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DEPARTMENT OF THE ARMY FIELD MANUAL

FIELD RADIO TECHNIQUES

HEADQUARTERS, DEPARTMENT OF THE ARMY JULY 1965

PRACTICAL CONSIDERATIONS IN OPERATING SINGLE-CHANNEL RADIOS

Section I. Siting Considerations

1. Site Selection

The reliability of radio communications depends largely on the selection of a good radio site. Since it is very difficult to select a site for a radio that satisfies all the technical, tactical, and security requirements, we compromise and select the *best* site of all those available. It is also good planning to select both a primary site and an alternate site. If, for some reason, radio communications cannot be established and maintained at the primary location, the radio equipment can be moved a short distance to the alternate site.

Location.

A radio station must be located in a position that will assure communications with all other stations with which it is to operate and yet maintain a degree of physical and communications security. To obtain efficiency of transmission and reception, the following factors should be considered.

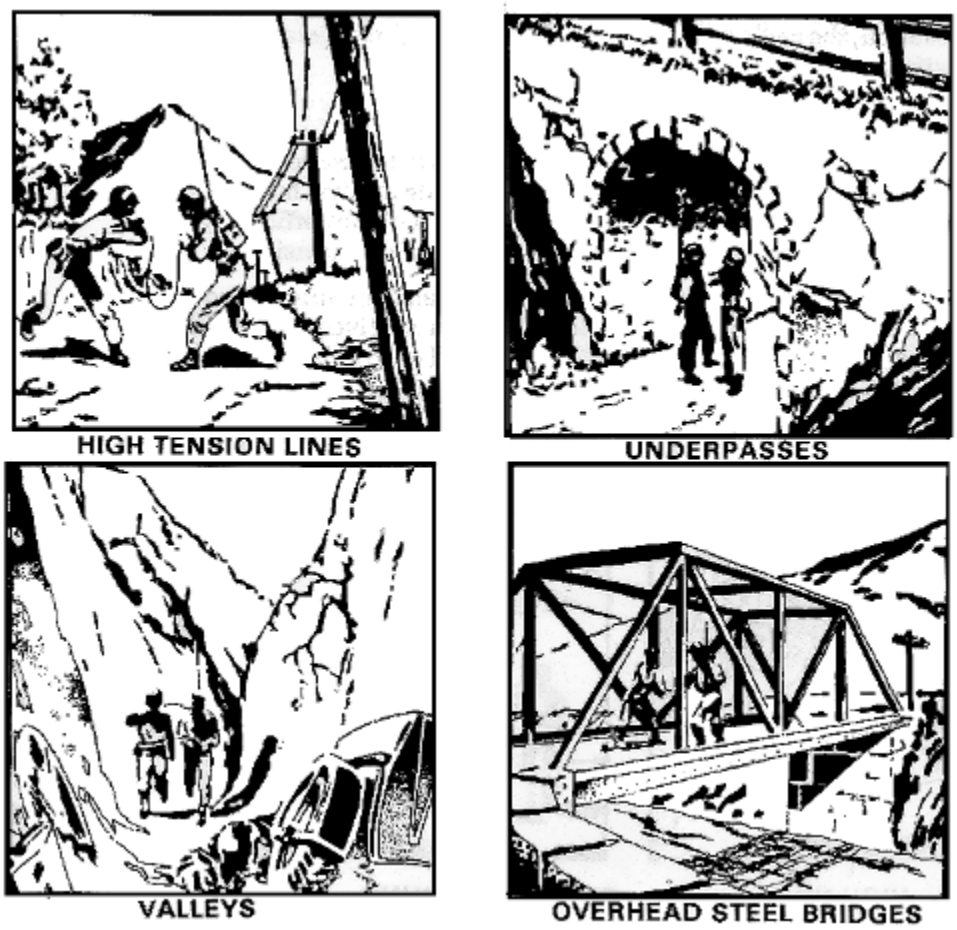
Hills and mountains between stations normally limit the range of radio sets. In mountainous or hilly terrain, select positions relatively high on the slopes (fig 1). Avoid a location at the base of a cliff or in a deep ravine or valley (fig 2). For operation at frequencies above 30 MHz, and whenever possible, select a location that will allow line-of-sight communications. Try to avoid locations which provide the enemy with a jamming capability, visual sighting, or easy interception.

Good sites for radio communications. *(Figure 1)*

Dry ground has high resistance and limits the range of the radio set. If possible, locate the station near moist ground, which has much less resistance. Water, and in particular salt water, greatly increases the distances that can be covered.
Trees with heavy foliage absorb radio waves, and leafy trees have more of an adverse effect than evergreens. Keep the antenna clear of all foliage and dense brush; but try to use available trees and shrubs for cover and concealment and for screening from enemy jamming.

Man-made Obstructions.

Do not select an antenna position in a tunnel or beneath an underpass or steel bridge (fig 2).
Transmission and reception under these conditions are almost impossible because of high absorption of RF energy.



Poor sites for radio communications. *(Figure 2)*

Buildings located between radio stations, particularly steel and reinforced concrete structures, hinder transmission and reception. You should, however, try to use buildings to camouflage your antenna from the enemy.
Avoid all types of pole wire lines, such as telephone, telegraph, and high-tension powerlines, when selecting a site for a radio station. Wire lines absorb power from

radiating antennas located in their vicinity. They also introduce hum and noise interference in receiving antennas.
Avoid positions adjacent to heavily traveled roads and highways. In addition to the noise and confusion caused by tanks and trucks, ignition systems in these vehicles may cause electrical interference.
Do not locate battery-charging units and generators close to the radio station.
Do not locate radio stations close to each other.
Locate radio stations in relatively quiet areas. The copying of weak signals requires great concentration by the operator, and his or her attention should not be diverted by outside noises.

2. Tactical Requirements

Local Command Requirements.
Radio stations should be located some distance from the unit headquarters or command post that they serve. Thus, long-range enemy artillery fire, missiles, or aerial bombardment directed at the stations as a result of enemy direction finding will not strike the command post area.
Cover and Concealment.
The locations selected should provide the best cover and concealment possible, consistent with good transmission and reception. Perfect cover and concealment may impair communications. The permissible amount of impairment depends upon the range required, the power of the transmitter, the sensitivity of the receiver, the efficiency of the antenna system, and the nature of the terrain. When a radio is being used to communicate over a distance that is well under the maximum range, some sacrifice of communications efficiency can be made to permit better concealment of the radio from enemy observation.
Practical Considerations.
Manpack sets have sufficiently long cordage to permit operation from a concealed position (set and operator) while the antenna is mounted in the best position for communications.
Antennas of all radio sets must be mounted higher than ground level to permit normal communications.
Small tactical sets usually have whip antennas. These antennas are difficult to see from a distance, especially if they are not silhouetted against the sky. However, they have a 360° radiation pattern and are extremely vulnerable to enemy listening.
Avoid open crests of hills and mountains. A position protected from enemy fire just behind the crest gives better concealment and sometimes provides better communications.
All permanent and semipermanent positions should be properly camouflaged for protection from both aerial and ground observation. However, the antenna should not touch trees, brush, or the camouflage material.

Section II.
Transmitter Characteristics and Operator's Skills

1. Importance to Reliable Communications

In addition to proper siting, the reliability of radio communications also depends upon the characteristics of the transmitted signal. The transmitter and its associated antenna form the initial step in the transfer of energy to a distant receiver.

2. Operating Frequency

Ground-wave transmission is used for most field radio communications. The range of the ground-wave becomes correspondingly shorter as the operating frequency of the transmitter is increased through the applicable portions of the medium-frequency band (300-3000 kHz) to the high-frequency band (3-30MHz). When the transmitter is operating at frequencies above 30 MHz, its range is limited generally to slightly more than line of sight. For circuits using sky-wave propagation, the frequency selected depends on the geographic area, season, and time of day.

3. The Transmitting Antenna and Power Output

For maximum transfer of energy, the radiating antenna must be the proper length for the operating frequency. The local terrain determines, in part, the radiation pattern and, therefore, affects the directivity of the antenna and the possible range of the set in the desired direction. If possible, several variations inbthe physical position of the antenna should be tried to determine the best operating position to radiate the greatest amount of energy in the desired direction.

The range of a transmitter is proportional to the power radiated by its antenna. An increase in power output of the transmitter results in some increase in range, and a power decrease reduces the range.

Under normal operating conditions, the transmitter should feed only enough power into the radiating antenna to establish reliable communications with the receiving station. Transmission of a signal more powerful than required is a breach of signal security, because the location of the transmitter may be more easily fixed by enemy direction-finding stations. Also, the signal may interfere with friendly stations operating on the same frequency.

CAUTION: Do not detune a transmitter to reduce power output. Operation with a detuned power output stage can cause damage to the transmitter.

4. Transmitting Operator's Skills

The skill and technical abilities of the operators at the transmitter and receiver play important parts in obtaining the maximum range possible. The transmitter, output coupling, and antenna feeder circuits must be tuned correctly to obtain maximum power output. In addition, both the radiating antenna and the receiving antenna have to be constructed properly with regard to both electrical characteristics and conditions of the local terrain. The operator is the main defense against enemy

interference. The skill of the operator can be the final determining factor in maintaining command and control communications in the face of enemy efforts to disrupt it.

Section III. Transmission Paths

1. Characteristics of the Transmission Path

After the radio signal leaves the transmitting antenna, you must be concerned with the amount of radiated energy that is lost along the transmission path. Selecting the transmission path with the least radiation loss ensures that more energy will be transferred to the receiving antenna.

2. Conductivity of the Terrain

The type of terrain between two field radio sets determines ground conductivity and affects the ground-wave. Flat prairie country has high conductivity and there is little absorption of the ground-wave by the earth.

Large bodies of water also have high conductivity. Mountainous, rugged, and broken country usually has low conductivity. In areas where there are large mineral deposits, and in deep ravines and valleys, the ground-wave may be absorbed completely by the soil.

3. Location of the Antenna

Large terrain obstructions between the transmitting and receiving stations reduce the reliability of radio transmissions. When you are selecting a site location, select high ground on which to erect the antenna.

4. Distance Between Stations

Low-power radio transmitters of limited range must work with receivers located within their range.

Higher power transmitters with correspondingly stronger ground and sky waves may reach receiving stations with either or both of these waves, depending upon the distances between the transmitter and the receivers. When sky-wave propagation is used for communications, the skip distance must be considered. At times during the day or night on certain frequencies, the receiving station might lie within the skip zone and will not receive a signal from the transmitter.

Section IV. Receiver Characteristics and Operator's Skills

1. Sensitivity and Selectivity of the Receiver

When the transmitted signal reaches the receiver location, it arrives at a much lower power level than when it left the transmitter. The receiver must efficiently process this relatively weak signal to provide maximum reliability of communications.

Sensitivity is a term used to describe how well a receiver responds to a weak signal at a given frequency.

A receiver with high sensitivity is able to accept a very weak signal and amplify and process it to provide a usable output (an output that can be fully understood or that can be used to operate a teletypewriter or other devices). The principal factor that limits or lowers the sensitivity of a receiver is the noise generated by its own internal circuits (for example, tube and resistor noise).

Selectivity is a term used to describe how well a receiver is able to differentiate between a desired frequency and nearby frequencies.

2. The Receiving Antenna

In field radio communications, the type, location, and electrical characteristics of the receiving antenna are not as important as they are for the transmitting antenna. The receiving antenna must be of sufficient length; be properly coupled to the input of the receiver circuit; and, except in some cases for HF sky-wave propagation, it must have the same polarization as the transmitting antenna.

3. Interference

Interference from Natural Sources.

There are four kinds of radio interference you can expect from natural sources.

1. Atmospheric interference from electrical storms.
2. Solar and cosmic interference from eruptions on the Sun and other stars.
3. Precipitation static from charged particles (rain, sleet, snow, sand, smoke, or dust) in the atmosphere. Dry particles produce greater charges and more static than wet ones.
4. Fading from disturbances in the medium through which radio waves are propagated.

Interferences listed above, except the last, appear in electronic equipment as disturbing noise. This noise shows up as sound in headphones and loudspeakers and as errors in the output of other terminal equipment. There is interference from natural sources at most frequencies, but it diminishes considerably as the frequency is increased. At very high frequencies these disturbances have very little effect on reception.

Man-made Interference.

Man-made interference is generated by electrical devices (such as arc welders), leakage on high-tension lines, television sets, vehicle ignition systems, and sparking brushes on motors and generators and other rotating machines. This interference may be intentional or unintentional. If the interference is intense enough, it will drown out or obscure communications.

Although man-made interference is best eliminated or minimized at its source, some improvements can be made at the receiver. The operator can often make tuning adjustments which will enable the signal to be read through the interference. The use of a directional receiving antenna will eliminate some of the interference if the source is not in the same direction as the transmitting station. In addition,

specially designed antenna lead-in wire may eliminate or minimize man-made interference that would normally be picked up on the lead-in wire.

Radio noise waves coming from a man-made source tend to be vertically polarized. Therefore, a horizontally polarized receiving antenna will generally receive less noise than a vertically polarized antenna.

Mutual Interference.

When one communications system interferes with another, or when one particular unit within a given system interferes with other units in the same system, there is a condition of *mutual interference.*

Mutual interference may appear in several forms: noise, cross talk, and/or harmonic interactions. Some of the common conditions that cause mutual interference are:

1. Spurious, undesired signals.
2. Spurious receiver responses.
3. Rf arcing in transmitters.
4. Impedance mismatch in the antenna system.
5. High-voltage pulse interference.
6. Improper frequency assignments.

Interference originates from many local and distant sources. Frequency relationships, geographical location, faulty adjustment of equipment, and improper operating techniques are important factors contributing to mutual interference. Equipment and systems that are potential generators of mutual interference are radar, radio, radio aids to navigation, and telephones.

4. Receiving operator's Skills

Most communications receivers have adjustable controls that, when properly used, are designed to minimize the adverse effects of fading, noise, and interference. The proficient use of these controls, such as the noise limiter and one of the various types of filters, often will permit satisfactory reception of many messages that would otherwise be lost when noise and interference become excessive. On the other hand, maladjustment of these controls, through either ignorance or carelessness, can cause unsatisfactory operation. Therefore, the skill and technical proficiency of the receiver operator play a most important part in radio communications.

RADIO OPERATING TECHNIQUES

Section I.
General Operating Instructions

1. Effective Operations

The tactical effectiveness of any communications equipment is no greater than the skill of the operators. By the same token, the most efficient communications within a net or command is attained when the operators habitually use the proper procedures in transmitting and receiving messages. This chapter was prepared to assist operators in improving their skills as communicators. It covers the use of the signal operation instructions (SOI).

2. Operating Instructions

Instructions pertaining to radio communications are contained in the SOI and in standing operating procedures (SOP).

The SOI provides the organization of stations into nets, assigns call signs, designates net control stations (NCS), and assigns frequencies. It also provides information on changes to alternate frequencies and on authentication. In addition, the security procedures that must be used by radio operators in the command are included in the SOI supplemental instructions. The SOP governs routine signal operations of a unit.

3. Initial Preparation

Before you operate any radio set, get the equipment technical manual (TM) and carefully study the operating instruction. Refer to the panel diagrams, connections diagrams, and the paragraphs covering the description of components during the preliminary starting procedure. Make sure that the proper cables are connected to the proper panel connectors, and that the controls are correctly set. Even the most experienced operators should check their preliminary procedures against the TM references from time to time to insure accuracy and to avoid damage to equipment. Use the operational checklist and the equipment performance checklist to determine what to do to remedy any problems encountered during starting procedures and operation.

4. Steps in Operating Radio Sets

Radio sets issued to a unit vary in type according to the communications requirements of the unit. For example, some sets may be completely contained in one assembly, while others may consist of separate components that must be properly connected to assemble a complete radio set. The following steps are generally required in operating a radio set.

Check the Set for Completeness.

Make sure that all the necessary components and accessories are on hand and ready for use. Refer to the equipment basic issue items list in the TM. Never operate the transmitter without the antenna attached.

Inspect the Condition of the Knobs, Dials, Switches, and Controls.

Look for knobs, dials, switches, and controls that are loose on their shafts, bind when being operated, won't operate, or are damaged in any other way. Make corrections where possible or report the faulty condition. Make sure that all knobs and exterior parts are on the set. Immediately report any that are missing.

Check the Condition of Plugs, Receptacles, and Connectors.

Do not attempt to connect the set for operation until you are sure that the plugs and connectors are clean and in good condition and that the receptacles to which they must be connected are also clean and in good condition.

Check the Connections Diagrams.

The connections diagrams in the equipment TM show the type and number of cables required to interconnect the components of the radio set for each type of operation. The radio set may be damaged if cables are connected to the wrong receptacles. If the connectors don't match, it is possible to physically damage the pins or sleeves of the connector. If a cable is connected to a receptacle into which it fits but does not belong, it may cause serious electrical damage to the equipment and, in some cases, injury to the operator.

Make Sure of Dial, Switch, and Control Settings.

Some radio sets can be seriously damaged if the switches, dials, and controls are not set to the required initial settings before applying power or making the initial timing adjustments. Before applying power, check the equipment TM to be sure you performed all preliminary starting procedures. Be sure radios installed in vehicles are turned off before starting vehicle engine as to avoid damage to radio equipment.

Follow the Starting Procedure.

The equipment TM covers, in detail, the proper procedure for starting the radio set. If there is a specific sequence for starting the set, it is described in the manual. Perform the operations in the proper sequence.

Apply Power.

After the proper connections are made and all switches are properly set, power may be applied to the set.

Allow the Set to Warm Up.

Radio sets usually require a warm-up period when first applying power in order to stabilize the equipment. In some cases, it is possible to damage a set by attempting to operate a set without allowing a warm-up period. Most sets are protected against such damage, but it is foolish to risk damage to a radio set by trying to put it on the air before it is ready.

Tune to the Desired Frequency (Channel).

Tune the transmitter to the frequency of the desired channel according to the procedures in the equipment TM. Use the methods that are given in the TM to check for correct tuning.

Check the Set for Normal Operation.

While the set is in operation, check the indicators frequently to be sure that the set is operating correctly. If anything unusual occurs during operation, investigate it immediately. When necessary, turn off the power to the set and refer to the operational checklist and the equipment performance checklist in the equipment manual. If the corrections given in the operational checklist and the equipment performance checklist will not correct the trouble, report the condition to the unit electronics maintenance shop. Make sure that the condition of the set and the action taken are properly recorded on the maintenance records.

Use the Proper Procedure to Turn Off the Set.

After operation (or if the set is being turned off because of improper operation) make sure that the controls, switches, and dials are properly set (this may not be required on some radios). Proceed to shut down the components of the set in the sequence specified in the equipment manual. Simple radios may require nothing more than turning the power switch to its off position, but more complex sets may require elaborate shutdown procedures.

5. Operating Hints

Use a handset or headset, rather than a loudspeaker, if the incoming signal is weak.

Make sure that the microphone or handset is in good condition.

Speak directly into the microphone; speak slowly and distinctly.

Make sure that the vehicle's battery voltage (if radio set is vehicular-mounted) is within the correct range.

Keep the engine running to charge the battery.

Move the set or the vehicle, if necessary, to improve reception.

Lack of communications or poor communications may be caused by:

(1). Too great a distance between radio sets.
(2). Poor choice of location (siting) at one or both ends of the circuit.
(3). Terrain--hills or mountains.
(4). Noise and interference.
(5). Not enough transmitter power.
(6). Defective equipment.
(7). Improper adjustment of equipment.
(8). Ineffective antenna.
(9). Improper frequency assignment.
(10). Poorly maintained equipment and improper operation can be just as effective in preventing communications as excessive distance or mountainous terrain.

To avoid problems, observe the following precautions at all times:

(1). Study the technical manuals for the equipment you are using. They provide complete operating instructions and maintenance procedures.
(2). Keep your radio set clean and dry.
(3). Handle your radio set carefully.

RADIO OPERATIONS UNDER UNUSUAL CONDITIONS

Section I. Operations in Arcticlike Areas

1. Capabilities and Limitations

Single-channel radio equipment has certain capabilities and limitations that must be carefully considered when operating in extremely cold areas. However, in spite of significant limitations, radio is the normal means of communications in such areas.

One of the most important capabilities of radio in arcticlike areas is its versatility. Vehicular-mounted radios can be moved relatively easy to almost any point where it is possible to install a command headquarters. Smaller, manpacked radios can be carried to any point accessible by foot or aircraft.

A limitation on radio communications that radio operators must expect in extremely cold areas is interference by ionospheric disturbances. These disturbances, known as ionospheric storms, have a definite degrading effect on sky wave propagation. Moreover, either the storms or the auroral (for example, Northern Lights) activity can cause complete failure of radio communications. Some frequencies may be blocked out completely by static for extended periods of time during storm activity.

Fading, caused by changes in the density and height of the ionosphere, can also occur and may last from minutes to weeks. The occurrence of these disturbances is difficult to predict. When they occur, the use of alternate frequencies and a greater reliance on FM or other means of communications are required.

2. Techniques for Better Operations in Arctic-like Areas

Whenever possible, radio sets for tactical operations in arcticlike areas should be installed in vehicles to reduce the problem of transportation and shelter for operators. This will also help solve some of the grounding and antenna installation problems due to the climate.

Because of permafrost and deep snow, it is difficult to establish good electrical grounds in extremely cold areas. The conductivity of frozen ground is often too low to provide good ground wave propagation.

To improve ground wave operation, use a counterpoise to offset the degrading effects of poor electrical ground conductivity. When installing a counterpoise, remember to install it high enough above the ground so that it will not be covered by snow. In general, antenna installation in arcticlike areas presents no serious

difficulties. However, installing some antennas may take longer because of adverse working conditions. A few tips for installing antennas in extremely cold areas are listed below.

1. The mast sections and antenna cables must be handled carefully since they become brittle in very low temperatures.
2. Whenever possible, antenna cables should be constructed overhead to prevent damage from heavy snow and frost. Nylon rope guys, if available, should be used in preference to cotton or hemp because nylon ropes do not readily absorb moisture and are less likely to freeze and break.
3. An antenna should have extra guy wires, supports, and anchor stakes to strengthen it to withstand heavy ice and wind loading.
4. Some radios (generally older generation radios) adjusted to a particular frequency in a relatively warm place may drift off frequency when exposed to extreme cold. Low battery voltage can also cause frequency drift. When possible, allow a radio to warm up several minutes before placing it into operation. Since extreme cold tends to lower output voltage of a dry battery, try warming the battery with body heat before operating the radio set. This minimizes frequency drift.
5. Flakes or pellets of highly electrically charged snow is sometimes experienced in northern regions. When these particles strike the antenna, the resulting electrical discharge causes a high-pitched static roar that can blanket all frequencies. To overcome this static, antenna elements can be covered with polystyrene tape and shellac.

3. Maintenance Improvement in Arcticlike Areas

The maintenance of radio equipment in extreme cold presents many difficulties. Radio sets must be
protected from blowing snow, since snow will freeze to dials and knobs, and blow into the wiring to cause shorts and grounds. Cords and cables must be handled carefully since they may lose their flexibility in extreme cold. All radio equipment and power units must be properly winterized. Check the appropriate TM for winterization procedures. A few tips for maintenance in arctic areas are listed below.

Power Units.

As the temperature goes down, it becomes increasingly difficult to operate and maintain generators. They should be protected as much as possible from the weather.

Batteries.

The effect of cold weather conditions on wet and dry cell batteries depends upon the following factors: the type and kind of battery, the load on the battery, the particular use of the battery, and the degree of exposure to cold temperatures.

Shock Damage.

Damage may occur to vehicular radio sets by the jolting of the vehicle. Most synthetic rubber shock mounts become stiff and brittle in extreme cold and fail to

cushion equipment. Check the shock mounts frequently and change them, as required.

Winterization.

Check the TMs for your radio set and power source to see if there are special precautions for operation in extremely cold climates. For example, normal lubricants may solidify and permit damage or malfunctions. They must be replaced with the recommended arctic lubricants.

Microphones.

Moisture from your breath may freeze on the perforated cover plate of your microphone. Use standard microphone covers to prevent this. If standard covers are not available, improvise a suitable cover from rubber or cellophane membranes or from rayon or nylon cloth.

Breathing and Sweating.

A radio set generates heat when it is operated. When you turn it off, the air inside cools and contracts and draws cold air into the set from the outside. This is called *breathing.* When a radio breathes and the still-hot parts come in contact with subzero air, the glass, plastic, and ceramic parts of the set may cool too rapidly and break.

When cold equipment is brought suddenly into contact with warm air, moisture will condense on the equipment parts. This is called *sweating.* Before cold equipment is brought into a heated area, it should be wrapped in a blanket or parka to ensure that it will warm gradually to reduce sweating. Equipment must be thoroughly dry before it is taken back out into the cold air or the moisture will freeze.

Vehicular-Mounted Radios.

These radios present special problems during winter operations because of their continuous exposure to the elements. Proper starting procedures must be observed. The radio's power switch must be off prior to starting the vehicle; a particularly critical requirement when vehicles are slave started. If the radio is cold soaked from prolonged shutdown, frost may have collected inside the radio and could cause circuit arcing. Hence, time should be allowed for the vehicle heater to warm the radio sufficiently 80 that any frost collected within the radio has a chance to thaw. This may take up to an hour. Once the radio has been turned on, it should warm up for approximately 15 minutes before transmitting or changing frequencies. This allows components to stabilize. If a vehicle is operated at a low idle with radios, heater, and lights on, the batteries may run down. Before increasing engine revolutions per minute to charge the batteries, radios should be turned off to avoid an excessive power surge. A light coat of silicon compound on antenna mast connections helps to keep them from freezing together and becoming hard to dismantle.

Section II.
Operations in Jungle Areas

1. Capabilities and Limitations

Radio communications in jungle areas must be carefully planned, because the dense jungle growth significantly reduces the range of radio transmission. However, since single-channel radio can be deployed in many configurations, especially manpacked, it is a valuable communications asset. The capabilities and limitations of single-channel radio must be carefully considered when used by forces in a jungle environment.

The mobility and various configurations in which single-channel radio can be deployed are its primary advantages in jungle areas.

Limitations on radio communications in jungle areas stem from the climate and the density of jungle growth. The hot and humid climate increases the maintenance problems of keeping equipment operable.

Thick jungle growth acts as a vertically polarized absorbing screen for RF energy that, in effect, reduces transmission range. Therefore, increased emphasis on maintenance and antenna siting is a must when operating in jungle areas.

2. Techniques for Better Operations in the Jungle

The main problem you may have in establishing radio communications in jungle areas is the siting of your antenna. Apply the following techniques to improve your communications in the jungle:

1. Antennas should be located in clearings on the edge farthest from the distant station and as high as possible.
2. Antenna cables and connectors should be kept off the ground to lessen the effects of moisture, fungus, and insects. This also applies to all power and telephone cables.
3. Complete antenna systems, such as ground planes and dipoles, are more effective than fractional wavelength whip antennas.
4. Vegetation must be cleared from antenna sites. If an antenna touches any foliage, especially wet foliage, the signal will be grounded.
5. Vegetation, particularly when wet, will act like a vertically polarized screen and absorb much of a vertically polarized signal. Use horizontally polarized antennas in preference to vertically polarized antennas.

3. Maintenance Improvement in the Jungle

Because of moisture and fungus, the maintenance of radio sets in tropical climates is more difficult than in temperate climates. The high relative humidity causes condensation to form on the equipment and encourages the growth of fungus. Operators and maintenance personnel should check the appropriate TMs for any special maintenance requirements. Some techniques for improving maintenance in jungle areas are listed below:

1. Keep the equipment as dry as possible and in lighted areas to retard fungus growth.

2. Keep all air vents clear of obstructions so air can circulate to cool and dry the equipment.
3. Keep connectors, cables, and bare metal parts as free of fungus growth as possible.
4. Use moisture and fungusproofing paint (MFP) to protect equipment after repairs are made or when equipment is damaged or scratched.

Section III.
Operations in Desert Areas

1. Capabilities and Limitations

Radio is usually the primary means of communications in the desert. It can be employed effectively in desert climate and terrain to provide the highly mobile means of communications demanded by widely dispersed forces. However, desert terrain provides poor electrical ground and counterpoises are needed to improve operation.

2. Techniques for Better Operations in the Desert

For the best operation in the desert, radio antennas should be located on the highest terrain available. Transmitters using whip antennas in the desert will lose one-fifth to one-third of their normal range due to the poor electrical grounding characteristic of desert terrain. For this reason, it is important to use complete antenna systems such as horizontal dipoles and vertical antennas with adequate counterpoises.

3. Equipment Considerations

Some radios automatically switch on their second blower fan if their internal temperature rises too high.

Normally, this happens only in temperate climates when the radios are transmitting. This may disturb soldiers unaccustomed to radio operation in the desert environment. Operation of the second fan, however, is quite normal. RF power amplifiers used in AM and SSB sets are liable to overheat severely and burn out. Such equipment should be turned on only when necessary (signal reception is not affected).

Since the RF power amplifiers take approximately 90 seconds to reach the operating mode, the SOP of units using the equipment should allow for delays in replying. Dust affects communications equipment such as SSB/AM RF power amplifiers and radio teletypewriter sets. The latter especially are prone to damage due to the vulnerability of the oil lubrication system (which attracts and holds dust particles).

Dust covers, therefore, should be used whenever possible. Some receiver-transmitter units have ventilating ports and channels that can get clogged with dust. These must be checked regularly and kept clean to prevent overheating.

3. Batteries

Wet cell batteries do not hold their charge efficiently in intense heat. Electrolyte evaporates rapidly and should be checked weekly (more often, if warranted). Add distilled water as needed. Extra containers of distilled water should be carried in the vehicle.

Dry battery supplies must be increased, since hot weather causes batteries to fail more rapidly.

4. Electrical Insulation

Wind-blown sand and grit will damage electrical wire insulation over a period of time. All cables that are likely to be damaged should be protected with tape before insulation becomes worn. Sand will also find its way into parts of items such as "spaghetti cord" plugs, either preventing electrical contact or making it impossible to join the plugs together. A brush, such as an old toothbrush, should be carried and used to clean such items before they are joined.

5. Condensation

In deserts with relatively high dew levels and high humidity, overnight condensation can occur wherever surfaces such as metals exposed to air are cooler than the air temperature. This condensation can affect such items as electrical plugs, jacks, and connectors. All connectors likely to be affected by condensation should be taped to prevent moisture from contaminating the contacts. Plugs should be dried before inserting them into equipment jacks. Excessive moisture or dew should be dried from antenna connectors to prevent arcing.

6. Static Electricity

Static electricity is prevalent in the desert. It is caused by many factors, one of which is wind-blown dust particles. Extremely low humidity contributes highly to static discharges between charged particles. Poor grounding conditions aggravate the problem. Be sure to tape all sharp edges (tips) of antennas to cut down on wind-caused static discharges and the accompanying noise. If you are operating from a fixed position, ensure that equipment is properly grounded. Since static-caused noise diminishes with an increase in frequency, use the highest frequencies that are available and authorized.

7. Maintenance Improvement in the Desert

In desert areas, the maintenance of radio sets becomes more difficult because of the large amounts of sand, dust, or dirt that enter the equipment. Sets equipped with servomechanisms are particularly affected. To reduce maintenance downtime, keep the sets in dustproof containers as much as possible. It is also important to keep air vent filters clean to allow cool air to circulate to prevent overheating.

Preventive maintenance checks should be made frequently. Also, you should keep a close check on lubricated parts of the equipment. If dust and dirt mix with the lubricants, moving parts may be damaged.

Section IV.
Operations in Mountainous Areas

1. Capabilities and Limitations

Operation of radios in mountainous areas have many of the same problems as in northern or cold weather areas. Also, the mountainous terrain makes the selection of transmission sites a critical task. In addition, the terrain restrictions encountered frequently make radio relay stations necessary for good communications.

2. Maintenance Improvement in Mountainous Areas

Because of terrain obstacles, radio transmissions will frequently have to be by line of sight. Also, the ground in mountainous areas is often a poor electrical conductor. Thus, a complete antenna system, such as a dipole or ground-plane antenna with a counterpoise, should be used.

The maintenance procedures required in mountainous areas are very often the same as for maintenance in northern or cold weather areas. The varied or seasonal temperature and climatic conditions in mountainous areas make flexible maintenance planning a necessity.

RADIOTELEPHONE PROCEDURE

General

Radiotelephony is a system of telecommunications. that is normally used for short-distance tactical communication and between mobile and air units. It provides rapid, person-to-person Communication, in highly mobile situations. However, radio transmissions are subject to enemy interception and afford little or no security to messages. Therefore, basic rules essential to transmission security are strictly enforced on all military radiotelephone circuits. Details on radiotelephone procedures are in the ACP 125 ( ) series.

a. Brevity Codes in Radiotelephony. Whereas radiotelegraphy makes use of prosing and operating signals, radiotelephony utilizes procedure words (prowords) and procedure phrases. Authorized prowords are covered later in this section.

b. Calls. When communicating in a radiotelephone net, one of the following calls is used:

(1) Full call: DANO THIS IS BUTTER DIESEL OVER

(2) Abbreviated can: THIS IS BUTTER DIESEL OVER

(3) Net call: BUTTER DIESEL THIS IS BUTTER DIESEL 6 OVER

c. Operating Rules. When using radiotelephone, the operator must

(1) Listen before transmitting to avoid interference with other traffic.

(2) Speak in natural phrases, not word by word.

(3) Speak slowly and distinctly.

Pronunciation of Letters and Numerals

To avoid confusion and errors during voice transmissions, special procedures have been developed for pronouncing letters and numerals. These special procedures are the phonetic alphabet and phonetic numerals.

a. The phonetic alphabet is used by the operator to spell difficult words and thereby prevent misunderstanding on the part of the receiving operator. The words of the phonetic alphabet, which is a word alphabet and not a code, are pronounced as shown in the chart in c below. The underscored portion indicates the syllable or syllables to be emphasized.

b. The word that might be misunderstood is spoken if it can be pronounced; spelled out phonetically; and then spoken again. For example, "PIDCOKE, I SPELL-PAPA INDIA DELTA CHARLIE OSCAR KILO ECHO-PIDCOKE."

c. The phonetic alphabet is also used for the transmission of encrypted messages. For example, the cipher group CMVVX is spoken, "CHARLIE MIKE VICTOR VICTOR XRAY."

Phonetic alphabet

letter	Word	Pronunciation	letter	Word	Pronunciation
A	ALFA	AL FAH	N	NOVEMBER	NO VEMBER
B	BRAVO	BRAH VOH	0	OSCAR	OSS CAH
C	CHARLIE	CHAR LEE	P	PAPA	PAH PAH
D	DELTA	DELL TAH	Q	QUEBEC	KEH BECK
E	ECHO	ECK OH	R	ROMEO	ROW ME OH
F	FOXTROT	FOKS TROT	S	SIERRA	SEE AIR RAH
G	GOLF	GOLF	T	TANGO	TANG GO
H	HOTEL	HOH TELL	U	UNIFORM	YOU NEE FORM
I	INDIA	IN DEE AH	V	VICTOR	VIK TAH
J	JULIETT	JEW LEE ETT	W	WHISKEY	WISS KEY
K	KILO	KEY LOH	X	XRAY	ECKS RAY
L	LIMA	LEE MAH	Y	YANKEE	YANG KEY
M	MIKE	MIKE	Z	ZULU	ZOO LOO

d. Numbers are pronounced as shown in the following chart.

Phonetic numbers Humber	Pronunciation	Number	Pronunciation
1	WUN	6	SIX
2	TOO	7	SEV-en
3	TREE	8	AIT
4	FOW-er	9	NIN-er
5	FIFE	0	ZE-RO

e. Numbers are spoken digit by digit, but the words "HUNDRED" or "TOUSAND" are used for even hundreds and thousands. For example, 84 is "AIT FOW-er;" 2,500 is "TOO FIFE HUNDRED;" and 16,000 is "WUN SIX TOUSAND."
f. The date-time group is always spoken digit by digit, followed by the time zone indication. For example, 291205Z is "TOO NIN-er WUN TOO ZE.RO FIFE ZOO LOO."
g. Map coordinates and call sign suffixes also are spoken digit by digit.

Call Signs

Infantry Call Signs
Infantry call signs were typically 4 parts, and indicated battalion, company, platoon and squad. The format is Number, Phonetic Letter, Phonetic Letter, Number. The designations:
Battalion- Typically 1 or 2, as an Infantry Regiment is usually made up of 2 battalions.

Company-
ALPHA- Company A
BRAVO- Company B
CHARLIE- Company C
DELTA- Company D
Platoon-
HOTEL-Headquarters Platoon
LIMA- First Platoon
MIKE- Second Platoon
NOVEMBER- Third Platoon
OSCAR- Fourth Platoon
ECHO- Recon Platoon

Squad-
First Squad
Second Squad
Third Squad
Weapons Squad
Example: *First squad, First Platoon, Alpha Company, 1st Battalion of the 6th Infantry Regiment call sign will be ONE ALPHA LIMA ONE*

Other Units Call Signs Samples

Cavalry:
Long Knife
Apache
Rifle
Saber
Blackhorse
Armor:
Taxi
Buffalo
Dragon
Artillery:
Red Leg
Overlord (FAO)
Air:
There are different types of Air assets, and each group has differing call signs:

Forward Air Controllers:
Birddog
Dove
Owl
Nail
Fast Movers (fighters and bombers)
Viper
Eagle
Hawk
Pirate
Rescue Helicopters (Medevac or Dustoff)
Angel
Special Forces:
Swamp Jumper
Wild Cat

Procedure Words

To keep voice transmission as short and clear as possible, radio operators use procedure words (prowords) to take the place of long sentences. The prowords and their meanings are listed below. When opening a conversation, treat it as if you are talking to a stranger. You must first establish both your identities, and then become more familiar as you go along. And always end your part of a conversation with OVER! When ending a conversation permanently, use the word OUT. It is also correct to use your call sign, and then say OUT.

Example- *"Alpha Lima 6, this is 1 Alpha Lima 2, do you read me, over?"*

"1 Alpha Lima 2, this is Alpha Lima 6, go ahead, over"

"Alpha Lima 6, Alpha Lima 2, requesting medevac for priority case, over"

“Lima 2, Lima 6, can you tell me the nature of the wound, over?”

“Lima 6, Lima 2, roger that, it is a head wound, over”

“2, 6, stand by on this push for medevac, call sign Angel 13, good luck, Lima 6 out”

Lima 2 would then begin the procedure over with Angel 13.

Making Contact

When opening up a conversation, several phrases can be used to express ones desire to talk.

Radio Check-

Used after a period of silence to make sure the radio net is still operative.

Example- *“Lima 2, Lima 1, RADIO CHECK, over.”*

“Lima 1, this is Lima 2, I copy, over”

How Copy-

This term is used to test the quality of radio transmission.

Example- *“Hotel 25, Hotel 6, HOW COPY, over?”*

If the transmission is clear, the response is LOUD AND CLEAR, or phonetically, LIMA CHARLIE.

Example- *“Hotel 6, Hotel 25, I copy LIMA CHARLIE, over.”*

If the transmission is not clear, the receiving station explains the problem to the sending station.

Example- *“Hotel 6, Hotel 25, your message is garbled, over.”*

Do you read me-

This is just another way of saying, “Are you listening?”

Example- *“Oscar 3, Oscar 6, DO YOU READ ME, over?”*

Requests for action

Read back and I read back-

Used to request that receiving station read back message to make sure message is clear.

Example- *"Voodoo 23, this is Hammer 14, orders are…move to phase line alpha, conduct sweep of village, and contact Hammer 6 with results, READ BACK, over."*

"Hammer 14, Voodoo 23, I READ BACK…move to phase line alpha, conduct sweep of village, and contact Hammer 6 with results, over"

Say again and I say again-

Used to request sending station to repeat message. Do not use the word "Repeat", as this is the signal for an artillery unit to fire again on the same coordinates.

Example- *"Robin Hood, this is Sweet Pea, transmission garbled, SAY AGAIN, over"*

"Sweet Pea, Robin Hood, I SAY AGAIN…break contact and move to LZ, over"

Verify and I verify-

Used to request that sending or receiving station verify part or total of a message.

Example- *"Silver Bullet, Hotel 25, can you VERIFY number of hostiles at your position. Over"*

"Hotel 25, Silver Bullet, I VERIFY ONE ZERO Nathaniel Victor at my position, over"

Typical Radio Language-

Conditions-

Conditions are primarily designated by the colors green, yellow and red. Green is safe, yellow is possible action, and red is trouble.

Example- *"Hotel 6, Hotel 2, CONDITION RED, we are surrounded, over."*

Types of messages-

The 3 types of messages are ROUTINE, PRIORITY and FLASH. These indicate the level of importance, ROUTINE being standard, and FLASH being a serious emergency.

Example- *"Zodiac 13, Hammer 22, FLASH message follows…you are ordered to roll back from your current location"*

Authentication-

A request for the receiving station to provide the proper code word response to the sending stations code word.

Example: *“Lima 2, this is Lima 6, can you AUTHENTICATE OSCAR ZULU, over”*

“Lima 6, this is Lima 2, I AUTHENTICATE WHISKEY BRAVO, over”

Break-

Used to designate 2 separate, often unrelated components in the same message. “More to follow” is sometimes used to indicate a break followed by related information

Example- *“Hotel 5, this is Hotel 6, situation green, no enemy activity in my AO, BREAK, requesting resupply of ice cream ASAP, over.*”

“Hotel 5, this is Hotel 6, situation green, no enemy activity in my AO, MORE TO FOLLOW, over.”

Correction-

Used to announce a correction within a message, or in a following message, also used to plot artillery fire.

Example- *“Charlie 6, Charlie 3, spotted 4…CORRECTION…5 Nathaniel Victor, Sierra Whiskey of my pos, over.”*

Disregard-

Transmission is in error, ignore it.

Example- *“Red Mike 23, Mike 25, requesting fire mission…DISREGARD…target turned out to be civilians, over.”*

Do Not Answer-

Station is ordered not to respond, primarily for security reasons. When this proword is employed, the transmission shall be ended with tile proword "OUT."

Example- *“Delta 5, Delta 6 Actual, DO NOT ANSWER, proceed to rally point ZULU, 6 Actual, out.”*

Execute-

Carry out purpose of message.

Example- *“Bandit 41, Dove 13, EXECUTE strike on village on my mark, over.”*

This is, and From-

Used to denote whom message is coming from. Use THIS IS if message originates from sender, and FROM if message originates with third party.

Example- *“ Redleg 4, THIS IS Hotel 5, over.”*

Or *“Redleg 4, this is Hotel 5, stand by for message FROM Hotel 5 Actual, over.”*

Wait, Wait One, and Wait Out-

Used to indicate a need for the receiving station to hold up the transmission temporarily. Wait indicated a very short wait during a transmission. Wait One is used to indicate a longer break and is usually followed with OVER. Wait Out indicates a longer break, but requests the receiving station to keep monitoring the frequency.

Example- *“Golf 1, Whiskey 23, fire mission…WAIT…cancel fire mission, over.”*

“Golf 1, Whiskey 23, fire mission follows, WAIT ONE, over.”

“Golf 1, Whiskey 23, we are relocating, will contact momentarily, WAIT, OUT.”

Roger and Roger Wilco-

Used to indicate understanding of transmission, and compliance with orders (Wilco is short for Will Comply). Since the meaning of ROGER is included in that of WILCO, the two prowords are never used together.

Example- *“Cowboy 2, Cowboy 13, ROGER your last, over”*

Or *“Cowboy 2, Cowboy 13, ROGER WILCO, moving to new position as ordered, over.”*

Silence, Silence Lifted and Clear this net-

Silence is used to immediately alert all stations on the net to cease transmitting; typically this is to signal that the net may be compromised. Silence lifted is issued by the station that requested silence to alert stations that it is OK to begin transmitting again. Clear this net is used either by a high ranking station to clear non-essential stations off the net, or to alert the net to move to an alternate, predetermined frequency.

Example- *“All stations, Ripper Bravo 6, SILENCE, over”*

“All stations, Ripper Bravo 6, SILENCE LIFTED, over.”

“All stations, Ripper Bravo 6, CLEAR THIS NET, priority traffic only, over.”

“All stations, Ripper Bravo 6, CLEAR THIS NET, move to alternate two and resume transmitting, over.”

All After, All Before-

Referring to the portion of the message that follows_____, referring to portion of message that precedes____

Example- *"Lima 6, Lima 2 read back ALL AFTER, over."*

Say Again-

I am repeating transmission (or portion) indicated.

Example- *"Lasso 6, this is Lasso 2, I SAY AGANE we've got contact with squad size force, over"*

I Spell-

I spell the next word phonetically.

Message Follows-

A message which requires recording is about to follow. (Transmitted immediately after the call.)

Relay To-

Transmit this message to all addresses or to the address designations immediately following.

Example- *"Mike 5, this is Mike 6, RELAY TO Mike 1 my position has shifted 1klick to the right, how copy.*

Speak Slower-

Your transmission is at too fast a speed. Reduce speed of transmission.

Unknown Station-

The identity of the station with whom I am attempting to establish communication is unknown.

Example- *"UNKNOWN STATION, this is Alpha Lima 5, state your call sign and authenticate Lima Charlie, over"*

Worlds Twice-

Communication is difficult. Transmit(ting) each phrase (or each code group) twice. This proword may be used as an order, request, or as information.

Actual-

Most radio communication is handled by an RTO (Radio Telephone Operator), a term had to be developed to designate when the actual “owner” of the call sign was using the radio. That proword is ACTUAL.

Example: *“One Charlie Lima Six, this is One Charlie Lima One, can you put SIX ACTUAL on the horn, over?”*

Authentication and codes

a. Authentication is a security measure designed to protect a communications system against fraudulent transmissions. There are many circumstances in which authentication must be used, depending upon the needs or desires of each command. The policy of the commander is published in the SSI. Authentication tables are contained in the SOL

b. There is more detailed information on authentication in KAG-24/TSEC, which should be held by all commands that publish an SSI and SOI. This publicationis obtained through cryptologistic channels.

Authentication Challenge and Reply

a. The chart below is a simple authentication table. The letters A to Z, printed in sequence on the left hand side of the table, are the row designators. The numbers ~ to 9, next to the letters, represent those letters. For example, if either of the two test elements of the challenge is a number such as 4, the adjacent letter E is used.

b. Assume that an operator is challenged with two test elements-HL. The correct method of authentication is to use the first letter to the right of the last test element. The following procedure-is used to find the correct authentication.

(1) Locate the first test element, H, in the column of row designators.
(2) Scan across the row designated by H to find the second test element, L.
(3) The "first letter to the right" of L is A. Therefore, A is the authenticator and the challenged operator would reply ALFA.

c. If the second test element happens to be the last letter in the row, use the first letter in the same row as the authenticator. Thus, U would be the authenticator if the test elements HO were used.

FOR TRAINING PURPOSES ONLY

Row designator	Sample authentication system No. ———— effective 0501 to 2400 hr., 1 March 65
0 A	E C B X K Z O V J L M G S T F W I Y A D H P R Q N U
1 B	O T H P F W X K E D Z Y A L N S C J V B Q R M G I U
2 C	X N C E T S G Q R P H D Q Y I B W M J L V U O Z K F
3 D	T Z D E H W V J K X C A Y U I G S R Q O F B L N P M
4 E	W D V R H K X Y L N Z G E U B C J S T P M F I A O Q
5 F	M P N L B F O Q R S G I U Y A C X K J V W H E D Z T
6 G	J V U P C W O Z Y T K X S G Q E R I D A F M L N H B
7 H	U I G M R Q B V J C S N L A Y Z D E K X W F P H T O
8 I	B Q R T M G I U H P F S Y A C W K N X L E D Z O J V
9 J	B H N K M F A D I R Q G S X L T Y Z O W P U V J E C
K	K F M J P U N Y B H O A R X Z V D T C G W E S Q L I
L	Q R D A M X L N H K U I V P C J B F O S W E T Z Y G
M	H G M L D Y A T S Z K X B C O Q R P I W J V E U N F
N	V J O Z D E K X N L W C A Y S F P H U I G M T R Q B
O	A T J V E U O Q R P Y S Z K X B C I W N F H G M L D
P	M A D I K T E Q G V S O F B W H N L X Y Z J R C P U
Q	F N U E V J W I P R Q O C B X K Z S T Y A D L M G H
R	Z N T S Y J F U E C X B K W H I R Q O A V D L M P G
S	G Y Z T E W S O F B J C P V I U K H N L X M A D R Q
T	Q O A I F M P T S J C B U E G Z N L Y X K H R V D W
U	U P C R J Z Y X L N H W B F O S V G Q E T K I D A M
V	G P M L D V A O Q I H W K X B C E U F J Y S T N Z R
W	U N Q R P H D A Y I W F T S G M L J V O Z K X B C E
X	I L Q S E W G T D V C Z X R A O H B Y N U P J K M F
Y	D L M G H F N W I C B X K Z S Y P R Q O U E V J T A
Z	M P H O A R L G W E S Q K J X Z U N Y B V D T C I F

FOR TRAINING PURPOSES ONLY

d. Operators in a net must avoid repetition of the same pair of test elements when challenging. An enemy agent intercepting transmissions from a friendly station will have no trouble in determining the significance of the authentication test elements. Once he has learned the proper reply to a set of test elements, he can use imitative deception to enter the net. Thus, carelessness on the part of the operator can result in compromise of the authentication system.

When communicating on the radio, it is sometimes necessary to use codes, either for brevity or security. These come in 2 different forms, Alpha Codes, and Shackles.

Alpha Codes-

These are phonetic letter designators, typically in 3 letter groups, to give instructions to units on the nets. These need to be decided on before hand, and documented in the units SOI.

Examples-

ROMEO TANGO BRAVO- Return to base
ECHO ECHO ECHO- Contact made with enemy
ROMEO MIKE VICTOR- Request for medevac
WINCHESTER- Request for ammo resupply
VANGUARD- Request essential resupply
HARD LIGHTNING- Position over run
YELLOW MONDAY- Radio net compromised

Shackles

Shackles are predestinated codes that substitute phonetic letters for numbers. These are used to communicate map coordinates in code. These are stated in the SOI beforehand.

Example-

0=Alpha
1=Bravo
2=Charlie
3=Delta
4=Echo
5=Foxtrot
6=Golf
7=Hotel
8=India
9=Juliet

The map coordinates 31540 21500 would be transmitted as: *DELTA BRAVO FOXTROT ECHO ALPHA CHARLIE BRAVO FOXTROT ALPHA ALPHA.*

Direction-

In addition to using the clock, compass directions are indicated using the phonetic alphabet. The directions are as follows:

North- NOVEMBER
Northeast- NOVEMBER ECHO
Northwest- NOVEMBER WHISKEY
South- SIERRA
Southwest- SIERRA WHISKEY
Southeast- SIERRA ECHO
West- WHISKEY
East- ECHO

Requesting and Adjusting Artillery Fire

General

Despite the availability of artillery observers, infantrymen are often in the best position to observe and adjust artillery fire. Accordingly, every infantryman should be capable of requesting and adjusting artillery fire should the need arise. In general, procedures are the same as for conduct of fire with mortars.

Adjustment of Fire

The purpose of the call for fire is to place fire on or as close to the target as possible. If the initial rounds are not "on target", an adjustment must be conducted. The observer selects a point upon which to adjust. This should be a well defined point near the center of the area occupied by the target. The purpose of the adjustment is to move the center of impact to within 50 meters of the adjusting point. This is done by sending the FDC subsequent corrections for lateral deviation and range. The bursts are moved to and kept on the observer-target line in order to obtain positive range spottings. Range corrections are made to enclose the target between two successive rounds, thus establishing a bracket. This bracket is then split until the observer is assured that the next rounds will be within 50 meters of the target. He then calls for fire for effect. When the range spotting is doubtful, a deviation correction (to place the burst on the observer-target line) is requested. If the initial rounds or any succeeding rounds bracket the target for range (one round over and one round short), the request "fire for effect" is sent to the FDC. Fire for effect will consist of several batteries or the battalion firing one or more rounds. Distribution of weapons and normal dispersion will cause shell fragments to saturate the target area.

Preparation of the Call for Fire

The location of the target may be given in any manner clearly understandable to both the observer and the fire direction center. Regardless of the method used to designate the ground location of the target, the observer-target direction (in mils) must always be given. This can be obtained through the use of a compass, a map, or by comparison with a known direction. Normally, one of the following methods of designating the ground location is used:

a. *Grid coordinates.* Determine the grid coordinates of the target location. Example: Grid 734536, Direction 4800 (measure with compass).
b. *Shift.* From a registration point, reference point, a numbered target, or any other point the location of which is known to both observer and the fire direction center. The shift is announced as so many meters right or left and so many meters over (add) or short (drop) of the reference point. Example: With your field glasses you determine that your target is 200 mils to the right and about 400 meters short of the registration Point 1. You have determined that the distance from observer to the registration point is 3000

meters and the direction to the registration point is 1600 mils. To compute the shift you multiply the 200 mils times 3 (distance in thousands) equals 600 meters. You then direct the shift as follows: From Registration Point 1, Direction 1800 (1600 mils plus 200 mils), right 600, drop 400.

c. Polar coordinates.

1. It observer location is known by the fire direction center, the target location may be reported by giving the distance from the observer to the target along with the OT direction. Example: Determine direction (azimuth), estimate or measure distance, then give the information—Direction 120, distance 2100.
2. If target location cannot be obtained, a marking round may be used to determine shift to target. Example: Request the fire direction center to "Mark center of sector" or "Mark Registration Point I." Observer may request air burst or smoke rounds to assist in locating the initial rounds.

The Call for Fire

The call for fire should include the following elements in the sequence indicated below:

Element	Example
a. Identification of Observer	Red Leg 18 this is Big Boy 25; or FDC I am the platoon leader of 1st platoon, alfa company.
b. Warning	Fire mission.
c. Location of target	Grid 734536, Direction 4800; or From Reg Pt 1 Direction 1800, Right 600, Drop 400; or Direction 120, distance 2100.
d. Description of target	15-man patrol.
e. Method of fire and control	Adjust fire; or fire for effect (if the location of the target is accurate within 50 meters and the fire for effect will be effective without any adjustment).

Spotting

A spotting is a brief description of where the rounds landed with relation to the target. It assists the observer in developing his subsequent correction. Spottings are made from the center of the adjusting rounds. The sequence of the spotting is range and deviation. Spotting terms and examples are shown below:

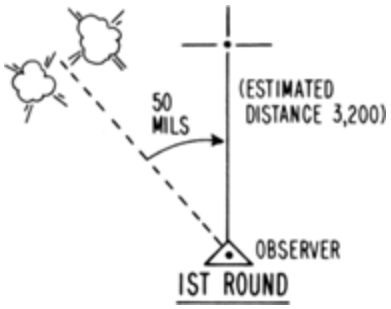
a. Range: Over, Short, Doubtful, or Range Correct.
b. Deviation: Left, Right, or Line.
c. Rounds that are not seen: Lost.

Subsequent Corrections

Visualize an imaginary line (OT line) from observer to the target. All correction for deviation will be in relation to the OT line; corrections for range will be in relation to the target. After adjustment has started, the observer sends the fire direction center corrections to be applied to the next rounds. Corrections are given in the following order:

a. The lateral deviation (in meters) of the burst center with respect to the OT line. The angular deviation in mils is converted to meters by multiplying the number of mils deviation by the OT factor. This is simply the estimated distance to the target in thousands of meters (rounded to the nearest thousand meters). Example: OT factor for an estimated OT distance of 3400 meters = 3.
b. The desired range change in hundreds of meters. Normally, range bounds are 100, 200, 400 meters, with the objective of immediately establishing a bracket on the target. After an initial bracket is obtained, it is successively split until a 100-meter bracket is split; at that time Fire for Effect is requested.
c. To conclude a fire mission, the observer reports "End of Mission" and the results of the fire for effect.

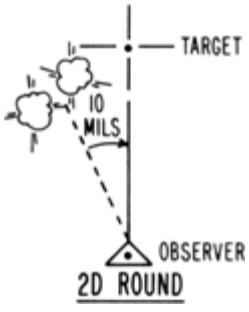
Example



The first adjusting round landed 50 mils left of the target and was doubtful for range.

SPOTTING: Doubtful. 50 left.

CORRECTION: "Right 150."



The second adjusting rounds landed short and 10 mils to the left.

SPOTTING: Short, 10 left.

CORRECTION: "Right 30, Add 400."

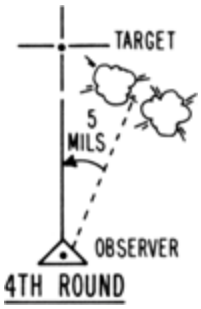
NOTE: From the spotting of short, the observer decides to make a range change of 400 meters in order to bracket the target with the next round.

The third adjusting rounds landed over and on line with the target.

SPOTTING: Over, Line.

CORRECTION: "Drop 200."

NOTE: Splits 400 meters bracket.

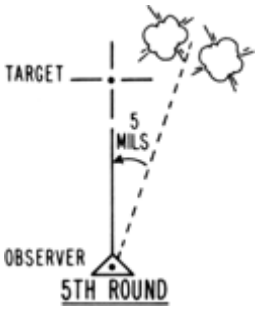


The fourth adjusting rounds landed short and 5 mils to the right.

SPOTTING: Short, 5 Right.

CORRECTION: "Add 100."

NOTE: Lateral deviations of less than 20 meters may be ignored during the adjustment. However, prior to going into fire for effect, errors of 10 meters or more will be corrected.

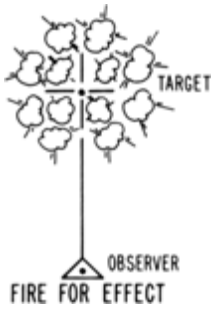


The fifth adjusting rounds landed over and 5 mils to the right.

SPOTTING: Over, 5 Right.

CORRECTION: "Left 20, Drop 50, Fire for Effect."

NOTE: This correction will place fire within 50 meters of target, so observer requests fire for effect. Corrections in deviation are sent to the nearest 10 meters



Fire for effect landed all around the target, neutralizing it.

The observer sends

"End of Mission," followed by a report of the effect,

"Estimate 10 Casualties."

Example: *"Redleg, Redleg, this is 1 Charlie Lima 1, fire mission, over."*

"Charlie Lima 1, this is Redleg, go ahead, over"

"Redleg, Lima 1, requesting fire mission at map coordinates 31440 25700, drop one round HE and I will adjust, over."

"Lima 1, Redleg, shot is out, please adjust, over."

"Redleg, Lima 1, adjust fire up 20, right 10 and fire 5 rounds HE for effect, over."

"Lima 1, Redleg, roger that, over."

"Redleg, Lima 1, great shooting, cease fire and stand by, over"

"Redleg, Lima 1, thanks for the assist, you were right on target, Lima 1, out."

Typical types of artillery rounds include

High Explosive- H.E. or HOTEL ECHO

Illumination- ILLUM (ee-loom) or ILLUMINATION

White Phosphorus- W.P. or WHISKEY PAPA or WILLY PETE

In addition, rounds can be fused to explode upon striking the ground, or higher in the air. This is called proximity fused. Rounds can also be set with a delay to explode after striking the ground or other objects.

Glossary of Military Terms & Slang

Numbers

4-F

classification given to those deemed unfit for military service

50-cal

.50 caliber machine gun

51-cal

heavy machine gun used by the enemy

79

an M-79 grenade launcher

82 mm

a mortar used by the enemy

105

a 105-mm howitzer

201 file

a U.S. Army personnel file

A

AAR

after-action report

AC

aircraft commander

actual

the unit commander. Used to distinguish the commander from the radioman when the call sign is used.

ADSID

air-delivered seismic intruder-detection device; microphone and transmitter dropped into suspect areas

Advance Guard Youth

Vietnamese student social and sports organization that evolved into a non-Communist nationalist movement by 1945.

Advanced Individual Training

specialized training taken after Basic Training, also referred to as Advanced Infantry Training

AFVN

Armed Forced Vietnam Network radio station

Agency

the Central Intelligence Agency

AGL

above level ground

A-gunner

assistant gunner

AHB

assault helicopter battalion

AID

Agency for International Development

Airborne

refers to soldiers who are qualified as parachutists

air cav

air cavalry; helicopter-borne infantry; helicopter gunship assault teams

Airmobile

helicopter-borne infantry

AIT

advanced infantry training

AK-47

Soviet-manufactured Kalashnikov semi-automatic and fully automatic combat assault rifle, 7.62-mm; the basic weapon of the Communist forces. Known as the Type 56 to the Chinese, it is characterized by an explosive popping sound.

AK-50

newer version of the AK-47. Some have a permanently mounted "illegal" triangular bayonet, which leaves a sucking wound that will not close.

ALPHA

military phonetic for the letter 'A'

ammo dump

location where live or expended ammunition is stored

amtrack

amphibious armored vehicle used to transport troops and supplies, armed with a .30-caliber machine gun. The Marines used them.

angel track

an armored personnel carrier used as an aid station

AO

area of operations

AOD

administrative officer on duty

ao-dai

traditional dress of Vietnamese women. A brightly colored silk top worn over loose fitting silk trousers.

APC

armored personnel carrier. A track vehicle used to transport Army troops or supplies, usually armed with a .50-caliber machine gun.

APL

barracks ship

APO

Army post office located in San Francisco for overseas mail to Vietnam.

AR

Army regulation

ARA

aerial rocket artillery. A Cobra AG-1H helicopter with four XM-159C 19-rocket (2.75 inch) pods.

arc light

code name for B-52 bombers strikes along the Cambodian-Vietnamese border. These operations shook earth for ten miles away from the target area.

Article 15

section of the Uniform Military Code of Justice. A form of non-judicial punishment.

arty

shorthand term for artillery

Arvin

soldier in the ARVN, or the ARVN itself

ARVN

Army of the Republic of Vietnam; the South Vietnamese Regular Army

A-team

basic ten man team of the U.S. Special Forces. The A-teams often led irregular military units which were not responsible to the Vietnamese military command.

AWOL

absent without leave; leaving a post or position without official permission

azimuth

a bearing from North

B

B-40 rocket

a shoulder-held rocket-propelled grenade launcher

B-52

U.S. Air Force high-altitude bomber; also, slang for a can opener

ba

married woman; used as a title, like "Mrs."

bac bac

bastardized Vietnamese for "to shoot"

bac-si

Vietnamese for doctor; also used to refer to medic in the U.S. Army

ballgame

an operation or a contact

Ba Mu'o'i Ba

brand name of a Vietnamese beer

band-aid

medic

bandoliers

belts of machine gun ammunition

BAR

Browning automatic rifle. A .30-caliber magazine-fed automatic rifle used by U.S. troops during World War II and Korea.

base camp

a resupply base for field units and a location for headquarters of brigade or division size units, artillery batteries and air fields. Also known as the rear area.

Basic

basic training

bac si de

home-brewed rice whiskey

basketball

an illumination-dropping aircraft mission, capable of lighting approximately a square mile of terrain

battalion

a military unit composed of a headquarters and two or more companies, batteries, or similar units

battery

an artillery unit equivalent to a company. Six 105mm or 155mm howitzers or two 8-inch or 175mm self-propelled howitzers.

battle-sight zeroing

process of adjusting a weapon's sights and windage to an individual soldier so the weapon, when fired, will hit the object of aim.

BCD

bad conduct discharge

BDA

bomb damage assessment

beans and dicks

military C-ration hot dogs and beans

beans and motherfuckers

military C-ration lima beans and ham

beaten zone

area where the majority of bullets will strike when a machine gun is laid-in to cover a part of a defensive perimeter or part of an ambush zone.

beehive round

an explosive artillery shell which delivered thousands of small projectiles, "like nails with fins," instead of shrapnel.

berm

perimeter line of a fortification; usually raised above surrounding area

Big Boys:

artillery; slang for tanks

Big Max

maximum security section of Long Binh Stockade, fashioned out of conex containers. There was one small hole in each side for light and air; in the sun they grew quite hot. Prisoners were allowed out twice a day to use the bathroom and exericise.

Big Red One

nickname for the 1st Infantry Division

Binh Xuyenn:

the organized crime syndicate that controlled much of the Vietnamese underworld and Saigon police until deposed by Diem's forces in 1955.

bird

any aircraft, but usually refers to helicopters

bird dog

forward air controller, usually in a small, maneuverable single-engined prop airplane

BK amputee

below-the-knee amputation of the leg

blood trail

a trail of blood on the ground left by a fleeing man who has been wounded

blooker

the M-79 grenade launcher. A 40-millimeter, shotgunlike weapon that shoots spin-armed "balls" or small grenades. Also known as a blooper.

blooper

the M-79 grenade launcher. A 40-millimeter, shotgunlike weapon that shoots spin-armed "balls" or small grenades. Also known as a blooker.

blue feature

any water feature. So called because of the color used to designate water on topographic maps.

body bag

plastic bag used to transport dead bodies from the field

body count

the number of enemy killed, wounded, or captured during an operation. The term was used by Washington and Saigon as a means of measuring the progress of the war.

boo-coo

bastardized French, from beaucoup, meaning "much" or "many".

boom-boom

sex

boondoggle

any military operation that hasn't been completely thought out. An operation that is absurd or useless.

boonie hat

soft hat worn by a boonierat in the boonies

boonierat

a combat infantryman

boonies

infantry term for the field; jungles or swampy areas far from the comforts of civilization

boot

a soldier just out of boot camp; inexperienced, untested

BOQ

bachelor officer quarters; living quarters for officers

bouncing Betty

antipersonnel mine with two charges: the first propels the explosive charge upward, and the other is set to explode at about waist level.

bowl

pipe used for smoking dope

BRAVO

military phonetic for the letter 'B'

Bravo

Army designation for the infantry man

breaking squelch

disrupting the natural static of a radio by depressing the transmit bar on another radio set to the same frequency

brigade

a tactical and administrative military unit composed of a headquarters and one or more battalions of infantry or armor, with other supporting units.

bro

a black soldier; also, at times, boonierats from the same unit

bronco

twin-engine observation aircraft equipped with rockets and miniguns

Bronze Star

U.S. military decoration awarded for heroic or meritorious service no involving aerial flights

brother

a fellow black Marine; sometimes used as slang for all black males

brown bar

a lieutenant; denotes the single bar of the rank. In the field, officers wore camouflage rank which was often brown or black instead of brass.

Brown Water Navy

term applied to the U.S. Navy units assigned to the inland boat patrols of the Mekong River delta.

BS

bullshit, as in chewing the fat, telling tall tales, or telling lies

buckle

to fight. "Buckle for your dust" means to fight furiously

bummer

bad luck, a real drag

bush

infantry term for the field

C

C-4

plastic, putty textured explosive carried by infantry soldiers. It burns like sterno when lit, and was used to heat C-rations in the field.

C-54

largest of the American helicopters, strictly for cargo. Also called Flying Crane or Skycrane.

C-123

small cargo airplane; the Caribou

C-130

large propeller-driven Air Force planes that carry people and cargo; the Hercules

C-141

large cargo airplane; the Starlifter

CA

combat assault. The term is used to describe dropping troopers into a hot LZ

cache

hidden supplies

camies

World War II term for camouflage uniforms

can cuoc

an identification card

C&C

command and control helicopter used by reconnaissance or unit commanders

Can Lao

the powerful semisecret political party of the Diem government headed by Ngo Dinh Nhu, Diem's brother. It permeated the entire administrative, intelligence, and defense structures of South Vietnam.

Cao Dai

a religious and political sect formed in the 1920s by a group of South Vietnamese intellectuals, combining the three major religions of Vietnam -- Buddhism, Confucianism, and Christianity -- with the worship of Vietnamese and Western heroes. With a strength of more that 1,500,000 followers, groups of Cao Dai still waged a stubborn resistance war against the Communists (especially in Tay Ninh Province) even after the U.S. troop withdrawal.

CAP

civil action program. U.S. military personnel working with Vietnamese civilians.

capping

shooting at

CAR-15

a carbine rifle

carbine

bust caps

Marine Corps term for firing a rifle rapidly

butter bar

see brown bar

a short-barreled, lightweight automatic or semiautomatic rifle

Caribou

small transport plane for moving men and material

Cav

Cavalry; the 1st Cavalry Division (Airmobile)

CC

company commander

CG

commanding general

chao

hello or goodby, depending upon the context

CHARLIE

military phonetic for the letter 'C"

Charlie

Viet Cong; the enemy

Charlie-Charlie

C&C

Chas

Viet Cong; the enemy

cheap Charlie

GI who is frugal with his money while in a bar

cherry

slang term for youth and inexperience; a virgin

Chicom

Chinese communist

Chicom mine

Chinese mine; can be made of plastic

Chieu Hoi

the "open arms" program, promising clemency and financial aid to Viet Cong and NVA soldiers and cadres who stopped fighting and returned to South Vietnamese government authority.

Chinook

CH-47 cargo helicopter

choi oi

exclamation of surprise

chop chop

slang for food

chopper

helicopter

chuck

term used by black marines to identify white individuals; often derogatory

Chuck

the Viet Cong; the enemy

CIB

combat infantry badge. And Army award for being under enemy fire in a combat zone, worn on both fatigues and dress uniforms.

CIDG

South Vietnamese Civilian Irregular Defense Groups

CINCPAC

commander in chief of all American forces in the Pacific region

Civilian Irregular Defense Group

American financed, irregular South Vietnamese military units which were led by members of Special Forces A-

teams. Members of these units were Vietnamese nationals, but were usually members of ethnic minorities in the country.

clacker

a small hand-held firing device for a claymore mine

claymore

an antipersonnel mine carried by the infantry which, when detonated, propelled small steel cubes in a 60-degree fan-shaped pattern to a maximum distance of 100 meters

clearance

permission from both military and political authorities to engage the enemy in a particular area

cluster fuck

any attempted operations which went bad; disorganized

clutch belt

cartridge belt worn by Marines

CMH

Congressional Medal of Honor. The highest U.S. military decoration awarded for conspicuous gallantry at the risk of life above and beyond the call of duty.

Co

unmarried woman; used as a title, like "Miss"

CO

commanding officer

Cobra

an AH-1G attack helicopter. Also known as a gunship, armed with rockets and machine guns.

Cochin-china:

the French name for its southern Vietnam colony, encompassing the III Corps and Mekong Delta rice-producing lowlands, which earlier was part of Cambodia.

Co Cong

female Viet Cong members

Code of Conduct

military rules for U.S. soldiers taken prisoner by the enemy

comics

topographic maps

commo

shorthand for "communications"

commo bunker

bunker containing vital communications equipment. Usually included in the last redoubt of established defensive positions.

commo wire

communications wire

company

a military unit usually consisting of a headquarters and two or more platoons

compound

a fortified military installation

concertina wire

coiled barbed wire used as an obstacle

connex container

corrugated metal packing crate, approximately six feet in length

contact

firing on or being fired upon by the enemy

CONUS

continental United States

CORDS

civil operations and revolutionary development support. Created by civilian administration, MACV, and the CIA to coordinate American pacification efforts.

COSVN

central office of South Vietnam. Communist headquarters for military and political action in South Vietnam.

counterinsurgency

antiguerrilla warfare

country team

the staff and personnel of an American embassy assigned to a particular country

co van

advisor. American assigned to Vietnamese military units or to political division within the country to help direct and train Vietnamese military and civilian officials.

coxwain flat

the area where the coxwain (driver) stands when he steers a boat or ship

CP

command post

CP pills

anti-malarial pills

CQ

charge of quarters. An officer officially in charge of a unit headquarters at night.

C-rations

combat rations. Canned meals for use in the field. Each usually consisted of a can of some basic course, a can of fruit, a packet of some type of dessert, a packet of powdered coca, a small pack of cigarettes, and two pieces of chewing gum.

crispy critters

burn victims

CS

a riot-control gas which burns the eyes and mucus membranes

cumshaw

unofficial trading, begging, bartering, or stealing from other branches of the service

cyclo

motorized rickshaw

D

DA

Department of the Army

Dac Cong

Viet Cong special forces

Dai Doan Ket

Party of Great Solidarity. Organized in 1954 to unify the non-Communist nationalist organizations in South Vietnam in the period before Ngo Dinh Diem came to full power. Headed by Diem's brother, Ngo Dinh Nhu, this was the forerunner of the Can Lao.

daily-daily

daily anti-malarial pill

dai uy

Vietnamese for captain

Dai Viet

formed in 1930 as a non-Communist revolutionary and political organization throughout Vietnam. Though more widespread and with a larger membership than Ho Chi Minh's Viet Minh or Lao Dong Party, the Dai Viets were fragmented into regional factions. The assassination of Truong Tu Anh, the Dai Viet leader, in 1946 by Ho's agents further fragmented the Dai Viets. By the mid-1960s the Dai Viets had evolved into two major parties that both played key roles in opposing or supporting the various South Vietnamese governments. Since 1975, there has been severe repression against Dai Viet members, some of whom still carry on resistance to the Communist government.

dap

handshake and greeting which may last up to ten minutes and is characterized by the use of both hands and often comprised of slaps and snaps of the fingers. Used by black soldiers, highly ritualized and unit specific.

DCI

the Director of the CIA

de-Americanization

early term for Vietnamization

DELTA

military phonetic for the letter 'D'

DEROS

date of expected return from overseas. The day all American soldiers in Vietnam were waiting for.

det-cord

detonating cord used with explosives

deuce-and-a-half

two-and-a-half ton truck

dew

marijuana

DH5

Viet Cong claymore mine

DH10

Viet Cong claymore mine

di

go

dicks

derogatory expression referring to both male genitalia and the enemy

diddy-bopping

walking carelessly

didi

slang from the Vietnamese word di, meaning "to leave" or "to go"

didi mau

slang Vietnamese for "go quickly"

dink

derogatory term for an Asian

dinky dau

to be crazy

district team

American personnel assigned to act as advisors to Vietnamese military and civilian officials at the district level.

District Mobile Company

the major Viet Cong fighting unit organized within each district in Vietnam. The District Mobile Company was assigned to carry out various assignments from direct offensive operations to sabotage and terrorism.

DMZ

demilitarized zone. The dividing line between North and South Vietnam established in 1954 at the Geneva Convention.

doc

medic or corpsman

dong

unit of North Vietnamese money about equal to a penny

doo-mommie

English approximation of the Vietnamese du ma, meaning literally "fuck mother"

double veteran

Having sex with a woman and then killing her made one a double veteran.

DP

displaced person

D-ring

a D-shaped metal snap link used to hold gear together

DRO

dining room orderly

drops

reduction in length of tour caused by overall reduction and withdrawal of American forces from Vietnam.

DTs

defensive targets

dung lai!

stop!

dust-off

medical evacuation by helicopter

DX

direct exchange. Also, to discard or dispose of, or to kill someone.

E

eagle flights

large air assault of helicopters

Early-Outs

a drop or reduction in time in service. A soldier with 150 days or less remaining on his active duty commitment when he DEROSed from Vietnam also ETSed from the army under the Early Out program.

ECHO

military phonetic for the letter 'E'

elephant grass

tall, razor-edged tropical plant indigenous to certain parts of Vietnam

Eleven Bravo

the MOS of an infantryman

EM

enlisted man

EOD

explosive ordinance disposal. A team that disarms explosive devices.

E-tool

entrenching tool. Folding shovel carried by infantrymen.

ETS

date of departure for overseas duty station; estimated time of separation from military service.

F

F-4

Phantom jet fighter-bombers. Range: 1,000 miles. Speed: 1400 mph. Payload: 16,000 lbs. The workhorse of the tactical air support fleet.

FAC

forward air controller; a person who coordinates air strikes

fast mover

an F-4

fatigues

standard combat uniform, green in color

FB

firebase

FDC

fire direction control center

finger charge

explosive booby-trapping device which takes its name from the size and shape's being approximately that of a man's finger

fire base

temporary artillery encampment used for fire support of forward ground operations

firefight

a battle, or exchange of small arms fire with the enemy

Fire Track

flame-thrower tank

five

radio call sign for the executive officer of a unit

flack jacket

heavy fiberglass-filled vest worn for protection from shrapnel

flaky

to be in a state of mental disarray, characterized by spaciness and various forms of unreasoning fear

flare

illumination projectile; hand-fired or shot from artillery, mortars, or air

flechette

a small dart-shaped projectile clustered in an explosive warhead. A mine without great explosive power containing small pieces of shrapnel intended to wound and kill.

FNG

fucking new guy

FO

evac'd

evacuated

expectants

casualties who are expected to die

forward observer. A person attached to a field unit to coordinate the placement of direct or indirect fire from ground, air, and naval forces.

foo gas

a mixture of explosives and napalm, usually set in a fifty-gallon drum

fours

F-4s

FOXTROT

military phonetic for the letter 'F'

frag

fragmentation grenade; verb form of "fragging"

fragging

the assassination of an officer by his own troops, usually be a grenade

freak

radio frequency. Also, a junkie or a doper.

Freedom Bird

the plane that took soldiers from Vietnam back to the World

free fire zone

free strike zone

free strike zone

area where everyone was deemed hostile and a legitimate target by U.S. forces

French fort

a distinctive triangular structure built by the hundreds by the French

freq

radio frequency

friendly fire

accidental attacks on U.S. or allied soldiers by other U.S. or allied soldiers

FUBAR

acronym for "Fucked Up Beyond All Recognition," used to describe any disorganized operation

fuck

along with fucked and fuckin', the most commonly used word in the GI vocabulary other than the article 'a'

fucked up

wounded or killed. Also, to get stoned, drunk, or to be foolish or do something stupid.

fugazi

fucked up or screwed up

FULRO

United Front for the Struggle of Oppressed Races. Resistance organization in the highlands of Vietnam made up of Montagnards, Cham, and ethnic Khmer. FULRO is still conducting resistance against Communist operations to subjugate the indigenous tribal peoples.

FUNCINPEC

National United Front for an Independent, Neutral, Peaceful, and Cooperative Cambodia. Prince Sihanouk's non-Communist political and military organization which attempted to drive the Vietnamese occupation forces out of Cambodia and reestablish independence. In 1982 FUNCINPEC joined the Cambodian Coalition Government and shared the seat at the United Nations.

funny papers

topographic maps

FWMAF

Free World Military Assistance Forces. The Allies.

G

G-3

division level tactical advisor; a staff officer.

Garand

the M-1 rifle

ghosting

goldbricking or sandbagging; fucking off

GI

government issue. Usually refers to an American soldier.

Glad bag

slang term for body bag

GOLF

military phonetic for the letter 'G'

gook

derogatory term for an Asian; derived from Korean slang for "person" and passed down by Korean war veterans

Green Berets

U.S. Special Forces

greens

Army Class A uniform

GR point

graves registration point. That place on a military base where the identification, embalming and processing of dead soldiers takes place as part of the operations of the quartermaster.

grids

map broken into numbered thousand-meter squares

grunt

infantryman. Originally slang for a Marine fighting in Vietnam but later applied to any solder fighting there; a boonierat.

GSW

gunshot wound

the Gun

the M-60

gung ho

enthusiastic (usually about military matters and killing people)

gunship

armed helicopter

GVN

Government of South Vietnam

H

HALO

high-altitude, low-opening jumping for insertion of troops behind enemy lines. The jump is begun from 15,000 feet.

hamlet

a small rural village

hammer and anvil

an infantry tactic of surrounding an enemy base area, then sending in other units to drive the enemy out of hiding.

hand frag

a fragmentation grenade thrown by a soldier

H&E

high explosive

H&I

harassment and interdiction. Artillery bombardments used to deny the enemy terrain which they might find beneficial to their campaign; general rather than specific, confirmed military targets; random artillery fire.

hardstand

a pierced steel plate (PSP) platform over sand

hard-stripe sergeant

rank indicated by chevron insignia, equivalent to an E5 or E6, but denoting some limited authority as well. Others of the same rank without the stripes were little more than PFCs.

Heart

a Purple Heart award for a wound; the wound itself

heat tabs

flammable tablet used to heat C-rations. Always in short supply.

Hercules

a C-130

HES

Hamlet Evaluation System. An evaluation system devised and run by Americans in Saigon which required monthly computerized reports from all the DSAs in the country.

HHC

headquarters and headquarters company

higher-highers

the honchos; the command or commanders

HM

Navy hospital corpsman; a medic

Hmong

A dominant Laotian hill tribe, around sixty percent of whom opposed the North Vietnamese and Pathet Lao, in alliance with the Americans and Royal Lao government. After 1975 the Communists stepped up repression against the Hmong, who refused to be collectivized. Massive numbers of Hmong have been killed or driven into Thailand.

Hoa Hao

a Buddhist sect of two million in the western Mekong Delta, founded in the 1930s. Since the assassination of the founder and prophet, Huynh Phu So, by Ho Chi Minh's forces, the Hoa Hao have been fiercely anti-Communist.

Ho Chi Minh slippers

sandals made from tires. The soles are made from the tread and the straps from inner tubes.

Hoi-Chanh

Vietnamese Communist soldiers and cadre who rallied to the South Vietnamese government under the Chieu Hoi amnesty program.

honey-dippers

people responsible for burning human excrement

honky

African American vernacular term for white people.

hooch

a hut or simple dwelling, either military or civilian. Also spelled hootch.

hoochgirl

Vietnamese woman employed by American military as maid or laundress

hook

a radio; a radio handset

horn

radio microphone

hot

area under fire

HOTEL

military phonetic for the letter 'H'

hot LZ

a landing zone under enemy fire

howitzer

a short cannon used to fire shells at medium velocity and with relatively high trajectories

HQ

headquarters

Huey

nickname for the UH-1 series helicopters

hump

march or hike carrying a rucksack; to perform any arduous task

I

I Corps

the northernmost military region in South Vietnam

II Corps

the Central Highlands military region in South Vietnam

III Corps

the densely populated, fertile military region between Saigon and the Highlands

IV Corps

the marshy Mekong Delta southernmost military region

IG

Inspector General of the U.S. Army

illum

an illumination flare, usually fired by a mortar or artillery weapon

immersion foot

condition resulting from feet being submerged in water for a prolonged period of time, causing cracking and bleeding.

in-country

Vietnam

increments

removable charges attached to mortar fins. If they become wet, the mortar round misfires and falls short.

INDIA

military phonetic for the letter 'I'

insert

to be deployed into a tactical area by helicopter

Iron Triangle

Viet Cong dominated area between the Thi-Tinh and Saigon rivers, next to Cu Chi district

J

JAG

judge advocate general, the legal department of the Armed Services

jet jockey

Air Force fighter pilot

Jody

the person who wins your lover or spouse away while you are in the Nam. From the marching song or cadence count, "Ain't no use in goin' home / Jody's got your girl and gone / sound off...."

john wayne

can opener. Also used as a verb to describe the actions of someone who exposes himself to danger. For an example of what some GIs though of John Wayne, see Robert Flynn's essay, "John Wayne Must Die."

JULIET

military phonetic for the letter 'J'

jungle boots

footwear that looks like a combination of combat boot and canvas sneaker used by the U.S. military in a tropical climate, where leather rots because of the dampness. The canvas structure also speeds drying after crossing streams, rice paddies, etc.

jungle utilities

lightweight tropical fatigues

K

k

kilometer

KBA

killed by artillery

K-bar

combat knife

KCS

Kit Carson scout

KIA

killed in action

killing zone

the area within an ambush where everyone is either killed or wounded

kill zone

the radius of a circle around an explosive device within which it is predicted that 95 percent of all occupants will be killed should the device explode

KILO

military phonetic for the letter 'K'

Kit Carson scout

former Viet Cong who act as guides for U.S. military units

khong xau

Vietnamese slang for "don't worry about it," literally, "not bad"

klick

kilometer

Kool-Aid

killed in action

KP

kitchen police; mess hall duty

KPNFL

Khmer People's National Liberation Front. The major non-Communist Cambodian political and resistance organization fighting against the Vietnamese occupation force. Formed in 1979 by former prime minister Son Sann, the KPNFL is responsible for caring for and protecting nearly two-thirds of the 250,000 Cambodian refugees on the Thailand border from attacks by both the Khmer Rouge and the Vietnamese. Also called the Sereika by Cambodians, the KPNLF joined the resistance coalition government (CGOK) in 1982 and shared Cambodia's seat at the United Nations.

L

L

a type of ambush set-up, shaped like the letter 'L'

lager

a night defensive perimeter

Lao Dong

the Vietnamese Workers Party

LAAW

a shoulder-fired, 66-millimeter rocket, similar in effect to a 3.5-inch rocket, except that the launcher is made of Fiberglass, and is disposable after one shot

lay chilly

to freeze; to stop all motion

LBJ

Long Binh Stockade, a military stockade on Long Binh post

LCM

a mechanized landing craft used in harbors and inland waterways

leg

slightly contemptuous term used by airborne-qualified troops when they are talking about regular infantry

lego

infantry unit

lien doi

company group. A Vietnamese military unit consisting of three militia infantry companies

lifer

career military man. The term is often used in a derogatory manner.

LIMA

military phonetic for the letter 'L'

lima-lima

land line. Refers to telephone communications between two points on the ground.

litters

stretchers to carry dead and wounded

little people

the enemy

lit-up

fired upon; shot and killed or wounded

LLDB

Luc Luong Dac Biet. The South Vietnamese Special Forces.

LMG

light machine gun. The Soviet made RPD, a bi-pod mounted, belt fed weapon similar to the American M-60 machine gun. The RPD fires the same cartridge as the AK-47 and the SKS carbine.

loach

a LOH

Log Bird

logistical (resupply) helicopter

LP

listening post. A two- or three-man position set up at night outside the perimeter away from the main body of troopers, which acted as an early warning system against attack. Also, an amphibious landing platform used by infantry for storming beaches from the sea.

LRRP

Long Range Reconnaissance Patrol. An elite team usually composed of five to seven men who go deep into the jungle to observe enemy activity without initiating contact.

LSA

small arms lubricant

LST

troop landing ship

LT

lieutenant

lurps

members of Long Range Reconnaissance Patrols

LZ

landing zone. Usually a small clearing secured temporarily for the landing of resupply helicopters. Some become more permanent and eventually become base camps.

M

M-1

World War II vintage American rifle

M-14

Wood stock rifle used in early portion of Vietnam conflict

M-16

the standard U.S. military rifle used in Vietnam from 1966 on. Successor to the M-14.

M-60

the standard lightweight machine gun used by U.S. forces in Vietnam

M-79

a U.S. military hand-held grenade launcher

MA

mechanical ambush. Euphemism for an American set booby trap.

MACV

Military Assistance Command / Vietnam. The main American military command unit that had responsibility for and authority over all U.S. military activities in Vietnam. Based at Tan Son Nhut.

mad minute

a weapons free-fire practice and test session

Main Force Battalion

the primary Viet Cong fighting force within each province of South Vietnam. These units were often large enough and well enough equipped to participate in direct attacks on large Vietnamese and American installations and units.

mama san

pidgin used by American servicemen for any older Vietnamese woman

MARS

Military Affiliate Radio Station. Used by soldiers to call home via Signal Corps and ham radio equipment.

Mas-Cal

mass casualty

MASH

mobile Army surgical unit

MAT

mobile advisory team. Five-man teams of American advisors who were assigned to live and work in the Vietnamese villages.

Mat Tran

the Vietnamese Liberation Front.

marker round

the first round fired by mortars or artillery. Used to adjust the following rounds onto the target.

mechanized platoon

a platoon operating with tanks and/or armored personnel carriers

Med Cap

Medical Civil Action Program in which U.S. medical personnel would go into the villages to minister to the local populace.

medivac

medical evacuation from the field by helicopter

mermite

large insulated foot containers

MFW

multiple frag wounds

MG

machine gun

MIA

missing in action

mighty mite

commercial air-blower used for injecting gas into tunnels

MIKE

military phonetic for the letter 'M'

mike-mike

shorthand for millimeter

million-dollar wound

a non-crippling wound serious enough to warrant return to the U.S.

Minigun

electronically controlled, extremely rapidly firing machine gun. Most often mounted on aircraft to be used against targets on the ground.

Mr. Charles

the Viet Cong; the enemy

MI team

military intelligence team

Monday pills

anti-malarial pills taken once a week

the Monster

a PRC-77

Montagnard

a Vietnamese term for several tribes of mountain people inhabiting the hills and mountains of central and northern Vietnam.

moose

a Vietnamese mistress

mortar

a muzzle-loading cannon with a short tube in relation to its caliber that throws projectiles with low muzzle velocity at high angles.

MOS

military occupational specialty

most ricky-tick

immediately, if not sooner

MP

military police

MPC

military payment currency. The scrip U.S. soldiers were paid in.

MR IV

Viet Cong military region surrounding and including Saigon

mule

small, motorized platform originally designed to carry a 106-millimeter recoilless rifle, but most often used for transporting supplies and personnel.

N

Nam

Vietnam

napalm

a jellied petroleum substance which burns fiercely, and is used as a weapon against personnel.

nape

napalm

NCO

noncommissioned officer. Usually a squad leader or platoon sergeant.

NDP

night defensive position

net

radio frequency setting, from "network."

New Socialist Man

Orwellian concept adopted by the Communists. The ideal collectivized citizen.

Next

the man who said he was the next to rotated home.

nickel

the number five

NLF

National Liberation Front

no sweat

easy, simple

NPD

night perimeter defense

number one

the best

number ten

the worst

number ten thousand

a description of how bad things can be

Nung

tribespeople of Chinese origin, from the highlands of North Vietnam. Some who moved South worked with the U.S. Special Forces.

nuoc-mam

fermented fish sauce used by the Vietnamese as a condiment

NVA

North Vietnamese Army

O

OCS

officer candidate school

OD

olive drab, a camouflage color

opcon

operational control

open sheaf

a term used in calling artillery, whereby the artillery rounds were spread along an axis rather than concentrated on a single point (as when it was desired to cover a treeline).

OR:

operating room

OSCAR

military phonetic for the letter 'O'

OSS

Office of Strategic Services

over the fence

crossing into Cambodia or Laos

P

P

slang for the Vietnamese piaster. One piaster was worth one cent or less.

P-38

a tiny collapsible can opener, also known as a "john wayne"

PAPA

military phonetic for the letter 'P'

papa san

pidgin used by U.S. servicemen for any older Vietnamese man

Papa Sierra

slang for platoon sergeant

Pathet Lao

the Laotian Communists who, from their inception have been under the control of the Vietnamese Communist Party.

PBR

river patrol boat. Navy designation for the fast, heavily armed boats used for safeguarding the major canals and rivers and their tributaries in South Vietnam.

peanuts

wounded in action

perimeter

outer limits of a military position. The area beyond the perimeter belongs to the enemy.

PF

Popular Forces. South Vietnamese National Guard-type local military units

PFC

private first class

Phoenix

intelligence-based campaign to eliminate the Viet Cong infrastructure

PIO

public information officer, or a person who works for that office

piss-tube

a vertical tube buried two-thirds in the ground for urinating into

platoon

a subdivision of a company-sized military unit, normally consisting of two or more squads or sections

pogue

derogatory term for military personnel employed in rear echelon support capacities, usually used by Marines

point

the forward man or element on a combat patrol

poncho liner

nylon insert to the military rain poncho, used as a blanket

pop smoke

to ignite a smoke grenade to signal an aircraft

pos

slang for position, usually meaning a friendly location

post-traumatic stress disorder

development of characteristic symptoms after the experiencing of a psychologically traumatic event or events outside the range of human experience usually considered to be normal. The characteristic symptoms involve reexperiencing the traumatic event, numbing of responsiveness to, or involvement with, the external world, exaggerated startle response, difficulty in concentrating, memory impairment, guilt feelings, and sleep difficulties.

POW

prisoner of war

PRC-25

Portable Radio Communications, Model 25. A back-packed FM receiver-transmitter used for short-distance communications. The range of the radio was 5-10 kilometers, depending on the

weather, unless attached to a special, nonportable antenna which could extend the range to 20-30 kilometers.

PRC-77

a radio similar to the PRC-25, but with a cryptographic scrambling / descrambling unit attached. Very heavy. Transmission frequencies on the PRC-77 were called the secure net.

prick 25

PRC-25 radio

profile

a prohibition from certain types of military duty due to injury or disability

Proo

PRU

province chief

governor of a state-sized administrative te

Q

QUAD-50s

a four-barrelled assembly of .50 caliber machine guns

Quantico

Marine training base in Virginia

QUEBEC

military phonetic for the letter 'Q'

R

RA

Regular Army, prefix to serial number of enlistees

rabbits

white American soldiers, according to black vernacular

rack

bed or cot

rallier

defector from the Viet Cong

R&R

rest and recreation. A three to seven-day vacation from the war for a soldier.

Rangers

elite commandos and infantry specially trained for reconnaissance and combat missions

RBF

reconnaissance by fire

react

for one unit to come to the aid of another under enemy fire

recon

reconnaissance. Going out into the jungle to observe for the purpose of identifying enemy activity.

Recondo School

a training school in-country for LRRPs. The largest was at Na Trang, where the training action was taken against the 17th NVA Division.

red alert

the most urgent form of warning. Signals an imminent enemy attack.

redball

an enemy high speed trail or road

red bird

a Cobra helicopter

Red Legs

slang for Artillery. In the Civil War, Union Artillery men had red stripes on their pants.

reeducation camps

political prisons and labor camps of varying degrees of severity and size that comprised the Soviet-style gulag system throughout Communist Vietnam

regiment

a military unit usually consisting of a number of battalions

Regional Forces

militia units organized within each district in South Vietnam to engage in offensive operations against local Viet Cong forces. RF units were better paid and equipped than PF units and could be assigned duties anywhere within the home district.

REMF

rear-echelon motherfucker

repo depo

replacement detachment

RF/PF

Regional and Popular Forces. The South Vietnamese National Guard-type units. Regional Forces were company-size and protected district areas. Popular Forces were platoon-size and guarded their home villages.

rice paddy racers

rubber shower shoes used by GIs

RIF

reconnaissance in force. A heavy reconnaissance patrol. Later, RIF came to mean reduction in force; an administrative mechanism for retiring career soldiers prior to the end of their twenty year term.

ringknocker

graduate of a military academy. Refers to the rink worn by graduates.

rock'n'roll

firing a weapon on full automatic

ROK

soldier from the Republic of Korea

ROMEO

military phonetic for the letter 'R'

Rome plow

mammoth bulldozer used to flatten dense jungle

RON

remain-overnight operation

rotate

to return to the U.S. at the end of a year's tour in Vietnam

ROTC

Reserve Officer's Training Corps. Program offered in many high schools and colleges, geared to prepare students to become military officers.

RPD

a 7.62 mm Communist machine gun with a 100-round, belt operated drum that fires the same round as the AK-47

RPG

a rocket-propelled grenade. A Russian-made portable antitank grenade launcher.

RTO

radio telephone operator. The man who carried his unit's radio on his back in the field.

ruck/rucksack

backpack issued to infantry in Vietnam

Ruff Puff

derogatory term used by Americans for RF/PF

Rules of Engagement

the specific regulations for the conduct of air and surface battles by U.S. and allied forces during the Vietnam war

rumor control

the most accurate source of information prior to the actual occurrence of an event

S

S-1

Personnel

S-2

Intelligence

S-3

Operations

S-4

Supply

S-5

Civil Affairs

saddle up

put on one's pack and get ready to march

salvo

firing a battery in unison

sampan

a Vietnamese peasant's boat

SAF

small arms fire

S&S

Supply & Service; designation of a support unit

sapper

a Viet Cong or NVA commando, usually armed with explosives

satchel charges

pack used by the enemy containing explosives that is dropped or thrown and is generally more powerful than a grenade

SeaBees

Navy construction engineers

SEAL

highly trained Navy special warfare team members

search and destroy

an operation in which Americans searched an area and destroyed anything which the enemy might find useful

SEATO

Southeast Asia Treaty Organization

seminar camp

the Laotian Communist version of the reeducation camp for political prisoners

Sereika (Khmer Serei)

the non-Communist Cambodian resistance force

Sgt. Rock

a combat-scarred World War II comic book character

SERTS

Screaming Eagle Replacement Training School

set

a party

SF

Special Forces

shake'n'bake

sergeant who attended NCO school and earned rank after only a very short time in uniform

shamming

goofing off or getting by with as little effort as possible

shaped charge

an explosive charge, the energy of which is focused in one direction

shit burning

the sanitization of latrines by kerosene incineration of excrement

short

a term used by everyone in Vietnam to tell all who would listen that his tour was almost over

short-timer

soldier nearing the end of his tour in Vietnam

short-timer's stick

when a soldier had approximately two months remaining on his tour in Vietnam, he might take a long stick and notch it for each of his remaining days in-country. As each day passed he would cut the stick off another notch until on his rotation day he was left with only a small stub.

shrapnel

pieces of metal sent flying by an explosion

SIERRA

military phonetic for the letter 'S'

Silver Star

U.S. military decoration awarded for gallantry in action

sit-rep

situation report

six

any Unit Commander, from the Company Commander on up

six-by

a large flat-bed truck usually with wooden slat sides enclosing the bed and sometimes a canvas top covering it. Used for carrying men or anything else that would fit on it.

skate

a task that required little effort or pain; verb form means to take it easy

SKS

Simonov 7.62 mm semi-automatic carbine

sky

to leave

sky crane

huge double-engine helicopter used for lifting and transporting heavy equipment

sky out

to flee or leave suddenly

slackman

the second man back on a patrol, directly behind the point

slant

derogatory term for a Vietnamese person

slick

a UH-1 helicopter used for transporting troops in tactical air assault operations. The helicopter did not have protruding armaments and was, therefore, "slick".

slope

derogatory term for an Asian person

SMG

submachine gun

smoke grenade

a grenade that released brightly colored smoke. Used for signaling.

Snake

a Cobra helicopter

SOI

Signal Operating Instructions. The booklet that contained all of the call signals and radio frequencies of the units in Vietnam.

solacium payment

standard amount paid by the U.S. government to Vietnamese civilians when U.S. forces were deemed responsible for a wrongful civilian death. For a detailed discussion of a Solacium payment see Jim Lynch's artice, "Solacium Payment."

SOP

standard operating procedure

Sopwith Camels

slang term for a light, fixed-wing reconnaissance aircraft

soul brother

a black soldier

Spec-4

Specialist 4th Class. An Army rank immediately above Private First Class. Most enlisted men who had completed their individual training and had been on duty for a few months were Spec-4s. Probably the most common rank in the Vietnam-era Army.

Spec-5

Specialist 5th Class. Equivalent to a sergeant.

spider hole

camouflaged enemy foxhole

splib

term originated by black marines to identify other black soldiers. Supposedly meant to imply superior qualities.

Spooky

a large propeller-driven aircraft with a Minigun mounted in the door. Capable of firing 6,000 rounds per minute. Also used to refer to gunship helicopters with Miniguns.

SP pack

cellophane packet containing toiletries and cigarettes which was sometimes given along with C-rations to soldiers in the field.

squad

a small military unit consisting of less than ten men

staff sergeant

a E-6, the second lowest noncommissioned officer rank

stand-down

an infantry unit's return from the boonies to the base camp for refitting and training. Later, a unit being withdrawn from Vietnam and redeployed to the U.S.

Starlifter

a C-141, the largest military cargo transport airplane in the Air Force inventory

starlight scope

an image intensifier using reflected light to identify targets at night

steel pot

the standard U.S. Army helmet. The steel pot was the outer metal cover.

strac

smart, sharp, well prepared (from STRategic Air Command)

strategic hamlet program

a controversial pacification and village self-defense program implemented by the Diem government that attempted to turn all sixteen thousand South Vietnamese hamlets into fortified compounds.

strobe

hand held strobe light for marking landing zones at night

syrette

collapsible tube of morphine attached to a hypodermic needle. The contents of the tube were injected by squeezing it like a toothpaste tube.

T

TA-50

individual soldier's standard issue of combat clothing and equipment

TAC

tactical air strikes; fighter bombers

Tail-end Charlie

last unit in a long column on the move

T&T

through and through wound. One in which a bullet or fragment has entered and exited the body.

tanglefoot

single-strand barbed wire strung in a meshwork pattern at about ankle height. A barrier designed to make it difficult to cross the obstructed area by foot. Usually placed around permanent defensive positions.

TANGO

military phonetic for the letter 'T'

Tango boat

U.S. Navy designation for an armored landing craft mounted with 50-caliber machine guns and a 40-caliber anti-aircraft gun used for direct fire.

TC

tactical commander

Tet

January holiday, Buddhist lunar New Year. Buddha's birthday.

Tet Offensive

a major uprising of the National Liberation Front, their sympathizers, and NVA characterized by a series of coordinated attacks against military installations and provincial capitals throughout Vietnam. It occurred during the lunar New Year at the end of January, 1968.

tee-tee

pidgin for very small

TFES

territorial forces evaluation system. The companion report of the HES. A computerized military evaluation system devised by American authorities in Saigon and used by them to assess the readiness of the militia forces. Each month advisors at the district level had to fill out the long computer print-out sheets and report on many different aspects of quantity and quality in the militia forces. Like all computer programs, the quality of this one's output was dependent upon the quality of the input.

thermite

a mixture of powdered aluminum and metal oxide which produces great heat for use in welding and incendiary bombs

Three

radio call signal for the operations officer

three-quarter

a three-quarter ton truck

tiger suits

camouflage fatigue uniforms

tight

good friends are close to ("tight" with) each other

TO

tactical officer

TO&E

Table of Organization and Equipment

TOC

tactical operations center

Top

a top sergeant

TOT

time on target. Prearranged mortar or artillery barrage, set to occur at a specific time in order to coordinate with an infantry assault

trach

a tracheotomy. Making an opening into the windpipe to facilitate breathing.

tracer

a round of ammunition chemically treated to glow or give off smoke so that its flight can be followed.

tracks

any vehicles which move on tracks rather than wheels

triage

the procedure for deciding the order in which to treat casualties

trip flare

a ground flare triggered by a trip wire used to signal and illuminate the approach of an enemy at night.

Tropic Lighting

the U.S. 25th Infantry Division

turtles

new replacements. They were called turtles because it took so long for them to arrive.

U

unbloused

pants not tucked into boot tops

UH-1H

a Huey helicopter

UNIFORM

military phonetic for the letter 'U'

US

prefix to serial number of Army draftees

USAF

United States Air Force

Two

radio call signal of the intelligence officer.

two-niner-two

the RC-292 ground plane antenna which was used to extend the range of the MAT and the district team's PRC-25.

USARV

U.S. Army Republic of Vietnam. Command of operations unit for all U.S. military forces in Vietnam, based in Long Binh.

USO

United Service Organization. Provided entertainment to the troops, and was intended to raise morale.

USOM

U.S. Operations Mission. Funded U.S. programs during the early American involvement in Vietnam.

V

V

a type of ambush set-up, shaped like the letter.

VA

Veterans Administration

VC

Viet Cong, the National Liberation Front

VCI

Viet Cong infrastructure. It was the aim of the Viet Cong to have a complete government in place when their victory was finally won. Thus, where manpower allowed, Communist cadres were secretly assigned positions as village chiefs, police officers, postment, District-level officers, Province-level officers, and National-level officers. The VCI were the "shadow government" of the National Liberation Front and were awaiting the day they could step forward and claim their offices.

VFW

Veterans of Foreign Wars. An American service organization.

VICTOR

military phonetic for the letter 'V'

Victor Charlie

the Viet Cong; the enemy.

Viet Cong

the Communist-led forces fighting the South Vietnamese government. The political wing was known as the National Liberation Front, and the military was called the People's Liberation Armed Forces. Both the NLF and the PLAF were directed by the People's Revolutionary Party (PRP), the southern branch of the Vietnamese Communist Party, which received direction from Hanoi through COSVN, which was located in III Corps on the Cambodian border. After 1968, as negotiations began in Paris, the NLF established the Provisional Revolutionary Government.

Viet Minh

Viet Nam Doc Lap Dong Minh Hoi, or the Vietnamese Allied Independence League. A political and resistance organization established by Ho Chi Minh before the end of World War II, dominated by the Communist Party. Though at first smaller and less famous than the non-Communist nationalist movements, the Viet Minh siezed power through superior organization skill, ruthless tactics, and popular support.

Vietnamese Popular Forces

South Vietnamese local military forces.

Vietnamization

U.S. policy initiated by President Richard Nixon late in the war to turn over the fighting to the South Vietnamese Army during the phased withdrawal of American troops. The term was coined by Nixon's Secretary of Defense, Melvin Laird to replace the policy of "de-Americanization" first enunciated by Nixon on June 8, 1969.

ville

Vietnamese hamlet or village

VNAF

South Vietnamese Air Force

VNQDD

Viet Nam Quoc Dan Dang, or Nationalist Party of Vietnam. A non-Communist movement formed in 1926, based on the doctrines of Sun Yat-sen. The VNQDD conducted the Yen Bai uprising in 1930, which began the modern struggle for Vietnamese independence. During World War II the VNQDD staged in southern China and were instrumental in gaining Ho Chi Minh's release from a Chinese prison to help with the resistance fight against the Japanese. Ho later broke with the VNQDD. By 1950, having lost their bases in southern China when Mao came to power, the VNQDD ceased to exist as an effective organization.

VSI

very seriously ill. Army designation for those troopers who may die without immediate and definitive medical care.

VVA

Vietnam Veterans of America. Veterans organization not affiliated with the Veterans Administration.

VVAW

Vietnam Veterans Against the War. Organization formed by Vietnam veterans who gathered to protest American involvement in Vietnam.

W

wake-up

as in "13 and a wake-up" -- the last day of a soldier's Vietnam tour.

walking wounded

wounded who are still able to walk without assistance.

Walter Wonderful

Walter Reed Army Hospital in Washington, D.C.

wasted

killed

Water Taxi

small engine-powered boat with a sheltered passenger compartment. These native craft plied the major canals and rivers of Vietnam and provided a means of transportation from one village to the next.

web gear

canvas belt and shoulder straps for packing equipment and ammunition on infantry operations.

weed

marijuana

WHISKEY

military phonetic for the letter 'W'

white bird

a LOH

white mice

derogatory name for South Vietnamese police. The nickname came from their uniform white helmets and gloves.

white phosphorus

a type of explosive round from artillery, mortars, or rockets. Also a type of aerial bomb. The rounds exploded with a huge puff of white smoke from the hotly burning phosphorus, and were used as marking rounds or incendiary rounds. When white phosphorus hit the skin of a living creature it continued to burn until it had burned through the body. Water would not extinguish it.

WIA

wounded in action

widow maker

a MA

Willy Peter

white phosphorus

wood line

a row of trees at the edge of a field or rice paddy

World, the

the United States

WP

white phosphorus

X

X

a type of ambush set up, shaped like the letter

xin loi

a Vietnamese idiom meaning "sorry about that"

XO

executive officer; the second in command of a military unit

X-RAY

military phonetic for the letter 'X'

Y

YANKEE

military phonetic for the letter 'Y'

YD

the grid 100,000 meters by 100,000 meters square from the Universal Transmercator (UTM) Grid Zone 48Q. The UTM map of the world dispenses with latitude and longitude in favor of a system of metric coordinates (usually six digits) which enable the user of the map to specify a location within 100 meters.

Z

zipperhead

derogatory term used to describe Vietnamese

Zippo raids

military operations which involved burning down Vietnamese villages. Often Zippo cigarette lighters were used to ignite the huts.

zapped

killed

zit

derogatory term for Vietnamese people

ZULU

military phonetic for the letter 'Z'

zulu

a casualty report