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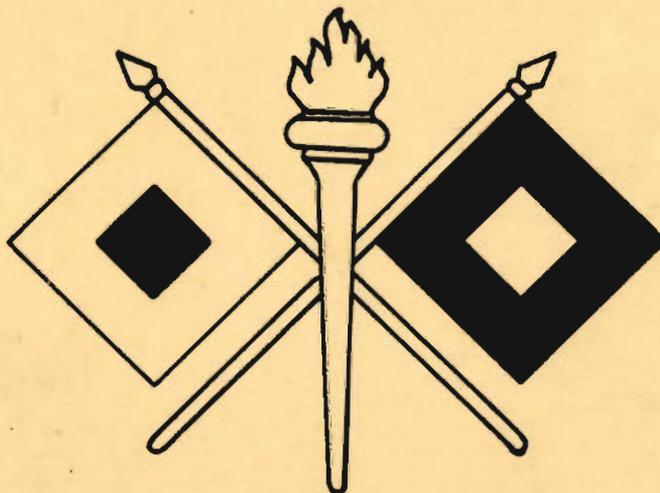
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WAR DEPARTMENT

OFFICE OF THE CHIEF SIGNAL OFFICER

INFORMATION LETTER



NO. 11

WASHINGTON, D.C.
OCTOBER 1, 1942

WAR DEPARTMENT
HEADQUARTERS, SERVICES OF SUPPLY
OFFICE OF THE CHIEF SIGNAL OFFICER
SPECIAL ACTIVITIES BRANCH
WASHINGTON, D. C.

October 1, 1942

SIGNAL CORPS TECHNICAL INFORMATION LETTER NO. 11

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THE SIGNAL CORPS TECHNICAL INFORMATION LETTER -

1. The Signal Corps Technical Information Letter (SCTIL) is issued monthly in this form. Its purpose is to keep officers in charge of field activities informed of matters of interest, such as new developments in Signal Corps equipment, changes in methods, progress in procurement of major Signal Corps items of equipment, etc.

2. The letter is compiled largely from information regularly available in the Office of the Chief Signal Officer. However, all Signal Corps agencies are invited to submit items of general interest. Such items should reach the Special Activities Branch, Office of the Chief Signal Officer, not later than the 20th of each month for inclusion in the letter of the first of the succeeding month.

3. Distribution of the letter will be made to army, corps, and division signal officers; commanding officers of signal companies and battalions; service command and department signal officers; post, camp, depot and Procurement District signal officers; the signal officers of bases and task forces; the signal officers of the Armored Force; signal officers on the staffs of major headquarters of the Army Air Forces and Army Ground Forces.

4. Requisitions for new types of equipment will not be submitted on the basis of information contained in this letter.

5. Restricted -- A document will be classified and marked "Restricted" when the information it contains is for official use only or of such nature that its disclosure should be limited for reasons of administrative privacy or should be denied the general public. The "Restricted" mark will be placed on a document only by authority of a commissioned officer.

THE EASTERN SIGNAL CORPS SCHOOL

The largest classes in the history of the Eastern Signal Corps School were graduated in September from the Officer Candidate Department and from the Officers' Department.

Officers' Department

In graduation exercises on September 8 were 303 student officers who heard brief addresses by Brig. Gen. G. L. Van Deusen, Commandant, and Col. W. O. Reeder, Assistant Commandant. Both urged the officers to supplement what they had learned during a brief instruction period in the Eastern Signal Corps School with further training, for themselves and their men.

Diplomas were presented to the following numbers of graduates who completed the six-week common sub-course training and six-week specialist training: Long lines outside, 35; long lines inside, 50; radio, 101; divisional field wire, 89; supply and motor transport, 28.

General Van Deusen said, "You are going out with various units of the field forces and you will find some of the outfits in the very early stages of organization. It will be your duty to get them trained.

"The state of training of Signal Corps units is not particularly encouraging. The ideal would be to have each man spend at least 13 weeks in a Signal Corps replacement training center and have at least the equivalent of a course in a Signal Corps school. However, it is regrettable that men are joining without basic or specialist training. The remedy is to work as hard as possible.

"We hope your training will enable you to carry on. You will have to keep unremittingly at the task of furthering your own training and the training of the men under you."

Colonel Reeder told the graduates, "Your training has only begun. We have shown you some of the things you will need to know.

"This war can only be won by an invasion of

Europe - air superiority is not the final answer. Your job will show up in the way in which your men carry on during the invasion. There is not a single perfectly trained outfit in our Army - all can stand more training.

"You can't afford to let down in your work. If we fail in our training mission, those we serve may suffer terribly. It depends on all of you to see that the men you lead are prepared to do their job without being told how to do it."

Because of the expansion at Fort Monmouth, common subcourses for student officers are being held at nearby Asbury Park, a famous seaside summer resort. Several hotels, the Y.M.C.A., and a large convention auditorium are being used for classrooms and quarters for the student officers. Part of the specialist training in long lines inside is being given there, and on September 10 there were 150 Electronics Training Group students taking common courses at Asbury Park. This number was augmented by approximately 200 other student officers who initiated common courses on September 23.

Specialist training for 280 graduates from the eighth Officer Candidate School class started September 23 at Fort Monmouth. A group, which numbers 400 student officers at the present time, will be graduated from the company Officers' course October 13.

Officers for eight division signal company cadre groups and one armored signal company cadre were in training during September. This group of 71 student officers will be graduated October 3. On October 14, eight new officer cadres, composed of graduates from the specialist courses, will start training and will be included in divisions which will be activated in December.

The advanced officers' course, Air Force specialty, for officers of field grade, has 17 members at the present time. They will be graduated November 28. A session for ground force officers is not being held during this period because of the more pressing need for officers trained in Air Force specialties.

Officer Candidate Department

General Van Deusen and Colonel Reeder both spoke at the Officer Candidate Department graduation on September 12. Diplomas were presented to 1211 second lieutenants, members of the eighth class which was the largest in the school's history. On September 15, there were 1957 senior students,

1166 intermediate candidates, and 1030 basic students. Classes of 1000 students are reporting every two weeks. There were 434 officers on the staff and faculty of the school and 97 enlisted men who were carried as overhead.

Enlisted Men's Department

Enrollment of the Enlisted Men's Department on September 15 was 4,532 students. Of this number 2,523 were taking radio courses, 1,728 wire courses and 281 the cryptographic course. The cryptographic school will be moved from Fort Monmouth by the end of the month and will be located in the vicinity of Washington under the administration of the Signal Intelligence Service.

The department has recently received a number of SCR-284, 608, and 628 sets and instruction on maintenance is now underway. It is also planned to give instruction on the new SCR-536 used in the Infantry and the Engineer Amphibian Command.

The director of the Enlisted Men's Department has requested written suggestions from officers in the field concerning existing methods of instruction at the Eastern Signal Corps School on field Signal Corps equipment. Suggestions concerning changes in design of equipment are not desired. Correspondence should be directed to the Commandant, Eastern Signal Corps School, Fort Monmouth, Red Bank, N. J.

II

WAR PLANS AND MILITARY ORGANIZATION

On September 1, 1942, the Chief Signal Officer ordered the 815th Signal Post Service Company into the active military service of the United States, effective September 25, 1942. This unit will be affiliated with the New York Telephone Company and stationed at Camp Maxey, Texas.

On September 9, 1942, the Chief Signal Officer ordered the 187th Signal Repair Company into the active military service of the United States, effective October 1, 1942. This unit will be affiliated with the Bell Telephone Company of Pennsylvania and stationed at Fort DuPont, Delaware. Organization will be in accordance with T/O 11-127.

The 804th Signal Service Regiment was constituted on September 2, 1942, and was activated by the Commanding General, Midwestern Signal Corps School, Camp Crowder, Missouri, on September 15, 1942, at Camp Crowder.

Detachment E, 827th Signal Service Company, was constituted on September 7, 1942, and will be activated at the earliest practicable date by the Commanding General, Third Service Command, at Fort George G. Meade, Maryland, at an authorized strength of 2 officers and 23 enlisted men.

The Mountain Training Center has been constituted and action is being taken to activate it as a component of the Army Ground Forces, effective September 1, 1942. The Headquarters Mountain Training Center will be established at Camp Carson, Colorado, as soon as practicable. It is planned to move the Mountain Training Center to Camp Hale, Colorado, by November 15, 1942.

Orders were issued on August 28, 1942, to activate Company C, 97th Signal Battalion, as a Signal Construction Company, with an authorized strength of 6 officers and 255 enlisted men, in accordance with Table of Organization 11-27, April 1, 1942, at Fort Sam Houston, Texas. One-half the officers and enlisted men of Company A, 97th Signal Battalion, will form the cadre for the new unit. The unit will be assigned to the Third Army.

On August 31, 1942, the 241st Signal Operation Company, affiliated with the Bell Telephone Company of Pennsylvania, and the 816th Signal Post Service Company, affiliated with the New England Telephone and Telegraph Company, were ordered into the active military service and will be organized at the earliest practicable date in October 1942.

The 154th Armored Signal Company will be activated by the Chief of the Armored Force at Camp Chaffee, Arkansas, on November 15, 1942, or as soon as practicable, and will be assigned to the Armored Force.

The 4th Armored Signal Battalion will be activated by the Chief of the Armored Force, in accordance with T/O 11-85, dated January 1, 1941, with an authorized strength of 33 officers and 910 enlisted men. The 2d Armored Signal Battalion will furnish one officer and a Table of Organization cadre of 114 enlisted men for the 4th Armored Signal Battalion. The unit will be attached to the Desert Training Center.

III

ARMY-NAVY COMMUNICATIONS PRODUCTION EXPEDITING AGENCY

The reorganization of the Production Expediting Section into the Army-Navy Communications Production Expediting Agency is being activated with the establishment of Precedence and Allocations Branches and coordination of Signal Corps and Navy functions.

The Mica Capacitor situation continues extremely critical and possibilities of utilizing substitutes are being carefully studied. Available figures indicate a demand far in excess of supply not only of the finished capacitors but of the basic materials. Contractors' requirements have been tabulated and allotments are being made on the basis of relative importance of the equipment involved.

The following are examples of the activities of this Agency which indicate the nature of the problems which arise and the methods used in expediting the production of communications equipment.

The Kenyon Transformer Company, New York City, with the assistance of the New York Army-Navy Communications Production Expediting Region, has made the following changes and progress: A building was rented containing 8500 square feet and power presses and cutters set up, so that all cans and laminations are now being manufactured there. In plant Number 1, a complete assembly line was set up for standard production and a department created for special transformers. August production for the plant increased 18.5 per cent over July in the total number of units manufactured, and 22.4 per cent in total sales value, with the expectation that September's production will surpass July's by 50 per cent.

The New York Regional Office informed this Agency that General Electric Company of Bridgeport, Conn., was working only a forty-hour week. The expeditor at the plant was called upon to investigate the reason for such a schedule. Conferences with the company officials indicated that, because of reduced commitments, there was no need to operate on longer hours. This Agency suggested to the company the possibility of transferring to Bridgeport some of the commitments assigned to the Schenectady plant, which was

running behind schedule. After investigation the company informed this Agency that they had adopted the forty-eight hour week because of such a transfer. In other words, they had relieved a possible tie-up at the Schenectady plant by transferring it to available capacity at Bridgeport.

Tubes Shipped Immediately

The Boston Army-Navy Communications Production Expediting Region was requested to expedite Order No. 22403 from Rauland Corporation, Chicago, on Hytron Corporation, Salem, Massachusetts, covering thirty each Tube HY-69, AA-1 priority, which was needed immediately by Rauland Corporation to fulfill a Navy contract. Hytron had shipped four of these tubes but was unable to ship the remaining twenty-six due to previously dated AA-1 Priority orders. The Boston Army-Navy Communications Production Expediting Region contacted the Regions holding these previously dated orders and secured from them a release on their orders, whereby their orders were delayed a week, but within schedule, and the Hytron Corporation was able to ship the twenty-six tubes required by Rauland immediately. The necessity of obtaining an AAA priority and the resultant delay were thereby eliminated.

The new plant of Erie Resistor Company was due to open August 17, 1942. They were advised by Pennsylvania Gas Company that gas could not be turned on because of WPB restrictions. The local expeditor explained the importance of Erie Resistor Company's operations to wartime communications to the General Manager who forewent investigation and authorization, turning on the gas August 15, 1942.

The Clarostat Manufacturing Company, Brooklyn, N. Y., contemplated discharging 100 of their employees by August 17, 1942, because of lack of cupron wire, nichrome wire, soft copper strips. The brass specialists, OCSigO, produced sufficient material to enable continuance. Not only were all employees retained but a previously released group were taken back.

Through close supervision and direction of the company's efforts, the production by Flexo Wire Company, Syracuse, N. Y., during August doubled the July production.

Production of Meters.

The pronounced shortage in the supply of electrical measuring instruments threatens a severe curtailment in the production of Army and Navy equipment. Immediate steps are being taken towards the allocation of the available supply of electric meters. The Army-Navy Communications Production Expediting Agency is conducting a comprehensive survey of the available meter supply and the meter requirements determined by the Army and Navy communications production programs.

The following allocation procedure has been adopted by this Agency: (1) the "allowance" for each kind of meter will be determined on the basis of the requirements for that month's production of the equipment including the spare parts complement; (2) the quantity "on hand" is subtracted from the month's allowance. This yields the required deliveries for that month for the given equipment; (3) the ratio of quantities of undelivered meters on order with the several suppliers is computed; and (4) the month's required deliveries are divided among the suppliers in proportion to this ratio. The results are the allocated delivery schedules of these suppliers on order for the given equipment. Where the quantity on hand is greater than the month's allowance, the difference is carried as "on hand" for the next month, and the required delivery for the month in question is zero.

Purchase Section

In order to secure production on Radio Set SCR-584 prior to July, 1943, the Purchase Section, Procurement Branch, during the week of September 1, 1942, placed orders for machine tools based on quotations obtained by the Chrysler Corporation and assigned to the Signal Corps by that company.

As a result of the placing of orders for machine tools and providing for their delivery prior to December 31, 1942, the Chrysler Corporation will be able to enter into a sub-contract with the General Electric Company and manufacture the mounts in accordance with the delivery schedule that has been set for Radio Set SCR-584, thus avoiding a previously expected delay of approximately six months. This action also precluded the placing of a cost-plus-fixed-fee contract with the Chrysler Corporation.

WAR PRODUCTION BOARD

New Limitations Order on Electronic Equipment

The War Production Board on September 18 issued General Limitation Order L-183, effective October 3. The order extends the Board's control over the manufacture of electronic equipment. The Board declared that "the fulfillment of requirements for the defense of the United States has created a shortage in the supply of Electronic Equipment for defense, for private account, and for export." The limitations were therefore declared "necessary and appropriate in the public interest and to promote national defense."

The new Limitation Order L-183 covers considerably more ground than L-44, issued last spring, which prohibits only the manufacture of civilian radio receiving sets. Although none of the provisions of the latter order is affected, the new order extends coverage to everything else used in the electronic field from microphones to antennae, including tubes, parts and complete equipment.

It provides that no one may manufacture, fabricate, assemble or produce electronic devices in excess of a minimum inventory required to meet deliveries on orders rated A-3 or higher. Inventories are permitted up to a 45-day supply, but may not in any case exceed $12\frac{1}{2}$ percent of total 1941 sales.

L-183 further provides that no transfers may be made except on orders rated A-3 or higher. Where the manufacture, assembly, production or transfer of electronic equipment for specific purposes is governed by other limitation orders, the latter orders shall apply, as in the case of L-44.

Specifically excepted from the provisions of L-183 are electronic devices used in hearing aids, telephone and telegraph equipment, medical and therapeutic equipment and light and power equipment.

Other types of devices covered by the order include black-out controls, signal equipment, traffic counters, color sorters, thickness indicators, remote

control apparatus, door openers, radio repair and replacement parts, etc.

All of these items utilize vacuum tubes and parts similar to those used in radio equipment for which there is a great demand by the military services. The order is designed to prevent production of non-essential electronic devices so that necessary parts will be available for direct military use.

The order makes no change in the manner in which a person buys replacement tubes and parts for his home receiving set. No rated order is necessary. However, distributors of such parts may now obtain them only through the use of Form PD-1X, the usual distributor's application for preference ratings.

Supplies of repair and replacement parts and tubes for this purpose are allocated to distributors on the basis of past sales. These items may then be resold to civilian consumers without ratings.

Material for maintenance and repair and operating supplies for essential civilian communications services may be obtained through the use of preference rating orders applying to the specific end use, such as P-129, covering radio communication. All other uses of electronic equipment must be approved through the medium of PD-1A or PD-200 and other forms of rating applications. Manufacturers of electronic equipment will continue to get their supplies of raw materials through PRP.

It is estimated that approximately 500 manufacturers producing about 700 items will be affected by the order. Since a large portion of the electronic equipment covered by the order is used for essential requirements, it is not expected that raw materials savings will be great. However, the limitation on the manufacture of some less essential devices will effect some saving. Primarily the order is intended to channel equipment to essential uses.

The Radio and Radar Branch of WPB will administer the order.

NEW TELEGRAPH REPEATERS

The ranges of effective use of teletype printer and telegraph, using Signal Corps field wire as a line medium, have not to date been sufficient to meet all conditions likely to be imposed upon these services by present day battle conditions. To extend these ranges, two forms of relay or repeating equipment are under development.

The General Development Branch is carrying on these developments with the view of making available at an early date two basic types of telegraph repeaters: first, a combination of intermediate and terminal repeater using the Type 3 polarantal system, and second, a regenerative type repeater. The intermediate and terminal repeater combination more than doubles the effective communication range of field-wire telegraph circuits and, moreover, requires no adjustment with changing weather conditions. This repeater is being designed with self-contained power supply units permitting operation either from commercial lines, field power supply units, or on a 12 volt storage battery should the repeater be located at an isolated spot.

The regenerative repeater provides for repeating teletypewriter signals, while eliminating line-distortion of such signals. By using a sufficient number of regenerative repeaters in tandem along the line, range can be extended to several times that of nonrepeated circuits. As in the intermediate-terminal repeater it will be provided with a built-in power supply and be supplied as complete sets including grounding and monitoring equipment.

EQUIPMENT COORDINATION

Reduction of Number of Types of Equipment:

In accordance with the program to reduce the number of types of equipment, Power Unit PE-58 and Radio Set SCR-250 were reclassified from standard to obsolete, and the Power Unit PE-53 was reclassified from standard to limited standard.

Military Characteristics for SCR-557:

Military characteristics for a portable direction finder, similar to the SCR-503, with a frequency range of 3 - 18 mc. were submitted to the SCTC. It is contemplated that this set will be used by the Radio Intelligence Platoon of the Division Signal Company, and by the Signal Company Radio Intelligence.

Revision of Military Characteristics for SCR-601:

Military characteristics for the Radio Set SCR-601 (Portable Radio Range) were revised to provide aural rather than visual indication.

Air Raid Alarm Device RC-71-():

In the development of an air raid warning device, several commercial models are being procured for test. A model of the Gamewell Device is being made available for service test by the Army Air Forces at Bolling Field, D. C. During the test, representatives of the Army Air Forces and Army Ground Forces will be invited to witness demonstration of this equipment. Arrangements for the demonstration have not yet been completed.

Shelter HO-17-():

Several models of a slip-in body known as Shelter HO-17-() have been constructed and are now undergoing test by the Signal Corps Board, Armored Force Board, and Infantry Board to determine their suitability.

Meteorological Station Set SCR-13-T1:

A Meteorological Station Set SCM-13 developed for use in determining meteorological corrections for coast artillery fire has been completed. Service test has been authorized and the equipment sent to the Coast Artillery Board for test on September 3, 1942.

Multi-Vibrator Frequency Calibrator:

Military characteristics for a Multi-Vibrator Frequency Calibrator have been prepared by Equipment Coordination Branch. Though actual development of this equipment has not been authorized or initiated, the possibility of using the multi-vibrator frequency meter as a substitute to partially supplement the SCR-211-() is being considered. It is expected that a shortage of Frequency Meter Sets SCR-211-() will soon exist, because of inability to obtain the high quality condensers and insulating materials contained therein. Any practicable substitute which would relieve the procurement situation on the precision condenser, though somewhat less convenient to operate, is believed worthy of investigation.

Radio Set SCR-299:

Military characteristics for Radio Set SCR-299-() are under revision. The tentative revisions will require:

All components and interwiring to be arranged to permit removal and packaging for transportation by air, other trucks, boat, or any other mode of motorized transportation and to be capable of being reassembled in trucks or buildings at destination in the minimum length of time. Interwiring to be in form of removable formed cables, properly and permanently marked. Weight of the packaged equipment to be kept as low as possible.

That Shelter HO-17, a ply-wood slip-in body which can be carried on a standard $2\frac{1}{2}$ -ton 6x6 (144" body length) Cargo Truck or Half-Track vehicle having body space comparable to that of the Standard $2\frac{1}{2}$ -ton 6x6 (144" body length) Cargo Truck,

be furnished as a component part of
Radio Set SCR-299.

Test of Remote Control Units:

Commanding General, Army Ground Forces, has been asked to designate a testing agency for three Remote Control Units RM-39 which recently became available for tests. These control units were developed to provide means whereby radio sets having standard high impedance output circuit and standard Signal Corps microphone and key input circuits could be coupled into field telephone systems for talk-listen purposes. Remote Control Units RM-39 differ from Remote Control Equipment RM-29 in that facilities for remote push-to-talk operations are provided.

Aural Signal Lamps:

Members of the Equipment Coordination Branch, AC & EC Board, Signal Corps Board, and Army Air Forces visited the Electronics Laboratory of Western Union Telegraph Company to inspect new light sources applicable to modulated light beam signalling. A Signal Corps Board Case was established for a joint investigation of these new light sources by the Signal Corps Board and the Sound and Light Section of SCGDL.

Arrangements for Plow Demonstration:

A rough model of a plow for plowing in wire or cable was constructed by the 64th Signal Operations Battalion at Fort Meade, Maryland. This plow was demonstrated to personnel of the Signal Corps and Bell Telephone Laboratories, at Fort Meade. This plow was later sent to Fort Monmouth and Chester, New Jersey, for further demonstration. The results of this later demonstration are not yet available.

TC-1 and TC-10:

TC-1 has been classified limited standard replaced by TC-10. TC-10 provides for a modified telephone switchboard with simplified trunk circuits, a reduction in the height of the board, and exterior design which eliminates the need of a shipping crate.

Service Tests on Cable Grip and Clamp:

Kellems Cable Grips and the Clamps designed by the SCGDL were distributed to the various testing agencies engaged in testing the Spiral-Four Cable for use in connection with tests and for reports on the preferred methods of supporting the cable.

Adoption of Military Characteristics on Boom Rig LC-60:

The military characteristics for the Boom Rig Kit LC-60 and the recommendation on standardization were forwarded to S.C.T.C. for processing.

Telephone Terminal Set TC-21-() (Carrier):

Action has been completed for the adoption of military characteristics and the standardization of a Telephone Terminal Set for use on a four wire circuit of Cable Assembly CC-358, or other facility of suitable transmission characteristics, to provide for a total of four voice channels in each direction over the transmission medium using carrier current. The telephone terminal set includes: One Telephone Terminal CF-1-() (Carrier), for converting voice bands to carrier bands and vice versa; standby battery; emergency primary power source; testing equipment; Telephone EE-8-A; spare vacuum tubes and auxiliary equipment and material necessary to connect and ground the equipment, and battery carrying case. This item has been passed by the S.C.T.C.

Telegraphic Terminal Set TC-22-() (Carrier):

Action has been completed for the adoption of military characteristics and the standardization of a Telegraph Terminal Set for converting four telegraph channels into one voice frequency channel, which can be fed into Telephone Terminal CF-1-() (Carrier), for telegraph transmission in lieu of one of the four telephone channels in the carrier system. The Telegraph Terminal Set includes: One Telegraph Terminal CF-2-() (Carrier), for providing the transmission of four two-way telegraph circuits over a single two-way telephone circuit, spare vacuum tubes and auxiliary equipment and material necessary to connect and ground the equipment. This item has been passed by the S.C.T.C.

Repeater Set TC-23-() (Carrier):

Action has been completed for the adoption of military characteristics and the standardization of a Repeater Set consisting of amplifiers with associated equipment, for use along the line of a four-wire carrier telephone system using the Telephone Terminal CF-1-() (Carrier) and related equipment. The Repeater Set includes: One Repeater CF-3-() (Carrier) for amplifying four telephone channels when carrier current is used to obtain telephone circuits of considerable length; stand-by battery; emergency primary power source; provision for charging stand-by battery; spare vacuum tubes and auxiliary equipment and material necessary to ground and connect the equipment, and a battery carrying case. This item has been passed by the S.C.T.C.

Ringer Set TC-24-() (Double Circuit):

Action has been completed for the adoption of military characteristics and the standardization of a Ringer Set, double ringing circuit for ringing and signalling purposes in the carrier telephone system using Telephone Terminal CF-1-() (Carrier), and other systems in which repeaters are used. The ringer set includes: One Ringing Equipment EE-101-() (Voice Frequency), portable unit with double ringing circuit having a common power pack, for converting low frequency ringing impulses into voice frequencies, or vice versa, for use over telephone lines where low frequency ringing is not feasible; stand-by battery; spare vacuum tubes and auxiliary equipment and material necessary to connect and ground the equipment and battery carrying case. This item has been passed by the S.C.T.C.

Shipment of Carrier Systems:

Shipping instructions have been issued and shipment has been made of the first three (3) Carrier Systems consisting of Telephone Terminals CF-1 (Carrier), Telegraph Terminal CF-2 (Carrier), Telephone Repeater CF-3 (Carrier), Ringing Equipment EE-100-T1, 6v. storage batteries, power units and the necessary auxiliary apparatus for the operation of one (1) carrier system to each of the following organizations: 928th Signal Battalion, 62nd Signal Battalion and the Signal Corps School.

The first shipments of Cable Assemblies CC-358 (Spiral-Four) have been made to the same organizations and it is hoped that the 62nd and 928th Signal Battalions will have an opportunity of using these carrier systems with the Spiral-Four Cable on maneuvers. These first carrier systems were obtained in advance of normal production for use on maneuvers.

Operation of Signal Corps Equipment on Commercial Power Supply:

A study of world wide power sources has been completed and it has been decided that Signal Corps equipment, operating on AC supply, should be arranged for 115 and 230 volt, 50 or 60 cycle operation. This arrangement will be uniform with British practice and will adapt Signal Corps equipment to nearly all commercial supplies throughout the world. Outside of the United States, 230 volt, 50 cycle supply is very nearly a world wide standard. In order to save strategic material, no provision will be made integral with each unit for 25 cycle operation except where this can be done without penalty in the design. Provision for 25 cycle operation will be made by means of supplementary apparatus when required.

Telephone Repeater EE-99-():

Four-wire Telephone Repeater EE-99 is ready for standardization. Before completing this action, a further study is being made, concerning advisability of adopting the IT & RM Company 103-A Repeater instead of the EE-99-() in order to obtain uniformity with the British and reduce the number of types.

VII

SIGNAL CORPS TECHNICAL COMMITTEE

Recommendations to CG, SOS:

The Signal Corps Technical Committee made the following recommendations to the Commanding General, Services of Supply:

1. That Military Characteristics be adopted as follows:

Trainer BC-968-():

For use in training and selection of operators for Radio Set SCR-268. The indications resulting from reflected signals, radio noise interference, fading, etc., of Radio Set SCR-268 are simulated on the Trainer Oscilloscope.

Marker Beacon Receiving Equipment RC-193-() Z-(12V):

A low voltage marker beacon receiver weighing about 4 pounds to be used in primary and advanced trainers. It operates directly from 12 volt d.c. power supply in aircraft so equipped and requires no dynamotors or high voltage plate supply. The sensitivity is sufficient to operate a visual indicator when receiving CAA fan markers at altitudes up to 16,000 feet or CAA station location markers up to 12,000 feet and is suitable to operate satisfactorily as a visual indicator when receiving instrument landing beacon signals at low altitudes.

Marker Beacon Receiving Equipment RC-193-()-(24V):

Same description as for Marker Beacon Receiving Equipment RC-193-() Z-(12V), above, except that it operates directly from 24 volt d.c. power supply instead of 12 volt.

Panel Set AP-50:

This set includes a signaling panel 12' x 2'4"

which is white on one side and fluorescent cerise colored on the other. The panel will be fitted with 10 detachable tying cords six feet long and is contained in a carrying case suitable for troops in the front line. The fluorescent coloring doubles the visibility range. In observation from an airplane the older panels blended into the landscape, whereas the fluorescent cerise panel can be seen at 10,000 feet.

Radio Sets SCR-808-(), SCR-828-():

These items are vehicular sets for FM Operation by non-radio specialists and are similar to corresponding sets in 600 series except that the 600 series radio sets are crystal controlled and have 10 instant available channels while the 800 series are crystal calibrated and have four instant available channels. The 600 series radio sets require 120 crystals per set while the 800 series will require only one crystal per receiver.

Shelter HO-17-() (Mobile):

A relatively light weight portable slip-in body for a standard 2½ ton 6 x 6 cargo truck or half track trucks of the same size. It is capable of being transported by the vehicle, transferred from one vehicle to another or from vehicle to level ground surface, also of being used while stationary or in motion when installed in the vehicle or while stationary on the ground. The use of a body of this type will eliminate requirements for other special types of trucks in the Signal Corps. It will provide shelter and housing for powerful mobile and vehicular radio sets, telephone centrals for divisions and higher units, mobile radio intercept and direction finding equipment, signal repair and maintenance establishments, message centers, meteorological installations and other uses in substitutions for Trucks K-51, K-53 and Trailers K-35, K-55 and similar vehicles.

Cable Assembly CC-368-():

Consists of 100-foot section of Spiral-

Four-Cable WC-548 equipped with a four pole, universal locking type molded terminal at each end. Loading coils or balancing capacitors are not required. The use of this assembly will avoid the wasteful use of quarter-mile cable assemblies when an extension considerably less than that distance is needed.

Radio Compass SCR-599-() (Automatic):

This item combines an automatic radio compass with a stabilized remote indicating compass. The two units are coupled to a common indicator. Magnetic radio bearings may be obtained directly from the common indicator for any heading of the aircraft which eliminates the necessity of holding a predetermined aircraft heading for position fixes. This item may also be used for flying an infinite number of radial courses toward or away from a single radio station.

Telephone Terminal Set TC-21-() (Carrier):

Used on four wire current of Cable Assembly CC-358, or other facility of suitable transmission characteristics, to provide for a total of four voice channels in each direction over the transmission medium using current. The set includes one Telephone Terminal CF-1-() (Carrier) for converting voice bands to carrier bands and vice versa; stand-by battery; emergency primary power source; testing equipment; Telephone EE-8-A; spare vacuum tubes and auxiliary equipment and material necessary to connect the ground and equipment and a battery carrying case. (See Equipment Coordination)

Telegraph Terminal Set TC-22-() (Carrier):

Used to convert four telegraph channels into one voice frequency channel, which can be fed into Telephone Terminal CF-1-() (Carrier), for telegraph transmission in lieu of one of the four telephone channels in the carrier system. The set includes one Telegraph Terminal CF-2-() (Carrier) for providing the transmission of four two-way telegraph circuits over a single two-way telephone circuit; spare vacuum tubes and auxiliary equipment and material necessary to connect and ground the equipment. (See Equipment Coordination)

Repeater Set TC-23-() (Carrier):

Consists of amplifiers with associated equipment for use along the line of a four wire carrier telephone system using Telephone CF-1-() (Carrier) and related equipment. The Repeater Set TC-23-() includes: one Repeater CF-3-() (Carrier), for amplifying four telephone channels when carrier current is used to obtain telephone circuits of considerable length, stand-by battery, emergency primary power source, provision for charging stand-by battery; spare vacuum tubes; auxiliary equipment and material necessary to ground and connect the equipment, and a battery carrying case. (See Equip. Coord.)

Ringer Set TC-24-() (Double Circuit):

Used for ringing and signaling purposes in the carrier telephone system using Telephone Terminal CF-1-() (Carrier) and other systems in which repeaters are used. The ringer set includes: one Ringing equipment EE-101-() (Voice Frequency), portable unit with double ringing circuit having a common power pack for converting low frequency ringing impulses into voice frequencies or vice versa, for use over telephone lines where low frequency ringing is not feasible; stand-by battery; spare vacuum tubes and auxiliary equipment and material necessary to connect and ground the equipment, and battery carrying case. (See Equip. Coord.)

Plow LC-61 (Cable):

A plow which can be pulled by a $2\frac{1}{2}$ ton 6x6 truck, a trailer or winch line and capable of burying cable up to one inch in diameter or insulated wire in one operation to a depth from 6 inches to 18 inches. Burying is to be done either directly from reels or after facilities are on the ground in service.

Interphone Equipment EC-146-():

Tank crew members will receive instructions from the commander through loud speakers and will talk to the commander through any of the speaker microphones permanently mounted in the vehicle. If communication between crew members is required it will be handled through re-

lay by the commander. This arrangement will eliminate the wearing of headsets, microphones or connecting cords by the crew members.

2. That Military Characteristics be revised on items as follows:

Radio Set SCR-597-():

The Commanding General, Services of Supply, approved military characteristics of this item on April 9, 1942. This action is taken as it is becoming increasingly apparent that future mobile radio equipment should be mounted or installed in a vehicle so that it may be readily removed and shipped separately. The recommendation has therefore been made to revise the military characteristics to provide that components and interwiring of this set be made removable in a manner to permit transportation by air, boat or truck and facilitate reassembly in vehicles or buildings at destination. Further recommendation has been made to revise the military characteristics to show that the transmitter will be so designed that the final R.F. amplifier may be coupled without modification in equipment as a driver to a larger external auxiliary R.F. Amplifier.

Cage PG-50 (Pigeon, 15-Bird, Transportation):

A cage 36" x 14" x 12" used to transport pigeons from their loft to various points short distances away for training flights. This action is taken to increase the weight limit from 20 pounds to 30 pounds, thereby strengthening the item.

3. That items be standardized as follows:

Camera PH-431:

A 16-mm motion picture camera known as Magazine Cine-Kodak, manufactured by the Eastman Kodak Company, Rochester, New York, complete with lens, adapters and carrying case and is to be procured on an "or equal" basis. It is to be modified to include a speed of 24 frames per second to facilitate use with standard 24 frame per second projectors. This moving pic-

ture camera is of the pocket size and may be used on occasions when personnel in possession of it are on a mission other than that of taking pictures.

It has also been recommended to the CG, SOS, that the following items, described above, be standardized:

Trainer BC-968-()
Marker Beacon Receiving Equipment RC-193-()Z-(12V)
Marker Beacon Receiving Equipment RC-193-()-(24V)
Panel Set AP-50
Cable Assembly CC-368-()
Telephone Terminal Set TC-21-() (Carrier)
Telephone Terminal Set TC-22-() (Carrier)
Repeater Set TC-23-() (Carrier)
Ringer Set TC-24-() (Double Circuit)

4. That the following item be reclassified from Standard to Limited Standard:

Ringling Equipment EE-100-A (Voice Frequency):

This equipment is for ringing and signaling purposes in the carrier telephone system which uses Telephone Terminal CF-1. It also may be used with other systems in which repeaters are used. One unit is required for each voice frequency channel used in the system, or eight units for each carrier system. This action is taken as it is considered that Ringling Equipment EE-101 (Voice Frequency) is a suitable substitute for two of the EE-100's.

5. That items as follows be classified as obsolete:

Panel AL-119 and Panel -120:

These items are Infantry marking panels one and one-half feet square of cotton fabric. One is white and one black, the color used be determined by the background. This action is taken as a more satisfactory panel has been developed and is now available for such signaling purposes.

Approvals by CG, SOS:

The Commanding General, Services of Supply, approved the following recommended actions:

1. That Military Characteristics be adopted for items as follows:

Test Equipment IE-17-A:

This equipment is used for testing and adjusting Radio Set SCR-536. It consists of necessary test stand, test case associated cables, dummy receiving antenna with all necessary meters.

Trainer BC-968-(): As above described.

Marker Beacon Receiving Equipment RC-193-() Z-(12V): As above described.

Marker Beacon Receiving Equipment RC-193-()-(24V): As above described.

2. That Military Characteristics be revised on:

Radio Set SCR-597-(): As above described.

3. That items be Standardized as follows:

Camera PH-430:

A 16-mm motion picture camera known as the Cine-Kodak "Special" manufactured by the Eastman Kodak Co., Rochester, New York, complete with lens, adapters, tripod and carrying case. It will be used as a general purpose moving picture camera either hand held or on a tripod by the assignment groups of a photographic company.

Standardization was also approved for the following items, described above:

Test Equipment IE-17-A

Trainer BC-968-()

Camera PH-431

Marker Beacon Receiving Equipment RC-193-() Z-(12V)

Marker Beacon Receiving Equipment RC-193-()-(24V)

4. That items be classified as Substitute Standard as follows:

Projector Equipment PH-398:

An item of commercial manufacture supplied with complete accessories for sound motion pic-

ture projection. The projector complete with amplifier is mounted in a carrying case and is fully portable. The projectors are equipped to carry double perforated film for picture projections and single perforated film for sound moving picture projection.

Projector Equipment PH-402:

Same description as for Projector Equipment PH-398 above.

5. That the following item be reclassified from Standard to Limited Standard:

Projector Equipment PH-131:

A commercial 16-mm film sound projector. It is fully portable in that the projector complete with the amplifier, is mounted in one sound proof carrying case. A second carrying case is used to house the 12-inch dynamic speaker used for sound reproduction. The projector is equipped to carry double track film for picture projection without sound motion picture projection. This projector also employs stop and reverse motion of the film. This action is taken as it will require from 8 to 12 months to complete delivery on additional orders of this equipment.

VIII

MAYOR LAGUARDIA WELCOMES PHOTOGRAPHIC CENTER TO NEW YORK

New York City, represented by Mayor Fiorello H. LaGuardia, welcomed the return of motion picture production to the Borough of Queens on September 22 when the Army Signal Corps Photographic Center was formally dedicated.

The Photographic Center was activated last spring in the former Paramount Studios in Astoria, but the official dedication was postponed until the studios had been converted to their new wartime duties and developed into a smoothly functioning Army installation.

The Photographic Center is under the command of Colonel M. E. Gillette, who previously headed the training film production laboratory at Fort Monmouth. The press was invited to the dedication. Reporters were escorted through studios where they saw Army training films in production, and later they saw several completed films on display on the screen. They heard addresses by General Olmstead, Colonel Gillette, and Mayor LaGuardia.

The mayor expressed great satisfaction with the establishment of the Photographic Center. "I have been trying to get motion pictures in this shack for a long, long time," said the mayor. The "shack" is a block-square building which once produced celebrated pictures with Rudolph Valentino, Gloria Swanson, and Richard Dix, and later fell into comparative disuse when the industry migrated to Hollywood. The Signal Corps has brought the studio back to life.

Mayor LaGuardia also remarked that he had been in the Signal Corps once himself. He presumably referred to his service as an aviator during the world war when aviation was a section of the Signal Corps.

A more complete story of the dedication, with pictures, will appear in next month's issue of the Information Letter (unrestricted).

NEW TRAINING FILMS RELEASED

The following is a list of the latest batch of training films produced both at the Signal Corps Photographic Center in Astoria and at the Training Film Production Laboratory, Wright Field:

Air Corps

- 1-247 Synchronization of Aircraft - Part III - Installation and Adjustment.
- 1-308 Airplane Hydraulic Brakes - Part V - Servicing the Brake line.
- 1-403 Use of the Type B-2 Field Lighting Set.
- 1-450 The 1820 Wright Engine Cleaning Up.
- 1-457 Curtiss Electric Propeller - Disassembling the Hub and Blades.
- 1-458 Curtiss Electric Propeller - Disassembling the Governor.
- 1-470 Vacuum Tubes - Part I - Electron Theory and the Diode Tube.
- 1-471 Vacuum Tubes - Part II - The Triode and the Multi-Purpose Tube.
- 1-472 Radio Receivers - Part I - Principles and Typical Circuits.
- 1-475 Radio Antennae - Fundamentals of the Antenna.
- 1-476 Radio Transmitters - Part I - Principles and Typical Circuits
- 1-483 Aircraft Machine Guns and Cannons - Care and Cleaning
- 1-507 Automatic Pilot A2 - Basic Principles.

- 1-511 Aircraft Alighting Gear - Part I -
Removal of Nose Alighting Gear P-38.
- 1-512 Aircraft Alighting Gear - Part II -
Installation of Nose Alighting Gear.
- 1-513 Alighting Gear P-38 - Removal of
Main Alighting Gear.
- 1-514 Aircraft Alighting Gear - Part IV -
Installation of Main Alighting Gear P-38.
- 1-515 Aircraft Alighting Gear - Part V -
Inspection of Alighting Gear P-38.
- 1-516 Aircraft Alighting Gear - Part VI -
Maintenance of Alighting Gear P-38.
- 1-517 The Sensitive Altimeter - Part I -
General Use.
- 1-519 Aircraft & Alighting Gear - Part VII -
Assembly of Alighting Gear Shock
Strut P-38.
- 1-534 Preflight Inspection of the B-17E -
The Armorer.
- 1-536 Parachutes - Construction and Types.
- 1-537 Parachutes - Folding and Packing the
Service Seat.
- 1-538 Parachutes - Folding and Packing the
Form Fitting Back Parachute.
- 1-539 Parachutes - Folding and Packing the
Training Double Parachute.
- 1-540 Parachutes - Folding and Packing the
Attachable Parachute.
- 1-550 Celestial Navigation - Part IV - Solution
of Illustrative Problems in Celestial
Navigation.
- 1-619 Identification of U. S. Army Aircraft-
B-25 Medium Bomber.

- 1-672 WEFT System of Aircraft Identification I (Navy Film No. MN-40-AAH).
- 1-673 WEFT System of Aircraft Identification II (Navy Film No. MN-40C-AH).
- 1-674 Interrogation of Prisoners - Aviation (British Film B-107).

Cavalry

- 2-600 Horsemanship - Part I - Saddling and Bridling.
- 2-601 Horsemanship - Mounting and the Military Seat.
- 2-602 Horsemanship - Part II - Aids and Gait.
- 2-603 Horsemanship - Suppling Exercises.
- 2-604 Horsemanship - Part V - Jumping and Cross-Country Riding.

Chemical Warfare Service

- 3-591 The Horse Gas Mask - M4 and M5.

Coast Artillery

- 4-585 The Height Finder MI Use.
- 4-586 The Height Finder MI-Part II - Adjustment Prior to Operation.
- 4-587 The Height Finder MI Part III - Drill.
- 4-588 The Height Finder MI - March Order.
- 4-666 Automatic Weapons - Firing Unit - Part XII - The 40mm Antiaircraft Gun.
- 4-675 The Three Point System of Identification of U. S. Cruisers.
- 4-676 The Three Point System of Identification of Surface Vessels.

Engineer

- 5-565 Repairs and Storage of Ten Ton Ponton Bridge Equipment.
- 5-597 Explosives and Demolitions - Demolition of a Reinforced Concrete Deck Girder Bridge.
- 5-598 Explosives & Demolitions - Cutting by Explosives.
- 5-615 Portable Steel Bridge - Part I - The H-10 Portable Steel Bridge.
- 5-623 The Air Compressor and Air Tools - Part I - The Air Compressor.

Field Artillery

- 6-611 The 105 Howitzer-Mechanical Functioning of the Howitzer.
- 6-612 The 105 Howitzer- Service of the Piece.
- 6-613 The 105 Howitzer- The Firing Battery on the March and in Position.

Infantry

- 7-560 School of the Soldier-Movements From Order Arms - Part I.
- 7-561 School of the Soldier-Nomenclature for Drill - Part II. Movements from Port Arms, other Movements.
- 7-637 Know Your Enemy-Airborne Troops.

Ordnance

- 9-614 The Heavy Wrecking Truck MI Series - 2 - Operation & Use.

Quartermaster

- 10-299 Automotive Trouble Shooting -
Part XIII - Hydraulic Brakes.
- 10-300 Automotive Trouble Shooting -
Part XV - The Clutch.
- 10-301 Automotive Trouble Shooting -
Part XVI - Drive and Axle Shaft and
Axle - 3 reels.
- 10-592 Automotive Trouble Shooting -
Part XIA - The Wheels.
- 10-593 Automotive Trouble Shooting -
Part XIB - Spring & Shock Absorber.
- 10-595 Automotive Trouble Shooting - Part XII -
The Lighting System.
- 10-596 Automotive Trouble Shooting - Motor
Maintenance - Part XVII - Transmission
and Transfer Case Trouble.

Signal Corps

- 11-397 Basic Signal Communication - Field
Wire Laying Equipment.
- 11-621 Care and Release of Homing Pigeons
in the Field.
- 11-622 Electricity and Magnetism - Part I -
Elements of Electricity - 2 reels.

Armored Force

- 17-577 Armored Force Drill, The Medium
Tank Crew

NEW FILM STRIPS RELEASED

Air Corps

- 1-35 Connecting Rods, Crankshafts, Bearings, and Crank Cases.
- 1-84 Aerial Navigation - Dead Reckoning Problems - Part III - Interception.
- 1-85 The A-2 Bomb Rack Release.
- 1-86 Alternating Currents.
- 1-87 The M-103 Nose Fuse.

Cavalry

- 2-7 Horsemanship - Instruction Mounted - Suppling Exercises and Riding Hall Movements.

Coast Artillery

- 4-16 Antiaircraft Gun and Accessories - Part II - The 90mm AA Gun.

Infantry

- 7-74 Browning Automatic Rifle, with Bi-Pod - Part I - Mechanical Training, Caliber .30, M1918A2, Description, Disassembly, and Assembly.

Medical

- 8-43 Methods of Military Training.

Ordnance

- 9-30 Unexploded Bombs - Part I -
Objects which may be dropped from the Air.
- 9-31 Unexploded Bombs - Part II - Reconnaissance of Air Raid incidents.
- 9-32 Unexploded Bombs - Part III - Evacuation and Traffic Restrictions - Protection Against Exploded Bombs.
- 9-33 Dual GM Diesel Engine - Disassembly of the Twin Engine into Single Engines.
- 9-34 Dual GM Diesel Engine - Removal of the Sub-assemblies from the Cylinder Block.
- 9-35 Dual GM Diesel Engine - Disassembly and Assembly of the Cylinder Block.
- 9-36 Dual GM Diesel Engine - Disassembly and Assembly of the Cylinder Head.
- 9-37 Dual GM Diesel Engine - Disassembly and Assembly of the Blower.
- 9-38 Dual GM Diesel Engine - Disassembly and Assembly of the Pump Assemblies.
- 9-39 Dual GM Diesel Engine - Disassembly and Assembly of: 1. Governor Assembly,
2. Camshaft and Balance Shaft,
3. Air Heater.
- 9-40 Dual GM Diesel Engine - Disassembly and Assembly of:
1. Engine Transfer Gear Housing,
2. Clutch Housing, 3. Fan Assemblies.
- 9-41 Dual GM Diesel Engine - Disassembly and Assembly of: the Injector.
- 9-42 Dual GM Diesel Engine - Disassembly and Assembly of: the Generator and Starting Motor Assembly.

Quartermaster

- 10-79 Principles of the Vacuum Power Brakes.
- 10-81 Servicing the Heavy Duty Truck-Hypoid Rear Axle.
- 10-82 Principles of the Down-Draft Carburetor.
- 10-83 Overhauling the Chevrolet Carburetor.
- 10-85 The Voltage Regulated Generator.
- 10-87 Principles of Front End and Wheel Alignment.
- 10-88 The Chevrolet Hydraulic Brakes.

Adjutant General

- 12-1 Special Training Film in Reading, Writing, and Arithmetic.

MILITARY PERSONNEL

WAAC Personnel:

The Auxiliary Corps Branch, Military Personnel Division, has started a survey relative to the use of WAAC Personnel in the various Signal Corps units. Information received from WAAC Headquarters states that after preliminary basic military training of four weeks, recruits will be assigned to Signal Corps classes at the rate of 80 per week to pursue a two-weeks' course. All Service Commands have been requested to make a study of duties now being performed by Signal Corps enlisted personnel and wherever possible to recommend their replacement by WAAC personnel. The Army Communication System has likewise been requested to make a survey relative to the use of WAAC personnel for the operation of the War Department Message Center.

On August 26th, the first report of a Women's Army Auxiliary Corps assignment to Signal Corps units was received, one member of the WAAC being assigned to the 601st Signal Plotting Co., AW, Front., and the other to the 607th Signal Plotting Co., AW, Front., Up to the present time, a total of 149 WAAC's have been assigned to Air Warning Signal Plotting Companies.

Participation in Maneuvers:

Authority was received to send approximately fifty maneuver participants from the Office of the Chief Signal Officer and forty-five from Fort Monmouth, N. J., to maneuver areas to be attached to Signal Corps organizations with the Army Ground Forces and Army Air Forces. Lt. G. R. Hallam of the Records Branch was delegated to assist in the coordination of activities in connection with these plans. On August 26th, preliminary work was completed, officers were assigned to this duty and instructed by the Assistant Chief, Military Personnel Division, as to their duties and responsibilities as participants.

Promotions:

The following promotions have been made among Signal Corps personnel during the period from August 14, 1942, to September 17, 1942, inclusive:

Brig. Gen.(Temp) to Maj.Gen.(Temp) Major (Temp) to Lt.Col.(Temp)

Colton, Roger B.

Col.(Temp) to Brig. Gen.(Temp)

Clewell, Edgar L.
Farmer, Archie A.
Matejka, Jerry V.
Sherrill, Stephen H.

Lt.Col.(Temp) to Col. (Temp)

Anderson, Barndt Albert
Andrews, Fred Page
Ankenbrandt, Francis LeRoy
Barker, Ernest Stratton
Beasley, William Allen
Conrad, Victor Allen
Curtis, Frank Harl
Daley, George William
Eldredge, Frank Ernest
Gripper, Paul Conover
Henry, William Carter
Horn, Tyree Rivers
Maddocks, Thomas Herbert
Myers, Lester James
O'Connell, James Dunne
O'Neill, Charles Thomas
Rash, Franklin LeRoy
Rasor, Winchell Ivan
Ryder, Leon Edward
Seabourne, Josiah Gay
Stern, Benjamin
Wallington, Merton Goodfellow
Whittaker, LeRoy Allen
Willis, James Stewart
Wozencraft, Frank Wilson

Major (Temp) to Lt.Col.(Temp)

Capra, Frank
Cattilini, Edward Elia

Collin, Fred Joseph
Davis, Francis William
Dowd, Francis Ambrose, Jr.
Evans, Norman Harold
Fouchs, Lawrence Earl
Grant, Harold Winfield
Harnett, Richard Michael
Hauge, Clifford John
Heinrich, Joseph Edward
Henshaw, Fred Merritt
Herbst, Carl Samuel
Holley, James Easton
Hubbard, William Coit
Knowlton, Ernest Eugene
Kraege, Carl Adams
Lambert, Kenneth B.
Link, Eugene Martin
Liuni, Frank
MacKinnon, William Gilbert
Makley, Louis William
Malloch, Wesley Fuller
Marr, Chester Arthur
Mitchell, Clark H.
Robinson, Spencer James
Titus, Charles Hickman
Uhl, Harrison Jerome
Vonland, George Oliver
Walsh, Robert Joseph, Jr.
Welsh, Charles Robert
Willard, Frank Alvyn
Williams, James Scaife
Wihl, Karl Frederick
Wray, George Williamson

Captain (Temp) to Major (Temp)

Allen, Henry C.
Allison, Charles Richard, Jr.
Althouse, James Walter, Jr.
Anderson, Joseph W.
Angster, Robert Charles

Captain (Temp) to Major (Temp)

Atkins, William F.
Babcock, David DeWane
Bergelis, Dominic
Bergman, Edward
Bishoff, Theodore
Brady, Fred E.
Brown, Owen Kenneth
Cain, Hall
Campbell, Day Hamilton
Coffey, Frederick James
Coffey, Joseph Edward, Jr.
Cotter, Daniel Sylvester
Crook, William Henry
Crumly, Harold J.
Cummings, Alan P.
Cunningham, Robert Francis
Dallmer, Rolf
Dougherty, Cary Schemmel
Davis, Homer Littlefield, Jr.
Eason, Robert Kelton
Everett, Oscar Ellis
Fehrenbaker, Carlin Edgar
Fisher, Robert Ray
Fletcher, Aubrey John
Fried, Myer
Gastreich, Albert Henry
Gibbs, Henry Foote
Gilpatrick, Jules
Glaser, Carl Ernest
Gonseth, Kenneth Mace
Gower, Walter Raymond
Grant, John Wilson
Hale, Nathaniel Claiborne
Herrman, Charles Stephan
Hoberg, Henry George
Hopkins, James Stinson
Hopps, Carl Walter
Hoyt, Dixi Crosby
Hubbard, John Gardiner
Kern, George Frederick
Kibby, Elgin Vosburgh
Kingsley, Joseph Bernard
Kirkland, Henry Edward
Kleinau, Carl Samuel
Klingler, Charles David
Koerner, Eldon Alfred
Koon, Kenneth

Captain (Temp) to Major (Temp)

Kucera, Charles Louis
Kullback, Solomon
Lamb, Howard Martin
Leslie, Shirley
Life, Arthur **Ritchie**
Lynskéy, Joseph Philip
Lyons, Lawrence **Ellsworth, Jr.**
MacDonald, William Robert, Jr.
MacDougall, Teddy Rugar
Markson, Paul Albert
McInnis, Merville Wayne
Merkl, Frank Morris
Merrigan, William John
Millican, William Thomas, Jr.
Moseley, Francis Loring
Mull, Eugene Gus
Nellis, Charles Nathan, Jr.
Nystrom, Raymond Axel
Plehn, Wallace Gehman
Plummer, William Edwin
Preston, John Gray
Rada, Millard Erven
Ramey, John Rochester
Ramsey, Jack Wilmer
Ross, Winfred Alban
Russell, John Howard
Saxton, John Raymond
Schrader, John Paul
Serror, John Howard
Shultz, Emerson Arthur
Smith, Carl Raymond
Snider, Paul Jesse
Snouffer, William Noel
Snyder, Burr M.
Stubler, John Nicholas
Sudduth, Duff Walker
Sweeny, William S.
Swendson, Lyman Gumaer
Taylor, Wesley Dean
Timm, Edward Allen
Tumlinson, Otto Gervas
Ulman, William Alban
Vaughan, James Samson
Waller, Robert Orville
Ward, Charles Eugene
Warlow, Francis Wayland
Warren, Victor Charles

Captain (Temp) to Major (Temp)

Welty, Wayne Richard
Wendel, David Deaderick
Williams, Wallace Harry
Winckler, Rudolph George
Winstead, Theodore Bernard
Workman, Julius

1st Lt. (Temp) to Captain(Temp)

Aikman, Oliver Samuel
Allen, Robert Lee
Ankrom, Albert Miller
Ayre, Richard Hutton
Backer, Labon
Baer, George Ottinger
Baker, Robert Blanch
Baker, William Prescott
Barrett, Richard Enlow
Bartholomew, Dwight Franklin
Bearce, Herrick Franklin
Beck, L. Gray, Jr.
Beckert, John Edward
Bennett, Herbert Lewis
Beverley, Richard Carter
Bohnenblust, Clarence E.
Boykin, Edward McCallum
Bremer, Harold W.
Brocko, John
Brooks, Rowan Crosby
Brophy, Francis Joseph
Brown, Raymond Kenneth
Brown, Walter Nicholas, Jr.
Brubaker, Donald Gordon
Bruton, Carroll Turner
Buck, Karl P., Jr.
Buerger, Otto M.
Bunting, William Lyman
Byers, Clyde Whitfield
Byrne, Maurice Edward
Carroll, Horace Allen
Carroll, John Erwin, Jr.
Carville, Jules Alex., Jr.
Cash, Harvey, Jr.
Cauble, Gordon B.
Cera, John Carmel
Childs, Allison F.
Chilton, Frank

1st Lt. (Temp) to Captain (Temp)

Chittenden, Thomas Ransom
Clements, Samuel Eugene
Cluver, Henry John
Cohen, LeRoy Daniel
Congdon, William Holmes
Cook, James Clinton, Jr.
Cooley, Vernon Edgar
Cooper, George Myron
Cooper, John Robert Royal
Cowen, Herman Richard
Cox, Maurice Edward
Crabtree, Henry Emerson, Jr.
Craven, Claude Lincoln
Croell, Harry Thomas
Crosby, Joseph Franklin
Czajkowski, Walter Stanley
Darracott, Halvor Thomas
Dean, John Randolph
DeWolf, Karle
Dial, Roy E.
Dickinson, William Dewoody
Dinger, Clarence Harrison
D'Olier, Henry, 3d
Doten, Charles Walter
Drury, James Westbrook
Dubrowin, Raphael
DuMond, Kenneth Stephen
Evenson, Edwin Ferdinand
Farris, Eldon Edward
Faust, Carl W.
Ferguson, Edward Francis
Ferretti, Thomas Gray
Fertig, Norman
Fischer, Richard Maurice
Fisher, Eugene Herbert
Foss, Jack Curtis
Fox, Joseph Edmund
Geoghegan, Clarence Leo
Getting, Edwin Lawrence
Gilardi, Albert Joseph
Gilbertson, Oscar Fred
Giles, Tommy Herbert, Jr.
Glodell, LeRoy Marcus
Goode, Archie Egbert
Goodrich, Raymond Harold
Gould, Milton Lester
Graves, C. W., Jr.

1st Lt.(Temp) to Captain(Temp)

Griffiths, Daniel
Grosselfinger, Frederick Bertram
Haas, Louis Leopold
Haight, John Donald
Hammerschmidt, Harold Louis
Harman, John Neponucene, Jr.
Harrington, John Norman
Harris, William Carter
Hart, John Lawrence
Haselton, Mark B.
Hauser, Paul Dallas
Hawkins, Edward Joseph
Heck, Donald
Heron, William Edgar
Hewlett, William Redington
Hiser, Charles Henry
Hood, Henry Ransome
Horton, Paul Hamilton
Hostetter, Claude Leon
Hudgings, Daniel Webster, III
Hudgins, James Willis
Huffaker, Roy
Humes, William Andrew
Hunt, Robert Herschel
Hutchinson, Henry Parks
Jacks, Samuel T.
James, Robert Galtney
Johnson, Edward William
Johnston, Carl Cameron
Jordan, Roy D.
Keely, James Everett
Keller, Henry A.
Kelly, Raymond John
Kelly, William Albert
Kibbe, Stewart Henry
Knight, Geo. Heusner
Krebs, Vernon George
Koons, George Richard
LaCroix, Lyle A.
Lavier, Eugene Clark
Leatherman, George Frederick
Leet, Charles Harold
Linn, Fred Adair
Lucas, Eon Charles
Luginbuhl, Herbert Ray
Manley, Theodore Manson
Marquis, George Estep, Jr.

1st Lt.(Temp) to Captain(Temp)

Martin, Charles Edward
Martin, Thomas Jilson
Massa, Ernest Alfred
May, Burl Lee
Mayer, Irving Samuel
Menge, Ellison Ewell
Merrill, Lew Ezekiel
Merry, Addison D.
Minnick, Adrian Eugene
Moore, Howard Nelson
Nevin, William Cunningham
Nitzman, Stanley William
Norton, William V.
Ogden, Frederic James
Parker, Erle Dewey, Jr.
Parrish, Donald M.
Patterson, Charles Philip
Pence, Harvey Johnson
Perry, Bruce H.
Perry, Valentine Marlow
Peterson, Edwin J.
Post, Edgar August
Pritchard, Wilbur Dixon
Pritz, Clement Edward
Randell, Russell R.
Raushenberger, Everett Joseph
Reinecke, Carl Will
Roush, George Edgar
Schwarm, Ernest Roscoe
Seifert, Frederick Floyd
Shaw, Ralph Benjamin
Smith, Albert
Smith, Hugh
Starr, William Frank
Steele, William Ernest, Jr.
Steinhauer, Karl Frederick
Stewart, James David
Stone, Albert Joseph
Sundermeyer, Harry James
Swinney, Robert William
Thames, William Mackentyre
Thomas, Harland Allen
Trick, Carl D.
Verner, Edward
Wagner, Ralph Charles
Weavill, Herbert Clayton
Webb, John Robert

1st Lt.(Temp) to Captain(Temp)

Webster, George Melvin
Weis, Edgar Allan
Wever, Livingston R.
Wood, William I.
Wynne, Edward Patrick
Yardley, James Thomas, Jr.
Yohe, Carl Judson, Jr.

2nd Lt.(Temp) to 1st Lt(Temp)

Abbott, John Marion
Abrams, John Clinton
Adams, Frank Irving
Adams, Leon Lafayette
Adams, William Joseph
Ahern, Joseph Patrick
Ainsworth, James J.
Allen, Ralph Lewis
Allen, Spencer Martin
Ames, Harold David
Ammerman, Robert Harold
Anast, James L.
Applegarth, Alexander Rufus
Arnold, Hendrick Jackson
Arnold, Otto Frank Anthony
Arthur, John H.
Baker, Stewart J.
Baldwin, George Oliver
Balogh, Edward
Bare, Richard Leland
Barker, Arthur Forbes
Barnett, James Walton
Barron, James P.
Bauck, Leland Harold
Beamer, Jack Gilbert
Beaton, Norman Starr, Jr.
Bech, Albert Richard
Beckwith, Richard Charlesworth
Bell, George
Bergman, Ralph William
Best, Frederick Arthur, Jr.
Beyer, Donald Arnim
Bickford, Albert Greenlief
Bidgood, Lee, Jr.
Birdsall, Dale Hasler
Blackett, Raymond George
Blair, Robert Hale

2nd Lt.(Temp) to 1st Lt.(Temp)

Blandin, Walter William
Bliss, Gilbert Bartholomew
Boak, Bernard Rafferty
Bodnar, Stephen
Bolotin, Nathan
Borders, William Ernest
Branch, Gerald Ellis
Britt, Chas. B.
Brooks, George
Brousseau, Robert John
Buck, Jules
Burkett, Harry Franklin
Burwell, Albert Laumaster
Buschbaum, George Washington
Caddick, Jack Wheeler
Camp, Elbert LeRoy
Carpenter, Jack Roger
Carrothers, George Howard
Clinton, William Peers
Cloyd, Lawrence Holman
Coddington, Roy Harry
Cole, Jack Newcombe
Cole, Robert Bates
Cone, Arthur Jerome
Copeland, Samuel Alvin, Jr.
Corcoran, John Robert
Creyke, Richard Paulett
Croyle, Robert George
Curran, Bernard John
Dabbs, Quinton
Daly, Michael Terrence
Daniel, Robert Edwin
Davis, Charles Price, Jr.
Davis, Paul Alexander
Day, Paul Chester
Deeken, Joseph William
DeRoo, Clement David
Dixon, William
Doran, Arthur Fulton, Jr.
Drozdiak, Walter Michael
Durbin, Richard Mott
Dwyer, Paul Francis
Eakes, Spurgeon Edward
Edmonds, Frank N., Jr.
Egloff, George Joseph
Elliott, Lewis Chas.
Elston, John Elias

2nd Lt.(Temp) to 1st Lt.(Temp)

Maxey, William Daniel
Medaris, John Eugene
Mellin, George Henry
Miller, James Roy
Miller, Wallace Phillip
Mills, Donald Delivan
Mitchell, Charles Edwin
Moe, Harold Olson
Monsen, Manley Burger
Moody, Dwight Lyman
Mooney, Francis J.
Morehouse, Benjamin
Morris, ~~Lawrence~~ Booker, Jr.
Morrison, Austin B.
Morrison, Fred Simlick
Muller, Julius Henry
Myers, John Springs
McCarthy, Charles Aloysius, Jr.
McClung, Francis Lee
McElwee, Gilbert Francis
McFarland, Joe Henry
McKee, Geo. R.
McMullin, Elbert Ferrell
Neary, James Eugene
Nilsson, Robert Emil
Offermann, Paul Franklin
Opel, Lawrence Griffith
Parker, Robert G.
Parry, Willet
Pelton, Charles G.
Peshak, Theodore J.
Peterson, Herbert Douglas
Peterson, William Earl
Pike, Robert L.
Pile, Donald Hector
Pontious, Harry Lowell
Proffitt, Edward Robert
Red, Ray Francis
Richardson, Edw. K.
Rigney, Edward Thomas
Riley, Chas. Leo
Rogers, John Baxter
Rose, Chester A.
Ross, Gordon Wallace
Ryan, John Morris
Ryscavage, George
Sammons, James Ira, Jr.

2nd Lt.(Temp) to 1st Lt.(Temp)

Sanabria, Hewitt Nicolas
Sanford, Tom
Sarver, John Caldwell
Scarle, Charles Francis
Schaefer, Langdon Charles
Schick, Geo. A.
Schmidt, Robert Benjamin
Schneider, Henry John
Scoppa, Salvatore Jeremiah
Seabury, Arthur L.
Searcy, James Fiske
Selby, Harry Beauford
Shearer, Vernon Hill, Jr.
Sheets, Robert Victor
Singer, James Bottom
Skehan, John Justus
Smith, Darrell
Smith, James Joseph
Smith, Stanley Wise
Stewart, Gustavus Hoffmeyer
Stine, Clifford Ralph
Stinson, Ira Frank
Stover, Jerry Sterling
Sugnet, Robert Floyd
Swan, James Francis, Jr.
Szerlong, Theodore Virgil
Tait, Lee C.
Tausser, Louis George
Taylor, Gardner Bryce
Taylor, Howard Welt
Taylor, William Simpson
Ten Napel, Fred Pershing
Thompson, Charles Fremont
Tilton, Harold James
Tims, Nathaniel J., Jr.
Trostle, Geo. Hayberry
Van Deusen, Bradley TenEyck
Van Ness, William Layton
Wadley, Samuel Blevins
Wall, Herman Victor
Walraven, Geo. D.
Walsh, John Joseph
Warren, Samuel Galen
Waters, Philip Greene
Wattles, Richard G.
Welde, Glenn Arthur
Wever, John S.

2nd Lt.(Temp) to 1st Lt.(Temp)

Emmons, David Barton
Epps, John
Esser, Andrew Benedict
Ferrara, Dominick
Ferree, Roy James
Fish, William Joseph
Fisher, Harold
Fisher, Mark Anthony, Jr.
Fletcher, John Thomas
Floyd, Robert William
Folk, Theodore Elms
Ford, Walter Bernard
Frankenstein, Edward Ira
Frazier, Wm. H.
Frederick, Franklin Paul
Fryberger, Jacob Victor
Gabriel, John Mack
Gehr, Lawrence Alfred
George, Raymond Bertwood
Gibson, James Edwin
Giers, Henry Webster
Glennan, John Francis, Jr.
Gold, Arthur Benjamin
Goldstone, George Henry
Goodstein, Alvin Levy
Gram, Harris James, Jr.
Guerin, Courtland Vincent, Jr.
Gulledge, Billy Roy
Gurley, Joseph Byron
Guthridge, Paul Foster
Gutow, William Harvey
Hackleman, Ward Emerson
Hadesty, George Zebblin
Hagberg, Charles Robert
Hall, Ray Gilbert, Jr.
Hall, William Hoover
Hallam, Gilbert Racelle
Hama, William Joseph
Harris, Aaron Glynn
Hazen, Dan Francis, Jr.
Hazuda, Alex William
Hegg, Russell Charles
Hershey, Frank, Jr.
Heycey, Stephen George
Hickman, Franklin J.
Hively, Jack Besden
Hoff, Robert Stephen

2nd Lt.(Temp) to 1st Lt.(Temp)

Hogeman, George Ledget
Holly, James Edward
Holmes, Harold R.
Huff, Homer George
Huffaker, John
Hunter, Alexander Payton
Iden, Carroll Samuel
Irwin, John Harris
Jackson, Pearce Eavens
Jaggi, Lewis Frederick, Jr.
Jessen, Wolf Ernest
Jordan, Patrick
Jorgensen, Roy Clifford
Josselyn, Birnhan
Kasch, Howard
Keig, John Wilber
Kent, James L.
Kent, Mark Donald
Keogh, Edward Joseph
Kilgo, Walter Houston
Kimball, Rollow Coulam
King, Roma Alvah, Jr.
Kingman, John Plimpton
Kinzer, Charles Herman
Knox, Robert B., Jr.
Kraus, Robert Isaac
Kretlow, Stanley Adolph
Kuehl, William L.
Lake, Donald Jackson
La Motte, Joe
Lawless, Roger Edwin John
Lehman, Robert Hocker
Lehmer, Lawrence Hilford
Lentz, Walter
Levine, Lester Henry
Loden, Daniel Joseph
Lowery, Watson
Ludl, Innis Anderson
Lykins, Joseph Bradley
MacQueen, Geo. E.
Mark, Albert
Markel, Morris L.
Marriett, Frank J.
Marsh, Kirke W., Jr.
Martin, John Gordon, Jr.
Martin, Oscar M., Jr.
Mason, Hale, Jr.

2nd Lt. (Temp) to 1st Lt. (Temp)

White, Harry Eli
White, James Luther
White, William Berry
Whittaker, Charles D.
Williams, Winston
Williamson, Elvin Glenn
Wilson, Clarence Arthur
Wilson, Edward Frank
Winn, Charles Edwin
Winsted, John Bradley

Witherspoon, Lister
Wolf, George Raymond Roger
Wollam, Douglas Wilton
Wood, Herman
Wood, William I. (P)
Wright, Kenneth A.
Young, William Emmett
Zahn, Geo. Aloysius
Zarish, Joseph Frederick
Zins, George Meyers

Casualties:

The following casualties have been reported since
August 20, 1942:

Captain Rosson Nat Reid - Died of pneumonia,
August 8, 1942, in
Australia.

Colonel Winchell I. Rasor - Died of paralytic
ileus, at Station
Hospital, MacDill
Field, Florida.