in the Coast Defenses to make the transfer.

At Battery Guenther 4 - 12" mortars, Fort Canby, a large amount of earth has slid into one of the mortar pits. I was advised that arrangements had been made by the Engineers to remove this dirt and to resurface the slopes around the pit.

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Searchlights, power plants and communication systems are in good condition. Power magazines and shell rooms at Battery Russel, Fort Stevens, are not properly cleaned. Store houses generally are in very satisfactory condition except the Quartermaster storehouse which should be policed and articles more neatly arranged. Quartermaster supplies stored in vacant barracks are not well arranged.

The Mine Wharf at Fort Stevens has just been rebuilt and is excellent condition. The Quartermaster Wharf at the same post is in bad shape. No vehicles are allowed on the wharf. However, it is believed that the Mine Wharf answers all requirements for present needs. The Quartermaster Wharf at Fort Columbia is unsafe. Piling has given away and no vehicles are allowed on it. The wharf at Fort Canby is in fair condition. Due to the closing of the channel leading to Fort Canby except for small boats, there is very little use for the wharf at Fort Canby. Shifting of the sand at the mouth of the Columbia River has made it impracticable to keep the channel to Fort Canby open for large boats. The expense involved would be prohibitive. I made a trip to Fort Canby from Fort Stevens in a 65 ft. motor launch. The launch went aground twice and had to be pulled off by the Coast Guard.

The only other way of reaching Fort Canby is by means of a plank road on the north shore of The Columbia River. This roads leads to Fort Columbia and to Megler, the latter place being connected by ferry with Astoria. The road through the reservation and for some distance beyond is a plank road. The plank portion of this road has reached the stage where it is almost impassable. The sills and planks have rotted and become so deteriorated that it is out of the question to drive a truck over the road. I passed over the road in a light automobile but even in this vehicle it was almost impassable. With the channel leading to Fort Canby closing up more and more and an impassable road leading from Fort Canby, this place is almost out off from the rest of the world. In case of mobilization it would be almost impossible to supply a garrison stationed here. With the Wharf at Fort Columbia also out of commission it would seem that the best means of supplying these two posts would be by means of a road constructed between Fort Canby and the ferry landing at Megler, a short distance above Fort Columbia, the ferry landing being connected by boat to Astoria.

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Recommendations - That the ammunition on hand in the Coast Defenses of The Columbia in excess of that required for war reserve be shipped to Ogden, Utah for storage. This recommendation is in accordance with the recommendation of the Corps Area Ordnance Officer (Lieut. Col. E. M. Shinkle, OD.). That steps be taken to place Forts Canby and Columbia in a condition so that they can be supplied in case of mobilization. That steps be taken to transfer the ammunition of Battery O'Flyng to Battery Allen at Fort Canby.

IV. CONCLUSIONS

The Commanding Officer, Coast Defenses of The Columbia has issued an adequate program for training and in addition thereto has a detailed work schedule which provides for the care of the armament, accessories public buildings etc. Conditions in the Coast Defenses are very satisfactory except as noted

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above. Every effort is being made to care for government property which generally is in a very satisfactory condition except certain ammunition at Fort Stevens.

A. A. Maybach

A. A. MAYBACH,
Lieut. Colonel, C.A.C.

*Data secured by Col. Maybach during
above inspection - filed in Case 13*

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OFFICE CHIEF OF COAST ARTILLERY

RECORD CARD

DATE RECEIVED

April 26 1919

ADB

HQ. N. P. C. A. DIST.,
G. Blakely, Brig. Gen., U.S.A.,

April 12, 1919.

Submits report of inspection, technical, of the C. D. of Columbia, pursuant to Spec.Reg. # 22, par. 16. This inspection was made by the above officer April 10, 1919, and (Grays Harbor) and (Willapa Bay), March 27, 1919. The C.D. of Columbia are commanded by Col. W. C. Rafferty.

The Armament and accessories were found well cared for and in good condition, and the garrison has been depleted by recent discharges so that daily drill at the batteries has become impractical nor can complete plotting-room details be maintained. Gunners instruction for all enlisted men and instruction of officers in school is continued.

1st Ind. Hdq. Est. Department, April 19, 1919 - To the A. G. A.

2d Ind. A. G. O., April 25, 1919 - To the Chief of Coast Artillery.

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In reply refer to

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HEADQUARTERS
NORTH PACIFIC COAST ARTILLERY DISTRICT
SEATTLE, WASHINGTON

April 12, 1919.

From: Commanding General,
To: Commanding General, Western Department.
Subject: Report of Inspection.

1. Herewith is submitted report of the technical inspection of the Coast Defenses of the Columbia, pursuant to Special Regulations Number 22, Paragraph 16. This inspection was made by the undersigned April 10, 1919 and (Grays Harbor and Willapa Bay), March 27, 1919. The Coast Defenses of the Columbia are commanded by Colonel W. C. Rafferty, C. A. C.

2. The armament and its accessories were found well cared for and in good condition. The garrison has been depleted by recent discharges so that daily drill at the batteries has become impracticable, nor can complete plotting-room details be maintained. Gunners' instruction for all enlisted men, and instruction of officers in schools is continued.

G. Blakely
G. Blakely,
Brigadier General, U. S. Army.

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APR 17 1919
of Columbia
Headquarters Western Department
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DEPT. INSPECTOR
WESTERN DEPARTMENT

APR 17 1919

In reply refer to

HEADQUARTERS
NORTH PACIFIC COAST ARTILLERY DISTRICT
SEATTLE, WASHINGTON

August 10, 1920.

From: Commanding General,
To: The Adjutant General of the Army,
(Through Military Channels).
Subject: Inspection.

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1. Pursuant to the provisions of paragraph 9, Instruction Coast Artillery Troops, 1920, War Department Document, 1007, I submit the following report of an inspection of Forts Stevens, Columbia, and Canby, in the Coast Defenses of The Columbia, made by me on August fifth and sixth.

2. The strength of the Coast Artillery personnel of the defenses was approximately nine officers and 108 enlisted men, out of an authorized aggregate of sixteen officers and 409 enlisted men. The shortage of both commissioned and enlisted personnel has interfered seriously with the training and instruction of the troops. The state of discipline is as good as can be expected under these adverse conditions.

3. I found the armament and other materiel in excellent condition.

4. I desire to draw special attention to the unsatisfactory condition of the road between Fort Canby and Ilwaco, Washington. The present lines of defense about Fort Canby include the town of Ilwaco, and in any conceivable modification of these lines, convenient communication between the two places will be essential. The existing road is constructed of plank, and is so narrow that two vehicles can pass only in certain places. The plank is for the most part rotten, the grades are steep, and the road is dangerous. In its present state of repair, it would be impossible to move artillery and supply trucks between Fort Canby and Ilwaco. I therefore recommend that a good road be constructed between these two places.

5. The few other defects which I noted are such as can be corrected by a sufficient increase in the depleted strength of the garrisons.

RECEIVED AUG 13 1920 MESSAGE CENTER WESTERN DEPT.

H. F. Hodges

H. F. Hodges,
Brigadier General, U. S. Army.

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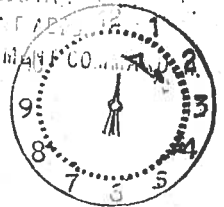
1st Ind.

Hq. West. Dept., August 17, 1920.-To The Adjutant General of the Army.

In reference to paragraph 4, the Commanding Officer, Fort Canby, has been directed to prepare separate estimates of cost of construction of that portion of the road within and that portion without the reservation, and to consult with the authorities of Pacific County, to ascertain to what extent, financially, they will co-operate with the Government in building this road, should same be authorized by the War Department.

L. S. Chappell

L. S. CHAPPELL, JR.
LIEUT. COL., ADJUTANT
DEPARTMENT OF THE ARMY
FOR THE DEPARTMENT OF THE ARMY



AUG 27 1920

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AUG 28 1920

333.1 C.D. of Columbia.
(Misc. Div.)

2nd Ind.

REP/ELC/158.

A. G. O., August 28, 1920. -

To the Chief of Coast Artillery. *GAW*

Synopsis made.

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OFFICE CHIEF OF COAST ARTILLERY

RECORD CARD

DATE RECEIVED

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February 28, 1921.

NINTH C.A.D.

Report of inspection of C.D. of the Columbia by Dist. Comdr. Feb. 20-25, 1921. Considering shortage of personnel which existed until recently the state of instruction and discipline of command and condition of materiel is average. The presence in the command of a C.A. commander of training and experience is lacking and needed.

AG 333. C.D. of Columbia (Misc. Div.)

2d Ind., Mch. 11/21. A.G.O. to C. of C.A.

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3rd Ind.

War Department, O.C.C.A., March 14, 1921. - To The Adjutant General of the Army.

Paragraph 28, S.O. 31-0, War Department 1921, assigned Major Charles K. Wing, Jr., Coast Artillery Corps, to the Coast Defenses of the Columbia.

For the Chief of Coast Artillery,

✓
C. H. McNEIL,
Colonel, Coast Artillery Corps,
Executive Assistant.

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May 6, 1925.

Subject: Inspection of the Coast Defenses of the Columbia.

To: Commanding General, Ninth Coast Artillery District.

1. In compliance with paragraph 1, G. O. No. 76, c.s., Hq. Ninth Corps Area, I inspected on April 13th and 14th, the Coast Defenses of the Columbia commanded by 1st Lieut. Sargent P. Huff, C. A. C.

This inspection was timed to coincide with that of Lt. Col. Alfred A. Maybach, C.A.C., representing the Office of the Chief of Coast Artillery.

2. This coast defense is on a caretaking basis and consists of the following:

Battery E, 3rd Coast Artillery,	2 officers, 41 enlisted men.
Quartermaster Detachment,	1 officer, 5 enlisted men.
Ordnance Detachment,	5 enlisted men.
Medical Detachment,	2 enlisted men.
Total	3 officers, 53 enlisted men.

3. Training was progressing in conformity with approved schedules.

The men drilled very creditably as infantry; were in clean new uniforms - not particularly well-fitting but as satisfactory in that respect as could reasonably be expected under present supply conditions. Their equipment was in excellent condition.

The men seemed contented and the administration of the battery is highly satisfactory.

The barracks in which the men were quartered were clean, well painted and well policed; the mess was satisfactory, the lavatories sanitary and the kitchen and utensils as well as the tables and table ware in the dining room neat and clean.

The hospital was in a proper state of police except the large stove in the kitchen which was rusty. The sergeant in charge of the hospital gives great satisfaction because of his aptitude in caring for ordinary sickness and minor emergencies.

In this connection, I took occasion to inquire as to the medical service rendered by Dr. McConnell concerning whom some complaint was made a year ago. I inclose a memorandum from Lieut. Huff on the subject. (Inclosure 1).

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4. Unit mobilization plans for 1924 are not completed, because of suspension of such work by orders from Corps Area Headquarters until a revised directive is received from the War Department. Grid maps for the seaward defense are now in course of preparation by the Corps Area Engineer. Land defense plans were begun nearly two years ago and are complete. These will, of course, require revision from time to time.

Fort Record and emplacement books require posting to date.

5. While it is realized that this work is extensive and must fall on the Commanding Officer and his assistant, 1st Lieut. F. R. Chamberlain, jr., O.A.C., these plans, projects and records must be given all possible attention with a view to perfecting them.

6. The armament is, in general, in good condition throughout these coast defenses. The ammunition is in good condition except in certain batteries at Fort Stevens, as noted below in remarks on those batteries:

a. Battery Russell, two 10-inch guns, though doubtless properly located initially is now practically useless, as the change in the channel on account of the action of the jetties is so great as to have made its field of fire practically all dead space.

The projectiles in this battery show signs of rust; but the battery is so cluttered with them and the fuel allowance to maintain lights at the battery so meagre as to preclude reconditioning at an adequate rate; for, if the necessary men were placed on this work (and there are equally pressing conditions elsewhere in the command), it would be necessary for the lights to burn continuously for months during working hours in order that the projectiles might be moved, cleaned and replaced in that cramped space.

The outlook is most discouraging.

b. Batteries Mishler, Walker and Lewis are all unsatisfactory for the storage of projectiles. Battery Pratt is satisfactory and there is some space available in it for 6-inch projectiles. Removal of 6-inch charges from Batteries Lewis and Walker (no guns in these) would make available the powder magazines of those batteries - which are dry enough; but the 1160 6-inch charges for H. E. Shell must be retained in the powder magazine of Battery Mishler.

c. The 6-inch guns of Battery O'Flyng have been removed, but there are over a thousand projectiles stored there, while Battery Allen, two 6-inch guns, also at Fort Camby and not far distant horizontally from Battery O'Flyng, has only about 40 projectiles. All these 6-inch projectiles are in good condition, but they should all be at Battery Allen. Unfortunately, they could only be taken by pack mule along the trail between the two hills and it is doubted if funds can be made available for this. None the less, Battery Allen is by no means properly equipped in this respect for emergencies.

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d. Battery Gunther, 4 - 12-inch mortars, is located with steep slopes upward to the front and flanks. On the right flank a considerable amount of earth has slid into the pit. The removal of this dirt alone would not cost much, but the general condition of the slope on which trees are growing is such that future slides may be expected. It is understood that the removal of the dirt and the grading of the slope to prevent future trouble will cost about \$800; and that the Assistant District Engineer in Portland has this matter in hand.

7. The switchboard formerly in the switchboard central next to the power plant at Fort Columbia was moved during the war so as to have bomb-proof shelter in Battery Ord. It is going to pieces and should be overhauled with a view to repair if that is found worth while. It should not remain where it is. In this connection attention is invited to inclosure 2.

8. The Quartermaster storehouse and certain of the vacant barracks at Fort Stevens were not properly policed and articles stored in them should be more neatly arranged. This was called to the attention of the quartermaster and of the Commanding Officer.

9. Certain buildings at Forts Canby and Columbia were settling and cracking due to decay of underpinning.

The cheapest way to remedy this would be to give commutation of rations to an enlisted man who is a competent carpenter and send him over to these two forts in order to remedy these conditions before serious damage is done.

Failing this, carpenters should be employed from funds for the repair of barracks and quarters.

10. The mine dock at Fort Stevens is now as good as new. It could accommodate a large planter but needs a wing of piling for a D.B. boat.

Since this dock makes provision for a mine planter not actually existing but needed in emergency, similar provision should be made for a wing of piling to care for a D.B. boat not actually there but represented by a virtual duplicate in the form of the "Dwight" which is actually in use in the Coast Defenses of the Columbia and requires shelter. It is now forced to lie in a small slip at Warrenton for which rental is paid. This arrangement is inconvenient on account of the distances involved whenever the boat is to be used and the necessity of keeping a man with it at all times in Warrenton.

In view of the foregoing, it was suggested that the Commanding Officer take up with the Assistant District Engineer in Portland, who still has some funds left for this work, the matter of wing piling for the D.B. boat's accommodation in order that the renovated mine dock may fully serve its purpose.

11. The "Dwight" is now in serviceable condition and has a good engineer. The position of master is filled, when necessary, by Technical Sergeant Joel W. Rowan, C.A.C., who is greatly responsible for the present improved condition of the boat and is planning further improvements in its condition.

333.12/7D

12. The other docks in these Coast Defenses are in various stages of decay. The quartermaster wharf at Fort Stevens is unsafe for vehicles, but, with the mine dock restored, is not needed now.

13. Concerning conditions on the north side of the Columbia River, it is recommended that the dock at Fort Columbia be abandoned as it is now useless, the road way sagging on one side because of rotted pikes and the underpinning of the wharf proper being rotten and unsafe.

It would cost \$30000 to put this dock into shape.

14. The dock at Fort Canby is not in good condition but with necessary regular repairs will suffice for present needs. The channel between Sand Island and Peacock Spit is changing materially and irregularly in a way that indicates its eventual obstruction by sand bars. Dredging operations would afford only temporary relief and would be too costly. Even the Dwight ran aground while making the crossing on a rising tide near flood.

15. The ideal arrangement in view of the foregoing conditions would be to provide for mere repairs for the Canby dock; to abandon the Columbia dock and to approach Forts Canby and Columbia by vehicle after landing at Megler.

A road practicable at all times from Fort Canby to Ilwaco appears to be the only solution. Estimated cost of placing the road in condition is at least \$2000 per mile.

16. Fort Canby is by far the most important of these forts so far as its field of fire is concerned and can be readily protected against land attack; but the repair of the road on the reservation will not suffice, since the road from the edge of the reservation to Ilwaco and in continuation of the reservation road is in even worse condition. Some persuasive arrangement will be necessary in order to get the county to do its part; and, if the money to repair the road on the post can be secured, a basis on which to seek county cooperation will have been established.

The lighthouse at North Head is also concerned with its approaches and some help might be secured from that department of the Federal government.

17. On the south side of the Columbia River, the road to Battery Russell from the center of Fort Stevens is in good condition, and there is some money on hand for further improvement of roads at Fort Stevens.

18. The shipment of excess ammunition within the Corps Area with a view to its redistribution so as to have a full allowance and no more at each battery is the first step advocated in relieving congestion. The second involves the shipment to an arsenal or other place for dry storage of such ammunition as cannot now be stored properly in its present location.

This matter has been taken up with the War Department by the Corps Area Ordnance Officer.

333.12/7D

19. It was understood that the Adjutant General of Oregon was interested in knowing what prospects existed of having the encampment of the 249th Coast Artillery in the Coast Defenses of the Columbia.

20. In regard to this the following develops:

a. The four firing batteries of the 249th Coast Artillery are assigned as follows:

Battery A to Battery Russell, 10", Ft. Stevens.
Battery B to Battery Nishler, 10", Ft. Stevens.
Battery C to Battery Pratt, 6", Ft. Stevens.
Battery D to Battery Murphy, 6", Ft. Columbia.

b. The Commanding Officer informed me that he could handle supplies for such an encampment if the necessary additional men were sent for the purpose; but that the time of the encampment must come in the only good season for work out of doors, which, in present circumstances, is not now sufficient for the work of caretaking which must be done in the few months of the comparatively dry season.

It is therefore considered inadvisable to undertake the conduct of such an encampment at Fort Stevens.

21. The following items in excess of present requirements were noted:

300 wooden lockers,
30 mess tables,
30 new company size refrigerators,
besides stoves, beds, etc.

The following have been sent away recently:

120 steel wall lockers sent to Camp Lewis in March, 1925.

In making shipments of these items to San Francisco cost is reduced by the fact that all but 120 of the 882 miles of railway involved is land grant.

22. In connection with the cemetery extension at Fort Rosecrans, I was informed by the Commanding Officer at Fort Stevens that \$100 could be spared from the fund for "Care and Improvement of Cemetery" at Fort Canby for use at Fort Rosecrans if authority were secured.

23. There are certain other observations which call for report:

a. The Commanding Officer, Coast Defenses of the Columbia, in order to meet the minimum conditions of inspection imposed by regulations must have at least the necessary mileage, as he should make at least two trips to Gray's Harbor and Willapa Bay.

b. The transfer of powder charges from cartons to cans has been nearly accomplished, 4500 having been transferred and the remaining 400 awaiting the receipt of metal containers, which are not now available.

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c. There is inclosed a blueprint map of the mouth of the Columbia River, showing the channel to Fort Canby as well as an accompanying memorandum from the commanding officer. (Inclosure 3).

d. The water supply for Fort Stevens is obtained from Warrenton through wooden mains on which, due to their deterioration not more than 40 pounds pressure may safely be placed. This pressure is insufficient for fire protection.

In this connection there is inclosed a memorandum from the commanding officer on obtaining water from the Columbia River for fire protection with an estimate of cost and a drawing showing the plan involved. (Inclosure 4).

e. Present fire protection at Fort Stevens relies to a great extent on water placed in the buildings in galvanized iron cans. These cans deteriorate rapidly in that climate and wooden barrels would be far better for the purpose. Pickle or oil barrels would answer; but they are not available at the post.

f. At Willapa Bay the house of the carstaker has been repaired, a water system improvised and in working order. This information was given by the Commanding Officer in response to my inquiry.

g. I believe that the authorized strength of the garrison of the Coast Defenses should be increased by 10 men.

h. The present map of the mouth of the Columbia River at Coast Defense Headquarters is dated 1905. The Chart on the gasoline tug "Dwight" is more recent and has been brought up to date on account of changing conditions, the sandbars shifting between Sand Island and Peacock Spit making the channel tortuous and uncertain in approaching Fort Canby.

The latest Hydrographic or Coast Survey Charts are needed; as the sand has been deposited, due to the jetty and the shore line both at high and low water has been materially altered at Fort Stevens, and on the north side the sandbars are constantly changing.

For the latter a new blueprint chart is being prepared by the Assistant District Engineer at Portland.

4 - Incls.

Incl.1-Memo.re Med.Service.

Incl.2-Memo.re Switchbd.Bn.

Incl.3-Memo.re Water System
for Fire Protection,
(with 1 Incl.).

Incl.4-Memo.re Channel to
Ft.Canby. (with 2
Incls).

(ALSTON HAMILTON)
Colonel, Coast Artillery Corps.

333.12/7D

HEADQUARTERS COAST DEFENSES OF THE
OFFICE OF THE COAST DEFENSE COMMAND

Fort Stevens, O.
April 25, 1925.

MEMORANDUM: For Colonel Hamilton: Re-medical Services.

1. Since I have been in command I have no complaint to make on the services of Dr. McConnell.

2. While I have heard considerable talk as regards his drinking and morals I know of nothing for a fact. In the past year I have only seen him once when there was any sign of liquor on his breath and then he was not in any sense intoxicated. As regards professional ability I have never heard anything against him and I consider his services in all cases he has treated on the post as satisfactory.

3. The only reasons that I know for making a change would be that I understand that Dr. Hagmeier of Seaside would be pleased to have the contract; that he comes to Warrenton every day and would as soon come on to the post, that Dr. Hagmeier is a Reserve Officer and I understand Dr. McConnell is not.

4. Since last June I have required Dr. McConnell to visit the post once each week whether called or not he has done this faithfully and satisfactorily. He has always answered all calls promptly.

S. P. Huff,
1st Lieutenant C.A.C.
Commanding.

333.12/7D

Incl. 1.

HEADQUARTERS COAST DEFENSES OF THE COLUMBIA
OFFICE OF THE COAST DEFENSE COMMANDER

SPH-EM

Fort Stevens, Oregon,
April 25, 1925.

MEMORANDUM: For Colonel Hamilton-Re-Swithh Board Room, Fort Columbia.

1. During the War the Switchboard at Fort Columbia was moved into one of the galleries at Battery Ord. This gallery leaks during the rainy season and the condensation during the dry season is so great that the switchboard has become unserviceable.
2. Authority has been obtained to ship the switchboard to San Francisco for repairs and the board is now at Fort Stevens being crated for shipment.
3. The assistant District Engineer has attempted to stop leaks but says that this cannot be done without a large expenditure of funds. It is not believed that the present location can be made suitable for a switchboard room.
4. It is recommended that when the switchboard for Fort Columbia is repaired that it be held in storage at Fort Stevens and that authority be granted to remove all instruments, retard coils etc from power panel and store them at Fort Stevens until needed for use or until a suitable switchboard room is provided at Fort Columbia.

S. P. Huff,
1st Lieutenant C.A.C.
Commanding.

333.12/7D

Incl. 2.

HEADQUARTERS COAST DEFENSES OF THE COLUMBIA,

OFFICE OF THE COAST DEFENSE COMMANDER,

SPH*EM

Fort Stevens, Oregon,

April 25, 1925.

MEMORANDUM FOR: Colonel Hamilton: Re-Water System for Fire Protection.

1. The water supply for this post is obtained from the City of Warrenton. The water mains leading into the post are wooden and deteriorated to such an extent that to place a greater pressure than 40 lbs. on them is unsafe. This pressure is not sufficient for fire protection.

2. It is recommended that a water main be laid from the Columbia River through the main section of the post with branch mains, as shown in accompanying sketch, and that an electric pump be installed on this main of sufficient power to give 100 Lbs. pressure.

S. P. Huff,
1st Lieutenant C. A. A.
Commanding.

333.12/2D
S. P. Huff

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1st Ind.

Hq. Ninth Coast Artillery District, Presidio of San Francisco, California,
June 2, 1925 - To Commanding General, Ninth Corps Area.

1. Approved.

2. The subject of greatest importance is the poor storage condition
of much of the ammunition.

This has been under discussion for several years but owing to lack of
funds and personnel, no decided improvement has been possible.

The Corps Area Ordnance Officer has been for some months in correspondence
with the Chief of Ordnance on the subject:

(H. D. TODD, JR.)
Brigadier General, U.S. Army,
Commanding.

333.12/7D

HEADQUARTERS
NINTH COAST ARTILLERY DISTRICT
PRESIDIO OF SAN FRANCISCO, CAL.

AE-wjf

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November 12, 1925.

Inspection of the Harbor Defenses of the Columbia.

Commanding General, Ninth Coast Artillery District.

1. In compliance with instructions, inspection of the Harbor Defenses of the Columbia was made on October 12-15, 1925. Report of this inspection follows.
2. These Harbor Defenses are commanded by 1st Lieut. Sargent P. Huff, 3rd Coast Artillery and consist of

Battery "B", 3rd Coast Artillery	2 officers	54 enlisted men
Detachment Quartermaster Corps	1 officer	7 enlisted men
Detachment Medical Department	0 officers	2 enlisted men
Detachment Ordnance Department	0 officers	5 enlisted men.

PERSONNEL.

3. The Coast Artillery strength of this command has recently been maintained approximately at its present strength because of the utter impracticability of reconditioning projectiles, powder containers and other Ordnance materiel without the necessary man power. Furthermore, to secure results, I believe that this practice must continue until June, 1926. After that, the effective strength may be reduced somewhat.

4. These men were inspected in ranks, in garrison equipment, and presented a very creditable appearance. They are housed in one of the barrack buildings, the men being quartered in a single squad room for economy in lighting. The quarters were neatly kept and equipment and clothing well arranged; the kitchen and mess hall were in an excellent state of police; as also the basement containing bathing, toilet and heating arrangements.

5. The commanding officer reports the need of the services of a dentist for the garrison; states that a dentist was promised by the Corps Area Surgeon after the training season, but that none had been ordered as yet. Another request was made for a dentist more than a month ago but no reply has been received. The personnel of

*By Huff, Commanded
by letter 10/26/25*

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the garrison have had no dental service for more than a year. Sending individuals from the Harbor Defenses of the Columbia to Vancouver Barracks for treatment is both costly and unsatisfactory. It is generally recognized as important to treat teeth which are becoming unsound before it is too late to save them; rather than to wait until toothache or other intolerable condition compels emergency travel to Vancouver Barracks for relief. The services of a dentist should be insisted upon.

EQUIPMENT.

6. The infantry field equipment was in good condition but showed the usual diversity in colour or degrees of fading; a matter beyond local control.

TRAINING.

7. In training, an effort is made to meet minimum requirements; but due to the nature of the duties, almost exclusively caretaking, which the men must perform, eventual rather than immediate compliance is attempted. One year, for example, small arms and pistols are used for instruction and practice, in the next year, automatic rifles and machine guns are used. Gunners' instruction and examination are given every year. A list is kept showing qualifications or state of instruction of each enlisted man in each subject of training. Literal qualification of marksmen or higher is not always, nor even usually, accomplished; but all the men are given sufficient firing to secure reasonable familiarity with such weapons. Eventual completion of training in all subjects in the course of several years is the aim here.

Again, district headquarters has always insisted on military training sufficient to maintain discipline and soldierly bearing and qualities; this has been accomplished, as well as far greater efficiency in caretaking on account of the training given them as soldiers; The commanding officer is strongly in favor of continuing the present training plan.

The Commanding Officer evidently looks after the comfort and contentment of his men and this is very evident in their attitude.

BARRACKS AND OTHER BUILDINGS.

8. The barracks occupied by the detachment, and several other occupied buildings, have been given one coat of paint as a preservative; and, incidentally, this has greatly improved appearances. In addition red lead has been used, as far as available funds permitted, to treat exposed metal parts of practically all buildings at Fort Stevens.

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In the expectation that the Oregon National Guard Coast Artillery (249th Regiment) will encamp at Fort Stevens next June, two barracks and a mess hall as well as the bachelors' building have been tentatively selected for their housing. These will require repairs; and \$1400 is regarded as necessary for this purpose.

9. Specifically, the work on buildings accomplished since my last inspection (in April) is as shown below:

- a. Painted (one coat) one barrack building, three sets of officers' quarters and the Commissary building.
- b. Replaced 500 linear feet of down spouts.
- c. Painted metal on roofs of all buildings.
- d. Repaired foundations and steps to all buildings in the worst condition at Forts Stevens and Columbia, except Building No. 23, Fort Columbia.
- e. Refloored Quartermaster Stables and repaired floor in Quartermaster Garage.
- f. Has concentrated on outside work during the summer; will work on interior during the winter.

HOSPITAL.

10. The hospital building while in need of certain repairs to outside iron porch railings (which in places have literally rusted away and which I have already reported), was internally in a good state of police and repair.

11. During the inspection the Corps Area Commander noted that, though the main supply of alcohol and narcotics was under lock and key, (the latter in the hands of the contract surgeon), the smaller supply for current emergency use was in a small safe of which the Staff Sergeant, Medical Department, was in charge. This arrangement was satisfactory to him except that he regarded the amount in the Sergeant's keeping as too large. He thought it unfair to the sergeant and not a good plan in other respects. In justice to the Commanding Officer it is proper to add that the same amount was in the small safe when it was inspected by the Corps Area Surgeon who found no fault with it. And it should be added that the Corps Area Commander found no evidence of abuse of these stores - quite the contrary, in fact.

12. The contract surgeon gives entire satisfaction, I was informed.

TRANSPORTATION.

13. Motor transportation was old but in serviceable condition. To wheel transportation the same remark applies.

As to animals, there are 3 mules and 3 horses. Of these, two riding horses are 10 and 11 years old; two mules 9 years old; one horse 20 years old, and one mule 26 years old and said to be still as good as any of the others.

These animals are subsisted largely by grazing in the effort to

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give them the necessary green food and to save forage.

GUARD.

14. Guard duty is performed by a watchman-and-punch-clock system. Clock records are kept by the Commanding Officer under lock and key. The guard seems effective within the limits covered. Only highly trustworthy men are used on this duty and inspections are made by the officers.

15. Petty thefts occur in outlying portions of the reservation. Guard arrangements sufficient to prevent this would be prohibitive.

As an example of the foregoing: There are about 70 tons of lead counterweights for 10-inch guns from Batteries Lewis and Walker on hand. This material is in demand in this locality where fishing on a large scale is the principal industry. Some of this has been taken by unauthorized parties. There is a ready market for this lead at present and authority has been obtained to inspect it with a view to selling it locally. An I. and I. report has been prepared and authority obtained to have Lieutenant Chamberlain inspect it as Special Inspector.

FIRE PREVENTION.

16. Fire prevention is secured by the use of galvanized iron cans filled with water in all buildings; and by the use of a tank into which water is pumped for this purpose.

It is essential to keep this tank maintained in good condition, else it will not last many years. With proper annual provision it will be serviceable for a long time. A requisition has been submitted for \$314.00 for material and labor for the repair of this tank.

Mr. Adams, of the Constructing Quartermaster's office at Fort Mason, has examined the tank and is familiar with the conditions. Money for this purpose should be regularly forthcoming, as the wooden mains by which the water is led to the post can withstand only 40 lbs pressure.

17. The galvanized iron receptacles used for water for fire prevention in the various buildings have been found by experience to deteriorate in this climate and when so used. A supply of pickle barrels or other wooden containers of sturdy construction would be far better and less expensive in the end.

STOREHOUSES, PROPERTY AND STORES.

18. The quartermaster and commissary storehouses and several vacant buildings are used for storage purposes.

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Excess Property: There are 1500 iron cots stored at Fort Stevens that are deteriorating due to lack of labor to scrape and paint them. Shipment to some post where they can be used or find drier atmospheric conditions is recommended. About 11 tons of excess quartermaster property have been shipped from these Harbor Defenses since June 1, 1925.

Of these the quartermaster storehouse shows good arrangement of stores and supplies, which are kept in excellent condition. The basement of this building, whose floor is lower than certain lowlying wet ground in the vicinity is kept free of water by an automatic device operating when water is present on the floor. It seems capable of handling the situation.

19. The commissary building is well arranged but Sales Stores almost completely gone. This is a serious hardship for the garrison, isolated and remote from favorable purchasing centers. They urgently need from \$100 to \$200 per month of ration articles (in excess of troop requirements) for sales to individuals. Prices in Astoria are excessively high; and that is the only available market for the diminutive post exchange, since freight on the small shipments which the exchange can afford makes the selling price of articles purchased in and shipped from Portland abnormally high. A larger post could, and now does, in the general case, solve this problem through its post exchange. Here, that is impracticable and I firmly believe that they should have this extra money for ration articles even if more favored garrisons have to relinquish something to permit this arrangement.

COMMUNICATIONS.

20. Fire control telephones (with a few necessary exceptions for testing the lines), are tagged and stored centrally at Fort Stevens where they can be kept in condition by suitable heating arrangements, by means of which they are kept in excellent condition. They are so tagged as to be capable of prompt and correct installation when needed.

21. Recently a "kink" occurred in the cable between Forts Columbia and Canby, so that all lines went out with the exception of a single pair. Since my return I have received information that the "kink" was cut out and the cable spliced on October 21. The cable is now in excellent condition at that point. Lack of proper facilities for such work necessitated more labor and time than would ordinarily have been required and made the actual splicing especially difficult. It was found that one pair was grounded between the "kink" and Fort Canby, but as there are now four extra pairs in good working order no attempt will be made to locate exactly and repair this fault until next spring, when weather conditions may be expected to be reasonably favorable.

BATTERIES AND ACCESSORIES.

22. Inspection of batteries showed very satisfactory care. The

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weather was unusually dry for the season of the year; but the tendencies of certain battery magazines and galleries to leak were pointed out to the Corps Area Commander, as evidenced by discoloration of the walls, by small stalactites and stalagmites and other evidences of leakage in wet weather, and by the actual condition of projectiles not yet reached in the reconditioning process.

23. The work done in reconditioning projectiles and transferring powder charges to metal containers was most efficient. It is summarized as follows:

a. Completed transferring 6-inch powder charges to metal containers except 400 rounds for which there are no containers on hand. Additional containers had been shipped from Baritan Arsenal for the remaining 400 rounds, but had not arrived at the time of the inspection.

b. Scraped, red-lead, painted and restored 1945 cans of 10-inch gun - and 12-inch mortar-powder.

c. Cleaned and painted 1145 12-inch mortar projectiles, thus completing the painting of all mortar projectiles at Fort Stevens.

d. Now engaged in cleaning and painting 6-inch projectiles. By re-stacking powder and mortar projectiles, they have made available sufficient dry storage space for the 3000 6-inch projectiles now in Batteries Lewis and Walker, where the storage is not satisfactory.

The thoroughness and dispatch with which the work of painting powder cans and projectiles has been executed is due, in great measure, to Corporal Peter Nelson of the Ordnance Department who has been and is in immediate charge. His arrangements have been so perfect and his personal efforts so unceasing as to warrant the highest praise. The results were so astonishing that the Corps Area Commander commended Corporal Nelson in the presence of his Commanding Officer and the inspecting party.

MINE INSTALLATION.

24. The mine magazine at Fort Columbia was being painted and a new floor was being put in.

The mine storeroom at Fort Stevens as well as the cable tanks were inspected by the Corps Area Commander. Conditions were excellent.

The Commanding General remarked, however, that, though the paint was properly stored in the paint room of the mine storeroom, it would be far safer to store the paint in a small building constructed outside of the main building. This will involve a question of funds for suitable fire-proof exterior construction.

FORT RECORD BOOK, MAPS, PLANS, ETC.

25. Work on the Fort Record Book, (collecting and checking data), has been completed: so that all that is now necessary is to enter the data, which is up to date. This is in progress.

26. Mobilization plans have been completed. Local Defense of batteries is nearly complete as to plans; and Defense Plans under TR 435-300, paragraph 20, are now under way. In this connection, the grid map

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received from Corps Area Headquarters will require amendment in the following particulars:

- a. Grid lines on different sheets do not match.
- b. The road from Warrenton to Hammond is in dotted lines evidently indicating that it is unimproved. This road is paved.
- c. The grid map does not show the road from Ilwaco, Washington, to South Bend, Washington nor that from Lakeland, Washington to Westport, Washington.
- d. This map does not show Sand Island at the mouth of the Columbia River, nor the land built up off Cape Disappointment, adjoining the Fort Canby Reservation and forming a part thereof, nor does it show the north jetty.

ROADS AND COMMUNICATIONS.

27. Several priority estimates have already been submitted for the Fort Canby Road. Another will be submitted on December 31, 1925. This is a matter of prime importance for defensive purposes and as a principal channel of communication, since the Fort Columbia dock is falling down and money to properly repair it could not be secured. It is a very long dock and would cost \$30,000 to rebuild, but Fort Columbia forms part of the mine scheme. It looks as if all mine planting operations must be based on Fort Stevens. The road from Fort Canby, (the most important fort tactically on account of its position), to Ilwaco and North Head should be put in good permanent condition.

WORK ACCOMPLISHED.

28. Since April, 1925, (in addition to work elsewhere mentioned in connection with Buildings and Quarters, reconditioning of projectiles, and repair of the mining casemate at Fort Columbia), other important work has been accomplished as follows:

Engineer Department:

- a. Relocation of railroad from cable tanks to loading room and mine wharf.
- b. Removal of landslide from the emplacement of Battery Guenther and resloping of the adjacent ground to the right of No. 1 Mortar. (The slope strikes me as still being too steep, though presumably future possibilities have been duly considered).
- c. Retarring and painting of the platform and emplacements of Battery Murphy; stopping leaks in shell rooms.

RESERVATION FENCE.

29. Cattle in large numbers are often present on the reservation. These come from the adjacent Flavel and Hammond estates, which are involved, it is understood, in some litigation. Recourse to the courts is complicated and promises small results.

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It would cost \$3000 or \$4000 to fence the reservation sufficiently to keep them out.

It is not believed that the cattle do enough damage to warrant the expenditure of this amount of money under present conditions.

ARRISANS AND FUNDS.

30. Additional funds for Barracks and Quarters, for materials such as paint, down-spouts, etc., will be required.

31. There are now 4 Coast Artillery men who have been trained as carpenters and painters, eliminating the hire of civilians for ordinary repairs, making it possible to use all B and Q funds for the purchase of materials. All these men have at least one year to serve.

32. One enlisted tinsmith is needed for repairing gutters, etc. The quartermaster also wants 2 painters and 1 carpenter, Quartermaster Corps to replace the Coast Artillery men now working for him. While these men could be used on their normal work to great advantage, the tinsmith alone is urgently needed at the present time.

NATIONAL GUARD ENCAMPMENT.

33. Due to the obvious desire of the Oregon State authorities, as well as of the Oregon Coast Artillery troops themselves, to have their summer encampment at Fort Stevens, the matter has been virtually settled in favor of such a course.

Accordingly, Major Ferguson who commands the 249th Coast Artillery, Oregon National Guard visited Fort Stevens shortly after my inspection in order to consult with regard to the facilities available for the encampment. His view was that they would use Battery Russell (2 10-inch guns) and Battery Clark (4 12-inch Mortars). It seems to me that they should also use the 6-inch battery (Pratt) at Fort Stevens, as that accords with their war assignment, and his plan apparently involves using more than one company at a battery.

However, if only these two batteries are to be used, the only observing stations necessary will be B1/1 B2/1 and B.C. Russell and F1/3 F2/3 and B.C. Clark. It may be necessary to use F3/3 Clark for mortar subcaliber in order to avoid topping too many trees. This arrangement will reduce the topping of trees to a minimum. Such work on the trees can probably be performed for the most part, by the garrison before the National Guard arrives; but, if not, Major Ferguson thinks it can be easily done by the National Guard after their arrival.

34. Major Ferguson was informed by the Commanding Officer that about all that could be done by the garrison would be the issue of the necessary equipment and materiel, supervision of the installation of telephones, time interval bells and other fire control installation and supervision of the operation of power plants, the National Guard furnishing the men to do this work and an electrician sergeant of the garrison superintending it.

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The National Guard will clean the guns and carriages, repair targets and furnish their own instructors.

The 249th Regiment will, it is understood, send an advance detail under their supply officer to draw equipment and police and prepare quarters for occupation by the 249th.

They will bring the necessary motor transportation, and expect to hire a tug for target practice work.

The fire control and communication cables will be tested and repaired by the regular garrison prior to the arrival of the National Guard troops.

It is understood that this plan was entirely satisfactory to Major Ferguson, who had apparently not expected to find conditions so favorable to the use of Fort Stevens for the National Guard encampment.

35. The above arrangement will take the minimum of time on the part of the garrison away from their routine duties; much more could, of course, be done by suspending some regular work. Unfortunately the camp falls in the most favorable season for out-of-door caretaking work, and the season is short; so that, unless an addition can be made to the regular garrison, cessation even in any considerable part, of routine caretaking work in the dry season would be ill advised.

36. The Harbor Defense quartermaster is preparing a list showing the articles of camp and garrison equipment on hand and the amount of each; this will be sent to the Commanding Officer and the Supply Officer of the 249th Coast Artillery with the request that they indicate what supplies listed thereon they will probably need and whether the quantities shown as on hand will be sufficient.

37. They will also be requested to furnish a list showing supplies and quantities required that are not on hand in order that requisition may be made by the Commanding Officer at Fort Stevens for these supplies when it is definitely decided that the Camp is to be held at Fort Stevens.

AMMUNITION SITUATION.

38. In the study of the redistribution of ammunition for seacoast guns in the Ninth Corps Area, the Commanding Officer, Harbor Defenses of the Columbia and a representative of the Ordnance Department (Ammunition Foreman, Ninth Corps Area) have reached the conclusion that there should be shipped from these Harbor Defenses to the Harbor Defenses of San Francisco, the following:

488 6-inch A.P. Shell (not loaded) with base cover complete with fuzes and fuse seat liners.

460 10-inch A.P. Shot (not loaded) with base covers complete and fuse seat liners.

39. Of direct interest in connection with the National Guard encamp-

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ment in June, 1926, is the information that the following target practice ammunition is on hand in the Harbor Defenses of the Columbia:

76 6-inch C.I.	108-lb projectiles.
110 10-inch C.I.	617-lb projectiles.
18 12-inch Mortar	700-lb projectiles. C.I.
18 12-inch Mortar	Charges Zones 8B-9.
85 rounds 12-inch Mortar	sub-caliber ammunition of which 27 are of Zone 2 Charge and 58 of Zone 3.

It is important that this target practice ammunition be held at Fort Stevens and not withdrawn for use at active Harbor Defenses as has been customary for several years.

40. It was also found that, by transferring 12-inch mortar ammunition from Battery Clark, Fort Stevens, to Battery Guenther, Fort Canby (a far more important battery tactically) in sufficient amount to complete the war reserve for Battery Guenther plus such of the surplus as can be stored there and by making the shipments referred to in paragraph 38, sufficient suitable storage space will be made available to enable wet magazines to be vacated and all ammunition placed in satisfactory storage thus eliminating the necessity of costly shipments to Ogden Arsenal.

41. The cost of transferring 12-inch Mortar ammunition from Fort Stevens to Fort Canby is being investigated by the Harbor Defense Ordnance Officer.

42. In this connection it seems necessary to again call attention to the necessity of transferring the ammunition (more than 1000 rounds) from 6-inch Battery O'Flyng at Fort Canby to Battery Allen of the same caliber, both at Fort Canby. The former has no guns in it and the latter but 40 rounds of ammunition.

They are on two different hills not far apart but steep enough to preclude movement of this ammunition by ordinary means. They are too far apart for a wire rope to be used; and movement by pack mules is indicated as the simplest and most reliable way. The projectile weights are entirely suitable to this form of transportation.

CONCLUSIONS.

During the past year at the Harbor Defenses of the Columbia caretaking work has been unusually intensive, redistribution of ammunition has required much study, requirements for next year's National Guard Camp have been foreseen and tentative arrangements made well in advance, and the commanding officer has had a most difficult role to play in regard to the salmon fishing situation connected with Sand Island and Peacock Spit.

In all these duties and in his general conduct of his command, he has shown great initiative, energy, judgment and tact.

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These facts, coupled with continued observation of his work through repeated former inspections, convince me that the Commanding Officer, 1st Lieut. Sargent P. Huff, Coast Artillery Corps is deserving of commendation.

(ALSTON HAMILTON)
Colonel, Coast Artillery Corps,
Inspector.

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1st Ind.

-wjf

Hq Ninth Coast Artillery District, Presidio of San Francisco, California,
November 14, 1925 - To: Commanding General, Ninth Corps Area.

1. Approved.

(H. D. TODD JR)
Brigadier General, U.S. Army,
Commanding.

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June 28, 1926.

Inspection of the Harbor Defenses of the Columbia.

Commanding General, Ninth Coast Artillery District.

1. In compliance with paragraph 18, Special Orders No. 108, Headquarters, Ninth Corps Area, May 14, 1926, I inspected the Harbor Defenses of the Columbia on June 7 and 8, 1926.

2. GARRISON.

The garrison consisted of the Harbor Defense Commander, 1st Lieutenant Sargent P. Huff, 3rd Coast Artillery, 1st Lieutenant Frederick H. Chamberlain, jr., 3rd Coast Artillery, 1st Lieutenant Elmer K. Pettibone, Q.M.C., Battery "F", 3rd Coast Artillery and Medical, Quartermaster and Ordnance detachments.

3. ARMAMENT.

The armament showed thorough care in maintenance and was generally in excellent condition. It is worthy of note, however, that the rust-preventing compound as a preservative for armament is not an unqualified success. Upon its removal from guns to be fired by the National Guard it was found that the recoil rollers and roller paths of all guns showed some rust, though no actual injury had been done by it. The rust was worse in the cases of those batteries to which the rust preventing compound had been applied during rainy weather although the guns and carriages had been kept dry when the compound was applied by using paulins. The compound was applied in 1924. Battery Clark, (4 12-inch mortars) was found to be in better condition than any of the gun batteries, due probably to the fact the compound was applied to this battery during the driest weather, as Battery Guenther (4 12-inch mortars) which was treated with this compound during wet weather shows that this battery has rusted to about the same extent as the gun batteries. No permanent damage was caused in any case by the rust. The Harbor Defense Commander believes that the 1 to 1 mixture of the rust-preventing compound, carefully applied, in dry weather, to armament out of service will satisfactorily preserve gun batteries for two years and mortar batteries for three years. This difference exists because of the rollers and roller paths on the gun carriages

*Maintained
see above
next p.*

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which it is very difficult to completely cover with the compound so as to exclude moisture; and as a consequence it is necessary to clean them every two years to prevent permanent damage.

It is recommended that this compound be not applied to batteries that will be fired by the National Guard each year, as the work of applying the compound and removing it each year is excessive; and preservation with slushing oil is far preferable in such cases. *mat*

I think that there is reason to doubt that the rust preventing compound is as good as slushing oil with a proper percentage of resin which may be poured on hot and penetrates interstices thus tending to drive out and subsequently exclude any moisture (not excessive) that may be present. Some old carriages showed, under a coat of slushing oil and resin which had been applied many years ago, a bright metal surface without rust. *mat.*

4. PREPARATIONS FOR THE NATIONAL GUARD.

In addition to its normal work and to its special work of preparing for shipment, before June 30, a large amount of ammunition, the garrison has given priority to preparation for the National Guard encampment. This involved installing telephones, establishing and testing out communications, conditioning the armament to be used, (which was all out of service) securing supplies and preparing quarters and messes for use by the National Guard.

These activities were proceeding very satisfactorily and gave promise of complete preparation by the time of arrival of the Oregon National Guard, due June 15.

5. PERSONNEL.

There is only one enlisted man in the entire command with less than one year of service. This man has completed recruit instruction. All other men have received training and been qualified under minimum specifications for enlisted men of one year's service. In this connection the Harbor Defense Commander informed me that reduction of training had been tried in order to devote all time to caretaking and that he had found it necessary for morale and contentment to resume sufficient drills and instruction to satisfy the natural desire of the soldiers to have some work of a military nature the minimum requirements being eventually attained by this process. I am convinced that this is fundamentally sound and, moreover, that to make these men workmen to the exclusion of all military features is not only unjust to the men (in that it keeps them inferior in development to other Coast Artillery troops), but not economical for the Government. I am fully satisfied that the remarkable efficiency of this garrison as workmen is measurably due to their thorough, if elementary, training and to their high morale and contentment consequent upon wise control and administration. To abate materially from the present elementary training would be a mistake; and to suppose that a smaller number of men could do the caretaking as efficiently if training were altogether omitted would not be warranted by the facts. *Sparks
Amplified
157 Ca
plm*

6.

AMMUNITION.

Reconditioning of projectiles has been necessarily interrupted by crating and otherwise preparing for shipment excess ammunition to be shipped within this fiscal year, and by preparations for the National Guard encampment (249th Coast Artillery).

In preparing projectiles for shipment it was necessary to cut lumber and make crates for 743 10-inch projectiles and 155 1046-lb 12-inch mortar projectiles. When I inspected all shipments of excess ammunition had been made except one of 150 fuses which were to be shipped in a few days.

In the process of reconditioning and painting projectiles it was found that some of the 10-inch shell had had the base covers assembled without the projectiles being fused. This had been done during the World War. About twenty projectiles in that condition had been found and it was believed that there were about as many more not yet located. By September they will all be found and proper assembly made.

The reconditioning of all projectiles is expected to be complete early in September. After this is done a more satisfactory arrangement can be made by assigning certain men permanently to each battery. If dry weather continues and there is a late fall it should be practicable to repaint practically all guns before the wet weather begins.

7.

BARACKS AND GUN HOUSES.

The necessity for shipping ammunition and preparing for the National Guard encampment has absorbed the efforts of the garrison, to the extent of preventing perfect police of the post and of buildings and storerooms, so that they were somewhat less presentable than usual although satisfactory under the conditions.

Actual repairs to buildings have made great progress and all money has been used for materials, paint, etc., the labor being done by the members of the garrison.

By the end of the fiscal year the Quartermaster will have on hand a good stock of materials for repairs including sufficient paint to give all buildings one coat. With next year's funds and enlisted labor all the buildings should be placed in good repair by June 30, 1927.

8. It seems important to here again emphasize the necessity for a tinsmith at Fort Stevens. In the repair of buildings to prevent or cure leakage his services are essential.

This has been already reported by me with no results to date. A carpenter is also needed, as well as a plumber, as the post plumber, Mr. Tetlow, died shortly after my inspection. He should be replaced by a qualified plumber: a permanent civil service employe.

9.

STORES.

Property and stores were satisfactorily arranged and cared for,

and subsistence conditions bettered by the operation of a small post exchange. Conditions are now satisfactory and this is due in large part to authority received from Corps Area Headquarters to keep a limited amount of subsistence staples for sale, the post exchange handling additional articles. Both are necessary because of the re-
cess of this command from any buying center.

10. 10.

MAGAZINES.

There is now dry storage for all ammunition remaining in the Harbor Defenses of the Columbia. This is due in part to the removal of excess ammunition and in part to proper ventilation. One battery, in particular, has acquired a bad reputation as a storage place for ammunition; but ventilation has greatly improved conditions and the Harbor Defense Commander believes that the leaks in Battery Highler can and should be stopped by the Engineers and that gratings should be installed on the doors of its powder magazines to facilitate ventilation. If this is done suitable storage for a large amount of ammunition will be available.

11.

FIRE CONTROL CABLES.

Fire control cables have been tested monthly with a megger to include May, 1926. The Bridging Megger assigned to the Harbor Defenses of the Columbia was shipped to the Harbor Defenses of Puget Sound for temporary use under instructions from the Chief of Coast Artillery. The 5-megohm megger assigned the Harbor Defenses of the Columbia was shipped to the Signal Officer, Ninth Corps Area for repairs and has not been returned. The only instrument now available for testing is a voltmeter using the fall of potential method. This method is slow and inaccurate.

The bridging megger will be necessary for the annual submarine test and can be used for testing fire control cable until the 5-megohm megger is repaired. It should be returned from the Harbor Defenses of Puget Sound for this test.

12.

POWER PLANTS.

Power plants examined were in excellent condition. I found, however, that there now remain only 15 gallons of gasoline where it has been on hand in a tank since 1920. It is practically the dregs of the original lot and has to be strained and otherwise prepared before using it in the periodical tests of the 25-k.w. sets composing the emergency power plants of the command.

A supply of gasoline for the test and exercise of these units is essential, not only here but at the Harbor Defenses of San Diego. This matter should receive early attention as it involves only a small expenditure and is of great importance to these indispensable power units.

13.

COMMUNICATIONS.

All telephones not required for actual use are centrally stored

for preservation under dry conditions and with proper temperature. At present a certain number have been withdrawn from such storage and installed at batteries and stations for the use of the National Guard in their summer encampment, after which they will again be placed in storage.

The fire control switchboard formerly at Fort Columbia and in unserviceable condition, (because of condensation in Battery Ord where it was installed during the World War) has been sent to San Francisco where it was found not worth repairing.

In this connection it would be important, in the event of emergency, to have a suitable fire control switchboard at Fort Columbia; and I believe that, though it should not be installed in Battery Ord, or even at Fort Columbia, a fire control switchboard for Fort Columbia should be on hand in the Harbor Defenses of the Columbia, preferably stored at Fort Stevens under the same storage conditions as the telephones.

14.

PLAINS.

Grid maps have been prepared by the Corps Area Engineer and are on hand at the Harbor Defenses of the Columbia. The Harbor Defense plans are in preparation under instructions as to general form sent from this office on April 12, 1926.

15.

WILLAPA BAY.

The 6-inch guns at Willapa Bay were inspected and found in satisfactory condition. They are provided with paulins which are well designed to keep out the sand constantly blown about by the wind. There seemed to be some difficulty about placing the sight brackets on the carriages because of an apparent discrepancy between the Ordnance drawing and the actual material.

16.

ARMORY AT MARSHFIELD.

In passing through Marshfield, Oregon, I took advantage of the opportunity to see Lieut. Colonel Duncan Ferguson, jr., 248th Coast Artillery, Oregon National Guard and to go through the armory located there. It is so situated that the water area of that arm of Coos Bay on which Marshfield and North Bend are situated affords ranges over water of from 2000 to 8000 yards and the armory is so constructed and situated that a searchlight and 25 kilowatt set could easily be accommodated and used for night drill.

The application of Colonel Ferguson for a power unit and searchlight was favorably considered by this office (4th Ind. these headquarters, May 7, 1926, file No. 412.41 on letter, Hq. 249th Coast Artillery, Oregon National Guard, April 10, 1926, Subject: "Twenty Five K.W. Generator and Searchlight") to the extent of recommending that funds be made available by the Militia Bureau to supply these. Actually removing them from the Harbor Defenses of the Columbia was not recommended; but the situation is such that this additional equipment may with profit be given to this armory, as interest would be greatly increased and much valuable training secured.

17.

TRANSPORTATION.

Motor, horse-drawn and water transportation were in serviceable condition.

18.

FISHERIES.

Salmon fishery matters were quiet enough while I was at Fort Stevens, as the season is late this year, relatively few fish having yet been caught; but it was anticipated that further developments might be anticipated in the near future.

As instructions covering Sand Island and Peacock Spit are now quite definite, no insuperable difficulties are anticipated.

19.

COMMISSIONS.

The Harbor Defenses of the Columbia showed evidence of excellent administration and control; not only routine work but a great deal of extra work had been done and priorities had been so arranged that no inconvenience resulted either to the National Guard or to the shipment of excess ammunition prior to the end of the fiscal year, 1926.

For this the commanding officer and the entire garrison deserve great credit, as they labored under difficult conditions.

(ALSTON HAMILTON)
Colonel, C.A.C.

333.1

1st Ind.

Hq. Ninth Coast Artillery District, Presidio of San Francisco, California,
July 1, 1926 - To: Commanding General, Ninth Corps Area.

1. Approved.

H.D.J.
(H. D. TODD, JR.)
Brigadier General, U.S. Army,
Commanding.

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-vji

July 1, 1926.

Inspection of the 249th Coast Artillery,
Oregon National Guard.

Commanding General, Ninth Corps Area.

1. In compliance with paragraph 8, Special Orders No. 136, Headquarters Ninth Corps Area, Presidio of San Francisco, June 17, 1926, I inspected the above named unit at Fort Stevens, Oregon on June 23 and 24, during its annual field training period.

2. This inspection was made under the provisions of paragraph 2 b. AR 90-30 which states that the Coast Artillery District Commander "is also charged, under the Corps Area or Department Commander, with supervision of the training and instruction of all Coast Artillery units of the National Guard within the territorial limits of his district, when not in the service of the United States."

3. PERSONNEL.

The Consolidated Strength Return at midnight of June 23, 1926, showed the following present:

Commissioned Officers: National Guard 25
" " C. A. Reserve Corps 1

Enlisted Men: National Guard 292

The Command is organized into a headquarters, headquarters detachment, five batteries and a medical detachment.

Commanding Officer: Lieutenant Colonel Duncan Ferguson, jr.

4. APPEARANCE.

In general, this was soldierly. Officers and men were fairly well dressed, seemed alert and interested in their work. The extremely long hair worn by many of the enlisted men detracted however from their otherwise soldierly appearance.

5. HEALTH.

With the exception of one case of smallpox, this was excellent. This case was discovered upon arrival at the post. The patient was immediately isolated, the entire command vaccinated and no other cas-

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es developed.

The National Guard authorities should be supported in their efforts to require all their personnel to be protected against smallpox before going into camp.

6. AVERAGE AGE.

Enlisted men; about 20 years. They were mostly students in the high school grades.

7. TRAINING.

Schedules were well prepared and efficiently carried out. The instruction was progressive and it was evident that the command was being benefited.

During the inspection at the batteries, subcaliber practice was in progress. The range sections were functioning with accuracy and smoothness and the gun sections appeared well drilled.

In general it is believed that the armory training through the year had satisfactorily prepared the command for its work at the batteries.

8. MISSION.

This Command in addition to being required to keep in readiness to carry out such orders as may from time to time be issued by the Governor of the State has, when brought in to the Federal Service, as its principal mission the reinforcing of the regular garrison in the Harbor Defenses of the Columbia.

At present these Defenses are on a caretaking status and consequently receiving, sheltering and supplying the National Guard troops imposed a large task upon the regulars.

9. From my personal observation and also from the reports of the National Guard officers I formed the opinion that First Lieutenant Sargent P. Huff, 3rd Coast Artillery and his small garrison had met the situation in an excellent manner and had the required armament and its accessories ready to turn over to the visiting troops.


(W. H. TOWN, JR.)
Brigadier General, U.S. Army.

333.12/7F1 Incl 1

OFFICE CHIEF OF ENGINEERS
MAR 30 1928
333.1(Col.R.) 7/1

To: Commanding Officer, Harbor Defenses of Columbia,
Fort Stevens, Oregon.

I. Subject: Inspection of Signal Corps equipment at Fort Columbia, Wash.
for the calendar year 1927.

Inspection made) Par. 3, S.O. #122, Hdqrs. 9th Corps Area,
per instructions) dated July 8, 1927.

Last inspection made Sept. 12, 1926 by Frank J. Schaal, Elect.
Asst., S.S.L.

This inspection made Aug. 1, 1927, by Frank J. Schaal, Asst.
Elect. Engr., S.S.L.

II. Post telephone system.

1. Switchboard. None.

(a) The switchboard was shipped to the Signal Section, S.F.G.D., Fort Mason, for repair and return. It was found, however, to be beyond economical repair and was surveyed as required by existing army regulations.

(b) At the present time there is one C.A.T. wall telephone installed in the caretaker's quarters at Fort Columbia and is connected to the Fort Stevens' switchboard.

(af) In view of the fact that Fort Columbia is on a caretaking status, the replacement of the swtichboard in par. (a) above is not recommended.

2. Main distributing frame and protector equipment. None.

(a) The main distributing frame and protector equipment was disconnected and shipped, together with the switchboard, to the Signal Section, S.F.G.D., Fort Mason, for repair and return. It was found to be beyond economical repair and was surveyed as required by existing army regulations.

3. Intermediate distributing frame. None.

4. Relay rack. None.

5. Wire chief's equipment and chief operator's equipment. None.

6. Station equipment.

(a) The C.A.T. wall telephone which is installed in the caretaker's quarters and connected to the Fort Stevens' switchboard is the only post telephone in use. It is in good condition.

III. Storage battery.

1. Electrolyte.

- (a) Battery is out of service.
- 2. Plates.
 - (d) Plates are coupled together by bolts.
- 3. Containers.
 - (a) The containers are in good condition.
 - (b) The battery stand is in good condition.
- 6. General condition and treatment.
 - (b) The battery is out of service.
 - (e) Lighting fixtures are painted with acide proof paint.
 - (i) Battery is not grounded.
 - (j) The separators would necessarily have to be replaced if the battery was to be put back into service.
 - (k) No recommendations

IV. Charging equipment.

- 1. Motor generator.
 - (a) The motor generator has been removed and stored in the Artillery Engineer's storeroom at Fort Stevens, Ore., where it was placed in first-class condition, in accordance with the recommendation of the Signal Corps inspector under par. IV, sub. par. 1-L, in the last annual report of inspection of Signal Corps Plant in Place, which was approved by letter of the Commanding General, 9th Corps Area, dated February 28, 1927. However, the instructions contained in par. 3 of letter of The Adjutant General dated July 13, 1927, that this equipment be reinstalled in its assigned location, for the annual technical inspection, has not been complied with.
 - (1) Covered under general recommendations.
- 2. Mercury arc rectifier. None.
- 3. Power panel.
 - (a) The power panel has been stripped of all equipment, leaving panel in place, and the equipment stored in the Artillery Engineer's storeroom at Fort Stevens, where it was put in a servicable condition, with the exception of the voltmeter and motor-starter, which could not be repaired locally, and was shipped to the Signal Section, S.F.G.D., for repair and return.

(j) The above equipment was not replaced in its assigned location for the annual technical inspection.

V. Ringing equipment. None.

VI. Underground system.

1. Manholes.

(e) Battery lighting cables, 110 volts, D.C., are in the same manholes but in separate duct lines. Manholes are constructed of concrete.

(f) No recommendations.

2. Cables.

(d) The insulation of all conductors of cable A-1 is low, the insulation being only 500 thousand ohms.

The insulation on all conductors of cable G-1 tests one megohm.

The insulation of pair 6, cable K-1, is very low.

Pair #10, submarine cable 337, shorted and grounded.

(h) The following cable testing instruments are available at Fort Stevens, Oregon:

1	each	Megger, Evershed,	1000	megohm
1	"	"	5	"
1	"	Faultfinder, Leeds & Northrup		

(i) Recommend that the trouble be removed from the cables mentioned above, as soon as practicable.

3. Terminal boxes.

(b) All potheads in main terminal box, located in fire-control switch-board room, have been recently overhauled and are in good condition

(j) No recommendations.

VII. Aerial system.

1. Poles.

(a) The poles are in fair condition.

2. Guys.

(e) No other guys are needed at other points.

3. Cables. None.

6. Wires.

(a) The wires are in fair condition.

8. Crossarms.

(a) The crossarms are in fair condition.

VIII. House and block cable. None.

IX. Telegraph station. None.

X. Radio station. None.

XI. Target-range system. None

XII. Records and tests.

1. Maintenance test.

(e) Maintenance tests are made every three months.

(c) Cables are tested for insulation every three months.

(f) No recommendations.

2. Battery records.

(a) The storage battery is out of service.

3. Intermediate distributing frame, and main distributing frame. None.

4. Directory. None.

5. Revocable licenses.

(a) Copy of the revocable license is on file in the office of the Harbor Defense Commander at Fort Stevens, Ore.

(b) See Sheet No. 17, W.D.S.C. Form 211.

(c) There is no other electrical communication on the post not otherwise described.

(d) No recommendations.

6. Maps.

(a) The usual fire-control prints are furnished by the Corps of Engineers: They have been recently revised.

XIII. Fire-control system.

1. Stations and batteries.

- (a) The station wiring in all stations has been recently overhauled.
- (b) The following sub-station equipment has been removed from stations and batteries.

The B.C. and gun telephones have been removed from the emplacement of Battery Murphy and stored in the plotting room.

All headsets from plotting room and emplacements have been taken to Fort Stevens for storage.

All telephones and T.I. bells in stations have been removed and taken to Fort Stevens for storage.

- (c) All megaphones are stored in the Artillery Engineer's storeroom at Fort Stevens, Ore. They are in good condition.
- (ae) None of the above sub-station equipment was replaced in its assigned location for the annual technical inspection.

2. Distributing and power switchboards for fire-control system (exclusive of post telephone system).

- (a) The framework should be scraped and repainted: The wiring is badly mildewed.
- (b) The meters have been removed and taken to Fort Stevens for storage.
- (d) The rheostats have been removed and taken to Fort Stevens for storage.
- (e) Circuit breakers have been removed and taken to Fort Stevens for storage.
- (g) The switches are corroded.
- (h) The fuse alarm signals are unserviceable. All wiring is badly mildewed.
- (i) Recommend that new coils be obtained to replace the signals listed above, but not be installed until such time that the fire-control switchboard is put back in service.

None of the equipment listed under pars. b, d, and e above was replaced in its assigned position for the annual technical inspection.

3. Time-interval apparatus, panel and circuits.

- (a) The time-interval apparatus has been removed and taken to Fort Stevens for storage. It is in good condition.

5. Meteorological station. None.

XIV. Signal equipment supply.

1. Storeroom.

- (a) All supplies are stored in the Artillery Engineer's storeroom at Fort Stevens.

XV. Conclusion, remarks and general recommendations.

1. The following changes have been made in the system since the last inspection.

- (c) The following equipment was removed from the fire-control switchboard room, stations and batteries, and taken to Fort Stevens for storage:

Motor generator

All equipment was removed from the power and fire-control switchboards, leaving panels in place.

by letter

The removal of the above equipment was authorized from the Commanding General, 9th Corps Area, dated February 28, 1927.

The removal of the sub-station equipment mentioned in par. XIII, sub. par. 1 (b), above, was authorized by 19th indorsement of The Adjutant General dated August 1, 1923.

2. In the opinion of the undersigned the instructions contained in par. 3 of letter from The Adjutant General dated July 13, 1927, file No. AG 660.02 Misc., are objectionable when applied to the conditions of this post, for the following reasons:

- (a) The fire-control switchboard room at Fort Columbia is very damp, in fact on both occasions that it was visited by the undersigned the floor was wet. In the opinion of the undersigned, it is impracticable to install any equipment whatsoever in this location as long as this post is on an inactive status.

- (b) The caretaking detachment in this post consists of one man.

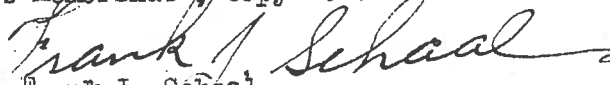
- (c) Due to the lack of transportation facilities and the lack of sufficient technical personnel, and the remote location of this post from Fort Stevens, it is considered that the re-installation of this equipment for each annual technical inspection is impracticable.

3. In view of the foregoing, it is recommended that the equipment listed in par. 1 above be retained in storage at Fort Stevens, and that it not be reinstalled until such time as its reinstallation is made necessary for actual use.

4. It is recommended that all sub-station equipment removed from stations and batteries, together with the meters and coils, etc., which were

removed from the fire-control and power switchboards, be tested out in the Artillery Engineer's storeroom at Fort Stevens, at least once every three months, by using a portable storage battery provided for that purpose.

5. Recommend that at the time the annual Signal Corps inspection is made that this equipment be tested out in the Artillery Engineer's storeroom, Fort Stevens, in the same manner as outlined in the preceding paragraph.
6. Recommend that all station wiring and jumper wires in terminal boxes be left intact, and connected to the cables, and that every effort be made to maintain same in a serviceable condition.
7. This report, consisting of Signal Corps Form 204, and corrected sheets Nos. 8, 10, 12, 14, 15 and 17, Form 211, Signal Corps Plant in Place, for the calendar year 1927, is submitted in quadruplicate, for distribution as follows: One copy of Form 204 and one copy each of the corrected sheets, Form 211, are to be retained at the Harbor Defenses of Columbia, Fort Stevens, Ore., and the remaining three copies of Form 204, and corrected sheets, Form 211, should be forwarded to the Commanding General, 9th Corps Area, by indorsement on each of the Forms 204. In connection with the forwarding of this report, attention is invited to the provisions of par. 10 b, A.R. 105-20, and par. 4 b, "Signal Corps Inspector's Memoranda", copy herewith.


Frank J. Scheal,
Asst. Elect. Engr., S.S.L.

2 Incls.
#1-Corrected Sheets-Form 211
#2-S.C. Inspector's Memoranda

1st. Ind.

Hq. H.D. of the Colombia, Fort Stevens, Ore. Dec. 10, 1927: To. Comd'g General
9th C.A. District, Presidio of San Francisco, California.

1. Re-defects as noted in basic report, the following remedial measures
have been taken.

VI- Underground System.

2. Cables.

- (d) Steps will be taken to bring up insulation of all cables by renewing
potheads with T.M.-88 terminals, which are being requisitioned.

XIII- Fire Control System.

2. Distributing and Power switchboards for Fire Control System.

- (a) Frame work scraped and painted. Wiring cleaned with alcohol and shells
(g) Switches cleaned.
(h) Fuse alarm signals to be replaced on receipt of new ones.

RECEIVED DEC 17 1927

HQ. 9th C.A. DISTRICT



G.R. Owens
Captain C.A.C.
Commanding.

Columbia

333.1

2nd Ind.

F/jpi


Hq Ninth Coast Artillery District, Presidio of San Francisco, Calif., Dec 30/27
To CG Ninth Corps Area.

1. The report of the Inspector and the action of the Commanding Officer are approved.

2. It is recommended that the report be taken as a request for the specific approval of the War Department referred to in the last sentence of paragraph 3, WD letter AG 660.02 (7-2-27) Misc July 13, 1927, Subject: "Policy as to Equipment at Coast Artillery Posts", as to reinstallation of equipment for annual technical inspection.

3. There is one 6" battery at Fort Columbia, the entire switchboard room equipment should be dispensed with and this 6" battery should be operated, as to communication system, in the manner approved for distant stations remote from telephone power source, i.e., by portable storage battery. The present switchboard room is not a fit place for the installation of electrical equipment and it is wasted effort to try to maintain any firecontrol equipment there at the present time or in time of emergency.

2 Incls


L. C. BROWN,
Colonel, Coast Artillery Corps,
Commanding.

HEADQUARTERS
NINTH CORPS AREA

JAN 7 1928

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RECEIVED

STATION EQUIPMENT—Continued

Apparatus	Amount	Mfr. and mfr.'s code	Auxiliary apparatus	Amount	Mfr. and mfr.'s code
Protectors	1	Mason	Keys		
Protectors			APPARATUS NOT LISTED:		
Protectors					

STORAGE BATTERIES

	Number of cells	Manufacturer	Manufacturer's type	S. C. type	Type of positive plates	Type of negative plates	Size of plates
No. 1	15	E.S.B. Co.	E 5	E 5	lead	lead	7 $\frac{3}{4}$ x 7 $\frac{3}{4}$
No. 2							
No. 3							

	Number of positive plates	Number of negative plates	Kind of separators	Kind of covers	Kind of insulators	Material of trays	Kind of trays	Kind of jars
No. 1	2	3	wood	glass	glass	wood	sand	glass
No. 2								
No. 3								

	S. C. order number	When installed	Use of battery	Location of battery	Which side is grounded?
No. 1	Unknown	Unknown	Power to F.C. system	Swbd room	None
No. 2					
No. 3					

	Is battery in cabinet?	Battery equipment	Kind	Manufacturer's code	REMARKS
No. 1	NO	Thermometer	None		Battery out of commission
No. 2		Hydrometer			
No. 3					

CHARGING EQUIPMENT OTHER THAN RECTIFIERS

	Volts	D. C. or A. C.	R. P. M.	Watts	Amperes	Horsepower	Cycles
Generator No. 1	45	DC	1600	500	11.1	*	
Generator No. 2							
Generator No. 3							
Motor No. 1	110	DC	1600		3/4	*	
Motor No. 2							
Motor No. 3							

Equipment marked with an asterisk (*) has been removed and stored in Artillery Engineers' storeroom, Fort Stevens, Ore.

POWER PANELS (including fire control power panels)

	Panel No. 1		Panel No. 2		Panel No. 3	
Signal Corps type	Unknown		Unknown			
Manufacturer's code	"		"			
Where installed	Swbd room					
EQUIPMENT ON PANEL	Mfr.'s code and mfr.'s Panel No. 1	Amount	Mfr.'s code and mfr.'s Panel No. 2	Amount	Mfr.'s code and mfr.'s Panel No. 3	Amount
Ammeters	24 Weston	1 *	None			
Circuit breaker	Type H ITE Cutter-Hammer	1 *	"			
Coils, retardation	None			10		
Relays, underload	"		None			
Relays, overload	"		"			
Rheostats	Ward-Leonard	1 *	"			
Switches	Unknown	4	"			
Voltmeters	24 Weston	1 *	"			
Wattmeters	None		"			
APPARATUS NOT LISTED						
Equipment marked with asterisk (*) has been removed and stored in the Artillery Engineer's storeroom, Fort Stevens, Ore.						

FUSES ON POWER PANELS

Panel No. 1				Panel No. 2				Panel No. 3			
Signal Corps type	Manufacturer's code	Circuit	Amount	Signal Corps type	Manufacturer's code	Circuit	Amount	Signal Corps type	Manufacturer's code	Circuit	Amount
3	Unknown	Power	14	1	Unknown	Signal & tele	8				

Submarine Cables

Cable No.	From	To	S.C. Type	No. of pairs	Description
462	Ft Columbia	Ft. Canby	321	12	
336	"	Ft. Stevens	324	22	

Aerial System

Poles	No. Installed	Kind	Size
	10	Cedar	32

Cross arms	No. in-stalled	Kind	Size	Terminals	No. in-stalled	Mfr.'s code	Size in pairs	Kind of Protector
	30	Unknown	4 pin	cable	1	Cook S-6	10	fuses & carbons

No aerial cable

FIRE-CONTROL EQUIPMENT

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Bell, time, interval, large (MC-10)	2		Megaphones (M-64)	0	
Bell, time, interval, small (MC-8)	1		Outlet, zone, signal lamp (JM-7)	0	
Bell, zone, signal (M-54)	0		Panel, station switch	0	
Bell, extension, loud-ringing (MC-9)	0		Signals, firing, B.C. (EE-22)	0	
Blocks, telephone, terminal (TM-70)	10		Signals, firing, pit (EE-23)	0	
Boxes, cut-out, switch (EE-68)	0		Switch, hand set (BC-94)	1	
Boxes, emplacement (BE-30)	0		Switch, key set	0	
Boxes, junction standard (JB-3)	1		Switches, knife	0	
Boxes, junction target range (JB-5)	0		Switch, push, zone signal (SW-63)	0	
Boxes, metal for T. I. bell (BE-41)	2		Switchbox, base line (BC-96)	0	
Boxes, metal terminal 2-strip (TM-66)	0		Telephones, C. A. T., wall (EE-27)	4	
Boxes, metal terminal 4-strip	0		Telephones, C. A. T., desk (EE-26)	0	
Boxes, metal terminal 8-strip	0		Telephones, C. B. F. C., wall (EE-31)	0	
Boxes, terminal (TM-88)	5		Telephone, C. B. A. T., wall (EE-71)	0	
Boxes, outlet, searchlight	0		Telephone, C. B. F. C., desk (EE-77)	0	
Cabinet, cut-out (BD-20 and BE-37)	1		Telephone, plotters, C. B. F. C. (EE-59)	4	
Cabinet, terminal	3		Telephone, gun, C. B. F. C. (EE-75)	0	
Controller, zone, signal (BC-92)	0		Telephone, plotters, C. B. A. T. (EE-74)	0	
Jack sets, cut-off	0		Telephone, gun, composite (EE-30)	2	
Key, strap, large (J-21)	0				
Key, strap, small (J-22)	0				
Lamp, zone, signal (LM-12)	0				

FIRE-CONTROL EQUIPMENT—Continued

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Telephone, B. C., C. B., F. C. (EE-62)	0		Switches, knife D.P.D.T. 25 amp.	2	
Telephone, B. C., composite (EE-24)	1				
Telephones, hand set (TS-1 or EE-69)	1				
Telephones, head set (TS-3 or EE-70)	15 *				
Buttons, push	4				
Buzzers, Faraday	4				

FIRE-CONTROL DISTRIBUTING FRAME OR DISTRIBUTING SWITCHBOARD

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Coils, retardation (C-28)	12 *		Strips, terminal, 12 pairs (TM-76)	0	
Jacks, transfer	0		Strips, terminal, 21 pairs (TM-77)	0	
Mounting, ret., coil	12		APPARATUS NOT LISTED:		
Panel, time interval (BD-15)	1				
Plugs-U	0				
Strips, terminal (12 pairs porc. TM-54)	14				

TIME INTERVAL APPARATUS

Apparatus, time interval (EE-56)	Number installed	Remarks	Manufacturer
1	18771	Stored in Art. Engr. Storeroom Fort Stevens	Leeds & Northrup

METEOROLOGICAL EQUIPMENT None installed

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Aeroscope			Plotting Board "A"		
Anemometer			Plotting Board "B"		
Barometer, aneroid			Protractor		
Barometer, mercurial			Psychrometer		
Compass			Slide rule, atmosphere		
			Thermometer		

Items marked with asterisk (*) stored in Artillery Engineer Storeroom, Fort Stevens.

FORT SIGNAL STATION—Continued

Flags	Number on hand	Type	Apparatus not listed

Books (Name):

PRESENT ESTIMATED VALUE OF TELEPHONE PLANT IN PLACE

Outside telephone plant (value).....	\$1822.00	Station equipment (including protectors),	(value).....	\$20.00
Switchboard (value)		Batteries and charging equipment (value) ..	\$	325.00

PRESENT ESTIMATED VALUE OF FIRE-CONTROL SIGNAL EQUIPMENT

(EXCLUSIVE OF TELEPHONE PLANT)

Storage batteries and charging equipment (value) <u>uses telephone plant equipment</u>	\$350.00	Outside plant (value) <u>uses tele. plant equipment</u>	Meteorological equipment ..	<u>none</u>
Station equipment (value)				

PRESENT ESTIMATED VALUE OF TATGET-RANGE EQUIPMENT

Telephones; buzzer and signals (value)	<u>None</u>
Cables, ducts, manholes, poles, and wire (value)	<u>None</u>

PAY STATIONS ON POST None

Location	Connects to what company?	Authority	Does it connect through Government cables or lines, or to Government switchboard?

GOVERNMENT LINES OR CABLE PAIRS USED FOR CIRCUITS OTHER THAN THOSE OF THE ARMY

Circuit	Cable	Cable pair	Cross arm	Pins	User	Authority for installation
Telephone	337	9	-	-	U.S. Coast Guard	
Telegraph	337	5	-	-	W.U. Teleg. Co.	Revocable license

Signal Corps Form 204.

To: Commanding Officer, Harbor Defenses of the Columbia, Fort Stevens, Ore.

I. Subject: Inspection of Signal Corps equipment at Fort Canby, Wash., for the calendar year 1927.

Inspection made) Par. 3, Special Orders #122, Hq. 9th Corps Area,
Per instructions) dated July 8, 1927.

Last inspection made Sept. 13, 1926, by Frank J. Schaal, Elect.Asst.
S.S.L.

This inspection made July 1, 1927, by Frank J. Schaal, Asst. Elect.
Engr. S.S.L.

II. Post telephone system.

1. Switchboard.

(a) The switchboard has been removed and surveyed under the provisions of existing Army Regulations.

(af) In view of the fact that Fort Canby is on a caretaking status the replacement of the switchboard mentioned in the foregoing paragraph is not recommended.

2. Main distributing frame and protector equipment.

(a) The main distributing frame and protector equipment has been removed and surveyed under the provisions of existing Army Regulations.

(j) The replacement of the equipment mentioned in the foregoing paragraph is not recommended.

3. Intermediate distributing frame. None.

4. Relay rack. None.

5. Wire chief's equipment and chief operator's equipment. None.

6. Station equipment.

(a) One C.A.T. wall telephone, which is installed in the caretaker's quarters and connected to the Fort Stevens switchboard, is the only Post telephone in use. It is in good condition.

III. Storage battery.

1. Electrolyte.

(a) Battery is out of service.

333.1(Col.R.) 7/3
OFFICE CHIEF OF ENGINEERS
MAR 30 1928

14/74
Done, 31

Dec 31

2. Plates.

(d) Plates are coupled together with bolts.

3. Containers.

(a) The containers are in good condition.

(b) The battery stand is in good condition.

6. General condition and treatment.

(b) Battery is out of service.

(e) Lighting fixtures are painted with acid proof paint.

(i) Battery is not grounded.

(j) Separators would necessarily have to be replaced if battery was put back into service.

(k) No recommendations.

IV. Charging equipment.

1. Motor generator.

(a) The motor generator has been removed from its assigned location and taken to Fort Stevens for storage, where it was overhauled and placed in a serviceable condition.

✓ (l) The removal of the motor generator mentioned above was authorized by letter from the Commanding General, 9th Corps Area, dated Feb. 28, 1927. However it was not reinstalled for the annual technical inspection.

2. Mercury arc rectifier. None.

3. Power panel.

(a) All instruments have been removed from the power panel and taken to Fort Stevens for storage, where they were placed in first-class condition, with the exception of one voltmeter, Weston, which could not be repaired locally and was shipped to the Signal Section, S.F.G.D., for repair and return.

✓ (b) Connections and switches on power panel are corroded.

(j) The removal of the equipment mentioned above was authorized by a letter from the Commanding General, 9th Corps Area, dated Feb. 28, 1927. However this equipment was not reinstalled in its assigned location for the annual technical inspection.

V. Ringing equipment. None.

VI. Underground system.

1. Manholes.

(e) Battery lighting cables, 110 volts, D.C., are in same manholes, but in separate ducts. Manholes are constructed of concrete.

(f) No recommendations.

2. Cables.

(d) The following cable pairs are defective and nothing is being done to clear them:

Submarine cable #337, pair 10, shorted and grounded. The remaining pairs test one megohm insulation.

Cable C-1, pairs 11 and 12, insulation low.

(h) The following cable testing instruments are available at Fort Stevens.

1 ea. Megger, Evershed, 1000 megohm,

1 ea. Megger, Evershed, 5 megohm,

1 ea. Faultfinder, Leeds & Northrup.

(i) Recommend that the defects mentioned in paragraph (d) above be corrected as soon as practicable.

VII. Aerial system.

1. Poles.

(a) The poles are in fair condition.

2. Guys.

(e) No new guys are needed at other points.

3. Cables. None.

6. Wires.

(i) The wires are in fair condition.

8. Crossarms.

(a) The crossarms are in fair condition.

VIII. House and block cable. None.

IX. Telegraph station. None.

X. Radio station. None.

XI. Target-range system. None.

XII. Records and tests.

1. Maintenance test.

(a) Maintenance tests are made every three months.

(c) Cables are tested for insulation every three months.

(f) No recommendations.

2. Battery records.

(a) Battery is out of service.

4. Directory.

(a) Switchboard has been removed.

5. Revocable licenses.

(a) Copy of the revocable license is on file in the office of the Harbor Defense Commander, Fort Stevens, Ore.

(b) See sheet 17 Form 211.

(c) There is no electrical communication on the post other than that described.

(d) No recommendations.

6. Maps.

(a) The usual fire-control prints are furnished by the Corps of Engineers. They have recently been revised.

XIII. Fire-control system.

1. Stations and batteries.

(a) The sub-station equipment has been removed and taken to Fort Stevens for storage.

(q) All megaphones have been removed and stored in the Artillery Engineers storeroom at Fort Stevens. They are in good condition.

(ab) The insulation of all station wiring is very low, averaging approximately 50,000 ohms.

- (ae) The removal of the substation equipment, mentioned in paragraph (a) above, was authorized by 19th indorsement of The Adjutant General of the Army, dated August 1, 1923. However it was not reinstalled in its assigned location for the annual technical inspection.

It is recommended that all stations be kept open as much as possible, weather permitting, in order to dry out station wiring.

2. Distributing and power switchboards for fire-control system (exclusive of post telephone system.)

(a) The wiring is mildewed.

(b) Meters have been removed and taken to Fort Stevens for storage.

(i) The removal of the meters mentioned in the foregoing paragraph was authorized by letter from the Commanding General, 9th Corps Area, dated February 28, 1927. However they were not reinstalled in their assigned location for the annual technical inspection.

It is recommended that the retard coils be removed from the fire-control switchboard and taken to Fort Stevens for storage.

3. Time-interval apparatus, panel and circuits.

(a) The time-interval apparatus has been removed and taken to Fort Stevens for storage. It was not however returned to its assigned location for the annual technical inspection.

(c) Covered under general recommendations.

4. Fort signal station. None.

5. Meteorological station. None.

XIV. Signal equipment supply.

1. Storeroom.

(a) All supplies are stored in the Artillery Engineer's storeroom at Fort Stevens.

XV. Conclusion, remarks, and general recommendations.

1. The following changes have been made in the system since the last inspection.

(c) Motor generator has been removed.

All telephones, telephone headsets, and T.I. bells have been removed from stations and batteries.

The meters have been removed from the power switchboard.

The removal of the equipment listed above was recommended in the last annual report of inspection of Signal Corps Plant in Place and was

authorized by letter from the Commanding General, 9th Corps Area, dated February 28, 1927.

2. In the opinion of the undersigned, the instructions contained in paragraph 3 of letter from The Adjutant General of the Army, file No. AG 660.02, Misc., are objectionable when applied to the conditions at this post, for the following reasons.
 - (a) Due to climatic conditions it has been found necessary to remove telephones, telephone headsets, T.I. bells, etc., from stations and batteries, together with motor generator, meters and coils from the fire-control and power switchboards, to prevent serious deterioration from moisture.
 - (b) Due to the lack of adequate transportation facilities and the remote location of this Post from Fort Stevens, the damage which would be caused by the continual withdrawal and reinstallation of this equipment for each annual technical inspection in the course of a few years would be practically as great as would be caused by moisture.
3. In view of the foregoing it is recommended that all telephones, T.I. bells, base line switch boxes, cut-off jack sets, and telephone headsets, from stations and batteries, together with motor generator, meters and coils from the fire-control switchboard room, be withdrawn and placed in central storage at Fort Stevens, if in the opinion of the Harbor Defense Commander the above equipment cannot be maintained in its assigned location. That it be not reinstalled until such time as its reinstallation is made necessary for actual use.
4. That all of the above equipment be tested at least once every three months in the Artillery Engineer's storeroom by using a portable storage battery provided for that purpose.
5. Recommend that at the time the Signal Corps inspection is made this equipment be tested out in the Artillery Engineer's storeroom at Fort Stevens in the same manner as outlined in the foregoing paragraph.
6. Recommend that all station wiring and jumper wires in terminal boxes be left intact and connected to the cables and that every effort be made to maintain same in a serviceable condition.
7. This report, consisting of Signal Corps Form 204, and corrected sheets Nos. 1, 2, 3, 4, 5, 8, 10, 14 & 15, S.S. Form 211, Signal Corps Plant in Place, for the calendar year 1927, is submitted in quadruplicate, for distribution as follows: One copy of Form 204, and one copy each of the corrected sheets Form 211, are to be retained at the Harbor Defenses of the Columbia, Fort Stevens, Ore., and the remaining three copies of Form 204 and corrected sheets Form 211, should be forwarded to the Commanding General, 9th Corps Area, by indorsement on each of the Forms 204. In

connection with the forwarding of this report, attention is invited to the provisions of par. 10-b, A.R. 105-20, and par. 4-b, "Form 204, Signal Corps Inspector's Memoranda", copy herewith.

Frank J. Schaal
Frank J. Schaal,
Asst. Elect. Engineer,
S.S.L.

2 Incls.
#1-Corrected sheets, Form 211
#2-S.C.Inspector's Memoranda

1st. Ind.

Hq. of the Colombia, Fort Stevens, Ore. Dec.10, 1927: To Comd'g General
9th. C.A. District. Presidio of San Francisco, California.

1. Re-defects noted in basic report, the following remedial measures
have been taken.

VI- Underground System.

2. Cables.

- (d) Re-pair 10, Cable # 337, it is contemplated to replace potheads with
terminals TM-88, which are being requisitioned for. It is believed
the defects will be corrected at that time.
Cable C-1 will be overhauled as soon as weather conditions permit
entrance to Fort Canby by Harbor Boat.

XIII- Fire Control System.

1. Stations and Batteries.

(ac) Stations are being opened on days that weather will permit.

2. Distributing and power switchboards for Fire Control Systems.

(i) Retard Coils will be removed and stored at Fort Stevens, Ore.

RECEIVED DEC 17 1927. HDQRS. NINTH
C. A. DISTRICT



G.R. Owens.
Capt. C.A.C.
Commanding.

HEADQUARTERS
NINTH CORPS AREA

DEC 27 1927

RECEIVED DEC 29 1927 HDQRS. NINTH
C. A. DISTRICT

Cumby

333.1

2nd Ind.

F/jpi

Hq Ninth Coast Artillery District, Presidio of San Francisco, Calif., Jan 3/28
To CG Ninth Corps Area.

1. Approved.

2. It is requested that the recommendations of the Inspector, paragraphs 3, 4 and 5, page 6 be taken as a request for the specific action of the War Department as referred to in the last sentence of paragraph 3, letter of the War Department, AG 660.02 (7-2-27) Misc July 13, 1927, Subject: "Policy as to Equipment at Coast Artillery Posts".

L. C. Brown

L. C. BROWN,

Colonel, Coast Artillery Corps,
Commanding.

2 Incls.

HEADQUARTERS
NINTH CORPS AREA

IAN 7 1928

SIB. U
RECEIVED

REPORT OF INSPECTION OF SIGNAL CORPS PLANT IN PLACE

1. This form is to be completed by the inspector and used for reporting the Signal Corps equipment installed at Government owned Fire-Control Systems, Telephone Systems, and Telegraph Systems, at the time the Annual inspection of the system is made by the inspector designated by the Department, Corps Area, or District Commander for that duty. (The designation "District Commander" when used in this form refers to the Commander of the District of Washington.) The Officer in Charge of the system will assist the inspector in making out this form by giving him facts and data he may have on record that relate to the equipment to be reported. (This form will not be used for reports of inspection of the Washington-Alaska Military Cable and Telegraph System.)

2. No sheet of this form need be made out when a similar sheet previously made out contains the required data and there are no changes necessary in the data previously submitted. This form is supplementary to Form 204 and the completed sheets will be submitted as a part of that form.

Date 7/1/27 ~~1927~~ Fort Canby, Wash. Coast defenses of Columbia Corps area Ninth

TELEPHONE SWITCHBOARD

NONE

Date installed	Manufacturer's code
Is telephone system inside base-rate area of tele- phone company?	Manufacturer's number
Number of positions	Magneto lines, capacity
Number of sections	Magneto lines, equipped
Multiple or nonmultiple	Common battery lines, capacity
Magneto or common battery	Common battery lines, equipped
Location of switchboard	Magneto ring down trunks, capacity
Number of panels to a complete multiple	Magneto ring down trunks, equipped
Manual or automatic	Common battery ring down trunks, capacity
Trunk loop resistance in ohms	Common battery ring down trunks, equipped
Single or double cord supervision	Common battery automatic trunks, capacity
Suspended or breast transmitter	Common battery automatic trunks, equipped
Signal Corps order number	Cords, capacity (pairs)
Manufacturer	Cords, equipped (pairs)
.....	Is relay rack hinged or stationary?
.....	Is line cable between switchboard terminal frame and relay rack cotton or lead covered?

~~POST OFFICE~~ FORT: Conby, Wash.

Date: July 1, 1927.

SWITCHBOARD AND CIRCUIT DRAWINGS

None

Name of circuit	Title and number	Name of circuit	Title and number
Line circuit		Pilot circuit	
Cord circuit, local		Ringing circuit	
Cord circuit, Universal			
Operator's circuit			
Trunk circuit			

LINE CIRCUITS. (Apparatus in switchboard only)

None

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Caps, lamp, line, red			Fasteners, jack		
Caps, lamp, line, white			Jacks, line		
Caps, lamp, line, green			(State number per strip)		
Lamps, line			Sockets, lamp		
Mountings, lamp socket			Signals, magneto		
Plates, mounting			APPARATUS NOT LISTED:		
Relays, line					
Resistances					

TRUNK CIRCUITS. (Apparatus in switchboard only)

None

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Caps, lamp, trunk			Mountings, lamp, socket		
Coils, impedance			Relays		
Coils, repeating			Resistances		
Coils, phantom			Signals, mechanical		
Condensers			Socket, lamp		
Jacks			Spaces, apparatus, blank		
Lamps, trunk			APPARATUS NOT LISTED:		

GOVERNMENT OWNED TRUNKS AND TIE LINES **None**

Name or number	Length of wire used	Length of cable used	Kind of trunk	Government owned to what point?	Circuit drawing

COMMERCIAL TRUNKS AND TIE LINES **None**

How many connected to switchboard?	Kind of trunk	Name of company	Remarks

CORD CIRCUITS. (Apparatus in switchboard only) **None**

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Caps, lamp			Relays, supervisory, answering		
Coils, repeating			Relays, supervisory, calling		
Condensers			Signals, mechanical		
Cords (S. C. type)			Sockets, lamp		
Keys, listening			Weights, cord		
Keys, ringing			Plates, mounting		
Keys, ringing and listening			Plugs, cord		
Lamps, signal			APPARATUS NOT LISTED:		
Mountings, lamp socket					

OPERATOR'S CIRCUITS. (Apparatus in switchboard only) **None**

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Coils, induction			Plates, mounting		
Coils, repeating			Relays		
Coils, impedance			Resistances		
Receivers			Transmitters		

OPERATOR'S CIRCUIT. (Apparatus in switchboard only)—Continued

None

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Coils, retardation.....			Plugs, operator's set.....		
Cords, receiver.....			Keys, operator, switching.....		
Cords, transmitter.....			APPARATUS NOT LISTED:		
Jacks, operator's set.....					

AUXILIARY SIGNAL CIRCUITS, NIGHT-ALARM CIRCUITS, AND GENERATOR CIRCUITS

None

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Bell, night.....			Buzzer.....		
Caps, lamp, pilot.....			Resistance.....		
Generator, hand.....			Lamps, resistance.....		
Keys.....			Sockets, lamp.....		
Lamps, pilot.....			APPARATUS NOT LISTED:		
Platet, mounting.....					
Relays.....					

AUTOMATIC SWITCHBOARD EQUIPMENT

None

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Master switch.....					
Selector.....					
Connector switch.....					
Line switch.....					

AUTOMATIC SWITCHBOARD EQUIPMENT—Continued **None**

Apparatus	Amount	Manufacturer's code
APPARATUS NOT LISTED		
.....		
.....		

SWITCHBOARD CABLE **None**

Number of pairs	Manufacturer's code	Connects what?	Number of pairs	Manufacturer's code	Connects what?

SWITCHBOARD PROTECTOR AND CONNECTING EQUIPMENT **None**

Location of main distributing frame Manufacturer

Location of fuse protectors, if any Order number

Location of protector strips Manufacturer's code number

Do outside lines connect to protectors, fuses, or blocks? Is main distributing frame on floor, wall, or in cabinet?

Capacity of equipment for outside lines Type

Capacity of equipment for inside lines When installed?

Apparatus	Amount	Manufacturer's code	Apparatus	Amount	Manufacturer's code
Blocks, protector			Heat coils		
Blocks, connecting			Micas		
Fuses			Protectors		
Rings, distributing			APPARATUS NOT LISTED:		
.....					
.....					
.....					

STATION EQUIPMENT—Continued

Apparatus	Amount	Mfr. and mfr.'s code	Auxiliary apparatus	Amount	Mfr. and mfr.'s code
Protectors	none		Keys	none	
Protectors			APPARATUS NOT LISTED:		
Protectors					

STORAGE BATTERIES

	Number of cells	Manufacturer	Manufacturer's type	S. C. type	Type of positive plates	Type of negative plates	Size of plates
No. 1	15	E.S.B.Co.	E 5	E 5	lead	lead	7 $\frac{3}{4}$ x 7 $\frac{3}{4}$
No. 2							
No. 3							

	Number of positive plates	Number of negative plates	Kind of separators	Kind of covers	Kind of insulators	Material of trays	Kind of trays	Kind of jars
No. 1	2	3	wood	glass	glass	wood	sand	glass
No. 2								
No. 3								

	S. C. order number	When installed	Use of battery	Location of battery	Which side is grounded?
No. 1	unknown	unknown	power to F.C. system	swbd room	none
No. 2					
No. 3					

	Is battery in cabinet?	Battery equipment	Kind	Manufacturer's code	REMARKS
No. 1	no	Thermometer	none		battery out of commission
No. 2		Hydrometer			
No. 3					

CHARGING EQUIPMENT OTHER THAN RECTIFIERS

	Volts	D. C. or A. C.	R. P. M.	Watts	Amperes	Horsepower	Cycles
Generator No. 1	45	DC	1600	500	11.1	*	
Generator No. 2							
Generator No. 3							
Motor No. 1	220	DC	1600			$\frac{3}{4}$ *	
Motor No. 2							
Motor No. 3							

Items marked with asterisk (*) has been removed to Fort Stevens for storage.

POWER PANELS (including fire control power panels)

	Panel No. 1		Panel No. 2		Panel No. 3	
Signal Corps type	unknown		unknown			
Manufacturer's code	"		"			
Where installed	swbd room					
EQUIPMENT ON PANEL	Mfr.'s code and mfr.'s Panel No. 1	Amount	Mfr.'s code and mfr.'s Panel No. 2	Amount	Mfr.'s code and mfr.'s Panel No. 3	Amount
Ammeters	24 Weston	1 *	none *			
Circuit breaker	ITE Cutter	1	none			
Coils, retardation	none			12		
Relays, underload	none		none			
Relays, overload	none		none			
Rheostats	Ward Leonard	1	none			
Switches	unknown	4	none			
Voltmeters	24 Weston	1 *	none *			
Wattmeters	none		none			
APPARATUS NOT LISTED						
Items marked with asterisk (*) have been removed to Fort Stevens for storage.						

FUSES ON POWER PANELS

Panel No. 1				Panel No. 2				Panel No. 3			
Signal Corps type	Manufacturer's code	Circuit	Amount	Signal Corps type	Manufacturer's code	Circuit	Amount	Signal Corps type	Manufacturer's code	Circuit	Amount
3	unknown	power	14	1	unknown	signal & telep.	8				

FIRE-CONTROL EQUIPMENT

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Bell, time, interval, large (MC-10)	4 *		Megaphones (M-64)	0	
Bell, time, interval, small (MC-8)	6 *		Outlet, zone, signal lamp (JM-7)	28	
Bell, zone, signal (M-54)	4		Panel, station switch	0	
Bell, extension, loud-ringing (MC-9)	3		Signals, firing, B.C. (EE-22)	1	
Blocks, telephone, terminal (TM-70)	17		Signals, firing, pit (EE-23)	2	
Boxes, cut-out, switch (EE-68)	2		Switch, hand set (BC-94)	0	
Boxes, emplacement (BE-30)	2		Switch, key set	0	
Boxes, junction standard (JB-3)	0		Switches, knife	3	
Boxes, junction target range (JB-5)	2		Switch, push, zone signal (SW-63)	2	
Boxes, metal for T. I. bell (BE-41)	2		Switchbox, base line (BC-96)	1	
Boxes, metal terminal 2-strip (TM-66)	6		Telephones, C. A. T., wall (EE-27)	0	
Boxes, metal terminal 4-strip	2		Telephones, C. A. T., desk (EE-26)	0	
Boxes, metal terminal 8-strip	0		Telephones, C. B. F. C., wall (EE-31)	0	
Boxes, terminal (TM-88)	9		Telephone, C. B. A. T., wall (EE-71)	0	
Boxes, outlet, searchlight	3		Telephone, C. B. F. C., desk (EE-77)	0	
Cabinet, cut-out (BD-20 and BE-37)	2		Telephone, plotters, C. B. F. C. (EE-59)	0	
Cabinet, terminal	2		Telephone, gun, C. B. F. C. (EE-75)	0	
Controller, zone, signal (BC-92)	2		Telephone, plotters, C. B. A. T. (EE-74)	0	
Jack sets, cut-off	2		Telephone, gun, composite (EE-30)	1 *	
Key, strap, large (J-21)	0				
Key, strap, small (J-22)	0				
Lamp, zone, signal (LM-12)	28				

Items marked with asterisk (*) have been removed to Fort Stevens for storage.

FIRE CONTROL EQUIPMENT —Continued

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Telephone, B. C., C. B., F. C. (EE-82)	0				
Telephone, B. C., composite (EE-24)	0				
Telephones, hand set (TS-1 or EE-69)	0				
Telephones, head set (TS-3 EE-70)	0				

FIRE-CONTROL DISTRIBUTING FRAME OR DISTRIBUTING SWITCHBOARD

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Coils, retardation (C-28)	12		Strips, terminal, 12 pairs (TM-76)	14	
Jacks, transfer	0		Strips, terminal, 21 pairs (TM-77)	4	
Mounting, ret., coil	12		APPARATUS NOT LISTED:		
Panel, time interval (BD-15)	1				
Plugs-U	0				
Strips, terminal (12 pairs porc. TM-54)	16				

TIME INTERVAL APPARATUS

Apparatus, time interval (EE-56)	Number installed	Remarks	Manufacturer
1	18766*		Leeds & Northrup

METEOROLOGICAL EQUIPMENT none

Apparatus	Number installed	Remarks	Apparatus	Number installed	Remarks
Aeroscope			Plotting Board "A"		
Anemometer			Plotting Board "B"		
Barometer, aneroid			Protractor		
Barometer, mercurial			Psychrometer		
Compass			Slide rule, atmosphere		
			Thermometer		

GOVERNMENT PRINTING OFFICE

Item marked with asterisk (*) has been removed to Fort Stevens for storage.

333.1 (Col. R.) 7/2
MAR 30 1928
OFFICE CHIEF OF ENGINEERS
RBS 3

To: Commanding Officer, Harbor Defenses of the Columbia,
Fort Stevens, Oregon.

I. Subject: Inspection of Signal Corps equipment at Fort Stevens, Oregon,
for the calendar year 1927.

Inspection made) Contained in par. 3, S.O. #122, Headquarters,
per instructions) 9th C.A., dated July 8, 1927.

Last inspection made September 14, 1926, by Frank J. Schaal,
Elect. Asst., S.S.L.

This inspection made August 3, 1927 by Frank J. Schaal, Asst.
Elect. Engr., S.S.L.

II. Post telephone system.

1. Switchboard.

- (a) The woodwork is clean and in good condition.
- (b) Line circuit #83 is open in switchboard cable. ✓
- (c) The type 201-E auxiliary relay on supervisory circuit is burnt out. ✓
- (i) Fuse wire is being used in lieu of fuses. ✓
- (k) The telephone switchboard is located in the fire-control switchboard room: It is good from a military standpoint: It is approximately the center of telephone distribution.
- (l) The transmission is good.
- (m) Spare operators set is furnished.
- (n) There are 3 operators: Enlisted men of the C.A.C.: No additional operators are required; none can be dispensed with.
- (o) No trunk lines can be released: No additional trunks are required.
- (p) No part of the switchboard nor any part of the apparatus connected thereto can be reduced.
- (q) The following is schedule of operators and periods of heavy, medium and light loads.

1st operator - 7:30 A.M. to 5:30 P.M.
 2nd " - 5:30 P.M. to 7:30 A.M.
 3rd " - 7:30 A.M. to 5:30 P.M. the following day.

All operators alternate. Night operator acts as relief operator. The man who is off duty all day is available for other post duties.

J. Schaal
-1-

*3.14/7H
Spec. 21*

No heavy load.
Medium load - 8:30 A.M. to 11:30 A.M.
light " - 11:30 A.M. to 8:30 A.M.

- (r) Average number of local calls daily 83
" " " trunk " " 18
- (s) The exchange is not connected to outside system by its own trunk wires or cable beyond the post limits.
- (w) No tarpaulin cover is provided for switchboard for use in case of fire, as switchboard is installed in bombproof building.
- (af) The following Stromberg-Carlson switchboard prints are missing:

Local battery trunk circuit drg.	#C-3280
Common " " " "	#C-3200
" " cord " "	#C-3210
Supervisory & line pilot " "	#C-2680-B

It is recommended that the defects mentioned in pars. (b) and (c) be corrected as soon as practicable.

2. Main distributing frame and protector equipment.
- (a) The main distributing frame and protector equipment are clean and in good condition.
3. Intermediate distributing frame. None.
4. Relay rack. None.
5. Wire chief's equipment and chief operator's equipment. None.
6. Station equipment.
- (a) ✓ The Sumter telephone installed in Ordnance Office, Bldg. #51, is provided with C.A.T. transmitter.
- ✓ Telephone installed in fire station, bells do not ring.
- ✓ Telephone installed in Quartermaster Office, Sumter desk stand is being used with W.E. 534-A bell box. Transmitter mouthpiece is broken.
- ✓ Transmitter mouthpiece is broken on telephone installed in commissary.
- (b) ✓ Telephone installed in Pvt. Bathey's Qrs., inside wiring should be tacked and protector grounded.
- ✓ Wire on outside of building should be insulated with porcelain knobs and milonite tacks removed.
- ✓ Hospital sergeant's Qrs., the inside wire installed on outside of building should be replaced by outside distributing wire: Wire

should be insulated on building with procelain knobs, and milonite tacks be removed.

- ✓ Telephone installed in Q.M. Garage, wiring should be overhauled.
- (c) There are no commercial pay stations.
- (d) ✓ N.C.O. Qrs. #52, telephone is not provided with protector. Wiring should be tacked up.
- ✓ Hospital sergeant's Qrs. telephone is not provided with protector.
- (g) ✓ Recommend that the defects listed above be corrected as soon as practicable.

III. Storage battery.

1. Electrolyte.
 - (b) The specific gravity varies 5 points.
2. Plates.
 - (d) Plates are coupled together by bolts.
6. General condition and treatment.
 - (a) There is a little sediment, but not sufficient to cause any trouble.
 - (b) Battery is properly charged at 15 ampere rate.
 - (e) Lighting fixtures are painted with acid proof paint.
 - (k) No recommendations.

IV. Charging equipment.

1. Motor generators.
 - (a) The motor generators are clean and in good condition.
 - ✓ (1) Recommend that the D.C. motor generator be started up once during each month.
2. Mercury arc rectifier. None.
3. Power panel.
 - (a) The power panel is clean and in good condition.

V. Ringing equipment.

1. Ringing machine.

(a) The ringing machine is clean and in good condition.

2. Ringing interrupter and transformer. None.

VI. Underground system.

1. Manholes.

✓ (a) The following manholes are not properly drained. 36, 37, 38, 39 and 64. Attempt was made by the Corps of Engineers during the past year to drain manhole #64, without any success.

(e) Lighting cables, 220 volts, D.C. run through 36 manholes, but use separate duct lines.

2. Cables.

✓ (d) All conductors of cables T-7 and T-8, type 214 and 213, respectively, running from cable hut to tide station on Q.M. Wharf are defective. Nothing is being done to clear them; cable abandoned.

(h) The following cable testing instruments are available:

: 1 ea. Megger, Evershed, 1000 megohm
1 " " " " 5 "
1 " Faultfinder, Leeds & Northrup

(i) No recommendations.

3. Terminal boxes.

(g) ✓ The Cook type S-6 terminal, installed on pole in rear of buildings Nos. 14 and 16 are not grounded.

(j) Recommend that the terminal mentioned above be grounded as soon as practicable.

VII. Aerial system.

6 Wires.

(d) ✓ The dead O.T.P. drop wires running to buildings Nos. 14 and 16 should be removed.

✓ The O.T.P. wires entering terminal in basement of Officers Qrs. #11 should be overhauled.

(i) Recommend that the defects be corrected as soon as possible.

VIII. House and block cable. None.

IX. Telegraph station. None.

X. Radio station.

1. Antenna equipment.
 - (a) The wood masts are in good condition.
 - (c) Antenna was lowered for inspection of insulators on April 20, 1927.
2. Transmitters.
 - (a) The transmitting set aside from being dusty is in good condition.
 - (f) No record as to date that spark gap was dismantled and cleaned.
 - (i) No record as to date that decrement was last measured.
 - (j) The transmitting set is a 1 KW Marconi spark transmitter. It is of an old and obsolete type and its use would no doubt be objectionable to other stations. It is recommended that the present radio equipment be replaced by modern equipment when funds are available.
3. Receiving equipment.
 - (a) No vacuum tubes are employed.
 - (b) There are no temporary or home made devices connected to the receiving equipment.
 - (c) The present receiving equipment is of an old and obsolete type. The set is, however, in fair condition aside from being dusty.
 - (d) No part of the station receiving equipment has been removed for use elsewhere.
 - (e) Recommend that the present receiving equipment be replaced by modern equipment when funds are available.
4. Power equipment.
 - (a) Only one source of power is available.
 - (b) The commutators are in good condition.
 - ✓ (e) It is recommended that the motor generator be operated for a period of 15 minutes monthly, at which time all meters should be tested.
5. Operators.
 - (a) The station has not been manned since March, 1921.
 - (d) All publications are on file in the Harbor Defense Artillery Engineer's Office.
 - (f) The last annual station report was submitted on Form 1142 on
Jan. 3, 1927.

XI. Target-range system.

1. Cables.

(d) All conductors are defective. At present a twisted pair line, run the entire length of the range, is being used. The above arrangement was reported as being satisfactory.

3. Manholes. None.

4. Electrical equipment.

(a) Field telephones are the only electrical equipment used: They are in good condition.

XII. Record and tests.

1. Maintenance test.

(a) Maintenance tests are made at proper intervals.

(b) Maintenance tests show that the insulation of station wiring is from 1 to 5 megohms insulation, with the exception of plotting room, Battery Mishler is very low. This station has been recently rewired.

(c) Cables are tested for insulation monthly.

(e) The line card record is incomplete. In most cases they do not show manufacturer and type of telephone, cable pair number, terminal number, etc.

(f) The irregularity mentioned in par. (e) above was reported in the last annual report of inspection of Signal Corps Plant in Place, which was made by the undersigned on Sept. 14, 1926. However, no change or improvement has been made. It is again recommended that the line card record be completed and that all data called for be entered thereon.

4. Directory.

(a) Directories are published whenever required.

(b) Directory for use of operators is kept up-to-date.

5. Revocable licenses.

(a) Copy of the revocable license is on file at the post.

(b) See sheet 17-A, Form 211.

(c) There is no other electrical communication on the post not otherwise described.

6. Maps.

- (a) The usual fire-control prints are furnished by the Corps of Engineers; they have been recently revised.

XIII. Fire-control system.

1. Stations and batteries.

- (a) The substation equipment has been removed from the following stations and batteries:

1 All telephones and T.I. bells have been removed from
F 2 plotting room.

One wall telephone has been removed from F 3¹ station.

All substation equipment has been removed from M 1¹ station.

Two B.C. telephones have been removed from emplacements and stored in plotting room Battery Clark.

Time interval bell and telephone terminal blocks have been removed from F 1¹ station Battery Russell.

Telephones have been removed from searchlight shelter Nos. 1 and 2.

T.I. bell has been removed from plotting room Battery Mishler.

Telephones and T.I. bells have been removed from emplacement Battery Mishler.

One wall telephone and T.I. bell have been removed from F 2³ station.

Telephones and T.I. bell have been removed from M1² station.

Gun and B.C. telephones have been removed from emplacements of Battery Pratt and stored in plotting room.

Headsets and telephone terminal block have been removed from B.C. station Battery Russell.

Desk telephones have been removed from the following booths in "C" station:

Fire command 4 and 5
Mine " 1 " 2
Searchlight Nos. 1, 2, 6 and 7

Desk stands have been removed from Fire command Nos. 1, 2, 3 and Post switchboard. All hand sets and headsets have been removed.

(n) One retardation coil was defective and had been removed from terminal cabinet located in "C" station.

One retardation coil has been removed from terminal cabinet located in plotting room Battery Pratt.

Two retardation coils have been removed from terminal cabinet located in F 1 plotting room.

(x) The wood box of plotters telephone installed in the plotting room, Battery Russell, is warped.

(ab) The following stations have been recently rewired: Wiring being run through ring run construction, and in a number of cases the wiring has been laced into a cable, in addition to being run through bridle rings:

Plotting room, Battery Mishler

B.C. station, " "

Plotting room, Battery Pratt

1

F 2 station

1

F 3 station

Plotting room, Battery Clark

3

F 3 station

3

F 2 station

✓ It is recommended that the lacing be removed from station wiring of the stations listed above.

(ac) The removal of the sub-station equipment listed under par. (a) was authorized by 19th indorsement of The Adjutant General dated August 1, 1923. However, the instructions contained in par. 3, letter from the Office of The Adjutant General, dated July 13, 1927, as to their reinstallation for the annual technical inspection has not been complied with.

In the opinion of the undersigned the instructions set forth in letter cited above are objectionable when applied to conditions at this Harbor Defense. Climatic conditions have made it necessary to remove and place in central storage certain portions of the substation equipment to prevent serious deterioration from moisuture. Due to the lack of adequate transportation facilities, and the lack of sufficient technical personnel, it is considered that the reinstallation of this equipment for each annual Signal Corps inspection would be objectionable for the following reasons:

(1) The damage caused by the continual withdrawal and reinstallation of this equipment would be practically

as great in the course of 5 years as would normally be caused by moisture.

- (2) This equipment can be tested out while in central storage and the same results obtained by using a portable storage battery. In this way a considerable saving of time could be effected which would be advantageous, due to the shortage of technical personnel at the post.
- (3) Cable circuits can be tested by a megger as fully as by actual use of phones.
- (4) In view of the foregoing, the following recommendations are made:

(a) Recommend that all telephones, including switch key sets, hand set switch boxes, and cut-off jack sets, together with all T.I. bells, base line switch boxes, transfer switch boxes, headsets and handsets, be removed from all stations and batteries not habitually used, and which in the opinion of the Harbor Defense Commander cannot be maintained in their assigned location. That all of the above equipment be tested at least once every three months while in storage, in the manner outlined in par. (2) above.

(b) Recommend that at the time of the annual Signal Corps inspection all of the above equipment which has been withdrawn for storage be not reinstalled, but should be tested in the same manner as outlined in par. (2), unless it is practicable to have the annual Signal Corps inspection made at the time this equipment is installed for use in the R.O.T.C., C.M.T.C., and National Guard training camps.

(c) Recommend that the following equipment be retained in place:

Terminal boxes
Terminal cabinets (retard. coils may be removed if in opinion of H.D. Commander it is advisable)
Boxes, gun telephone
Boxes, B.C. "
Boxes, T.I. bell
Zone signal controllers
Pit firing signals
B.C. firing signals

All station wiring and cross-connections in terminal boxes to be left intact and connected to cables, that the usual maintenance tests continue to be made monthly.

2. Distributing and power switchboards for fire-control system, (exclusive of post telephone system).
 - (a) The distributing and power switchboards are clean and in good condition, except in several cases fuse wire was being used in lieu of postal type fuses.
3. Time-interval apparatus, panel and circuits.
 - (a) The time-interval apparatus, panel and circuits are clean and in good condition.
4. Fort signal station. None in operation.

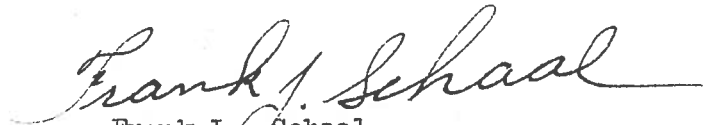
XIV. Signal equipment supply.

1. Storeroom.
 - (b) The storeroom is kept in good condition.
2. Supplies.
 - (b) The historical records are incomplete, inasmuch as items such as junction boxes, terminal cabinets, outlets, zone signal lamps, firing signals, zone signal controller, etc., are not being carried. This irregularity was reported in the last annual report of inspection. However, no corrective action has been taken. It was also found that the substation equipment, such as telephones, etc. installed in stations and batteries were not being carried on memorandum receipt, nor was any list prepared showing where the equipment was installed.
 - (d) It is again recommended that the historical records be accomplished in accordance with the provisions of par. 19, sub-par. 4 a, A.R. 35-6520. Recommend that all sub-station equipment such as telephones, etc., installed in stations and batteries, be carried on memorandum receipt; a separate receipt being accomplished for each station and battery where this equipment is installed.

XV. Conclusion, remarks and general recommendations:

1. The following changes have been made in the system since the last inspection.
 - (a) No change has been made in the number or location of telephones connected to the post telephone system.
2. Service over submarine cable #336 was interrupted on July 1, 1927. Trouble was caused by ship's anchor fouling cable. Temporary repairs were effected on July 7, 1927, by using 540 feet of cable, type 321, in lieu of cable, type 324. However, 1700 feet of cable, type 324, has been received for the repair of the cable cited above.

3. It was noted that the boxes of composite type telephones were badly in need of refinishing. It was also noted that there were a number of rubber ear caps and head harness on headsets that were deteriorated.
4. It is recommended that all composite type telephones, base line switch boxes, jack sets, etc., be refinished; that all headsets be overhauled and defective parts replaced.
5. Under the provisions of par. 2 b, Circular #7, Hdqrs. 9th Corps Area, dated February 28, 1927, it is recommended that the number of telephones authorized for the Harbor Defenses of the Columbia for the calendar year 1927 be fixed at 68.
6. This report, consisting of Signal Corps Form 204 and corrected sheets Nos. 11, 17-A, 20, 20-A, 20-B, 20-C, 20-D, 20-E, 20-F and 20-G, Form 211, Signal Corps Plant in Place for the calendar year 1927, is submitted in quadruplicate for distribution as follows: One copy of Form 204 and one copy each of the corrected sheets, Form 211, are to be retained at Harbor Defenses of Columbia, Fort Stevens, Oregon, and the remaining three copies of Form 204 and corrected sheets of Form 211 should be forwarded to the Commanding General, 9th Corps Area, by indorsement on each of the Forms 204. In connection with the forwarding of this report, attention is invited to the provisions of par. 10 b, A.R. 105-20, and par. 4 b, "Form 204, Signal Corps Inspector's Memoranda", copy herewith.


Frank J. Schaal,
Asst. Elect. Engineer,
S.S.L.

2 Incls.
#1-Corrected sheets Form 211
#2-Inspector's Memoranda

1st. Ind.

Hq. H.D. of the Colombia, Fort Stevens, Ore. Dec. 10, 1927.- To Comdg' Gen'l
9th. C.A. Dist. Presidio, of San Fransisco, Cal.

1. Re-Defects as noted in basic report the following remedial measures
have been taken.

II- Post Telephone System.

1. Switchboard.
 - (b) Corrected.
 - (c) Replaced .
6. Station equipment.
 - (a) Corrected.
 - (b) All defects corrected.
 - (d) " " "

IV- Charging Equipment.

1. Motor-Generators.
 - (1) Operated as recommended.

VI- Underground System.

1. Manholes.
 - (a) Another attempt will be made to drain manholes.
2. Cables
 - (d) Cables T-7 & T-8 are being recovered.
3. Terminal Boxes.
 - (g) The terminal has been grounded.

VII Aerial System.

6. Wires
 - (d) Dead outside twisted pairs have been removed from building's 14 & 16.
The O.T.P. entering Qrs.#11, have been replaced with a short piece
of cable.

X- Radio Station.

4. Power Equipment.
 - (c) Recommendations will be complied with.

XII-Record & Tests.

1. Maintenance test.
 - (c) Line record cards are under revision.

XIII-Fire Control System.

1. Stations & Batteries.

- (ab) Lacing has been removed from all station wiring.
- (ac) 4-a) Recommendations will be complied with.
- (ae) 4-c) Recommendations have been complied with.

XIV-Signal equipment Supply.

2. Supplies.

- (b) The historical records are under revision. Memorandum receipts will be kept in the future.

XV- Conclusions, remarks and general recommendations.

- 3. Telephones are being refinished and headsets overhauled.

RECEIVED DEC 17 1927
S. A. DISTRICT

G. R. Owens
G. R. Owens.
Captain, C.A.C.
Commanding.

Sum

333.1

2nd Ind.

ALF/a

HQ NINTH COAST ARTILLERY DISTRICT, Presidio of San Francisco, Calif., December 19, 1927-To CG Ninth Corps Area.

1. The recommendations of the inspector contained in paragraphs X 2. (j) and X 3. (e) are concurred in. This radio equipment is of a type which certainly would not be used in time of war and serves no useful purpose at the present time. The 249th Coast Artillery (Oregon NG) is the only unit which trains in the Harbor Defenses of the Columbia and that unit has been supplied with two 109-A sets. As a general policy all obsolete and unusable equipment in these harbor defenses should be removed in order that the time of the small caretaking detachment may be devoted exclusively to the care of usable equipment.

2. Even though this radio equipment be not replaced at the present time it is recommended that it be disposed of now.

3. The recommendations of the inspector, contained in XIII 1. (ae) (4) (a) (b) (c) page 9 are approved. It is desired that this report be taken as a request for the specific approval of the War Department referred to in the last sentence of paragraph 3, of the War Department letter AG 660.02 (7-2-27) Misc., July 13, 1927, Subject: Policy as to Equipment at Coast Artillery Posts, as to reinstallation of this equipment for annual technical inspection.



L. C. BROWN,
Colonel, C. A. C.,
Commanding.

Rec'd by 9th C. A.

2 Incls.

JAN 4 1928

HEADQUARTERS
NINTH CORPS AREA

JAN 7 1928

SIG. O
RECEIVED

Received, O. C. A. I. JAN 4 1928

~~POST OFFICE~~ FORT: Stevens, Ore. Date: August 3, 1927.

RINGING EQUIPMENT (Exclusive of Hand Generators)

Generator	Number of brushes	Size of brushes	Direct or belt driven	Watts	Volts	S. C. order number	Manufacturer and type
1	2	1/4" round	Direct	Unknown	80	Unknown	Holtzer-Cabot

MS

Name-plate data in addition to that furnished: Speed Remarks: _____

1150

Motor	Number of brushes	Size of brushes	Volts	Amperes	A. C. or D. C.	Phase	Cycle
1	2	3/8 Round	110	2.4	A.C.	1	60

Motor	Mfr.'s type or code	S. C. order number	Source of primary current	Location
1	ES		Post Power Plant	Swbd room

Name-plate data in addition to that furnished: 1/10 HP Remarks: _____

RINGING INTERRUPTER None

Mfr.'s type or code	Manufacturer	Serial	Type of operating cells	Number of operating cells	Type of ringing cells	Number of ringing cells

Does it run from separate storage battery? _____ Size of storage battery _____ Mfr.'s type of storage battery _____ Other data: _____

UNDERGROUND SYSTEM

Cables	S. C. type if known	Size	Gauge	Insulation	Feet	Cables	Size	Gauge	Insulation	Feet
1 Pr	213		7-24	rubber	5125	10 Pr	301	19	paper	160
3 Pr	214		7-24	"	4118	10 Pr	306	19	"	798 8"
6 Pr	215		7-24	"	527 9"	10 Pr	401	19	"	45394 10"
1 Pr	251		18	"	1663	20 Pr	403	19	"	13426 9"
30 Pr	405		19	paper	1182 9"	1 Pr	643	10	rubber	594 6"
						1 Pr	644	7-17.5	"	1200 6"

Manholes	Number	Material	Size	Manholes	Number	Material	Size
	69	Concrete					

Terminals	Number installed	Manufacturer's code and manufacturer	Size in pairs	Kind of protector	Other data
Cable	2	Cook S-6	10	carbon block	

 Government Lines or Cable Pairs used for Circuits Other than those of Army

Circuit	Cable	Cable Pr.	User
Control lines	D-3	2	U.S. Navy
"	D-3	3	"
"	A-1	8	"
"	M-2	2	"
"	M-2	7	"
"	M-2	10	"
Telep. line	D-3	11	U.S. Coast Guard
"	F-3	11	"
"	E-3	11	"
"	F-1	8	"
"	M-2	4	"
"	336	5	"
Teleg. line	336	16	Western Union Teleg. Co.

Signal Equipment Stock not Installed						
Article	Signal	Corps	Mfr. & code number	No. on hand	Condition	Disposition
Ammeter, portable, #3028	--		Weston	1	Good	Required at post
" ser. #134303	--		Westinghouse	1	"	"
" " #59062)	--		Weston	2	"	"
" " #59064)	--					
Anchors, guy, screw 6'	--		--	2	"	"
" iron expansion 3/8"	--		--	150	"	"
" lead "5/16"x1"	--		--	90	"	"
" " " 1/4"x3/4"	--		--	100	"	"
" " " 3/16" x 1 1/4"	--		--	80	"	"
Anemometer, ser. #22	--		--	1	"	"
" WO 1 cups ser. #43	--		--	1	"	"
Apparatus, time interval	--		Leeds & Northrup	2	"	"
Arm governor, w/weight for T.I. apparatus	--		" "	1	"	"
Arrestors, lightning	--		W.E. #58-A	17	"	"
Axes, single bit	--		--	4	"	"
Backboards, C.A.T. wall telep. T.I. bell	--		--	1	"	"
" T.I. bell	--		--	3	"	"
Bars, crow	--		--	1	"	"
" pinch 4'	--		--	1	"	"
" digging 7'	--		--	1	"	"
" tamping 7'	--		--	2	"	"
Barometers, mercurial	--		--	2	"	"
" aneroid	--		--	3	"	"
Batteries, storage	BB-5		Edison	16	"	"
Bearing, Gen. ball, w/cone cup & balls for wind vane	--		--	1	"	"
Bells, T.I. small	MC-8		--	18	"	"
" " "	MC10		--	6	"	"

Signal Equipment Stock not Installed - continued

Article	Signal : Corps : Type :	Mfr. & code : number :	No. : on : hand :	Condition	Disposition
Bells, elect. 3" gong	: --	: Faraday	: 1	: Good	: Required at Post
" "	: --	: --	: 4	: "	: "
" ext. loud ringing 6"	: MC-9	: --	: 6	: "	: "
Bellows, hand	: --	: --	: 2	: "	: "
safety:	: --	: --	: 2	: "	: "
Belts, lineman straps w/	: --	: --	: 2	: "	: "
Bits, auger, 5/8"x18"	: --	: --	: 1	: "	: "
" expansion 1/2" to 3/4"	: --	: --	: 3	: "	: "
" extension 18"	: --	: --	: 1	: "	: "
grips GI:	: --	: --	: 3	: "	: "
Blocks, 2 sheeve, 3/8" w/	: --	: --	: 3	: "	: "
" 2 " wood 3/8"	: --	: --	: 3	: "	: "
" " 2 " " 4"	: --	: --	: 1	: "	: "
" single " " 4"	: --	: --	: 1	: "	: "
" " for 3" rope	: --	: --	: 3	: "	: "
Blocks, telep. ter.	: TM-20	: --	: 10	: "	: "
headsets	: --	: --	: 11	: "	: "
" connec. for telep. /	: --	: --	: 49	: "	: "
Books, field message	: --	: --	: 49	: "	: "
appar.	: --	: Adams	: 2	: "	: "
" switching & protect.:	: --	: --	: 1	: "	: "
" Manual Wireless)	: --	: --	: 1	: "	: "
(Telegraphy, Navy Elect.)	: --	: Trendwell	: 1	: "	: "
Books, storage battery	: --	: Maver	: 2	: "	: "
" American teleg.	: --	: --	: 1	: "	: "
" Flags of the World	: --	: --	: 2	: "	: "
U.S:	: --	: --	: 1	: "	: "
" Sea-going Vessels of	: --	: --	: 3	: "	: "
" List of Merchant)	: --	: --	: 3	: "	: "
(Vessels of the U.S.)	: --	: --	: 2	: "	: "
" International Code	: --	: --	: 2	: "	: "
" House Flags & Fun-	: --	: --	: 2	: "	: "
nels	: --	: --	: 2	: "	: "

Signal Equipment Stock not Installed - Continued

Article	Signal : : Corps : : Type :	Mfr. & code : number	No. : : on : : hand :	Condition	Disposition
Books, Service Flags-W.S.	--	--	1	Good	:Required at post
" Elect. Engrs.	--	Fosters	1	"	:"
" S.C. Manual #8	--	--	3	"	:"
" Elect. Telegraph	--	Pope	1	"	:"
" Test of Insulated) Wire & Cable)	--	Webb	1	"	:"
" S.C. Storage Cat.	--	--	1	"	:"
Boxes, iron pole fuse	--	--	1	"	:"
" outlet	--	--	5	"	:"
" B.C. firing signal:EE-22	--	--	2	"	:"
" gun telephone	--	--	21	"	:"
" B.C. "	--	--	5	"	:"
" bell, C.A.T. telep:EE-26	--	--	26	"	:"
Brace, corner	--	--	1	"	:"
" ratchet 10"	--	--	1	"	:"
Braces, crossarm 1 1/2"x30"	--	--	65	"	:"
Buttons, carbon, for SC-CB telep.	--	--	25	"	:"
" " solid back) trans.)	--	--	10	"	:"
Buzzer, field, mod. 1905	--	--	4	"	:"
" high frequency	--	--	1	"	:"
" service mod. 1914:	--	--	4	"	:"
Cable	: 214	: --	: 417'	:"	:"
"	: 306	: --	: 547'	:"	:"
" 10 pair	: 401	: --	: 356'	:"	:"
" 20 "	: 403	: --	: 779'	:"	:"
" 30 "	: 405	: --	: 332'	:"	:"
"	: 614	: --	: 110'	:"	:"

Signal Equipment Stock not Installed - Continued

Article	Signal : : Corps : : Type :	Mfr. & code : number :	No. : on : hand :	Condition	Disposition
Caps, comp. headset rec.	: --	: -- #25A	: 11	: Good	: Required at post
" lamp, swbd	: --	: Stromg-Carl./	: 10	: "	: "
Carboys, 5 gal.	: --	: --	: 5	: "	: "
Cases, pigeon hole	: --	: --	: 1	: "	: "
" reagent	: --	: --	: 3	: "	: "
Chair, operator's telep.	: --	: --	: 1	: "	: "
Chisel, wood, 1/2"	: --	: --	: 1	: "	: "
" " 1"	: --	: --	: 1	: "	: "
" " 2"	: --	: --	: 1	: "	: "
Clamps, splicing 10"	: --	: --	: 1	: "	: "
" guy, 2 bolt	: --	: --	: 90	: "	: "
" " 3 "	: --	: --	: 30	: "	: "
Climbers, pole	: --	: --	: 2 pr.	: "	: "
Clips, testing	: --	: Frankel	: 5	: "	: "
" Crosby, 3/8"	: --	: --	: 15	: "	: "
Coils, induction, C.B. Telep	: --	: Dean	: 3	: "	: "
" for plumber furnace	: --	: --	: 6	: "	: "
" induction	: --	: W.E. #23	: 1	: "	: 2
" " C.B.A.T. telep.	: --	: --	: 10	: "	: "
Compound, insulating	: IC-1	: --	: 1 gal.	: "	: "
Condensers	: CA-59	: --	: 20	: "	: "
"	: CA-60	: --	: 37	: "	: "
" bus bar 8 MF	: --	: --	: 5	: "	: "
" 2 MF	: --	: Sumter	: 6	: "	: "
Contacts, lower, for T.I. appar	: --	: Leeds & Northrup	: 2	: "	: "
Coppers, soldering	: --	: --	: 3	: "	: "
Cords, receiver	: GC-106	: --	: 30	: "	: "
"	: 53	: --	: 24	: "	: "
" C.A.T. telep.	: 200-A	: --	: 129	: "	: "
" " "	: 201	: --	: 68	: "	: "
" " "	: 202	: --	: 50	: "	: "
"	: CC-210	: --	: 100	: "	: "
" telep. armored	: 246	: --	: 26	: "	: "
" radio, headset	: 307	: --	: 3	: "	: "
" telep. transmitter	: #1	: --	: 5	: "	: "
" " "	: #3	: --	: 2	: "	: "
" " 60"	: #3	: --	: 4	: "	: "
"	: CC-104	: --	: 11	: "	: "
"	: 203	: --	: 6	: "	: "
" radio headset	: 308	: --	: 3	: "	: "
"	: 6	: --	: 2	: "	: "
Coupling, wind vane	: --	: --	: 2	: "	: "
" pole	: FT-2	: --	: 12	: "	: "
Cranks, gen. C.A.T. telep.	: --	: --	: 19	: "	: "
Crossarms, wood, 4 pin	: --	: --	: 37	: "	: "
" " 6 "	: --	: --	: 7	: "	: "
Crystal	: DC-1	: --	: 1	: "	: "
Cups, anemometer	: --	: --	: 2	: "	: "
Cipher, device	: M-94	: --	: 1	: "	: "
Diaphragms, rec. telep. 2"x5/32"	: --	: --	: 11	: "	: "
" " " 2"x7/32"	: --	: --	: 20	: "	: "

Signal Equipment Stock not Installed - Continued

Article	Signal : : Corps : : Type :	Mfr. & code : number :	No. : : on : : hand :	Condition :	Disposition :
Digger, post hole	: --	: --	: 1	: Good	: Required at post
Dresser, cable, dogwood	: --	: --	: 1	: "	: "
Drills, hand	: --	: --	: 1	: "	: "
Equipment, incomplete	: TE-4	: --	: 5	: "	: "
" "	: TE-5	: --	: 6	: "	: "
"	: TE-14	: --	: 3	: "	: "
"	: TE-16	: --	: 1	: "	: "
"	: TE-18	: --	: 1	: "	: "
Faultfinder, ser. #36457	: --	: Leeds & Northrup	: 1	: "	: "
Flags, code, yellow	: --	: --	: 2	: "	: "
" " international	: --	: --	: 1 set	: "	: "
Fuses, postal, 1/2 amp	: --	: --	: 30	: "	: "
" " 1 "	: --	: --	: 25	: "	: "
" 20 amp	: --	: --	: 20	: "	: "
" 1 amp	: Type-E	: --	: 60	: "	: "
Gaskets, gun telep. boxes	: --	: --	: 14	: "	: "
Generators, 3 bar C.A.T. telep. --	: --	: S.C. #38	: 2	: "	: "
" 5 " swbd	: --	: S.C. #38	: 1	: "	: "
" 5 " telep.	: --	: --	: 1	: "	: "
" 5 " swbf	: --	: W.E. #48-A	: 1	: "	: "
" 4 " telep.	: --	: --	: 2	: "	: "
Glasses, smoked w/case	: --	: --	: 1	: "	: "
Governors, T.I. apparatus	: --	: L. & N.	: 3	: "	: "
Grindstone 18"	: --	: --	: 1	: "	: "
Hammers, claw	: --	: --	: 3	: "	: "
Hammers,	: HM-1	: --	: 4	: "	: "
Hammer, riveting	: --	: --	: 1	: "	: "
Handsets, C.A.T. telep.	: --	: --	: 40	: "	: "
Handles, axe boxes	: --	: --	: 4	: "	: "
" for B.C. & gun telep./	: --	: --	: 12	: "	: "
" " payout reel	: --	: --	: 4	: "	: "
Head harness for C.A.T. headset	: --	: --	: 15	: "	: "
Headsets, telep.	: TS-3	: --	: 163	: "	: "
Hooks, kant	: --	: --	: 1	: "	: "
" carrying	: --	: --	: 8	: "	: "
Horns, C.A.T. headsets threaded	: --	: --	: 3	: "	: "
" " " un "	: --	: --	: 20	: "	: "
Hydrometers	: --	: --	: 8	: "	: "
Insulators, glass pony SG	: --	: --	: 185	: "	: "
Jacks, battery, storage	: --	: Edison	: 16	: "	: "
" sets, cutoff	: --	: --	: 2	: "	: "
Jars, glass, storage battery	: --	: --	: 1	: "	: "
Joints, univ. for C.A.T. headsets	: --	: --	: 10	: "	: "
Keys, ringing & listening	: --	: W.E. #104-A	: 4	: "	: "
" telegraph	: --	: --	: 8	: "	: "
Ladles, iron 2 1/2"	: --	: --	: 1	: "	: "
Magnets, lineman testing	: --	: --	: 2	: "	: "
Mallets, wood 4 1/2"	: --	: --	: 1	: "	: "
Masts, bamboo	: MS-5	: --	: 11	: "	: "
Megaphones	: M-64	: --	: 13	: "	: "
Megger, 5 megohm	: --	: Evershed	: 1	: "	: "

Signal Equipment Stock not Installed - Continued

Article	Signal	Corps	Mfr. & code number	No. on hand	Condition	Disposition
Mortars, sig. bomb				1	Good	Required at post
Mountings, retard. coils				6	"	"
Ohmmeter, mod. 1904				1	"	"
Oilers				3 sets	"	"
Operators set			S.C. #2-4	1	"	"
Pins, crossarm 1 1/4"x8"				30	"	"
Plane, jack 14"				1	"	"
Plates, spark gap 1 KW			Marconi	14	"	"
Pliers, sidecutting 6"				4	"	"
" " 8"				3	"	"
" " 5"				2	"	"
Plugs, swbd			W.E. #85	1	"	"
Printer, photo, elect.				1	"	"
Protector, groups				5	"	"
Protectors, lightning			Mason	44	"	"
Punch, leather, revolving				1	"	"
Racks, cable, iron				115	"	"
" " G.I.				15	"	"
Radio, telephones	BC-13-A			4	"	"
" " power board	BD-1-A			4	"	"
" headsets	P-11			8	"	"
" telep. transmitters	T-3			8	"	"
" " cords	CD-22			4	"	"
" " "	CD-23			4	"	"
" " "	CD-24			4	"	"
" " " sets	CD-25			4	"	"
Receiver, cushions, CAT head/				84	"	"
Receivers, hand				9	"	"
" swbd S.H.				1	"	"
Reels, cable				12	"	"
" breast				2	"	"
" pay out				1	"	"
" Hand pay out				3	"	"
" " take up				4	"	"
Relays, swbd			S.C. 206-CCX	2	"	"
" "			S.C. 306-CCX	2	"	"
" "			S.C. 206-BBX	2	"	"
" "			S.C. 306-BBX	2	"	"
" "			S.C. 194-A	10	"	"
Rings, bridle 1 1/4"				150	"	"
Rods, grd. field buzzer				4	"	"
Rules, slide, atmospheric				9	"	"
" 2'				1	"	"
" 4'				1	"	"
Saws, hand, crosscut				2	"	"
" key hole				1	"	"
Scissors, electrician				1	"	"
Screwdrivers 2"				2	"	"
" 3"				1	"	"
" 5"				2	"	"

Signals Equipment Stock not Installed - Continued

Article	Signal : : Corps : : Type :	Mfr. & code : : number :	No. : : on : : hand :	Condition:	Disposition
Screwdrivers, 6"	: --	: --	: 3	: Good	: Required at post
" " 10"	: --	: --	: 3	: "	: "
Screws, lag, 4"	: --	: --	: 80	: "	: "
Seats, pole	: --	: --	: 3	: "	: "
Shells, hand rec.	: --	: Sumter	: 6	: "	: "
" " "	: --	: Kellogg	: 5	: "	: "
Showels, spoon	: --	: --	: 2	: "	: "
Signals, mechanical	: --	: W.E.-34-A	: 15	: "	: "
" " "	: --	: W.E.-34-B	: 10	: "	: "
" line magneto	: --	: W.E.-19-A	: 3	: "	: "
Sleeves, paper splicing 3/16"x3"	: --	: --	: 880	: "	: "
Sleeving, lead 1"	: --	: --	: 10'	: "	: "
" " 1 1/2" sets	: --	: --	: 10'	: "	: "
Slides, hard rubber, C.A.T. head	: --	: --	: 5	: "	: "
Sockets, lamp, swbd	: --	: S.C. 121 on #80 mtg.	: 10	: "	: "
Square, angles, adjusted, 8"	: --	: --	: 1	: "	: "
Stands, oil set, wood	: --	: --	: 2	: "	: "
Stones, oil, mounted	: --	: --	: 2	: "	: "
Straps, carrying, port. C.A.T. telp.	: --	: --	: 4	: "	: "
Streamers, red, 6'x20'	: --	: --	: 2	: "	: "
" white "	: --	: --	: 1	: "	: "
Strips, forming	: --	: --	: 17	: "	: "
" " 40"	: --	: --	: 3	: "	: "
" jack line 10 pr. strip	: --	: W.E. 141 on 109 mtg.	: 1	: "	: "
Switch, boxes, baseline	: BC-96	: --	: 2	: "	: "
" " cut out	: --	: --	: 1	: "	: "
" hand set	: BC-94	: --	: 3	: "	: "
" knife, DPST asstd	: --	: --	: 11	: "	: "
" " S.P.S.T.	: --	: --	: 1	: "	: "
" hook, telep.	: --	: Sumter	: 2	: "	: "
" " C.A.T. wall telp.	: --	: --	: 6	: "	: "
" " telep. C.B. desk	: --	: --	: 3	: "	: "
Syringe, battery	: --	: --	: 1	: "	: "
Tags, aluminum 1"	: --	: --	: 100	: "	: "
Tape, friction	: TL-83	: --	: 2 lbs	: "	: "
Telephones, wall	: --	: Sumter	: 35	: "	: "
" desk, C.B.	: --	: "	: 10	: "	: "
" wall, C.A.T.	: EE-71	: --	: 8	: "	: "
" field mod. 1917	: EE-4	: --	: 1	: "	: "
" portable C.A.T.	: --	: --	: 9	: "	: "
" desk, C.A.T.	: EE-26	: --	: 26	: "	: "
" gun, "	: EE-30	: --	: 15	: "	: "
# wall plotters, C.A.T.	: EE-71	: --	: 11 1/2	: "	: "
" B.C. C.A.T.	: EE-24	: --	: 20	: "	: "
Thermometers, & stands	: --	: --	: 3	: "	: "
" Fah. ser. #59150	: --	: --	: 1	: "	: "
Thimbles, guy, 3/8"	: --	: --	: 32	: "	: "
" " 1/2"	: --	: --	: 50	: "	: "
Torch, blow, 1 qt.	: --	: C. & L.	: 1	: "	: "
Transmitters, swbd, suspended	: --	: --	: 2	: "	: "
Trays, B.C. C.A.T. telep.	: --	: --	: 4	: "	: "

Signal Equipment Stock not Installed - Continued

Article	Signal	Corps	Mfr. & code	No.	on	Condition	Disposition
	Type	number	hand				
Tubes, vacuum	VT-1	--		19		Good	Required at post
" "	VT-2	--		25		"	"
Twine, lacing	--	Barbour's	2 lbs			"	"
Venes, wind, wo/ rods	--	--		2		"	"
Vises, hand, lineman w/strap	--	--		2		"	"
" bench	--	--		1		"	"
Voltammeter, 0-5 volts 0-10 amp:	--	Weston		1		"	"
"	--	" mod. 280	4			"	"
Voltmeter, D.C.	--	Westinghouse		1		"	"
		ser. #134198					
" 0-5 volts	--	Weston ser.		1		"	"
		#2267					
Wire, house	W-33	--		3000'		"	"
" pothead	W-34	--		500'		"	"
" buzzer, #28	--	--		1 1/2 ml.		"	"
" messenger, 3/8"	--	--		300'		"	"
" outpost	W-44	--		10 ml.		"	"
" outside distributing	W-38	--		20300'		"	"
Wrenches, monkey 10"	--	--		1		"	"
" " 12"	--	--		1		"	"
" storage battery	--	Edison		15		"	"
" socket sets	--	--		1		"	"
" spanner, C.A.T. head/	--	--		2		"	"
Wrench, tie	--	--		1		"	"

333,6

HEADQUARTERS NINTH CORPS AREA
OFFICE OF THE CORPS AREA COMMANDER
PRESIDIO OF SAN FRANCISCO

"SO"

January 10, 1928.

Subject: Report of Inspection Signal Corps Equipment Harbor Defenses of the Columbia.

To: The Adjutant General,
Washington, D. C.

3 Incls.

OFFICE CHIEF OF ENGINEERS
MAR 30 1928
333,14
7 A 333.1 (Col. R.) 7

1. Inclosed, in duplicate, for distribution to the Chief of Coast Artillery and the Chief Signal Officer, are S.C. Forms 204, and corrected sheets of S.C. Forms 211, reports of inspection of Signal Corps equipment for the calendar year 1927 at the following forts:

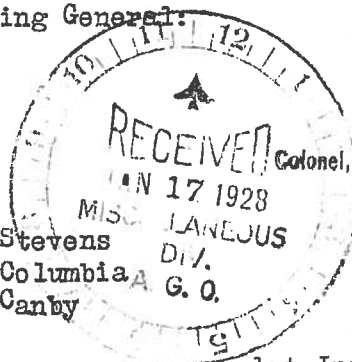
- Fort Stevens, Oregon
- Fort Columbia, Washington
- Fort Canby, Washington

2. These headquarters concur in the recommendations of the Commanding General, Headquarters, 9th Coast Artillery District, Presidio of San Francisco, Calif., as stated in the 2nd indorsements dated December 19, 1927, December 30, 1927, and January 3, 1928, respectively, on S.C. Forms 204, herewith.

3. It is requested that information as to action of your office, regarding the removal and storage of fire control equipment at the Harbor Defenses of the Columbia, be furnished these headquarters as soon as practicable.

For the Commanding General:

8 Received A. G. O. JAN 17 1928



S. G. Jones
S. G. JONES
Colonel, Adjutant General's Department
Adjutant General

- 3 Incls. (in dup.)
- #1-Forms 204 & 211 - Fort Stevens
- #2- " " " - Fort Columbia
- #3- " " " - Fort Canby

AG 333.9 9th Corps Area
(1-10-28) (Misc.)

1st Ind.

CCW-AHC

War Department, A. G. O., January 17, 1928 - To the Chief of Coast Artillery.

3 Incls. No change.
Synopsis made.

7 RECD JAN 18 1928 3 Incls (Dup. attached)

1-10-28

3

War Department, O.C.C.A., January 26, 1928 - To The Adjutant General.

1. While the recommendations of the inspector in this special case appear logical, in view of conditions at the Harbor Defenses of The Columbia, it is not desired to depart from the general policy established to govern temporary storage of equipment to prevent deterioration or loss unless such action is absolutely necessary. It is recommended, therefore, that these papers be returned to the Commanding General, Ninth Corps Area, for consideration of the following:

a. Much of the knowledge gained by an inspection of equipment in place cannot be gained by any other means. Where portions of the installations are interdependent the removal of any part may make an inspection useless from a practical standpoint.

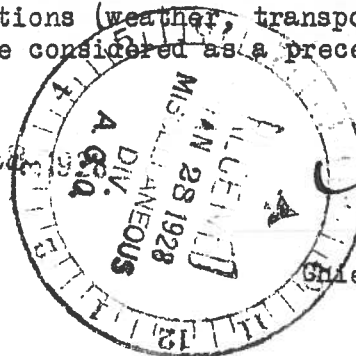
b. The entire system of a harbor defense is built up as an entity. A break down of any single element will, in all probability, seriously weaken the defense as a whole.

c. Deterioration of cables and power lines, of engines and dynamos and other elements may be ascertained in its incipency and corrected if thorough periodical tests are made. But otherwise it may be found in emergency that this deterioration has progressed so far as to call for time consuming replacements, with resulting ineffectiveness of important elements of the defense.

d. The War Department has directed (see AG 381 (3-25-22)(Misc Div) M-WPD) that harbor defenses shall be maintained "in a state of readiness for use in training or in war". It is not seen how this readiness can be guaranteed if concessions to local conditions and shortage of personnel are permitted beyond those of the present approved policies, or how the officer logically responsible (the harbor defense commander) can be held responsible for conditions.

2. If the corps area commander after consideration of the foregoing believes the conditions are such as to call for relieving the Commanding Officer, Harbor Defenses of The Columbia of responsibility for carrying out the policy of the War Department as given in directive cited in Par. 1. d, this office will make no objection provided it is made plain that such action is taken on account of conditions (weather, transportation, etc.) in those harbor defenses and cannot be considered as a precedent.

15 Rec'd Back A. G. O. JAN 28 1928



Andrew Hero, Jr.
ANDREW HERO, Jr.,
Major General,
Chief of Coast Artillery.

3 Incls.

Hq Ninth Coast Artillery District, Presidio of San Francisco, Calif., Feb 8/28
To CG Ninth Corps Area.

1. The significance, importance and wisdom of the remarks made by the Chief of Coast Artillery in the 2nd indorsement as a general policy are fully appreciated.

2. The situation in the Harbor Defenses of the Columbia presents a special case where, in certain instances, the failure to remove firecontrol equipment to places of dry storage positively will result in the complete ruination of the equipment. The War Department and the Commanding General, 9th Corps Area heretofore have specifically given authority for the removal of the equipment from places of installation following extended tests and observation by Signal Corps representatives, various harbor defense commanders and former District Commanders. The question remaining, as understood by these headquarters, is whether the equipment so removed for dry storage shall be reinstalled for annual test and in this case refers only to equipment supplied by the Signal Corps.

3. The question resolves itself into a very practicable one, viz: Considering the whole problem of maintenance of the fortifications and the physical plant in the Harbor Defenses of the Columbia how may the available man hours be used to produce the greatest practicable result? The answer given below is based on the assumption that it is impracticable to increase the Coast Artillery caretaking garrison in these harbor defenses.

4. The recommendations made by the Signal Corps Inspector are specific as to each item or class of equipment and represent specifically the views of these headquarters as to the best solution of this problem. One additional recommendation as to annual Signal Corps inspection is made in furtherance of the plan of test and inspection proposed by the Inspector, viz:

- a. That motor generators in storage be actually operated. ✓
- b. That meters in storage be actually tested. ✓
- c. That time interval apparatus in storage be actually operated. ✓
- d. That the wiring of distributing and power switchboards for fire-control system (exclusive of post telephone system) not connected and in use be actually tested. ✓
- e. That station wiring not actually connected in for complete test of equipment in place be separately tested. ✓

5. The plan proposed by the inspector amplified as proposed in paragraph 4 above is thought to be the very best procedure and the one that will best produce in a practicable way the result indicated by the Chief of Coast Artillery.

6. It is no exaggeration to declare that any electrical equipment of the type supplied for firecontrol switchboard rooms will be ruined if installed in the room at Fort Columbia now designated for that purpose. This room is so damp that on a recent date water stood several inches deep on the floor and the walls and ceiling were dripping wet. It is not now recommended that another switchboard room be provided for the following reasons. The principal elements at Fort Columbia are - one 6" battery and a Mine installation. The very pronounced changes in the hydrography of the harbor caused by breakwaters and jetties have changed the principal features of the defense so far as Fort Columbia is concerned; that an emergency firecontrol system for the 6" battery can be installed in less time than ordinarily required for a 155 m/m G.P.F. battery. The matter of underwater defense is now under consideration and the question of continuing the Fort Columbia features of the project may be involved. Hence it is not considered desirable at the present time to make specific recommendation that another switchboard room be provided at Fort Columbia.

L. C. Brown

L. C. BROWN,
Colonel, Coast Artillery Corps,
Commanding.

3 Incls.

OFFICERS
AREA

FEB 9 1928

REG'VEL

333.6

6th Ind.

"SO"

Hq. 9th C.A., Pres. of S.F., Calif., Feb. 14, 1928. To: The Adjutant General, Washington, D.C.

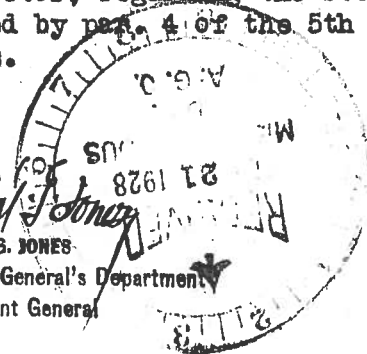
In view of the conditions existing in the Harbor Defenses of the Columbia, the recommendations of the Signal Corps inspector, regarding the storage and testing of fire-control equipment as amplified by para. 4 of the 5th indorsement hereon, are concurred in by these headquarters.

For the Commanding General:

Back A. G. O. FEB 21

3 Incls.

S. G. JONES
Colonel, Adjutant General's Department
Adjutant General



War Department, AGO, February 23, 1928-To the Chief of Coast Artillery.

For further remark, attention invited to preceding indorsements.

By order of the Secretary of War:

[Handwritten Signature]
Adjutant General.

3 Incls-no change.

7 BACK FEB 24 1928 0.0.0. 3 Incls

333.14/7-H

8th Ind.

War Department, O.C.C.A., February 27, 1928 - To The Adjutant General.

1. In accordance with the statement contained in paragraph 2 of the 2nd Indorsement, the decision of the Commanding General, 9th Corps Area, as expressed in 6th Indorsement, is accepted in this special case with the specific understanding that it is not to be considered as establishing a precedent.

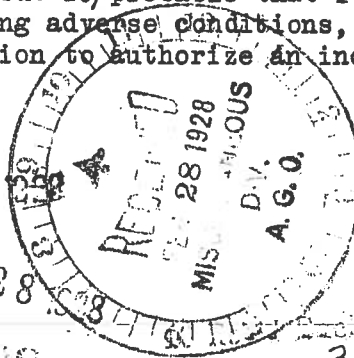
2. It is apparent from this correspondence that the caretaking detachment now authorized for the Harbor Defenses of The Columbia is insufficient to properly maintain the war equipment in condition for immediate service in time of emergency but, the present serious shortage of Coast Artillery personnel and the pressing demands of other defenses make it impracticable for this office to take any action that will result in an increase of the assigned garrison. Present prospects, due to the necessity for meeting the Air Corps increases, are that the situation will become more difficult rather than improve. The solution presented herein is not considered satisfactory but it is probable that it is the best that can be secured under the existing adverse conditions, until such time as the War Department is in a position to authorize an increase in the Coast Artillery Corps.

Rec'd Park A. G. O. FEB 27 1928

REC'D. G-3 FEB 28 1928

3 Incls.

1928



[Handwritten Signature]
ANDREW HERO, Jr.,
Major General,
Chief of Coast Artillery.

3 Incls.

AG 333.9 Ninth Corps Area
(1-10-28) (Misc.) C

9th Ind.

CCW-AHC

War Department, A. G. O., March 1, 1928 - To the Commanding General, Ninth Corps Area.

The decision of the Commanding General, Ninth Corps Area as expressed in 6th indorsement is approved. This approval will not establish a precedent.

By order of the Secretary of War:

Rec'd Hq. 9th C. A.

MAR 5 1928

Incls. No change.

[Signature]
Adjutant General.

HEADQUARTERS
NINTH CORPS AREA

MAR 5 - 1928

WG. O
RECEIVED

333.6

10th Ind.

"SO"

Hdqs. 9th C.A., Pres. of S.F., Calif., Mar. 6, 1928 - To Commanding Officer, H.D. of the Columbia, Fort Stevens, Ore. (THRU-Commanding General, 9th Coast Artillery Dist., Pres. of S.F.)

To note and return.

By command of Major General Hines:

[Signature]
S. G. JONES

Colonel, Adjutant General's Department
HEADQUARTERS NINTH CORPS AREA
J. A. DISTRICT Adjutant General

3 Incls.
(no change)

RECEIVED MAR 7 1928

333.1

11th Ind.

F/jpi

Hq Ninth CADist Pres of SF Calif., Mar 9/28 - To CO HD of the Columbia.

1. For information and guidance. Note and return.

2. Additional arrangement will be made for conduct of tests as referred to in paragraph 4e, 5th indorsement.

By order of Colonel Brown:

3 Incls.

[Signature]

A. L. FULLER,
Lieut. Colonel, Coast Artillery Corps,
Executive.

REC'D HQ. NINTH CORPS AREA
OF COLUMBIA, FT. STEVENS, ORE.
MAR 12 1928

OFFICE, CHIEF OF COAST ARTILLERY
RECORD CARD
~~GROSS REFERENCE~~

Rec'd.
Sept. 23, 1929.

July 23, 1929.

Asst. C.A. Inspector, Fort Lewis, Washington.

Survey of War Dept. activities pertaining to the H.D. of the Columbia made April 23, 1929. The last annual survey of these Harbor Defenses by an inspector general was made by the undersigned on March 27-28, 1928.

XXXXXXXXXXXXXXXXXXXX

VI CONCLUSIONS:

(2) That matters connected with organization, administration, and operation of the stations embraced in these Harbor Defenses are being efficiently directed, and conducted with a maximum degree of economy.

(3) No changes were indicated as immediately necessary for the promotion of greater economy.

333.9-H.D. of the Columbia (IG)
1st Ind., Sept. 7/29. C.G., 9th C.A. - To I.G.
~~XXXXXXXXXXXXXXXXXXXX~~

333/7-B

OFFICE CHIEF OF COAST ARTILLERY
RECORD CARD
CROSS REFERENCE

Rec'd.
May 9/30.

April 10, 1930.

I.G., Hdqrs. 9th C.A., Presidio of San Francisco, Calif.

Annual survey of the H.D. of the Columbia made by Lt. Col. S. T. Mackall, I.G.D., March 11 & 16, 1930.

* * *

3. COSTS

* * *

e. A small item of expense might be eliminated by transferring the gasoline tug "Lt. Lawrence Dwight" to some other station. She is not used and is not needed in the Harbor Defenses of the Columbia, and berthing space at Warrenton costs \$48.00 per year.

Recommendation: That the "Lawrence Dwight" be transferred to some station where she can be used to advantage.

333.9-HD of the Col.
fy 1930 (IG)

1st Ind., Apr. 24/30. C.G., 9th C.A. - To The Inspector General.

1. The following comments are submitted:

Par. 3 e, Gasolene tug "Lt. Lawrence Dwight"

Commanding General, 9th C.A.D., Apr. 18, 1930:

"The gasoline tug Lt. Lawrence Dwight is not suitable for use in any Coast Defense in this Corps Area. If it cannot be used at any other station, it is recommended that it be sold".

Corps Area Commander: The Corps Area Quartermaster in letter to the Quartermaster General dated April 22, 1930, requested that this vessel be transferred elsewhere.

333/7-C

OFFICE CHIEF OF COAST ARTILLERY
RECORD CARD
CROSS REFERENCE

Rec'd.
May 9/30.

April 10, 1930.

I.G., Hdqrs. 9th C.A., Presidio of San Francisco, Calif.

Annual survey of the H.D. of the Columbia made by Lt. Col. S. T. Mackall, I.G.D., March 11 & 16, 1930.

* * *

3. COSTS

* * *

e. A small item of expense might be eliminated by transferring the gasolene tug "Lt. Lawrence Dwight" to some other station. She is not used and is not needed in the Harbor Defenses of the Columbia, and berthing space at Warrenton costs \$48.00 per year.

Recommendation: That the "Lawrence Dwight" be transferred to some station where she can be used to advantage.

333.9-HD of the Col.
fy 1930 (IG)

1st Ind., Apr. 24/30. C.G., 9th C.A. - To The Inspector General.

1. The following comments are submitted:

Par. 3 e, Gasolene tug "Lt. Lawrence Dwight"

Commanding General, 9th C.A.D., Apr. 18, 1930:

"The gasolene tug Lt. Lawrence Dwight is not suitable for use in any Coast Defense in this Corps Area. If it cannot be used at any other station, it is recommended that it be sold".

Corps Area Commander: The Corps Area Quartermaster in letter to the Quartermaster General dated April 22, 1930, requested that this vessel be transferred elsewhere.

333/7-C

OFFICE OF THE CHIEF OF COAST ARTILLERY

RECORD OF COMMUNICATION RECEIVED.

From: I.G.D.

Dated:
April 21, 1931.

To: C.G., 9th Corps Area, THRU C.O. H.D. of the Columbia.
Ft. Stevens, Oregon.

Rec'd., OCCA:
May 21, 1931.

Subject: Annual Inspection of the Harbor Defenses of the Columbia, Fiscal
Year, 1931.

The inspection was made by Major Franklin Babcock, I.G.D., on March 10-11, 1931. The last inspection was made by Col. L. C. Brown, C.A.C., on June 29-30; and the last survey was made by Lt. Col. S. T. Mackall, I.G.D., on March 11 and 16, 1930.

x x x x

18. RECOMMENDATIONS.

a. That the buildings listed in paragraph 2a(1) be salvaged, as they have deteriorated beyond serviceable repair.

x x x x

2. General

a. Buildings and Grounds. (1) These harbor defenses are on a caretaking status with all personnel quartered at Ft. Stevens, except two men at Ft. Columbia, two men at Ft. Canby and one man at Willapa Bay. The maintenance of all buildings, occupied or unoccupied, at Ft. Stevens and Ft. Columbia, is very good, with the following exceptions:

Fort Stevens: Two temporary buildings (Nurses' quarters and small warehouse.)

Fort Columbia: Two permanent buildings (coal shed and submarine mine storehouse)

Two temporary buildings (small quarters).

Recommendation: That these buildings be salvaged, as they have deteriorated beyond economical repair.

1st Ind.

Hq. HD of the Columbia Ft. Stevens, Ore. April 28, 1931 To C.G., 9th Corps Area, Presidio of San Francisco, Calif.

Noted.

2nd Ind.

Hq. Ninth Corps Are, Presidio of San Francisco, Calif. May 14, 1931
To: The I.G., Washington, D. C.

1. The report of the Inspector is approved and his conclusions are concurred in.

2. a. The recommendation reference disposal of buildings (Par 2 a.(1)) is approved and will be handled by this headquarters.

b. The recommendation reference funds for repair of Ft. Canby road (Par. 2 a. (4)) is disapproved as it would involve an expenditure of between \$20,000 and \$35,000 which is not believed to be justified under present conditions.

333.1/7-J

333.1/7J

4th Ind. Cochran/flh

War Dept., O.C.C.A., May 26, 1931 - To The Quartermaster General.

1. Noted.

2. In connection with the recommendations of the inspector, as contained in paragraph 18 a of his report, and the comments of the corps area commander, in the 2d Indorsement, it is the opinion of the Chief of Coast Artillery that action in connection with the disposal of buildings should be coordinated with letter AG 600.12 (12-17-30)(Misc) C, January 13, 1931, Subject: "Maintenance of Buildings and Utilities at Coast Artillery Posts Garrisoned by Small Caretaking Detachments". The report called for from the Ninth Corps Area has not been received.

3. Since the disposal in part of Forts Canby and Columbia and Willapa is now being considered by the War Department the disapproval of the corps area commander of the expenditure of funds upon a road to Fort Canby is concurred in.

For the Chief of Coast Artillery:

MAY 26 1931

Handwritten initials

H. L. STEELE. ✓
Colonel, C.A.C.
Executive Assistant.

Handwritten: 620 AS

Handwritten: 112

333.1/7-J

OFFICE OF THE CHIEF OF COAST ARTILLERY

RECORD OF COMMUNICATION RECEIVED.

From: Maj. I.J. Nichol, I.G.D.

Dated:

May 5, 1932

To: C.G., 9th Corps Area, Presidio of San Francisco, Calif.

Recd. OCCA:

July 12, 1932

Subject: General Inspection of the Harbor Defenses of the Columbia.

1. General.

a. This inspection was made by Major I.J. Nichol, Inspector General's Department, on April 5-6, 1932.

b. The last general inspection was made by Major Franklin Babcock, Inspector General's Department, on March 10-11, 1931.

c. The defenses are commanded by Major Reinold Melberg, 3rd C.A. who has been on this duty since March 11, 1931. The garrison consists of Battery E, 3rd Coast Artillery, and Detachments of Quartermaster Corps, Ordnance and Medical Departments, aggregating 4 officers, 1 warrant officer and 54 enlisted men, all of whom were present at the time of inspection, except 2 enlisted men. Absentees were duly accounted for.

d. No irregularities or deficiencies were reported at last general inspection.

e. Irregularities and deficiencies noted at this general inspection, were of a minor nature and remedial action was initiated at the time.

x x x

7. TRANSPORTATION.

a x x x

d. Water. No water transportation is operated. As noted in the report of Major Franklin Babcock, on the last general inspection of these defenses, the gasoline tug "Lieutenant Lawrence E. Dwight," is still docked at Warrenton, at a cost for wharfage of \$48.00 per year. During the past fiscal year \$73.00 for wharfage and pumping bills was expended on this tug. This vessel has no present or potential value to the Government and should be disposed of at the earliest possible date.

Recommendation: That the Gasoline Tug "Lt. Lawrence E. Dwight", be disposed of before the end of the present fiscal year.

x x x

16. RECOMMENDATIONS.

x x x

b. That the gasoline tug "Lieutenant Lawrence E. Dwight" be disposed of before the end of the present fiscal year. (See paragraph 7.d.)

FORWARDED through C.G., Ninth Corps Area, (THRU C.G. 9th C.A. Dist.), the Inspector General, and The Quartermaster General.

333-19-4

QM 333.1 A (Columbia, H. D.)

5th Ind.

War Department, CGA, Washington, July 9, 1932. To the Chief of Coast Artillery.

1. The foregoing report of inspection of the Harbor Defenses of the Columbia has been noted in this office and the following comment in connection therewith is submitted:

7/12/32
a. Par. 7 d; Par. 16 b. Water Transportation: The tug "Lieut. Lawrence B. Dwight" has been declared surplus and cleared for sale by the Chief Coordinator and instructions have been issued to the Quartermaster Supply Officer, San Francisco Port of Embarkation, to issue circular proposals covering the sale of this vessel.

For The Quartermaster General:

RICHARD T. ELLIS,
Colonel, U. S. A.,
Assistant.

9-7-32

333.1/7-K

Form No. 71.

OFFICE OF THE CHIEF OF COAST ARTILLERY

RECORD OF COMMUNICATION RECEIVED.

From: Lt. Col. A.B.Kaempfer, I.G.D., Asst. Inspector Gen., Dated:
Hq. 9th Corps Area, Presidio of San Francisco, Cal. May 9, 1933

To: ~~CG~~ 9th Corps Area THRU CO, H.D. of the Columbia Recd. OCCA:
Ft. Stevens, Ore. June 6, 1933

Subject: General Inspection of the H.D. of Columbia, F.Y. 1933.

1. General.

a. This inspection was made by Lt. Col. A.B.Kaempfer, I.G.D., on April 4-5, 1933. The last inspection was made by Major I.J.Nichol I.G.D., on April 5-6, 1932.

b. Maj. Reinold Melberg, 3d C.A., was in command of the defenses at the time of this inspection and has been on this duty since March 11, 1931. The garrison consists of Batty E, 3d C.A., and detachments of Quartermaster Corps, Ordnance and Medical Departments, with a total of 4 officers, 1 warrant officer and 54 enlisted men. Six enlisted men were absent during the period of this inspection, but were duly accounted for.

*

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*

16. Conclusions.

a. That the Harbor Defenses of the Columbia are being administered economically and efficiently.

*

*

*

FORWARDED THRU CHANNELS.

9-7-5-2

333.1/7-L

333.1 HD of the Columbia(6-9-33)

5th Ind.

War Department, OCSigO, Washington, D.C., June 6, 1933. To: The Chief of Coast Artillery.

1. Action will be initiated by this office for the disposition of the telephones and ammeters referred to in paragraph 4 of the Report of Inspection of the Harbor Defenses of the Columbia, fiscal year 1933, upon receipt of complete information as to the number, description, including item numbers if any, and condition (Class A, B. or C) of the equipment in question.

2. It is recommended that this information be furnished at the earliest practicable date.

For the Chief Signal Officer:

Clyde L. Eastman,
Lieut-Colonel, Signal Corps.

333.1/7-h

OFFICE OF THE CHIEF OF COAST ARTILLERY
333.1/H.D. of Columbia (IG)
RECORD OF COMMUNICATION RECEIVED.

From: Lt. Col. W.R. Henry, I.G.D., Asst. Inspector Gen., Hq. 9th Corps Area, Presidio of San Francisco, Calif. Dated: June 26, 1934

To: CG, 9th Corps Area THRU CO, HD of Columbia, Ft. Steven, Ore. Recd. OCJA: Aug. 22, 1934

Subject: General Inspection of the HD of the Columbia, FY 1934.

1. General.

a. This inspection was made by Lt. Col. W.R. Henry, I.G.D., May 3-6, 1934. The last inspection was made by Lt. Col. A.B. Kaempfer, I.G.D., Apr. 4-5, 1933.

b. Maj. Reinold Melberg, 3d CA, was in command of the harbor defenses at the time of this inspection and has been on this duty since Nov. 21, 1930. The garrison consists of Batty "E", 3d CA, and detachments of the Q.M.C., Ord., and Medical Dept., with a total strength of 4 officers, 1 warrant officer and 55 enlisted men. Of these, 1 warrant officer and 5 enlisted men were absent at the time of inspection, but were duly accounted for.

c. The H.D. of the Columbia consist of Ft. Stevens, Canby, and Columbia, with the headquarters and all the personnel at Ft. Stevens, except two enlisted caretakers at Ft. Canby and two at Ft. Columbia.

e. Buildings and Grounds.

(3)(a) At Ft. Canby, visited by the inspector, no permanent buildings remain serviceable except such as are connected with the armament (Emplacements, power plants, etc.). The two caretakers (both married) occupy two shacks, which it is reported they themselves have made, and are keeping, habitable. The appearance of these little shacks contrasts sharply with that of the brightly painted, commodious, and strongly built house close by, which is occupied by the Coast Guard. Considering the responsibilities which these caretakers have, and the caliber of men required to discharge these responsibilities, it is believed the caretakers merit better quarters. At present, any improvement of this situation appears impracticable, but it is believed that, if later, funds and labor become available and the road into Ft. Canby is sufficiently improved to carry heavy loads, consideration should be given to providing these men with better quarters, either by entirely new construction, or by taking down, and rebuilding at Ft. Canby a suitable building from among those now standing at Ft. Columbia.

(b) The road leading from the public highway in to Ft. Canby is in very poor condition; it is full of curves, is only wide enough for one-way traffic much of the way; a large part of it is planking. According to the estimate of the Harbor Defense Commander, this road could be made into one of 16 feet width, with the worst part (including the planked part) gravelled, for \$8,000 or with the entire length gravelled for \$10,000. Either of these figures would include grading and straightening the worst curves. In any event the present road would not stand up under heavy loads of ammunition or other ordnance.

4. Construction, Repair and Utilities.

b. Repairs.

prepared, and is adhered to, subject to changes made necessary by such emergency jobs as arise.

333.1/7-M

- (2) (a) The commanding officer exercises personal control over allotted funds.
- (b) Accurate repair cost records are kept.
- (c) Proportion of labor costs to material costs is approximately 40 to 60.
- (d) There are no temporary buildings which could be salvaged to advantage without radical rearrangement of post activities.

(e) Current annual allotments are not sufficient to insure adequate upkeep. The commanding officer submitted the following estimates of cost of needed work which he states could not be accomplished due to insufficiency of funds allotted during fiscal year 1934:

Painting (including scraping of steel water tank)	\$5,803.00
Repairs to electric distributing system including replacement of 20 rotted poles.....	322.80
Repairs to Govt-owned railway trackage, including replacement of 200 rotted ties	354.00
Replacing wood shingles, buildings No. 24 and 30, with rigid asbestos shingles	348.33
Miscellaneous carpenter and plumbing repairs to all buildings.....	<u>500.00</u>
	\$7,328.13
Less value of available material on hand...	<u>1,000.00</u>
Total funds required..	\$6,328.13

13. Recommendations.

a. That consideration be given to providing better quarters at Ft. Canby, for the two enlisted caretakers, should funds and labor become available and the road into the reservation be made adequate for transportation of materials. (Par. 1 e (3)(a).

b. That funds be made available for repair and improvement of the road into the Ft. Canby reservation, (Par. 1 e (3) (b), if practicable.

c. That, maintenance funds allotted these harbor defenses for F.Y. 1935, be sufficiently ample to permit the expenditure of \$6,328.13 for painting buildings and water tank, repairing electric distribution system and Govt. owned railway trackage, and miscellaneous carpenter and plumbing repairs to buildings, which could not be accomplished from maintenance funds allotted for F.Y. 1934 (Par. 4 b(2)(e)).

1 Incl. - Copy 7th Ind. to AG 600.12 I.R.(3-5-34)Misc. (D) dated May 4, 1934 with reference to repair of road to Ft. Canby Military Reservation, Wn.

333.1-H.D. of the Columbia (IG)

3d Ind. July 21, 1934 - Hq. 9th Corps Area to The Inspector General.

2. In connection with the recommendations contained in Par. 13 a and b, it is recommended that the War Dept. give consideration to providing funds to remedy the conditions referred to, there being no funds available at this headquarters at this time, to correct such conditions.

QM 333.1 A (Columbia, H. D. of)

5th Ind.

War Department, OQM, Washington, August 20, 1934. To the Chief of Coast Artillery.

1. The foregoing report of inspection of the Harbor Defenses of the Columbia has been noted in this office and the following comments in connection therewith are submitted:

a. Par. 1 c (3)(a); Par. 12 a; Par. 13 a, Quarters - Fort Canby: There are no funds available for the construction of new quarters for the caretakers at Fort Canby. If local authorities desire to take down a suitable building at Fort Columbia and re-erect it at Fort Canby, authority will have to be obtained through the usual channels and it will be necessary to use annual repair funds in the 9th Corps Area for this purpose.

b. Par. 1 c (5)(b); Par. 12 b; Par. 13 b, Roads - Fort Canby: Attention is invited to the attached copy of 7th indorsement of May 4, 1934, from The Adjutant General to the Commanding General, 9th Corps Area, File AG 600.12 I.R. (3-5-34) Misc. (D).

For The Quartermaster General:

JAS. H. LAMBACH,
Lt. Colonel, C. M. U.,
Assistant.

1 Incl:
Op. 7th Ind., 5/1/34.

7-9-2-5

333.1/7-M

333.1/7-M

6th Ind.

War Department, O.C.C.A., August 24, 1934. - To The Inspector General.

Reference is made to correspondingly numbered paragraphs of the basic letter.


15 a and b. The recommendation of the Commanding General, Ninth Corps Area as contained in Par. 2, 5d Ind. is concurred in. The re-erection by local authorities of a building at Fort Candy as proposed by The Quartermaster General in Par. 1, 5th Ind. is not recommended, since such a procedure would necessitate absence from important caretaking duties.

15 a. The Chief of Coast Artillery believes that sufficient funds should be allotted to the Commanding General, Ninth Corps Area to accomplish the work set forth in Par. 4-b of The Inspector's Report.

333.1/7-M

1 Incl. (No change)

MAILED
47
AUG 25 1934

W. F. HASE, 
Major General,
Chief of Coast Artillery.

QM 333.1 A (Columbia,H.D.)

10th Ind.

War Department, OQMG, Washington, October 19, 1934. To The Adjutant General.

1. There are no funds available in this office for additional allotment to the Commanding General, 9th Corps Area, to accomplish the work set forth in Par. 4 b of the inspector's report.

2. This office does not allot funds specifically for this station, but does consider its requirements in determining the 9th Corps Area's proportionate share of the total allotments available. Par. 2, preceding indorsement, is, therefore, concurred in.

For The Quartermaster General:

Jas. H. Laubach,
Lt.Colonel, Q.M.C.,
Assistant.

AG 333.1 H.D. of the Columbia
(6-26-34)Misc.D

11th Ind.

MMS

War Department, AGO, October 25, 1934.- To The Inspector General.

Attention is invited to the remarks of the Commanding General, Ninth Corps Area, and The Quartermaster General in the 9th and 10th indorsements hereon, respectively, which are approved.

By order of the Secretary of War:

Wm. P. Pearson

incl.no change.
syn.made.

Adjutant General.

Copies for: Quartermaster Genl. ref. (QM 333.1 A(Columbia,H.D.)).

~~Coast~~ Artillery ref.(333.1/7-M OCCA).

Hdqrs.9th CA ref.(333.1--H.D.of Columbia (IG)Hqrs.9th CA).

333.1/7-M

File
73.05
ent

333.1 H.D. of Columbia (KG) 9th Ind.
Hq. 9th Corps Area, Presidio of San Francisco, Calif., Oct. 5, 1934.
To: The Quartermaster General, Washington, D.C.

1. With reference to maintenance funds, Inspector: Par. 4 b(2)(e), page 5; Par. 13, G, page 9, the initial allotment for Fort Stevens was increased from \$800.00 for the fiscal year 1934 to \$2,100.00 for fiscal year 1935. Although this amount is insufficient to undertake all work of repairs recommended by the inspector, it should suffice to materially mitigate the conditions affecting the Post maintenance.

2. With reference to remark of Chief of Coast Artillery; Par. 13 c, 6th Ind., page 12, future allotments to Fort Stevens for maintenance and repair work will be made to the limit permissible under current appropriations for the purpose.

E.S. HARTSHORN,
Colonel, G.S.C.,
Chief of Staff
in absence of the Corps Area Commander.

333.1/7-M

Form No. 71.

OFFICE OF THE CHIEF OF COAST ARTILLERY

RECORD OF COMMUNICATION RECEIVED.

From: Col. H. A. Wells, I.G.D., Inspector Gen., Hq. 9th Corps
Area, Presidio of San Francisco, Cal.

Dated:
May 21, 1935

To: CG, 9th Corps Area THRU CO, HD of Columbia, Ft. Stevens, Ore. Recd. OCCA:

July 30, 1935

Subject: Annual General Inspection of the HD of the Columbia, FY 1935.

1. General

a. This inspection was made by Col. Harry A. Wells, I.G.D., during the period Apr. 30-May 2, 1935. The last inspection was made by Lt. Col. W.R. Henry, I.G.D., May 3-6, 1934.

* * *

FORWARDED THRU CHANNELS.

333.1/7-N

CM 333.1 A (Stevens)

5th Ind.

War Department, OCMG, Washington, July 27, 1935. To the Chief of Coast Artillery.

1. The foregoing report of inspection of the Harbor Defenses of the Columbia, Fort Stevens, Ore., has been noted in this office and the following comment in connection therewith is submitted:

a. Par. 1 c; Par. 2 a-d-e; Par. 14 a-b, Repairs: There are no funds available for allotment for the repair and painting of buildings, the repair of roads and repair of the spur track. However, an application for Work Relief Funds in the amount of approximately \$60,000 for Fort Stevens has been submitted to the National Emergency Council.

For The Quartermaster General:

R. H. JORDAN,
Colonel, Q. M. C.,
Assistant.

1-

333.1/7-N

Perkins/ime

333.1/7N

6th Ind.

War Department, O.C.C.A., July 31, 1935. To The Inspector General.

1. The authorized strength of the Harbor Defenses of the Columbia will be increased from 39 to 247 enlisted men due to the recent increase in the strength of the Army. There will also be an increase in the commissioned strength.

353/EM
2. The status of the Harbor Defenses of the Columbia has been changed from Class III, Maintenance, to Class II, Limited Training. See AG 390.2 C.A.C. (6-19-35) Misc. M-C, A.G.O., July 16, 1935 to Commanding Generals, All Corps Areas and Departments, and Chiefs of all War Department Arms and Services, subject "Coast Artillery Training, Regular Army".

3. In view of the above, it would seem that higher priority should be given in the allotment of funds for the upkeep of the posts in these harbor defenses, and it is so recommended.

MAILED
9
AUG 1 - 1935

H. T. BURGIN,
Lieut. Colonel, C.A.C.,
Acting Chief of Coast Artillery.

H. T. B.

333.1/7-N

75

OFFICE OF THE CHIEF OF COAST ARTILLERY

333.1 H.D. of
the Columbia.

RECORD OF COMMUNICATION RECEIVED.

From: Asst. I.G., 9th Corps Area.

Dated:
Apr. 20/36

To: C.G., 9th C.A., thru C.O., H.D. of Columbia.

Recd. OCCA:
July 7/36

Subject: Annual general inspection of the Harbor Defenses of the Columbia,
Fiscal Year 1936.

1. GENERAL.

a. This inspection was made by Lt. Col. W.R. Henry, Inspector General's Department, during the period March 19-22, 1936. * * * * *

2. BUILDINGS AND GROUNDS.

a. In general, the need of painting and repairing the buildings at Fort Stevens for the sake of both arresting deterioration and maintaining proper appearance, still exists. It would appear to be in the interests of economy to provide funds sufficient to paint buildings at that post requiring it, and such buildings at Fort Columbia as are required for housing the caretakers and storing property. The remaining buildings at Fort Columbia might well be razed.

3. ADMINISTRATION.

h. Training.

(6) * * * * * No tactical transportation is on hand.

6. TRANSPORTATION.

b. * * * * * The Commanding Officer recommends the assignment of a station wagon and a dump truck to these harbor defenses.

14. RECOMMENDATIONS.

c. That consideration be given to the razing of any buildings at Fort Columbia the future use of which is not contemplated.

333.1 1st Ind., May 5/36
9th C.A.

C.O., H.D. of Columbia, to C.G.,

* * * * *

333.1 - H.D. of the Columbia (IG)
2d Ind., May 22/36

C.G., 9th C.A. to I.G.

* * * * *

IG 333.1 H.D. of the Columbia, Fort Stevens, Ore. (1936)

3d Ind., June 1/36

I.G. to Q.M.G., and C. of C.A., under

the provisions of paragraph 22, AR 20-10.

Return of this paper to this office is requested.

333.1/7-0

QM 333.1 A (H.D. of the Columbia,
Fort Stevens, Ore.)

4th Ind.

War Department, OQMC., July 2, 1936. To the Chief of Coast Artillery.

1. The foregoing report of inspection of the Harbor Defenses of the Columbia, has been noted in this office and the following comments in connection therewith are submitted:

a. Par. 2 a, d and e; Par. 14 a and b, Repairs: - Fiscal Year 1937, B. & C. A. funds will have to be used to accomplish the repairs in question.

b. Par 4 l, Cleaning and Preserving Materials: - These items are procured under a system of budget credits established in the Corps Areas and the equitable distribution of the funds provided for this purpose to individual posts and stations is a matter for administration by Corps Area Headquarters. Estimates for funds are submitted under the provisions of AR 30-3010.

c. Par. 6 a; Par. 13 c; Par 14 f, Draft Mules: - The recommendation of the Inspector is not concurred in, due to the remarks of the commanding officer in paragraph 3 f, 1st indorsement.

(1) For The Quartermaster General:

F. J. RILEY,
Lt. Col., Q.M.C.,
Assistant.

333.1/7-0

7/3

War Department, Office, Chief of Coast Artillery, July 8, 1936 - To The Inspector General.

1. The inadequacy of Barracks & Quarters funds for the maintenance of existing buildings on military posts seems to be universal. If increases in funds cannot be secured the only remedy is to maintain only those buildings essential to peace garrisons. The only buildings essential to peace operation at the isolated post of Fort Columbia are those to provide for caretaking operations. The recommendation made by the assistant inspector general in paragraph 14 c, basic letter, that unnecessary buildings at Fort Columbia be razed, is concurred in.

451.2/CC-2
2. The statement in paragraph 5 h, basic letter, that no tactical motor transportation is on hand, is not understood. 4th Indorsement, OM 451.2 T-M (Coast Artillery), O.Q.M.G., May 3, 1935, as approved by AG 451. (2-5-35) Misc. C, A.G.O., May 15, 1935, directed the shipment of 1 - 1½-ton (LC 4x2 truck, cargo, to the 3d Battalion, 3d Coast Artillery, Fort Stevens, Oregon from Edgewood Arsenal.

3. The recommendation of the harbor defense commander that a station wagon and a dump truck be assigned to Fort Stevens, as mentioned in paragraph 6 b, basic letter, is concurred in. Due to the fact that no tactical motor transportation was authorized for harbor defense regiments prior to the issue of Tables of Organization 510 - 517, May 9, 1935, these regiments received no share of the tactical motor transportation secured from emergency funds. Consequently, the stations of these regiments should receive priority in the assignment of new administrative motor transportation.

4. It is recommended that:

a. The buildings at Fort Columbia unnecessary for the maintenance of seacoast fortifications be razed.

b. Priority be given to the assignment of administrative motor transportation to harbor defense posts where tactical motor transportation is not available for emergency administrative needs.

c. Check be made as to the disposition of the truck, cargo, 1½-ton (LC) 4x2 directed to be forwarded to the 3d Coast Artillery, Fort Stevens, Oregon.

MAILED

JUL 10 1936

10:15 L

A. H. SUNDERLAND. ✓
Major General,
Chief of Coast Artillery.

C
S

333.1/7-0

AG 333.1 H.D. of the
Columbia. (4-20-36)
Misc. D.
Inspection Report Harbor Defenses of the
Columbia, Fiscal Year 1936.

August 11, 1936.

The Commanding General,
Ninth Corps Area.

1. In the report of the annual general inspection of the Harbor Defenses of the Columbia, Fiscal Year 1936, dated April 20, 1936, the Inspector recommended that "it would appear to be in the interests of economy that consideration be given to the razing of any buildings at Fort Columbia, the future use of which is not contemplated." The Chief of Coast Artillery concurs in that recommendation. It is noted that the Commanding Officer of the 3rd Coast Artillery recommends: "that no buildings at Fort Columbia be razed at present. With few exceptions these buildings are basically sound and with reasonable expenditures of funds could be placed in first class condition. It is believed, however, that deterioration will be progressively rapid and that unless funds are allotted for exterior painting and minor repairs the buildings at Fort Columbia will, within a period of five years be beyond repair", and that your Headquarters concurs in his recommendation.

2. The small amount of B. & Q. money available precludes the use of any of it for the upkeep of unnecessary buildings. However, it costs money to raze buildings and the Commanding General, 9th Corps Area, may not consider it wise at this time to devote B. & Q. money to such a purpose, in which the War Department would concur. The above views of the War Department are being brought to your attention and your considered recommendations on the matter are requested.

By order of the Secretary of War.

Robert F. O'Hara

Adjutant General.

Copy to Chief of Coast Artillery.

5/7/36
333.1/7-0-1

OFFICE OF THE CHIEF OF COAST ARTILLERY

33311- Harbor Defenses of the Columbia
RECORD OF COMMUNICATION RECEIVED

Dated 5/6/37 Recd. 7/29/37

From: O. I. G; Hq. 9th C.A., Presidio of San Fran. (Lt. Col. Max W. Sullivan, I.G.D.,
Asst. I. G.)

To: C.G., 9th C.A., Pres. of San Fran. (Thru C.O., H.D. Columbia, Ft. Stevens, Ore.)

Subject: Annual General Inspection of the Harbor Defenses of the Columbia, F.Y. 1937.

I. In accordance with par. 3 b, AR 20-10 and instructions of the Corps Area Commander, dated March 12, 1937, the present inspection was made April 16-17, 1937, by Lt. Col. Max W. Sullivan, I.G.D. The last inspection was made by Col. W.R. Henry, I.G.D., during the period March 19-22, 1936.

* * * * *

VI. ACTIVITIES AND INSTALLATIONS OF VARIOUS ARMS AND SERVICES

NOTE: Further comment with reference to water transportation will be found under " Special Subjects".

(4) Rail. There is no rail transportation assigned to these harbor defenses. However, there is .614 miles of Government-owned track on the reservation of Fort Stevens, which is reported to be necessary for the proper operation and maintenance of the post. It is in need of repairs and the cost of such repairs is estimated at \$500.00.

(6) Coast Artillery Armament. Emplacements and the vicinity thereof thruout these harbor defenses are kept in excellent police. Care taken of armament, power plants, searchlight installations, and fire control system, is in general superior.

XI. CONCLUSION.

That, except for such matters referred to in Sec. VI, par. 1 c of this report, the H. D. of the Columbia are efficiently and economically administered.

XII. RECOMMENDATIONS.

2. That funds be provided for repair of trackage on the reservation of Fort Stevens. (Sec. VI, par. 1 b (4)).

333.1/78

6. That consideration be given the establishment of Vancouver Barracks as the railhead of the H.D. of the Columbia, and the resultant surplus Q.M.C. personnel be assigned elsewhere.

1st ind. par. 3.

I do not concur in the recommendations of IX 9, d, e, f, and XII 6. The apparent gain of seven enlisted men for reassignment elsewhere, the replacement of an officer of the Q.M.C. by a warrant officer and by making Vancouver Barracks the local rail head does not offset the actual resulting loss to the government and the inconvenience to all personnel.

a. Hauling of perishable and regular supplies ~~wd. be unprofitable~~ in place of rail delivery f.o.b. Ft. Stevens is a distinct and appreciable financial loss.

b. The hauling of perishables at 10 day periods (or any other periods) wd present an extremely difficult problem resulting in losses of supplies thru spoilage and in great and unwarranted inconvenience to troop messes and families.

c. The hauling of quarterly nonperishable supplies wd. be uneconomical as compared to rail deliveries f.o.b. Ft. Stevens. Organization storage being inadequate, the quartermaster would be obliged to furnish storage. Handling and sorting problems resulting from this system would be considerable.

d. Tryon and issue of clothing at Vancouver Barracks wd. be wholly impracticable; the necessity of maintaining a local tryon set wd. ~~not~~ necessitate local storage and serve to offset part of the advantages suggested by the proposed change, making available another warehouse.

e. Motor transportation wd. have to be largely increased. The cost and difficulties of operation from Ft. Stevens wd. be prohibitive. Altho the road to Vancouver Barracks is all weather- all season, it is narrow and winding as a whole and a large and expensive number of accidents wd. be anticipated.

2d ind., par 2.

2. a. Section XII, RECOMMENDATIONS, Par.1. There are no motor vehicles available in the corps area for transfer to Fort Stevens. Upon assignment of motor vehicles to this headquarters, for distribution, consideration will be given Fort Stevens.

b. Par.2. The repair of trackage on the reservation of Fort Stevens will be made as funds are available.

c. Par.3. Every consideration will be given the Commanding Officer of the H.D. of the Columbia for any additional surgical equipment requested by him.

d. Par.4. Surplus ammunitions will be removed when transportation funds or facilities become available.

e. Par.5. A modern fire truck will be assigned these defenses when one becomes available.

f. Par.6. Do not concur. It is believed that the saving in personnel that might be accomplished by establishing Vancouver Barracks as a railhead for these defenses is not sufficient to justify its adoption.

PAR. 1 c, 4th Ind.

Section IX, par. 9; Section XII, par.6, Railhead: The views of the Commanding General, 9th C.A., in par. 2 f, 2d ind. hereon, are concurred in. A battery of railway artillery is located at Ft. Stevens and it is understood that its augmentation is under consideration. If the Army does not lend its support to shipping by rail ~~to~~ to Fort Stevens, there is doubt as to the maintenance of rail facilities for handling ry. arty. into and out of the post.

333.1/7P

333.1/7-P

5th Ind.

War Department, Office, Chief of Coast Artillery, July 31, 1937. - To:
The Inspector General.

1. The remarks of the Harbor Defense Commander in paragraph 3, 1st Indorsement, the Commanding General, Ninth Corps Area in paragraph 2, 2d Indorsement, and The Quartermaster General in paragraph 1 g, 4th Indorsement, with reference to the establishment of a railroad at Vancouver Barracks, are concurred in by the Chief of Coast Artillery.

2. The maintenance of the railroad from Portland, Oregon, to Warrenton, Oregon, is essential to the defense of the Columbia River Area.

For the Chief of Coast Artillery:

MAILED 11 AUG 2 1937

br

J. A. GUNN,
Colonel, S.A.C.,
Executive.

(JH)
[Signature]

333.1/7-P

8

OFFICE OF THE CHIEF OF COAST ARTILLERY

RECORD OF COMMUNICATION RECEIVED

333.1-HD Columbia,
Ft. Stevens, Ore. Dated Recd.
From: Office of Inspector General,
Fort Lewis, Wn. 11/2/38 1/4/39
To: C.G., 9th Corps Area.
Subject: Annual General Inspection of HD Columbia, Ft. Stevens, Ore.

I. DATE OF PRESENT AND LAST INSPECTION, AND BY WHOM MADE.

By direction of the C.G., 9th Corps Area, this inspection was made 10-17,18-38, by Col. I.J.Nichols, I.G.D. The last inspection was made 11-1,2-37, by Lt. Col. I.J.Nichols, I.G.D.

XI. COMMENDATION

Commendation is due the HD Commander, Col. Edgar H. Thompson, C.A.D., 3rd C.A., for outstanding leadership and administrative ability shown in improving the morale and efficiency of the garrison, and the general appearance of the buildings and grounds since last annual inspection.

XII. CONCLUSION.

That the affairs of the HD Columbia are administered with economy and with noteworthy efficiency.

THRU CHANNELS TO CCA.

333.1/7-R.

QM 333.1 A (H.D. of the Columbia, 6th Ind.
Ft. Stevens, Ore. (1939)
War Department, OQMG, December 30, 1938. To the Chief of Coast Artillery.

1. The foregoing report of inspection of the Harbor Defenses of the Columbia, Fort Stevens, Oregon, has been noted in this office and the following comments in connection therewith are submitted:

a. Section IV, par. 1, Cartridge Belts: Insofar as stock will permit, replacements of unserviceable web equipment are being made with Class "A" supplies.

b. Section VI, par. 1 b (3); Section XIII, par. 1, Motor Transportation: One (1) 2 $\frac{1}{2}$ -ton 4x2 Cargo Truck for Ft. Stevens, is included in the Motor Vehicles Procurement Program for F.Y. 1939.

For The Quartermaster General:

C. R. BENNETT,
Colonel, Q. M. C.,
Assistant.

1-
9-2-7-5-8

333.1/7-R

OFFICE OF THE CHIEF OF COAST ARTILLERY

333.1 HD Columbia. RECORD OF COMMUNICATION RECEIVED
Ft. Stevens, Ore.

Dated 10/22/39 Recd. 1/8/40.

From: Office Inspector General,
Hq. 3d Division, Fort Lewis, Wn.
To: C.G., Ninth Corps Area.

Subject: Annual General Inspection of HD Columbia, Ft. Stevens, Ore.

I. DATE OF PRESENT AND LAST INSPECTION AND BY WHOM MADE.

1. By direction of the C.G., 9th Corps Area, this inspection was made October 9-10, 1939, by Lt. Col. D.S.Perry, I.G.D. The last inspection was made Oct. 17-18, 1938, by Col. I.J.Nichol, I.G.D.

XI. CONCLUSIONS.

23. a. That the HD Columbia have been administered with economy and efficiency.

b. That the full complement of C.A. officers authorized by T/O is needed to properly administer and train this command.

XII. RECOMMENDATIONS.

24. That steps be taken to carry into effect the action indicated in b to d, incl., of foregoing conclusions.

THRU CHANNELS.

333.1/7-5.

- SEC. II, Par. 2 d. " It appeared that the number of officers was insufficient to properly administer and train this command. The two battery commanders, in addition to commanding organizations composed of over 90 men each, have so many additional necessary duties that most of their time is taken up with administration. In addition to the one officer now on leave, it is believed that 2 addl. line officers would be required to properly administer and train this command."
- Sec. XI, Par. 23 b. " That the full complement of Coast Artillery officers authorized by T/O is needed to properly administer and train this command."
- SEC XII, Par. 24. " That steps be taken to carry into effect the action indicated in b to d, incl., of foregoing conclusions."
- 1st Ind., Par. 2 " Recommendations made in par. 2 d is concurred in."
- 2d Ind., Par. 2 " In concure in the conclusions and recommendations of the Inspector".
- 3rd Ind., Par. 1 b "It is the opinion of this hqts. that increased personnel is more urgently required at other stations than at Fort Stevens".

FW: 333.1 / 7-S-

QM 333.1 A (Fort Stevens, Oregon) 6th Ind.
War Department, OQMG., January 4, 1940. To: The Chief of Coast Artillery.

1. The foregoing report of inspection of the Harbor Defenses of the Columbia, Fort Stevens, Oregon, has been noted in this office and the following comments in connection therewith are submitted:

a. Section III, par. 3 c; Section XI, par. 23 d. - Heating Plants: In 2nd Indorsement, dated July 27, 1939, to the Commanding General, 9th Corps Area, The Adjutant General recommended that this project be resubmitted with a Corps Area priority number, for consideration in the distribution of the Secretary of War's Reserve Fund. Projects from the 9th Corps Area for consideration in connection with the distribution of these funds have just been received in this office and the project in question was not included for consideration. The most urgent projects should be submitted and the determination of this is a prerogative of the Corps Area Commander.

b. Section IV, par. 4 a. - Bags, Field, O.D., M-1936; Rolls, Bed, M-1935 and Suspenders, Pistol Belt, M-1936: There is sufficient stock of bedding rolls for all authorized requirements and this item will be supplied on receipt of requisition therefor. Until such time as funds can be made available for the procurement of a stock of field bags and suspenders, pistol belt, for issue, these items must be obtained in accordance with the provisions of Circular 18, W.D., 1938.

c. Section VI, par. 6 b (4). - Replacement of Railroad Ties: This is a matter of local administration and funds available locally will have to be used.

For the Acting The Quartermaster General:

C. R. BENNETT,
Colonel, Q.M.C.,
Assistant.

9-5-2-7-8.

333.1 / 7-S.

333.1/7-S

7th Ind. BLOOD flh

2

War Department, Office, Chief of Coast Artillery, January 10, 1940. -
To: The Inspector General.

Reference Sec. II Par. 2 d, Sec. XI Par. 23 b, Sec. XII Par. 24, Par. 2 of 1st Indorsement, Par. 2 of 2nd Indorsement and Par. 1 b of 3rd Indorsement: The general shortage of Coast Artillery officers precludes assignment to the 3rd Coast Artillery, Fort Stevens, at this time, of the full complement of officers authorized by tables of organization. Steps will be taken to assign additional officers to this command as they become available.

For the Chief of Coast Artillery:

MAILED 3⁵⁰ JAN 10 1940 *flh*

flh
J. A. GREEN.
Colonel, C.A.C.,
Executive. *flh*

333.1/7-S

RECORD OF COMMUNICATION RECEIVED

	CC/dn	Dated	Recd.
From:	HQ. NINTH CORPS AREA (Lt.Col. Elliot D. Cooke, I.G.D.)	1-31-41	3-28-41
To:	C.G., 9th Corps Area, thru: C.O., H.D. of Columbia; C.G., 9th C.A.D.; and C.G., 4th Army.		
Subject:	Annual General Inspection of the 249th Coast Artillery, Camp Clatsop, Oregon.		

- I. DATE OF PRESENT AND LAST INSPECTION AND BY WHOM MADE.
 1. * * *
 2. * * *
- II. ORGANIZATION AND PERSONNEL.
 3. * * *
 4. * * *
 5. * * *
 6. * * *
 7. * * *
- III. BUILDINGS AND GROUNDS.
 8. * * *
 9. * * *
- IV. UNIT PROPERTY SUPPLY AND ADMINISTRATIVE RECORDS.
 10. * * *
 11. * * *
 12. * * *
- V. PROPERTY ACCOUNTS OF SUPPLY OFFICER.
 13. * * *
- VI. ACTIVITIES AND INSTALLATIONS OF ARMS AND SERVICE.
 14. * * *
 15. * * *
 16. * * *
- VII. FUNDS.
 17. * * *
- VIII. MISCELLANEOUS.
 18. * * *
 19. * * *
 20. * * *
 21. * * *
 22. * * *
 23. * * *
- IX. SPECIAL SUBJECTS.
 24. * * *
- X. IRREGULARITIES AND DEFICIENCIES.
 25. There had been no previous inspection.
 26. Disclosed during this inspection:
 - a. Under the provision of par. 19, AR 20-10, a list of minor

333.1/7-T

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irregularities and deficiencies has been presented to the Commanding Officer.

b. The personnel in charge of property accounts of the regimental Supply Officer had not yet fully absorbed the mechanics of book-keeping incident to property accountability.

XI. CONCLUSIONS.

27. That the morale of this regiment is excellent.

28. That instruction of the supply personnel in property accounts would be to the best interest of both the regiment and the Federal Government.

XII. RECOMMENDATIONS.

29. That a competent non-commissioned officer, well versed in stock record and memorandum receipt accounts, from either Vancouver Barracks or Fort Lewis, be loaned to 249th Coast Artillery for a period of not to exceed thirty days.

1 Incl.

Exhibit "A" ltr., C.G. 12-13-40.

THROUGH CHANNELS with 6 Indorsements.

(B)

OFFICE OF THE CHIEF OF COAST ARTILLERY

CC/mh

RECORD OF COMMUNICATION RECEIVED

Dated Recd.
2/30/41 5/19/41

From: Hq. Ninth Corps Area, Office of the Inspector General.
 (Lt. Col. Elliot D. Cooke, I.G.D.)

To: Commanding General, Ninth Corps Area.

Subject: Annual General Inspection of the Harbor Defenses of the Columbia,
 Fort Stevens, Oregon.

I. Date of Present and Last Inspection, and By Whom Made.

II. Organization and Personnel.

III. Buildings and Grounds.

10. Camouflage.

Prior to the present emergency, all buildings of a tactical nature pertaining to the Harbor Defenses were painted a dull green, in order to blend with the scenery and so as not to be easily detected. The bare boards of newly constructed cantonments not only fail to blend in any way, but actually call attention to the approximate location of Harbor Defense installations.

IV. Unit Property, Supply and Administrative Records. ***

V. Property Accounts of Supply Officers. ***

VI. Activities and Installations of Arms and Services.

16. b. Anti-Aircraft Defense.

(1) Passive.

Aside from such protection as might incidentally be afforded by installations of a pre-airplane age, provisions for passive anti-aircraft defense were non-existent. Airplane photographs had been taken of the Harbor Defenses, reportedly from an altitude of 7,000 feet. The inspecting officer was informed that these photographs showed up the defenses so plainly that the pictures were kept locked in a safe as a precautionary measure.

(2) To keep this inspection report from becoming a confidential document under the provisions of AR 90-40, the actual though meager number of anti-aircraft weapons will not be discussed. Suffice to say that active means of protecting the Harbor Defenses from air attack can briefly be stated as ranging from some to none.

VII. Funds.

333.1/7-U

OFFICE OF THE CHIEF OF COAST ARTILLERY

CC/mh RECORD OF COMMUNICATION RECEIVED

Dated 2/30/41 Recd. 5/19/41

From: Hq. Ninth Corps Area, Office of the Inspector General.
(Lt. Col. Elliot D. Cooke, I.G.D.)

To: Commanding General, Ninth Corps Area.

Subject: Annual General Inspection of the Harbor Defenses of the Columbia,
Fort Stevens, Oregon.

- I. Date of Present and Last Inspection, and By Whom Made.

- II. Organization and Personnel.

- III. Buildings and Grounds.

10. Camouflage.

Prior to the present emergency, all buildings of a tactical nature pertaining to the Harbor Defenses were painted a dull green, in order to blend with the scenery and so as not to be easily detected. The bare boards of newly constructed cantonments not only fail to blend in any way, but actually call attention to the approximate location of Harbor Defense installations.

- IV. Unit Property, Supply and Administrative Records. ***
- V. Property Accounts of Supply Officers. ***
- VI. Activities and Installations of Arms and Services.

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(2) To keep this inspection report from becoming a confidential document under the provisions of AR 90-40, the actual though meager number of anti-aircraft weapons will not be discussed. Suffice to say that active means of protecting the Harbor Defenses from air attack can briefly be stated as ranging from some to none.

VII. Funds.

333.1/7-U

VIII. Miscellaneous.

IX. Special Subjects.

X. Irregularities.

XI. Discussion.

XII. Conclusions.

XIII. Recommendations.

29. That at least a sufficient number of anti-aircraft weapons to insure a reasonable defense from air attack be allocated to the Harbor Defenses of the Columbia.

30. That protective coloring be applied without delay to all new construction in the vicinity of Harbor Defense Installations.

31. That greater study and more effort be given to camouflaging, from air observation, the present installations and armament. This should include, for training if nothing else, the building of air raid shelters.

IV.

1 Inclosure:

Ltr., CG, 12/13/40
(Exhibit "A")

333.1

1st Ind., 2/15/41, Hq. H.D. of the Columbia. To: CG, Ninth Corps Area.
THRU: C.G. Ninth C.A.D. ***

2nd Ind., 2/20/41, Hq. Ninth C.A.D. To: CG, Ninth Corps Area.

3. Reference Paragraph 16 b, "Antiaircraft Defense", attention is invited to AG 660.2 (10-23-40)M-OCCA, November 1, 1940, Subject: "Revision of Antiaircraft Annex, Harbor Defense Projects", which eliminates all mobile antiaircraft guns and materiel from Harbor Defense projects. In view of the fact that there are no fixed antiaircraft gun batteries in the Harbor Defenses of The Columbia, all antiaircraft gun defense is eliminated from this Harbor Defense. When the projects are complete there will be certain machine gun and automatic weapon defense.

333.6 HDCOL (Ft. Columbia)(Sig)

Presidio of San Francisco, Calif.,
August 5, 1941

Subject: Inspection of Signal Corps Plant in Place at Fort Columbia, Wash.,
for the period ending July 31, 1941.

To: Signal Officer, Ninth Corps Area
Presidio of San Francisco, California

Last Inspection Made: May 17, 1937 by Albert S. Bullens, Asst.
Telephone Engineer, S. S. L.

This Inspection Made: July 11, 1941 by Albert S. Bullens,
Associate Cable Engineer, S. S. L.

- I. SWITCHBOARD, MANUAL AND ATTENDANT'S CABINET. - None.
- II. AUTOMATIC EQUIPMENT. - None.
- III. STORAGE BATTERY
 - a. Condition excellent.
 - b. Present positive ground should be removed from cable bond and wired to water main as per Circular 5-12, Paragraph 31 f.
 - zz. Recommend corrective action be initiated to install ground wire with necessary ground clamp on water pipe.
- IV. CHARGING EQUIPMENT AND RINGING EQUIPMENT
 1. Motor Generator.

Satisfactory.
 2. Ringing Machine. - None.
 3. Rectifier.
 - a. Output circuit of rectifier should be rewired to include output ammeter on switchboard.
 - b. The 110 Volt A.C. Mains, installed to provide commercial current to operate rectifier, should be reinstalled to conform to the National Electrical Code.

333.14/7-AC

DCSigo.....

333.1-(Ft. Columbia, Wash.)

5 O.C.C.A.

333.14/7-AC

IV. CHARGING EQUIPMENT AND RINGING EQUIPMENT (Cont'd)

zz. Recommend that corrective action be initiated to correct faults described above and to include the bonding of power board frame, rectifier and reactance casing, and frames of machines and BD-74 and 75 sections.

4. Ringling Vibrator. - None.

V. POWER PANEL.

a. Satisfactory except as noted in "IV-3 a" above.

VI. DISTRIBUTING FRAME.

None.

VII. WIRE CHIEF'S TEST EQUIPMENT.

Satisfactory.

VIII. RELAY RACK. - None.

IX. RECORDS.

a. Drawings under revisionment.

b-c. Cable and Line records satisfactory.

d-e. Battery records satisfactory.

f. Property records are filed at Fort Stevens.

g. Historical record up to date but not recorded on W.D., S.C. Form 72 as per Circular Letter 140, Signal Office, Headquarters Ninth Corps Area.

h-i. Facilities recorded at Fort Stevens.

j. Telephone accounts included under Fort Stevens.

zz. Recommend Form 72 Historical Record be accomplished as soon as practicable.

X. MISCELLANEOUS.

a. All telephones are connected to the Post Switchboard at Fort Stevens.

XI. STOREROOM.

- a. Supplies are stored at Fort Stevens and forwarded to this post as required.

XII. CONDUIT SYSTEM.

- a. In cable pit, Fire Control Switchboard Room, bonding of cables should be connected to water main ground. In addition cables require racking along sides of manhole. All cables should be tagged with cable number assigned.
- zz. Recommend the above work be accomplished as rapidly as other work permits.

XIII. CABLE SYSTEM. - No aerial cables installed.

XIV. POLES, CROSSARMS, ETC. - None.

XV. TERMINALS.

- a. Since last report, defective terminals have been removed and "JB" type terminals installed where required.

XVI. WIRES.

- a. Considerable temporary wiring has been installed, since post has been manned.
- zz. Recommend that wires at stations be properly installed to provide adequate support for loops. At fire control stations temporary wiring should be removed and installed in accordance with usual practice.

XVII. TARGET RANGE COMMUNICATION SYSTEM. - None.

XVIII. TELEPHONE STATION EQUIPMENT.

See report under Fort Stevens.

XIX. TELEGRAPH STATION. - None.

XX. FIRE CONTROL SYSTEM.

1. Station and batteries.

- a. An insulation test of all working circuits developed the following defects:
 - (1) Section B, Lines 6 and 20 grounded.

XX. FIRE CONTROL SYSTEM, (Cont'd)

b. An operative test of all fire control circuits and telephones developed the following defects:

- (1) M' Casemate; telephone doesn't operate.
- (2) Battery Murphy, emplacement; no T.I. Bells.
- (3) BC-B' Murphy, intelligence line, telephone inoperative.
- (4) BC-B' Murphy, lines intelligence and HD order, (2 telephones) connected together and inoperative.
- (5) AAIS Murphy, circuit out of order.
- (6) M' Station, SL Telephone, bell weak.
- (7) M' Station, Fort Command Line, hand set poor transmission.
- (8) BC to B2 and B' Murphy, poor transmission and lines reversed.
- (9) B' Reader, Murphy, line to PR, can't get.

2. Time Interval Apparatus.

Satisfactory.

3. Fort Signal Stations. - None.

zz. Recommend corrective action be initiated to clear above defects.


XXI. GENERAL INFORMATION AND RECOMMENDATIONS NOT INCLUDED IN ABOVE.

- a. Since last report Project CSO-9-51 has been completed and work is satisfactory. Work has been completed on the new fire control switchboard room and one section of BD-75 and two sections of BD-74 have been installed, including storage battery and power equipment. Workmanship is excellent and system is in use.
- b. In addition, new submarine cables, number 782, capacity 75 pairs between Fort Stevens and Fort Columbia was installed September 7, 1940 and number 783, capacity 50 pairs between Fort Columbia and Fort Canby was installed September 19, 1940. Both are in use and terminated on BD-75 sections at the Switchboard rooms.
- c. A Project is being initiated under the present Expenditure Program to connect the new M2 Station to the Fire Control Switchboard. It is expected that installation work will be completed within the next 60 days.
- d. Maintenance personnel consists of one Staff Sergeant, 29th C.A.

This report, together with Title Sheet and Sheets 4 and 6 to 11 inclusive of Signal Corps Form No. 72, is submitted in quintuplicate in compliance with letter, Headquarters Ninth Corps Area, Presidio of San Francisco,

California, dated July 2, 1941 and as provided for under the provisions of paragraph 11, AR 105-20, dated December 31, 1940.

REC'D SEP 3 1941 OSigO
9th CA


ALBERT S. BULLENS
Associate Cable Engineer, S. S. L.

1 Incl.-Form 72 (in quint.)

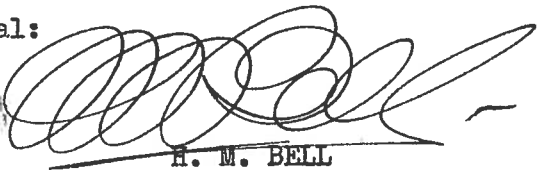
333.6 HDCOL (Ft. Columbia)(8-5-41)(Sig) 1st Ind.

HQ. NINTH CORPS AREA, Presidio of San Francisco, Calif., September 6, 1941
THRU: Commanding General, Ninth Coast Artillery District, Ft. Winfield Scott, California, To: Commanding Officer, Harbor Defenses of the Columbia, Fort Stevens, Oregon.

1. Forwarded for action in accordance with paragraph 13 a,
AR 105-20, December 31, 1940.

For the Commanding General:

RECEIVED SEP 9 1941


H. M. BELL
Major, A. G. D.
Assistant Adjutant General

1 Incl.--(Quint.copy w/d)

333.6 2nd Ind.

HQ. NINTH C. A. DISTRICT, Presidio of San Francisco, Calif., Sept. 9, 1941.
To: Commanding Officer, Harbor Defenses of the Columbia, Fort Stevens, Oregon.

Rec'd Hq. H. D. of the Col.
Fort Stevens, Oregon SEP 11 1941


C. M. W.

1 Incl.
(Quad. copy w/d)

POST OR FORT Columbia, Washington

DESCRIPTIVE DATA RECORD
OF
SIGNAL CORPS PLANT IN PLACE

This report consists of sheets Title Sheet and Sheets 4 and 6 to 11 inclusive.

Rendered by 
ALBERT S. BULLENS

Rank Associate Cable Engineer, S. S. I.

Date July 11, 1941

Sect # 1' 333.14 / 7 - AC

POST OR FORT Columbia, Washington Date July 11, 1941

TRUNK CIRCUITS **None**

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Cap, lamp, busy.....		Relay, cut-off.....	
Cap, lamp, trunk.....		Relay, ring-up.....	
Capacitor.....		Relay.....	
Capacitor.....		Relay.....	
Coil, impedance (retard).....		Relay.....	
Coil, repeating.....		Signal.....	
Coil, resistance.....		Socket, lamp.....	
Jack, line.....		Apparatus not listed:	
Jack, night.....			
Key, dial.....			
Key.....			

WIRE CHIEF'S TESTING SET

Date installed..... <u>February 20, 1941</u>	Manufacturer's type of voltmeter..... <u>Weston</u>
Manufacturer and code number..... <u>Leich Elec. Co. #19</u>	Range of voltmeter..... <u>0-40 100,000 Ohms</u>
Location..... <u>Fire Control Switchboard Room</u>	Circuit dwg. number and date.....
	Remarks.....

CHIEF OPERATOR'S DESK **None**

Date installed.....	Manufacturer and code number.....	Cct. dwg. number and date.....	Remarks.....	Number installed	
				Monitor ccts.....	Inc. trk. ccts.....

TARGET RANGE SYSTEM **None**
(Give approximate lengths of cable installed)

Cable	Gage	Armored	In duct	Cable	Gage	Armored	In duct
100-pair.....				15-pair.....			
75-pair.....				10-pair.....			
50-pair.....				Other sizes.....			
25-pair.....							

Drawing number and date of target range system..... None

POST OR FORT Columbia, Washington

Date July 11, 1941.

STORAGE BATTERIES

	No. 1	No. 2	No. 3		No. 1	No. 2	No. 3
Number of cells.....	15			Manufacturer's type			
A. H. capacity.....	60			hydrometer.....	Exide		
Manufacturer.....	Exide			Location.....	F.C. Swbd.		
Manufacturer's type.....	DMGO-7				Bombproof		
Date installed.....	12/3/40			Furnishes power for.....	{ Fire		
Date new elements installed.....	New				{ Control		
In cabinet or on rack?.....	Battery			Trickle, float, or cycle charged.....	Cycle		
Which side grounded?.....	Positive			How often?.....	As needed.		
Manufacturer's type thermometer.....	Vent Hole #17875			At what rate?.....	7 1/2 Amp.		
				Remarks.....			

CHARGING EQUIPMENT OTHER THAN RECTIFIERS

	No. 1	No. 2		No. 1	No. 2
Manufacturer.....	C.W. Co.		Date installed.....	6/7/40	
Manufacturer's type.....	CM		Signal Corps type.....	MG-5	
Kw. output.....	1/2 KW		Order number and date.....	Unknown	
Operating voltage.....	110		Location.....	{ Fire Control	
Cycles or d. c.....	D.C.			{ Switchboard Room	
Generator serial number.....	996		Charges what battery?.....	1	
Motor serial number.....	995				

RECTIFIERS FOR ~~POST OFFICE~~ FIRE CONTROL SYSTEM

	No. 1	No. 2		No. 1	No. 2
Manufacturer.....	G.E. Co.		Date installed.....	7/10/41	
Manufacturer's type.....	6RB6B17		Location.....	{ Fire Control	
Amperes.....	2-12			{ Switchboard	
Voltage output.....	6-65		Charges what battery?.....	1	
Operating voltage.....	115		Bulb code number.....	189049	
Cycles.....	60				

Reactance

GE 3126680

RECTIFIERS FOR CHARGING PORTABLE BATTERIES

None

Ampere rating	Number in use	Location	Charges what batteries	Approximate number charged per month

RINGING EQUIPMENT None

	No. 1	No. 2	No. 3		No. 1	No. 2	No. 3
Type equipment.....				Manufacturer.....			
Date installed.....				Manufacturer's type.....			
Location.....				Operating voltage.....			
				Cycles or d. c.....			

POST OR FORT Columbia, Washington Date July 11, 1941

DISTRIBUTING FRAME AND PROTECTING EQUIPMENT **None**

Wall or floor type?..... Number of verticals..... Capacity, protector (vertical) side..... Protectors equipped..... Capacity, strip (horizontal) side..... Terminal strips equipped..... Fuse protector capacity (pairs)..... Fuse protectors equipped..... Do outside lines connect to protectors, fuses, or terminal strips?.....	Manufacturer..... Manufacturer's type..... Order number and date..... Date installed..... Date additions made..... Drawing numbers and dates showing layout of frame..... Remarks.....
---	--

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Block, protector, bottom.....		Strip, terminal, 2-point.....	
Block, protector, top.....		Strip, terminal, 3-point.....	
Coil, heat.....		Strip, terminal, 4-point.....	
Dielectric (Mica).....		Strip, terminal, 5-point.....	
Fuse, ampere.....		Test cord, feet.....	
Protector group.....		Test shoe.....	
Ring, jumper.....			

RELAY RACK **None**

Manufacturer.....	Date installed.....
Height.....	Drawing number and date showing layout.....
Number of bays.....	Remarks.....
Relay mounting capacity per bay.....	

COIL AND OTHER RACKS **None**

Manufacturer.....	Mounts what equipment?.....
Coil capacity.....	
Per cent equipped.....	

FIRE CONTROL DISTRIBUTING FRAMES

Type	Location	Number installed	QUANTITIES OF EQUIPMENT						
			Coils	pr. ^{WE 99} strips	21 pr. strips	TM-88 terms.	Jack panels	T. I. panels	Other equipment
BD-75	F.C. Subd. Room	1		18				1	

POST OR FORT Columbia, Washington

Date July 11, 1941.

POWER PANELS, INCLUDING FIRE-CONTROL SWITCHBOARD

	No. 1	No. 2		No. 1	No. 2
Manufacturer	Krantz Elec. Co.		Controls what batteries?	1	
Manufacturer's type	---		Location	F.C. Subd. Room	
Signal Corps type	BD-17		Date installed	6/7/40	
Order number and date	140223				

Apparatus	No. 1 Panel			No. 2 Panel		
	Manufacturer	Manufacturer's code	Range	Manufacturer	Manufacturer's code	Range
Ammeter	Weston	24	50-0-50			
Circuit breaker	Cutter Co.	EL				
Motor starter	Ward Leonard	501603	3/4 HP 115 D.C.			
Rheostat	Cutler Hammer	11111H53	Field 115 Volt 22.5-4.5			
Voltmeter	Weston	104934	0-150			
Other equipment:						

FIRE-CONTROL EQUIPMENT

Apparatus	Number installed	Apparatus	Number installed	Apparatus	Number installed
Bell, T. I., large		Controller, zone signal		Switch key, set	
Bell, T. I., small		Hand set		Telephone, B. C.	
Bell, zone sig.		Head set		Telephone, desk	
Bell, ext. L. R.		Outlet, zone sig.		Telephone, gun	
Box, junc., std.		Signal, firing, B. C.		Telephone, plotters	
Box, junc., T. R.		Signal, firing, pit		Telephone, wall	
Box, T. I., bell	2	Switch, hand set		Switchboards, BD-74	(1-B Sect. 2(1-C Sect.)
Box, term., 2-strip		Switch, push, zone sig.		Switchboards, BD-78	
Box, term., 4-strip		Switch box, base line		Other apparatus:	
Box, term., 8-strip		Switch box, cut-out		Blocks Terminal	11
Box, term., _____ strip		Switch box, transfer			

NOTE: EQUIPMENT ON MEMORANDUM RECEIPT

POST OR FORT Columbia, Washington

Date July 11, 1941

TIME INTERVAL APPARATUS

Location	Signal Corps type	Number installed	Manufacturer	Manufacturer of motor	Remarks
Fire Control Swbd.Rm.	EE-56	1	Leeds and Northrup	L & N	

METEOROLOGICAL EQUIPMENT None

Apparatus	Signal Corps type	Number installed	Apparatus	Signal Corps type	Number installed

FORT SIGNAL STATION None

Material of mast	Year installed
Height of mast	Year last painted

Apparatus	Signal Corps type	Number installed	Books	Edition (year)
Flag sets				

NIGHT SIGNALING EQUIPMENT None

Apparatus	Signal Corps type	Number installed	Apparatus	Signal Corps type	Number installed

TELEPHONE PAY STATION AND PRIVATE TELEPHONE LINES ON POST

Location	Authority and date	Are Government cables used	Location	Authority and date	Are Government cables used
W.V. 1 pr.	1/1/32	Yes			
P.T. & T. Co. 4 pr.	2/26/27 & 6/17/41	Yes			
See Fort Stevens					
In submarine cable No. 336.					

POST OR FORT Columbia, Washington Date July 11, 1941

CONDUIT SYSTEM
(Give approximate total lengths (lineal feet) installed)

Conduit	Feet	Added since last report	Conduit	Feet	Added since last report	Manholes	Number	Added since last report
6-way MCD	0		Single CWD	0		6-foot	0	
4-way MCD	0		4-way fiber	0		4-foot	0	
2-way MCD	0		2-way fiber	0		22" x 40"	0	
Single CD	0		Single fiber	26362		Other sizes:	23	
2-way CWD	0		Iron pipe	0				

Drawing number and date of conduit plant. A-101-a; B-200-a revised 1/9/29.

CABLE SYSTEM
(Give approximate total lengths installed)

	Gage	Feet	Added since last report		Gage	Feet	Added since last report
600-pair				WC 25-pair 414	22		1452
400-pair				20 25-pair	19	441.5	
300-pair				10 WC 25-pair 369	22		1875
WC-643				WC			
200-pair	10 AWG		90	15-pair 412	22		1717
WC				WC			
150-pair 409 A	19		558	10-pair 401	19	7997	
WC				WC			
100-pair 419	22		2040	10-pair 411	22		610
Swbd. L.C.				Other sizes:			
100-pair Coded	22		27	3 pair	7-24	194	
25 Swbd. L.C.				1 pair	7-24	2251	
25-pair Coded	22		50				
Swbd. L.C.							
50-pair Coded	22		27	Approximate number of Signal Corps poles.....			
25 W.C.				Approximate number of joint poles.....			
25-pair 366	19		25				

TERMINALS (state number of each)

	Protected	Unprotected	House		Protected	Unprotected	House
50-pair FX				JB- 15-pair 11		4	
50-pair				JB- 10-pair 10		5	
25-pair WE 8-C		1		Other sizes:			
25 JB-13							
25-pair		1					

Drawing number and date of cable plant. See "A" Drawings under conduit system.

POST OR FORT Columbia, Washington Date July 11, 1941

PRESENT ESTIMATED VALUE OF TELEPHONE AND FIRE-CONTROL PLANT IN PLACE
(Installation cost, less depreciation)

ADMINISTRATIVE TELEPHONE AND TARGET RANGE SYSTEMS			
	Value		Value
Telephone switchboard and accessories.....	\$ <u>N</u>	Outside telephone plant.....	\$ <u>N</u>
Telephone power plant.....	<u>0</u>	Other plant.....	<u>0</u>
Other telephone C. O. equipment.....	<u>N</u>	Target range system.....	<u>N</u>
Telephone station equipment.....	<u>E</u>	TOTAL.....	<u>E</u>

FIRE-CONTROL SYSTEM			
	Value		Value
Cables and conduit system.....	\$ <u>15,967.72</u>	Telephone and other equipment.....	\$
F. C. power equipment.....	<u>3,479.97</u>	TOTAL.....	<u>19,447.69</u>

TRUNKS AND TIE LINES NONE

Connects to what city	Company	Number	Rate per annum	Mileage cost	Additional message cost	Total cost per annum
.....	\$	\$	\$	\$
.....
.....
.....
.....
.....
.....
.....
.....
.....

STATION EQUIPMENT NONE

Manufacturer.....					
Telephones	GOVERNMENT OWNED				Privately owned
	Dial type	Nondial	Extension bell	L. R. bell	
Desk.....
Hand set.....
Wall.....
TOTAL.....

LIST OF TELEPHONES

- Class A telephones are for official use only and have access to city trunks.
 - Class B telephones are authorized trunk connections for personal use.
 - Class C telephones are not permitted city trunk connections.
 - Class D telephones are for special services, such as fire reporting, watchman, etc., and are not permitted city trunk connections.
- See Fort Stevens.

Telephone number	Listing	NUMBER INSTALLED					Class of service	Authority for installation
		Desk	Hand set	Wall	Extension bell	L. R. bell		
.....	
.....	
.....	
.....	
.....	
.....	
.....	
.....	
.....	
.....	

new

333.6 HDCOL (Ft. Canby) (Sig)

Presidio of San Francisco, Calif.,
August 23, 1941

Subject: Inspection of Signal Corps Plant in Place at Fort Canby, Wash-
ington, for the period ending July 31, 1941.

To: Signal Officer, Ninth Corps Area
Presidio of San Francisco, California

Last inspection made: May 17, 1937 by Albert S. Bullens,
Assistant Telephone Engineer, S.S.L.

This inspection made: July 11, 1941 by Albert S. Bullens,
Associate Cable Engineer, S.S.L.

I. SWITCHBOARD, MANUAL AND ATTENDANT'S CABINET

None.

II. AUTOMATIC EQUIPMENT.

None.

III. STORAGE BATTERY.

Satisfactory.

IV. CHARGING EQUIPMENT AND RINGING EQUIPMENT.

1. Motor generator.

Satisfactory.

2. Ringling Machine. - None.

3. Rectifier.

A full wave electron rectifier has been recently installed and is
satisfactory.

4. Ringling Vibrator. - None.

DOSIGO..... 333.1 - (Ft. Canby, Wash.)
6 O.C.C.A. 333.14/7-AD

V. POWER PANEL.

Satisfactory.

VI. DISTRIBUTING FRAME. None.

VII. WIRE CHIEF'S TEST EQUIPMENT.

Since last report a standard testing equipment has been installed and is satisfactory.

VIII. RELAY RACK. - None.

IX. RECORDS.

a. Drawings are under revision.

b-c. Cable and line record cards are satisfactory.

d-e. Battery records are satisfactory.

f. Records are kept at Fort Stevens.

g. Historical record is kept at Fort Stevens. Letter No. 140, Signal Office, Ninth Corps Area, should be complied with at as early a date as practicable.

h-i. Authority has been granted for the Ilwaco Telephone Company, Ilwaco, Washington to provide telephone service for this post under Contract No. 1084-SC-201 and Service Order No. 1. Service has been provided. Reference 1st Indorsement on Letter, File 483.2 HDCOL (6-11-41)(Sig).

j. See Fort Stevens report.

zz. Recommend that action be initiated to comply with letter No. 140, reference paragraph "g" above.

X. MISCELLANEOUS.

See Fort Stevens report. All telephones connected to that switchboard.

XI. STOREROOM.

Supplies are maintained at Fort Stevens and forwarded to this post as required.

XII. CONDUIT SYSTEM - Satisfactory.

XIII. CABLE SYSTEM - No aerial cable installed.

- XIV. POLES, CROSSARMS, ETC. - None.
- XV. TERMINALS.
- a. Since last report a number of "JB" type terminals have been installed where required.
- XVI. WIRES - None.
- XVII. TARGET RANGE COMMUNICATION SYSTEM. - None.
- XVIII. TELEPHONE STATION EQUIPMENT.
- a. All telephones are connected to the post switchboard at Fort Stevens; transmission is satisfactory.
- XIX. TELEGRAPH STATION. - None.
- XX. FIRE CONTROL SYSTEM.
1. Station and Batteries.
- a. Since last report one section of BD-75 and two sections of BD-74 have been installed. Workmanship is excellent.
- b. An insulation test of all working lines developed the following defects:
- (1) Section B, Lines 1, 2, 23 - grounded; lines 6, 14, 15, 30, 33, 35, 36, 38 and 42 - defective insulation.
- (2) Section C, line 36 - grounded; line 13 defective insulation.
- c. Considerable temporary wiring has been installed in the fire control stations and as soon as practicable this wiring should be installed in accordance with general practice.
- d. Terminals are satisfactory.
- e. An operative test of all stations developed the following defects:
- (1) BC Allen, head set noisy.
- (2) PR Allen to BC Intelligence, bell doesn't ring and set box grounded.
- (3) BC Allen, crows nest, intelligence line, poor transmission.
- (4) B" Spotter, Guenther, to PR, can't get.
- (5) A pit Guenther, Check back, bell doesn't ring.
- (6) A pit, Guenther, intelligence, broken lock and handle on telephone box.
- (7) B pit, Guenther, BC Intelligence, broken mouthpiece.

XX. FIRE CONTROL SYSTEM (Cont'd)

2. Time Interval Apparatus - Satisfactory.

3. Fort Signal Station. - None.

zz. Recommend corrective action be initiated to remedy defects noted above.

XXI. GENERAL INFORMATION AND RECOMMENDATIONS NOT INCLUDED IN ABOVE.


a. Since last report project CSO-9-51 has been completed, including the installation of new fire control switchboards and auxiliary battery charging and power equipment. Workmanship is excellent and equipment is satisfactory.

b-i. See Fort Stevens Report.

k. Maintenance personnel consists of 1 Staff Sergeant, 18th CAC, in charge and 1 Master Sergeant, from the 249th CAC, as a technical assistant.

This report, together with Title Sheet and Sheets 4 and 6 to 11, inclusive of Signal Corps Form No. 72, is submitted in quintuplicate, in compliance with letter, Headquarters Ninth Corps Area, Presidio of San Francisco, California, dated July 2, 1941 and as provided for under the provisions of paragraph 11, AR 105-20, dated December 31, 1941.

REC'D SEP 3 1941 OSigO
9th CA


ALBERT S. BULLENS
Associate Cable Engineer, S.S.L.

✓ 1 Incl.-Form 72 (In Quint.)

333.6

3rd Ind.

COMMANDING OFFICER, Harbor Defense of the Columbia, Fort Stevens, Oregon,
September 16, 1941. Thru: Commanding General, Ninth Coast Artillery District.
To: Commanding General, Ninth Corps Area, Presidio of San Francisco, Calif.

1. All deficiencies have been corrected and action has been initiated to
comply with letter, Headquarters, Ninth Corps Area, dated November 23, 1937,
file, 140 (Sig).

2. The Signal Corps Inspector, Mr. A. S. Bullens, Cable Engineer, S.S.L.,
stated that in his report he would recommend that a Post Telephone Switchboard
be installed at Fort Canby, Washington. This recommendation was not incorpo-
rated in his report, however a project was initiated by the Signal Officer,
Fort Stevens, Oregon, for this installation, by letter to the Signal Officer,
Ninth Corps Area, dated September 4, 1941, file 676.1 (Sig), Subject: Post
Telephone Switchboard for Fort Canby, Washington.

SEP 20 1941

[Signature]
R. B. LEMMON
Colonel, C.A.C.
Commanding.

1 Incl.
(Trip. copy w/d)

333.6

4th Ind.

HQ. NINTH C. A. DISTRICT, Presidio of San Francisco, Calif., Sept. 22, 1941.
To: Commanding General, Ninth Corps Area, Presidio of San Francisco, Calif.

REC'D SEP 24 1941
OSigO
9th CA

✓ 1 Incl. (tripl.)
Triplicate added.

F.H.L.
F. H. L.
RECEIVED
SEP 24 1941
HQ.
9th C. A.

333.6
H D
w
LT Canby 18-23-41 (26)

POST OR FORT Canby, Washington

DESCRIPTIVE DATA RECORD
OF
SIGNAL CORPS PLANT IN PLACE

This report consists of sheets Title Sheet and Sheets 4 and 6 to 11 Inclusive.

Rendered by 
ALBERT S. BULLENS

Rank Associate Cable Engineer, S. S. L.

Date July 14, 1941

Incl # 1'

POST OR FORT Canby, Washington

Date July 14, 1941

TRUNK CIRCUITS **None**

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Cap, lamp, busy.....		Relay, cut-off.....	
Cap, lamp, trunk.....		Relay, ring-up.....	
Capacitor.....		Relay.....	
Capacitor.....		Relay.....	
Coil, impedance (retard).....		Relay.....	
Coil, repeating.....		Signal.....	
Coil, resistance.....		Socket, lamp.....	
Jack, line.....		Apparatus not listed:	
Jack, night.....			
Key, dial.....			
Key.....			

WIRE CHIEF'S TESTING SET

Date installed..... <u>July 10, 1941</u>	Manufacturer's type of voltmeter..... <u>Weston</u>
Manufacturer and code number <u>Auto. Elec. Co. #5</u>	Range of voltmeter..... <u>0-40</u>
Location <u>Fire Control Switchboard Room</u>	Circuit dwg. number and date.....
	Remarks.....

CHIEF OPERATOR'S DESK **None**

		Number installed
Date installed.....	Monitor cts.....	
Manufacturer and code number.....	Inc. trk. cts.....	
Cct. dwg. number and date.....	Outgoing trk. cts.....	
Remarks.....	Cord cts.....	

TARGET RANGE SYSTEM **None**
(Give approximate lengths of cable installed)

Cable	Gage	Armored	In duct	Cable	Gage	Armored	In duct
100-pair.....				15-pair.....			
75-pair.....				10-pair.....			
50-pair.....				Other sizes.....			
25-pair.....							

Drawing number and date of target range system..... **None**

POST OR FORT Canby, Washington

Date July 14, 1941

STORAGE BATTERIES

	No. 1	No. 2	No. 3		No. 1	No. 2	No. 3
Number of cells.....	15			Manufacturer's type			
A. H. capacity.....	60			hydrometer.....	V-2-S		
Manufacturer.....	Exide			Location.....	F. C.		
Manufacturer's type.....	DMGO-7				Swbd. Rm.		
Date installed.....	3/30/37			Furnishes power for.....	F. C.		
Date new elements installed.....	New				System		
In cabinet or on rack?.....	Rack			Trickle, float, or cycle charged.....	Cycle		
Which side grounded?.....	Positive			How often?.....			
Manufacturer's type thermometer.....	Exide Vent. Hole			At what rate?.....	7 1/2 Amp.		
				Remarks.....			

CHARGING EQUIPMENT OTHER THAN RECTIFIERS

	No. 1	No. 2		No. 1	No. 2
Manufacturer.....	Crocker Wheeler		Date installed.....	1937	
Manufacturer's type.....	CM		Signal Corps type.....	No record	
Kw. output.....	1/2		Order number and date.....	10787 EC 1/5/12	
Operating voltage.....	220		Location.....	F. C. Switchboard	
Cycles or d. c.....	DC			Room	
Generator serial number.....	120409		Charges what battery?.....	1	
Motor serial number.....	120411				

RECTIFIERS FOR ^{Fire Control} ~~Post Office~~ SYSTEM

	No. 1	No. 2		No. 1	No. 2
Manufacturer.....	G. E. Co.		Date installed.....	4/10/39	
Manufacturer's type.....	3049455		Location.....	F. C. Switchboard	
Amperes.....	3			Room	
Voltage output.....	19.52		Charges what battery?.....	1	
Operating voltage.....	115		Bulb code number.....	12-x-825	
Cycles.....	60				

RECTIFIERS FOR CHARGING PORTABLE BATTERIES **None**

Ampere rating	Number in use	Location	Charges what batteries	Approximate number charged per month

RINGING EQUIPMENT **None**

	No. 1	No. 2	No. 3		No. 1	No. 2	No. 3
Type equipment.....				Manufacturer.....			
Date installed.....				Manufacturer's type.....			
Location.....				Operating voltage.....			
				Cycles or d. c.....			

POST OR FORT Canby, Washington

Date July 14, 1941

DISTRIBUTING FRAME AND PROTECTING EQUIPMENT **NONE**

Wall or floor type?.....	Manufacturer.....
Number of verticals.....	Manufacturer's type.....
Capacity, protector (vertical) side.....	Order number and date.....
Protectors equipped.....	Date installed.....
Capacity, strip (horizontal) side.....	Date additions made.....
Terminal strips equipped.....	Drawing numbers and dates showing layout of frame.....
Fuse protector capacity (pairs).....	
Fuse protectors equipped.....	Remarks.....
Do outside lines connect to protectors, fuses, or terminal strips?.....	

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Block, protector, bottom.....		Strip, terminal, 2-point.....	
Block, protector, top.....		Strip, terminal, 3-point.....	
Coil, heat.....		Strip, terminal, 4-point.....	
Dielectric (Mica).....		Strip, terminal, 5-point.....	
Fuse, ampere.....		Test cord, feet.....	
Protector group.....		Test shoe.....	
Ring, jumper.....			

RELAY RACK **NONE**

Manufacturer.....	Date installed.....
Height.....	Drawing number and date showing layout.....
Number of bays.....	
Relay mounting capacity per bay.....	Remarks.....

COIL AND OTHER RACKS **NONE**

Manufacturer.....	Mounts what equipment?.....
Coil capacity.....	
Per cent equipped.....	

FIRE CONTROL DISTRIBUTING FRAMES

Type	Location	Number installed	WE 99 QUANTITIES OF EQUIPMENT						
			Coils	50 pr. strips	21 pr. strips	TM-88 terms.	Jack panels	T. I panels	Other equipment
BD-75	F.C. Swbd. Room	1		15				1	

POST OR FORT Canby, Washington

Date July 14, 1941

POWER PANELS, INCLUDING FIRE-CONTROL SWITCHBOARD

	No. 1	No. 2		No. 1	No. 2
Manufacturer.....	<u>Unknown</u>		Controls what batteries?.....	<u>1</u>	
Manufacturer's type.....	<u>Unknown</u>		Location.....	<u>F.C.Swbd. Room</u>	
Signal Corps type.....	<u>BD-17</u>		Date installed.....	<u>No record</u>	
Order number and date.....	<u>Unknown</u>				

Apparatus	No. 1 Panel			No. 2 Panel		
	Manufacturer	Manufacturer's code	Range	Manufacturer	Manufacturer's code	Range
Ammeter.....	<u>Weston 60332</u>	<u>24</u>	<u>50-0-50</u>			
Circuit breaker.....	<u>G.E. Air - 1 pole</u>	<u>2802308</u>	<u>25 Amp.</u>			
Motor starter.....	<u>166469</u>		<u>550 Volt.</u>			
Rheostat.....	<u>Ward Leonard</u>	<u>SUEB</u>	<u>2 H.P.</u>			
Voltmeter.....	<u>Ward Leonard</u>	<u>#3</u>	<u>25 Amp.-250 Volt.</u>			
Other equipment:	<u>Weston 60339</u>	<u>24</u>	<u>0-250</u>			

FIRE-CONTROL EQUIPMENT

Apparatus	Number installed	Apparatus	Number installed	Apparatus	Number installed
Bell, T. I., large.....	<u>0</u>	Controller, zone signal.....	<u>0</u>	Switch key, set.....	<u>0</u>
Bell, T. I., small.....	<u>0</u>	Hand set.....	<u>0</u>	Telephone, B. C.....	<u>0</u>
Bell, zone sig.....	<u>0</u>	Head set.....	<u>0</u>	Telephone, desk.....	<u>0</u>
Bell, ext. L. R.....	<u>0</u>	Outlet, zone sig.....	<u>0</u>	Telephone, gun.....	<u>0</u>
Box, junc., std.....	<u>0</u>	Signal, firing, B. C.....	<u>0</u>	Telephone, plotters.....	<u>0</u>
Box, junc., T. R.....	<u>0</u>	Signal, firing, pit.....	<u>0</u>	Telephone, wall.....	<u>0</u>
Box, T. I., bell <u>Wood</u>	<u>1</u>	Switch, hand set.....	<u>0</u>	Switchboards, BD-74.....	<u>(1-B Unit</u>
Box, T. I., bell <u>Metal</u>	<u>3</u>	Switch, push, zone sig.....	<u>0</u>	Switchboards, BD-78.....	<u>2-(1-G Unit</u>
Box, term., 2-strip.....	<u>0</u>	Switch box, base line.....	<u>0</u>	Other apparatus:	
Box, term., 4-strip.....	<u>0</u>	Switch box, cut-out.....	<u>0</u>		
Box, term., 8-strip.....	<u>0</u>	Switch box, transfer.....	<u>0</u>		
Box, term., strip.....	<u>0</u>				

NOTE:---EQUIPMENT ON MEMORANDUM RECEIPT.

POST OR FORT Canby, Washington

Date July 14, 1941

TIME INTERVAL APPARATUS

Location	Signal Corps type	Number installed	Manufacturer	Manufacturer of motor	Remarks
Fire Control Switchboard Room	EE-56	1	Leeds & Northrup	L & N	

METEOROLOGICAL EQUIPMENT NONE

Apparatus	Signal Corps type	Number installed	Apparatus	Signal Corps type	Number installed

FORT SIGNAL STATION NONE

Material of mast	Year installed
Height of mast	Year last painted

Apparatus	Signal Corps type	Number installed	Books	Edition (year)
Flag sets				

NIGHT SIGNALING EQUIPMENT NONE

Apparatus	Signal Corps type	Number installed	Apparatus	Signal Corps type	Number installed

TELEPHONE PAY STATION AND PRIVATE TELEPHONE LINES ON POST

Location	Authority and date	Are Government cables used	Location	Authority and date	Are Government cables used
	See Fort Stevens				

POST OR FORT Canby, Washington

Date July 14, 1941

CONDUIT SYSTEM
(Give approximate total lengths (lineal feet) installed)

Conduit	Feet	Added since last report	Conduit	Feet	Added since last report	Manholes	Number	Added since last report
6-way MCD			Single CWD			6-foot		
4-way MCD			4-way fiber			4-foot		
2-way MCD			2-way fiber			22" x 40"		
Single CD			Single fiber	25937		Other sizes:	28	
2-way CWD			Iron pipe					

Drawing number and date of conduit plant A-101-1a; A-101-2a; A-101-3a; A-101-2b; D-200-a revised January 9, 1929.

CABLE SYSTEM
(Give approximate total lengths installed)

	Gage	Feet	Added since last report		Gage	Feet	Added since last report
10				20			
100 -pair WC-411	22		2017	100 -pair PLAS	19	16891	
100				20			
100 -pair WC-357	22		1898	100 -pair	19	6126	
300-pair				25			
200-pair				100 -pair WC-414	22		2556
25				15-pair WC-365	19		1735
100 -pair WC-366	19		5580	10-pair PLAS	19	30548	
25				10-pair WC-401	19	7621	
100 -pair WC-371	22		2555	Other size WC-253	19		150
100-pair WC-419	22		2332	3-pair	7-24	914	
10				WC-251	19		445
100 -pair WC-369	22		1750	1-pair	7-24	1100	
50-pair WC-407	19		132	Approximate number of Signal Corps poles			0
50-pair WC-417	22		961	Approximate number of joint poles			0

TERMINALS (state number of each)

	Protected	Unprotected	House		Protected	Unprotected	House
50-pair FX				15-pair			
50-pair				10-pair JB-10		14	
25-pair JB-13		7		Other sizes:			
20-pair							

Drawing number and date of cable plant See drawing under conduit plan.

POST OR FORT Canby, Washington

Date July 14, 1941

PRESENT ESTIMATED VALUE OF TELEPHONE AND FIRE-CONTROL PLANT IN PLACE
(Installation cost, less depreciation)

ADMINISTRATIVE TELEPHONE AND TARGET RANGE SYSTEMS		NONE
	Value	
Telephone switchboard and accessories.....	\$.....	Outside telephone plant..... \$.....
Telephone power plant.....		Other plant.....
Other telephone C. O. equipment.....		Target range system.....
Telephone station equipment.....		TOTAL.....

FIRE-CONTROL SYSTEM			Value		Value
Cables and conduit system.....	\$ <u>32,682.71</u>	Telephone and other equipment.....	\$.....		
F. C. power equipment.....	<u>3,138.61</u>	TOTAL.....	<u>35,821.32</u>		

TRUNKS AND TIE LINES							NONE
Connects to what city	Company	Number	Rate per annum	Mileage cost	Additional message cost	Total cost per annum	
			\$.....	\$.....	\$.....	\$.....	

STATION EQUIPMENT						NONE
Manufacturer.....						
Telephones	GOVERNMENT OWNED				Privately owned	
	Dial type	Nondial	Extension bell	L. R. bell		
Desk.....						
Hand set.....		See Fort Stevens				
Wall.....						
TOTAL.....						

LIST OF TELEPHONES

- Class A telephones are for official use only and have access to city trunks.
- Class B telephones are authorized trunk connections for personal use.
- Class C telephones are not permitted city trunk connections.
- Class D telephones are for special services, such as fire reporting, watchman, etc., and are not permitted city trunk connections.

Telephone number	Listing	NUMBER INSTALLED					Class of service	Authority for installation
		Desk	Hand set	Wall	Extension bell	L. R. bell		

333.6 HDCOL (Ft. Stevens) (Sig)

Presidio of San Francisco, Calif.,
August 27, 1941.

Subject: Inspection of Signal Corps Plant in Place at Fort Stevens,
Oregon, for the period ending July 31, 1941.

To: Signal Officer, Headquarters Ninth Corps Area
Presidio of San Francisco, California.

Last Inspection Made: May 15, 1937 by Albert S. Bullens,
Assistant Telephone Engineer, S.S.L.

This Inspection Made: July 10, 1941 by Albert S. Bullens,
Associate Cable Engineer, S.S.L.

I. SWITCHBOARD, MANUAL AND ATTENDANT'S CABINET

1. Switchboard.

Since last report, the one position Stromberg-Carlson C. B. Switchboard and associated equipment has been removed and replaced by a 2 position, 300 line, 24 volt, Kellogg switchboard which is satisfactory.

2. Line Circuits.

a. There are 26 spare lines.

b. None inoperative.

c. An insulation test of all working line circuits developed the following defects:

Lines 1, 5, 14, 47, 63, 81, 82, 83, 100, 102, 111, 136, 139, 146, 156, 159, 186 - grounded. Line 21 crossed with foreign battery. Lines 6, 79, 13, 22, 27, 28, 29, 31, 32, 35, 36, 41, 43, 44, 45, 49, 42, 58, 77, 80, 90, 99, 103, 109, 121, 132, 166, 168 and 170-low insulation.

zz. Recommend corrective action be initiated to remedy the above defects. It is suggested that a bi-monthly line test be initiated until insulation resistance is improved.

3. Cord Circuits.

a. There are a number of badly frayed cords on both positions that should be replaced and in addition supervisory signals should

U. S. G. A. 333.6.14/1-AE

I. SWITCHBOARD, MANUAL AND ATTENDANT'S CABINET (Cont'd)

be adjusted to prevent sticking. Switchboard is equipped with standard cord test for this purpose.

4. Trunk Circuits.

- a. There are 4 trunks to the Warrenton, Oregon exchange and they are sufficient for present purposes.
- b-d. Satisfactory.
- e. Some difficulty is had with trunk line supervision. It appears that electrical conditions are not the same when Astoria Exchange is dialed as that provided on Warrenton Calls.
- f. Transmission in general is satisfactory.
- g. Operator dials for trunk calls.
- h. Warrenton exchange is an unattended automatic system. Ringing or busy signals are inoperative at times.
- i. Not known.
- zz. It is recommended that the Telephone Company be acquainted with supervision difficulties with a view to remedial action.

5. Miscellaneous Circuits.

Satisfactory.

II. AUTOMATIC EQUIPMENT.

None.

III. STORAGE BATTERY.

- a. Satisfactory; excessive load on this battery will be cared for when a new Philco DPG-7 is installed to carry the post switchboard demand.
- b. The Exide Battery DMGO-5 temporarily installed, has, since last report, been removed and installed at Fort Columbia.

IV. CHARGING EQUIPMENT AND RINGING EQUIPMENT.

1. Motor Generator.

- a. Field rheostat has been removed as defective and set is inoperative.

IV. CHARGING EQUIPMENT AND RINGING EQUIPMENT (Cont'd)

zz. Recommend that requisition be submitted for replacement and that it be installed as soon as received.

2. Ringling Machine.

Satisfactory.

3. Rectifier.

a. Since last report a W.E. Co's full wave electron tube rectifier has been installed and is satisfactory.

4. Ringling Vibrator.

a. Since last report a ringling vibrator type "Sub-Cycle" has been installed and is satisfactory.

V. POWER PANEL.

Satisfactory.

VI. DISTRIBUTING FRAME.

a. Since last report a new distributing frame has been installed in connection with the new post switchboard and is satisfactory.

zz. It is recommended that this frame be wood encased, with swinging glass doors, to prevent disturbance of carbon arrestors, caused by personnel passing between frame and room heater. Grounded lines caused by carbon protectors being moved are frequent. In addition an electric heater unit should be initiated if and when frame is enclosed.

VII. WIRE CHIEF'S TEST EQUIPMENT.

a. Since last report a new test equipment has been installed and is satisfactory.

VIII. RELAY RACK. - None.

IX. RECORDS.

a. Drawings are under revision.

b. Cable record sheets are satisfactory, but a number of new cables have been installed and are lacking number assignment.

c. Line record cards are satisfactory.

IX. RECORDS (Cont'd)

d-e. Battery records satisfactory.

f. Property records excellent.

g. Historical record is maintained on Form 1153, which does not comply with Circular Letter No. 140, same subject, dated November 23, 1937.

h-i. Facilities are covered by proper licenses.

j. Telephone accounts are in order.

zz. Recommend that action be initiated to correct cable numbering and that as soon as practicable a new historical record on Form 72 be made.

X. MISCELLANEOUS.

a. Operating schedule follows:

1st trick	6:50 A.M. to 11:50 A.M.	-- 2 Operators
2d "	11:50 A.M. to 5:00 P.M.	-- 2 Operators
3d "	5:00 P.M. to 11:00 P.M.	-- 2 Operators
4th "	11:00 P.M. to 6:50 A.M.	-- 1 Operator

on a 7-day schedule.

b. All CAC personnel.

c. Schedule is satisfactory.

d-e. No additional operators either required or can be released.

f-g. Directories are provided and revised as required.

h. All calls by number.

i. City Directories are provided where required.

i-l. A two-day peg count was made as follows:

	<u>Local</u>	<u>Incoming Trunk</u>	<u>Outgoing Trunk</u>
1st day	1888	195	293
2nd day	1778	315	290

m. Official tolls from May 16 - June 15, \$117.20

n. Average monthly toll varies on account of construction activities.

o. No trunks can be released.

X. MISCELLANEOUS (Cont'd)

p. One additional trunk has recently been added; present number of trunks appears to be adequate.

q. See "p" above.

r. Telephones are properly classified.

s. Personal shares of expenses are prorated.

zz. No recommendations.

XI. STOREROOM. - Satisfactory.

XII. CONDUIT SYSTEM. - Satisfactory.

XIII. CABLE SYSTEM.

a. Aerial cable system is being installed in the 249th C. A. area. It is expected that this system will be in use within the next two weeks.

XIV. POLES, CROSSARMS, ETC.

Satisfactory.

XV. TERMINALS.

Satisfactory.

XVI. WIRES.

Satisfactory.

XVII. TARGET RANGE COMMUNICATION SYSTEM.

Satisfactory.

XVIII. TELEPHONE STATION EQUIPMENT.

Satisfactory.

XIX. TELEGRAPH STATION.

a. The Western Union Telegraph Co. has installed a station in the Harbor Defense Headquarters. This station is operated by CAC Personnel.

XX. FIRE CONTROL SYSTEM.

1. Station and Batteries.

XX. FIRE CONTROL SYSTEM. (Cont'd)

- a. An insulation resistance test on all working lines connected to the fire control switchboard developed the following defects:

Section A - Lines 26, 71 - grounded; lines 59, 69 and 83 - low insulation resistance.

Section B, Lines 18, 26, 29, 32, 35 and 80 crossed and grounded; lines 19, 30, 43 and 79 grounded: Lines 4, 10 and 37 - low insulation.

Section C - Line 55 grounded.

- b. An operating test at all stations developed the following defects:

Meteorological Station, bell doesn't ring.

H Station, S.L. No. 9, bell doesn't ring.

B² Ry., T.I. bell defective.

B¹ Russell, no headset on Spotter's line.

P.R. Russell, S'' line, transmitter defective.

No. 1 Gun, Russell, gun telephone defective.

B.C. Russell, T.I. bells are inoperative.

Battery Russell, Emplacements, T.I. bells, all inoperative.

P.R. Clark, S'' telephone, no head set.

B Pit Clark, no head sets on gun telephones.

BC Clark, defective hand set and receiver cap broken.

BC Clark, firing signals located on wall, inoperative.

BC Pratt, No. 8 S.L. Controller, bell doesn't operate.

B⁴ Guenther, T.I. Bell, doesn't operate.

M'' Observer, defective transmitter on head set.

B³ Clark, T.I. bell removed and disconnected.

B³ Reader Clark, no head set.

B³ Spotter Clark, no head set and line wire open at set.

2. Time Interval Apparatus, Panel and Circuits.

Satisfactory.

3. Fort Signal Stations.

- a. A temporary station has been set up and is satisfactory.

- zz. Recommend corrective action be initiated to clear defects noted under "1-a" and "1-b" above.

XXI. GENERAL INFORMATION AND RECOMMENDATIONS NOT INCLUDED IN ABOVE.

- a. Since last report Project CSO 9-51 has been completed and equipment added as noted in S.C. Form 72.

XI. GENERAL INFORMATION AND RECOMMENDATIONS NOT INCLUDED IN ABOVE (Cont'd)

- b-c. Since last report there are now 192 telephones connected to the administrative post switchboard with 6 authorized extensions.
- d-e. Since last report three additional trunk lines have been added.
- f. Since last report W.D. Cables 782 (75 pr. Ft. Stevens-Ft. Columbia) and W.D. Cable 783 (50 pr. Ft. Columbia-Ft. Canby) have been completed and are in use.
- i-j. Additional contracts for telephone trunk service have been accomplished and lines are in use.
- k. The maintenance personnel consists of a Wire Chief Tech.Sergeant, 1 Tech. Sergeant, 1 Staff Sergeant and 5 Privates, all CAC personnel.
- zz. It is noted that calls from Ft. Canby or Ft. Columbia to stations at either of those Forts necessitate a double use of submarine conductors, since all stations are connected to the switchboard at Ft. Stevens. It is estimated that by installing a one position switchboard at Ft. Canby and connecting all telephones at Fort Canby and Fort Columbia to that switchboard, a saving of approximately 20 pairs in the Columbia-Stevens submarine cable will be had and will also improve the transmission, by reducing the submarine cable wire mileage. It is suggested that consideration be given to the installation of a one position C.B. Board at Fort Canby.

This report together with W.D., S.C. Form 72, consisting of Title Sheet and Sheets numbered 1 to 4 inclusive and 6 to 11 inclusive, is submitted in quintuplicate in compliance with letter dated July 2, 1941, Headquarters Ninth Corps Area, Presidio of San Francisco and as provided for in paragraph 11, AR 105-20, December 31, 1940.

REC'D SEP 8 1941 OSigO
9th CA


A. S. BULLENS

Associate Cable Engineer, S.S.L.

1 Inclosure (Form W.D., S.C. 72,
in quint.)

333.6 (HD Col)

3rd Ind.

HQ., H.D. of the Columbia, Fort Stevens, Oregon, October 1, 1941. Thru: Commanding General, Ninth Coast Artillery District, Fort Winfield Scott, California,
To: The Commanding General, Ninth Corps Area, Presidio of San Francisco, Calif.

Returned. Remarks and recommendations bearing the same numbers and letters as the basic letter are as follows:

- I. 2. zz. All defects listed have been remedied.
3. a. Cords were requisitioned July 24, 1941 and will be installed when received. Supervisory signals are being checked for correct operation.
4. zz. This difficulty has been taken up informally with the Telephone Company.
- III. 1. a. Philco Battery DPG-7 has been installed. The peak load of the Fire Control System is from 10 to $11\frac{1}{2}$ Amperes on an Exide DMGO-7 battery rated for a normal discharge of $7\frac{1}{2}$ Amperes.
- IV. 1. zz. Complied with.
- VI. zz. Recommendation is concurred with.
- IX. a. Revision of drawings is progressing satisfactorily.
b. This will be included in a above.
g. This is being complied with.
- XX. All defects listed under this heading have been corrected.
- XXI. zz. Project has been initiated and extract of Requisition has been received covering Switchboard and associated equipment for Fort Canby.

1 Inclosure (Form 72 in Tripl.)
1 copy w/d

Clifton M. Irwin
CLIFTON M. IRWIN,
Colonel, C.A.C.,
Commanding.

333.6 (HDCol)

4th Ind.

HQ. NINTH C. A. DISTRICT, Presidio of San Francisco, Calif., Oct. 6, 1941.
To: Commanding General, Ninth Corps Area, Presidio of San Francisco, Calif.

1 Incl. (in tripl.) -n/c

REC'D OCT 7

1941

OSigO
9th CA

W. K. W.
W. K. W.

POST OR FORT Stevens, Oregon

DESCRIPTIVE DATA RECORD
OF
SIGNAL CORPS PLANT IN PLACE

This report consists of sheets Title Sheet and Sheets 1-4 inclusive and 6-11 inclusive.

Rendered by ALBERT S. BULLENS

Rank Associate Cable Engineer, S.S.L.

Date July 10, 1941.

Encl. #1²

REPORT OF SIGNAL CORPS PLANT IN PLACE

1. This form is to be completed by the inspector and used for reporting the Signal Corps equipment installed at Government-owned telephone and telegraph systems, fire-alarm and fire-control systems at the time the annual inspection of the system is made by the inspector designated by the department or corps area commander for that duty. The officer in charge of the system will assist the inspector in making out this form by giving him facts and data he may have on record that relate to the equipment to be reported.

2. No sheet of this form, except the title sheet and sheet 11, which should be prepared each time an inspection is made, need be made out when a similar sheet submitted within the preceding three years contains the required data and there have been no changes in the data previously submitted. Where a new sheet is made out, it should be complete for all headings, even though no changes have been made under some of the headings since the last inspection.

POST OR FORT Stevens, Oregon Date July 10, 1941

TELEPHONE SWITCHBOARD

(Use another sheet for fire-alarm or separate fire-control switchboards)

Date installed <u>January 17, 1940</u> Manufacturer <u>Kellogg Swbd. & Supply Company</u> Manufacturer's type <u>2 Pos. C.B. 24 Volts</u> Manufacturer's Serial No. <u>18796</u> Signal Corps Serial No. <u>2717</u> Order number and date <u>3819-Ch1.-9/17/38</u> Common battery or magneto? <u>Common Battery</u> Multiple or nonmultiple? <u>Non-multiple.</u> Number of panels to a multiple <u>---</u> Number of positions <u>2</u> Cord pairs per position <u>16 pair</u> Common battery lines wired <u>300</u> Common battery lines equipped <u>200</u> Magneto lines wired <u>None</u>	Magneto lines equipped <u>None</u> Pos. No. 1 <u>10 wired (5-9)</u> Pos. No. 2 <u>10 wired (10-14)</u> Trunk circuits wired <u>Local B - 5 Equip.</u> <u>C.B. - 5 Equip.</u> Trunk circuits equipped <u>24 Volt</u> Operating voltage <u>24 Volt</u> Distance telephone system is outside B. R. area of telephone company <u>4 miles.</u> Trunk loop resistance in ohms <u>Unknown.</u> Are line cables to switchboard under floor or on overhead rack? <u>Under floor.</u> If multiple switchboard, do cables from switchboard double at R. R. or distributing frame? <u>Yes</u> Are all positions equipped for service? <u>Yes</u> Is switchboard used as attendant's cabinet of an automatic system? <u>No</u> Location of switchboard <u>Bomb-proof swbd. room.</u> Drawing number and date of face and rear equipment layout <u>39668 2/15/39</u>
--	--

SWITCHBOARD CIRCUIT DRAWINGS

Name of circuit	Number and figure	Name of circuit	Number and figure
Line circuit	<u>41156 Fig. 1</u>	Generator circuit	<u>41156 Fig. 19</u>
Cord circuit, local	<u>41156 Fig. 4</u>	Operator's circuit	<u>" Fig. 8</u>
Cord circuit, universal	<u>" " 2</u>	Trunk circuit	<u>Pos. 1 41156 Fig. 17 A-E-F</u>
Pilot circuit	<u>" Fig. 21-21B</u>	Trunk circuit	<u>Pos. 2 41156 Fig. 7 17B-17F</u>
Fuse alarm circuit	<u>" Fig. 3</u>	Other circuits	<u>41156 Fig. 12</u>
Night alarm circuit	<u>" Fig. 14</u>	Operator's Tel. Switch	<u>" Fig. 8</u>
Dial circuit		" Telephone	<u>" Fig. 8</u>
		Generator	<u>" Fig. 19</u>
Drawing number and date showing central office layout	<u>41156 Fig. 5</u>	Heating	<u>41156 Fig. 11</u>
Grounding	<u>35667 Fig. 1</u>	Cord Test	<u>" Fig. 16</u>
Peg Counters	<u>41156 Fig. 20</u>	Mtg. Strip Grd.	<u>35677 Fig. 4</u>

POST OR FORT Stevens, Oregon

Date July 10, 1941

SWITCHBOARD CABLE

Pairs	Manufacturer's code	Signal Corps type	Connects what apparatus	Average length per run	Number of cables
100	DS & SC LC	10822.100-2	Line Circuits	27	4
25	DS & SC LC	10822.25	Trunks and miscellaneous.	25	1

CORD CIRCUITS

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Cap, lamp, green	154-W	Relay, supervisor, answering	2030 TC
Cap, lamp, red	154-A	Relay, supervisor, calling	2030 TC
Cap, lamp, white	154	Relay	-----
Capacitator	64	Relay	-----
Coil, repeating	None	Signal	2043 BEQ
Cord, connecting	309	Socket, lamp	39
Key, ringing and listening	1033 - & 1042	Weight, cord	9
Key, listening	1042	Apparatus not listed:	
Key, ringing	1033	Lamps, Svbd.	24TA
Plug, cord	106		

OPERATOR'S TELEPHONE CIRCUIT

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Coil, induction	7-A	Key, operator's switching	1034
Coil, repeating	None	Receiver	85-A
Coil, retardation	8-H	Relay	None
Capacitator	64	Plug, operator's set	482
Cord, breast set	713	Transmitter	177-C
Cord, receiver	Part of	Apparatus not listed:	
Cord, transmitter	" "	Key Gen.	1028
	" "	Head Band	14

POST OR FORT Stevens, Oregon Date July 10, 1941

AUXILIARY SIGNAL, FUSE ALARM, NIGHT ALARM, TEST, DIAL, GENERATOR, AND MISCELLANEOUS CIRCUITS

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Bell, night alarm.....	1B	Lamp, pilot.....	24 TA
Buzzer, fuse alarm.....	7 AV	Lamp, resistance.....	None
Buzzer, night alarm.....		Receptacle.....	39
Cap, lamp, green.....	9 B	Relay, fuse alarm.....	2043-S-EB
Cap, lamp, red.....	9 A	Relay, night alarm.....	2043-S-EB
Cap, lamp, white.....	9	Relay, pilot.....	2043-S-EG
Coil, retard, dial cct.....	None	Relay.....	None
Capacitor, signal cct.....	None	Resistor, generator.....	None
Capacitor, dial cct.....	64	Resistor, 100 ohms, test cct.....	S-CE
Fuse, 1½ amperes.....	35 B	Resistor, 750 ohms, test cct.....	S-CE
Fuse, 5 amperes.....	35 H	Resistor, 10,000 ohms, test cct.....	S-CH
Generator, hand.....	Not Coded	Ringer (buzzer), gen. cct.....	66 B
Key, dial switching cct.....	1102	Socket, lamp Ringer	9402
Key, generator switching.....	1028	Apparatus not listed:	
Key, generator reversing.....	1028		
Key, night alarm.....	1002		

LINE CIRCUITS

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Cap, lamp, red.....	154 A	Relay, line.....	26 D
Cap, lamp, green.....	154 W	Signal, magneto.....	None
Cap, lamp, white.....	154	Socket, lamp.....	34
Jack, line.....	267SJ	Apparatus not listed:	
Lamp, line.....	24 TA		
Relay, cut-off.....	None		

POST OR FORT Stevens, Oregon

Date July 10, 1941.

TRUNK CIRCUITS

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Cap, lamp, busy.....		Relay, cut-off <u>Fig. 7</u>	<u>2039 C-AB</u>
Cap, lamp, trunk.....	<u>154</u>	<u>Fig. 17-A</u>	<u>2036 C-YH</u>
Capacitor.....	<u>64</u>	Relay, ring-up <u>Fig. 7</u>	<u>2029 B-W</u>
Capacitor.....	<u>132</u>	<u>Fig. 17-A</u>	<u>2003 C-AB</u>
Coil, impedance (retard).....		Relay <u>Fig. 7</u>	<u>546-B</u>
Coil, repeating.....	<u>20-A</u>	<u>Fig. 17-A</u>	<u>2029 B-M</u>
Coil, resistance.....	<u>See 2037-S-V</u>	Relay <u>Fig. 7</u>	<u>2037 B-AP</u>
Jack, line.....	<u>269 SJ</u>	Relay.....	
Jack, night.....	<u>267 SJ</u>	Signal.....	<u>154</u>
Key, dial.....	<u>ES 1887</u>	Socket, lamp.....	<u>34</u>
Key.....	<u>1033</u>	Apparatus not listed:	

WIRE CHIEF'S TESTING SET

Date installed.....	<u>July 10, 1941</u>	Manufacturer's type of voltmeter.....	<u>Weston</u>
Manufacturer and code number.....	<u>Auto. Elec. Co. No. 8</u>	Range of voltmeter.....	<u>0-40</u>
Location.....	<u>Fire Control Switchboard Room</u>	Circuit dwg. number and date.....	<u>602 Operating Bulletin</u>
Remarks.....		<u>Form B-53579 Issue 6.</u>	

CHIEF OPERATOR'S DESK **NONE**

	Number installed
Date installed.....	
Manufacturer and code number.....	
Cct. dwg. number and date.....	
Remarks.....	
Monitor ccts.....	
Inc. trk. ccts.....	
Outgoing trk. ccts.....	
Cord ccts.....	

TARGET RANGE SYSTEM
(Give approximate lengths of cable installed)

Cable	Gage	Armored	In duct	Cable	Gage	Armored	In duct
100-pair.....				15-pair.....			
75-pair.....				10-pair.....			
50-pair.....				Other sizes.....			
25-pair.....				<u>2000 ft. WC-253-2 pr. subterranean.</u>			

Drawing number and date of target range system.....

POST OR FORT Stevens, Oregon

Date July 10, 1941

STORAGE BATTERIES

	No. 1	No. 2	No. 3		No. 1	No. 2	No. 3
Number of cells	15	4		Manufacturer's type	V-2-S		
A. H. capacity	60	5		hydrometer			
Manufacturer	Exide	Exide		Location	Bomb-Proof	Bomb-Proof	
Manufacturer's type	DMGC-7	NAK-2		Furnishes power for	Post Telephone	F.C. Swbd.	
Date installed	Jan. 1937	1-17-40		Trickle, float, or cycle charged	in Post Swbd.	Feed Cct.	
Date new elements installed				How often?	Cycle Daily		
In cabinet or on rack?	Rack	Rack		At what rate?		CENT	
Which side grounded?	Positive	None		Remarks			
Manufacturer's type thermometer	Vent	Hole Type					

CHARGING EQUIPMENT OTHER THAN RECTIFIERS

	No. 1	No. 2		No. 1	No. 2
Manufacturer	Burke E. Co.	C & W	Date installed	No record.	No record.
Manufacturer's type	Tel. Shunt	L Type Sec.	Signal Corps type	MG-6	No record.
Kw. output	1	1	Order number and date	15169 5-29-21	None
Operating voltage	45	45	Location	Swbd. Room	Swbd. Room
Cycles or d. c.	DC	60 Cycles	Charges what battery?	1	1
Generator serial number	128345	63329			
Motor serial number	128346	63327			

RECTIFIERS FOR POST TELEPHONE SYSTEM

	No. 1	No. 2		No. 1	No. 2
Manufacturer	W.E. Co.		Date installed	4/10/39	
Manufacturer's type	Electron Tube with Reactance		Location	F.C. Switch-board Room	
Amperes	12		Charges what battery?	1	
Voltage output	6-98		Bulb code number	62-N-746	
Operating voltage	110				
Cycles	60				

RECTIFIERS FOR CHARGING PORTABLE BATTERIES **NONE**

Ampere rating	Number in use	Location	Charges what batteries	Approximate number charged per month

RINGING EQUIPMENT

	No. 1	No. 2	No. 3		No. 1	No. 2	No. 3
Type equipment	Generator	Sub-Cycle		Manufacturer	H & C	Levain Product# Co.	
Date installed	Unknown	11/20/40		Manufacturer's type	MS-1	1935 Model "S"	
Location	Swbd.	Swbd. Rm.		Operating voltage	80	90-75	
				Cycles or d. c.	60 Cycle	60 Cycle	

POST OR FORT Stevens, Oregon

Date July 10, 1941

DISTRIBUTING FRAME AND PROTECTING EQUIPMENT

Wall or floor type? <u>Floor</u>	Manufacturer <u>WE Co.</u>
Number of verticals <u>4</u>	Manufacturer's type <u>1169 A-1435-R</u>
Capacity, protector (vertical) side <u>100</u>	Order number and date <u>Par. 20, AR 35-6520</u>
Protectors equipped <u>220</u>	Date installed <u>January 2, 1940</u>
Capacity, strip (horizontal) <u>vertical</u> side <u>100-100-100</u>	Date additions made <u>April 1941</u>
Terminal strips equipped <u>10 (2 of 50 pr. each)</u>	Drawing numbers and dates showing layout of frame <u>WE Co. T-75732 and SK 922-T1</u>
Fuse protector capacity (pairs) <u>None</u>	Remarks <u>Installed January 17, 1940.</u>
Fuse protectors equipped <u>None</u>	
Do outside lines connect to protectors, fuses, or terminal strips? <u>Terminal Strips</u>	

Apparatus	Manufacturer's code	Apparatus	Manufacturer's code
Block, protector, bottom	<u>WE 26</u>	Strip, terminal, 2-point	<u>10</u>
Block, protector, top	<u>WE 27</u>	Strip, terminal, 3-point	
Coil, heat	<u>WE 76-A</u>	Strip, terminal, 4-point	
Dielectric (Mica)	<u>WE 3</u>	Strip, terminal, 5-point	
Fuse, <u>1-1/3</u> ampere	<u>35 E</u>	Test cord, ----- feet	<u>None</u>
Protector group		Test shoe	<u>None</u>
Ring, jumper			

RELAY RACK None

Manufacturer	Date installed
Height	Drawing number and date showing layout
Number of bays	Remarks
Relay mounting capacity per bay	

COIL AND OTHER RACKS None

Manufacturer	Mounts what equipment?
Coil capacity	
Per cent equipped	

FIRE CONTROL DISTRIBUTING FRAMES

Type	Location	Number installed	QUANTITIES OF EQUIPMENT						
			Coils	20 <u>WE-99</u> pr. strips	21 pr. strips	TM-88 terms.	Jack panels	T. I. panels	Other equipment
<u>BD-75</u>	<u>F.C. Svbd. Room</u>	<u>1</u>		<u>26</u>				<u>1</u>	

POST OR FORT Stevens, Oregon

Date July 10, 1941

POWER PANELS, INCLUDING FIRE-CONTROL SWITCHBOARD

	No. 1	No. 2		No. 1	No. 2
Manufacturer.....	No record		Controls what batteries?.....	No. 1	
Manufacturer's type.....	No record		Location.....	Subd. Room	
Signal Corps type.....	BD-17 modified		Date installed.....	No record; about 1918.	
Order number and date.....	No record			Modified 1920	

Apparatus	No. 1 Panel			No. 2 Panel		
	Manufacturer	Manufacturer's code	Range	Manufacturer	Manufacturer's code	Range
Ammeter..... 1	Weston	60327	50-0-50			
Circuit breaker..... 1	Cutler Co.	H 9595				
Motor starter..... 1	Ward Leonard					
Rheostat..... 1	I TE					
	Cutler-Hammond	1153				
Voltmeter..... 1	Weston	60336	0-250			
Other equipment:						

FIRE-CONTROL EQUIPMENT

Apparatus	Number installed	Apparatus	Number installed	Apparatus	Number installed
Bell, T. I., large.....	0	Controller, zone signal.....	0	Switch key, set.....	0
Bell, T. I., small.....	0	Hand set.....	0	Telephone, B. C.....	0
Bell, zone sig.....	0	Head set.....	0	Telephone, desk.....	0
Bell, ext. L. R.....	0	Outlet, zone sig.....	0	Telephone, gun.....	0
Box, junc., std.....	0	Signal, firing, B. C.....	0	Telephone, plotters.....	0
Box, junc., T. R.....	0	Signal, firing, pit.....	2	Telephone, wall.....	0
Box, T. I., bell.....	3	Switch, hand set.....	0	Switchboards, BD-74.....	3
Box, term., 2-strip.....	0	Switch, push, zone sig.....	0	Switchboards, BD-78.....	
Box, term., 4-strip.....	0	Switch box, base line.....	0	Other apparatus:	
Box, term., 8-strip.....	0	Switch box, cut-out.....	0		
Box, term., strip.....	0	Switch box, transfer.....	0		

NOTE: Most equipment on Memorandum Receipt.

POST OR FORT Stevens, Oregon Date July 10, 1941

TIME INTERVAL APPARATUS

Location	Signal Corps type	Number installed	Manufacturer	Manufacturer of motor	Remarks
Switchboard Room	EE-56	1	L & N	No record	4 disc.

METEOROLOGICAL EQUIPMENT NONE.

Apparatus	Signal Corps type	Number installed	Apparatus	Signal Corps type	Number installed

FORT SIGNAL STATION NONE.

Material of mast <u>Defective - removed.</u>	Year installed <u>No record.</u>
Height of mast _____	Year last painted _____

Apparatus	Signal Corps type	Number installed	Books	Edition (year)
Flag sets				

NIGHT SIGNALING EQUIPMENT NONE

Apparatus	Signal Corps type	Number installed	Apparatus	Signal Corps type	Number installed

TELEPHONE PAY STATION AND PRIVATE TELEPHONE LINES ON POST

Location	Authority and date	Are Government cables used	Location	Authority and date	Are Government cables used
3 pr. ea. P.T. & T. Co.	3/26/27	Yes			
1 pr. ea. "	6/13/41-680.42	Yes	and Ltr. 5/6/41 fr. CO, HDCOL.		
1 pr. West. Union Tel.	1/1/32	Yes			
(Pay Stn. Service Club)	10/25/40				
(Bldg. No. 50)	Ltr. 676.1-1st Ind. Yes				
(Pay Stn. Post Ex.)	3/18/41	Yes			
(Bldg. No. 212)	680.4-1st Ind.				

POST OR FORT Stevens, Oregon

Date July 10, 1941

CONDUIT SYSTEM
(Give approximate total lengths (lineal feet) installed)

Conduit	Feet	Added since last report	Conduit	Feet	Added since last report	Manholes	Number	Added since last report
6-way MCD	0		Single CWD	797		6-foot	0	
4-way MCD	0		4-way fiber	0		4-foot	0	
2-way MCD	0		2-way fiber	0		22" x 40"	1	
Single CD	0		Single fiber	140000		Other sizes:	69	
2-way CWD	0		Iron pipe	476				

B-200-b, A-101-3b, A-101-4b, A-101-5b, A-101-6b,
Drawing number and date of conduit plant revised 1/9/29 and corrected to data.

CABLE SYSTEM
(Give approximate total lengths installed)

	Gage	Feet	Added since last report		Gage	Feet	Added since last report
WC-507			1300	25-pair WC-414	19	385	2250
3000-pair WC-419	19		8097	20			
400-pair WC-643			233	28-pair WC-403	19	13426	
WC-409	19		450	3			
300-pair WC-412	19		1009	23-pair WC-214	7-24	5967	
WC-417	19		2665	6			
200-pair WC-420	19	0	1396	23-pair	7-24	604.9	
150-pair WC-425	19	0	901	10-pair WC-401	19	46,008	345
100-pair WC-367	19		2421	10-pair WC-411	22	482	2510
WC-369	19		569	Other sizes 1 pr. 7-24		7154	
100-pair WC-366	19		4416	1 pr. 18		1663.3	
WC-366	19		1500	WC-512-1 pr. 19		500	
20			633	WC-253	19		3300
300-pair	19	19095					6
30							Approximate number of Signal Corps poles
500-pair WC-405	19	1241					0
							Approximate number of joint poles

TERMINALS (state number of each)

	Protected	Unprotected	House		Protected	Unprotected	House
50-pair FX				15-pair JB-11		6	
50-pair				10-pair JB-10		32	
25-pair JB-13		18		Other sizes:		33	
21				2 pr. TM-173			
22		4		Cook 10 pr.		1	
20-pair							

A-101-3-4-5-6b, revised January 19, 1929.
Drawing number and date of cable plant