Appendix B
Glossary of Communications Equipment

The equipment descriptions below are extracted from those found in U.S. Marine Corps Technical Manual TN-2000-15/2B, *Principal Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipmen*t, April 1993.

SINCGARS-V (Single-Channel Ground and Airborne Radio System)—A family of lightweight, very high frequency radios for infantry, fighting vehicles, and aircraft that provides high security against surveillance and jamming by using either single-channel offset or frequency hopping technology. The AN/PRC-119 is the baseline manpacked version of the radio.

Speech Security Equipment (Vinson), TSEC/KY-57—The KY-57 is a portable, tactical cryptographic device designed to provide security for VHF-FM and UHF-AM, half-duplex, radio and tactical wireline communications. The KY-57 is designed for manpack and vehicular applications.

Radio Set, AN/MRC-140—The AN/MRC-140 is a satellite communications system that provides the Fleet Marine Force Commander the capability for vehicle half-duplex two-way communications in both satellite (SAT) and line-of-site (LOS) operation using both voice and data formats. It allows the Landing Force Commander to have beyond LOS communications with the Amphibious Task Force Commander and it can serve as a Net Control Station (NCS) for up to 15 AN/PSC-3 radio sets.

Radio Set, AN/PRC-113(V)3—The AN/PRC-113 is a tactical, short range, manpack, ground-to-air/air-to-ground radio for Forward Air Control (FAC) teams and Marine Air Command and Control agencies.

Radio Set, AN/PRC-77—The AN/PRC-77 is a short range, two-way, VHF portable radio transceiver which provides radio-telephone or voice communications. It operates with the VRC-12 family of tactical radios.

Radio Terminal Set, AN/MRC-110A—The AN/MRC-110A ia a vehicle mounted AN/VRC-49 radio set which provides two-way, FM transmitting and receiving facilities in the VHF band. Two receiver-transmitters provide the capability for simultaneous operation on two different frequencies.

Airborne-Mobile Direct Air Support Center, AN/UYQ-3A(V)1/3A(V)2—The AN/UYQ-3 is a transportable shelter designed to control and coordinate the

employment of aircraft in the close support of ground forces. Seven operators within the DASC have front panel selection of voice radio communications in the VHF, UHF, and HF ranges as well as intercommunication with each other.

Central Office, Telephone, Automatic AN/TTC-38(V)1—The AN/TTC-38 is a shelterized, automatic telephone switch that is designed to provide for connection of up to 133 simultaneous calls. The (V)2 has a line/trunk capacity of 600 terminations.

Central Office, Telephone, Automatic AN/TTC-42(V)—The AN/TTC-42(V) is a sheltered telephone central office that provides automatic switching service and subscriber service functions to the TRI-TAC family of four-wire, digital secure and non-secure voice terminal telephone instruments (DSVTs) and four-wire digital trunks, including both single channels and Time Division Multiplexing (TDM) groups. The AN/TTC-42(V) allows automatic and semi-automatic switching for selected analog loops and trunks and is sized so as to provide switching among 150 channels.

Communication Technical Control Center, AN/TSQ-84()—The AN/TSQ-84() is a transportable communication technical control center used to monitor, test, condition, and control tactical telecommmunication circuits at DIV, MAW, FSSG, and MEF levels. It provides the capability to coordinate alternate routing and restoration of tactical circuits. It is capable of interconnecting and interfacing various types of communication systems, both voice and teletype. It is used with the AN/TTC-38 to provide usable tactical telecommunication circuits.

Communications Central, AN/MSC-63A—The AN/MSC-63A may be used for either General Service (GENSER) or Defense Special Security Communications System (DSSCS) access circuits. It provides eight secure full-duplex and eight unsecure local remote circuits, all of which are adjustable from 75Bd - 16KB (dependent upon distance, capability, and path type and quality), and two secure voice links.

Communications System, AN/TSC-95—The AN/TSC-95 provides two full-duplex high frequency RF paths used in long haul voice and data communications for the MAGTF headquarters. It also provides the capability of terminating two secure full-duplex 75 baud (100 words per minute) teletypewriter circuits. The system meets the requirements for long-haul communications access to the Naval Telecommunications System.

Digital Message System (DMS), AN/PSC-2—The AN/PSC-2 is a lightweight, handheld communications message processor. It is operator interactive with an LED display and key entry for composition and read-out messsages. The DCT provides the user with point-to-point and netted communications over a variety of military radios and secure equipment. The message processor performs all tasks of message composition, address coding, error control, error checking, as well as net control. The PSC-2A is the expanded-memory version of this device.

Facsimile, Lightweight Digital, AN/UXC-7—The AN/UXC-7 is designed to provide analog and digital transmission and reception of black and white graphical hard copy material in a tactical environment.

Fleet Satellite Communications Central, AN/TSC-96(V)—The AN/TSC-96(V) provides terminal and transmission equipment in two shelters for three UHF satellite communications channels. One channel is secure, half-duplex teletype for Naval Modular Automated Communications. One channel is secure, half-duplex digitized voice. One channel may provide either four multiplexed fleet broadcast channels from a group of 15 or an additional secure voice channel.

Ground Mobile Forces Satellite Communications, AN/TSC-85B—The AN/TSC-85B is a tactical communications terminal that provides the user the capability of transmitting voice and data signals via a Super High Frequency (SHF) carrier from a remote or co-located multiplexer van. It also provides the user the capability of receiving up to four SHF carriers simultaneously, demodulating the carriers, and then supplying digital data to either the self-contained multiplexing equipment or remote van. The unit may be used with the AN/TSC-93B satellite communications terminal. The AN/TSC-85A is an older, less capable version of this terminal.

Ground Mobile Forces Satellite Communications Terminal, AN/TSC-93B—The AN/TSC-93B is a sheltered, 512 kilobits per second (kps) terminal which provides voice, data, and teletype communications to the ground, air, and logistics elements of a landing force. The terminal operates in conjunction with the AN/TSC-85B to enable the user to transmit or receive channels of voice communication and order wire. It also digitally interfaces with the externally multiplexed TRI-TAC group. The interleaver allows for substitution of 16/32 Kb/s of data in each of the voice channels. The AN/TSC-93A is the older, less capable version of this terminal.

Manpack Satellite Communications Terminal, AN/PSC-3—The AN/PSC-3 supplies the system user in a tactical environment with satellite and Line of Site (LOS) two-way, half-duplex, FM digital communication facilities (voice communication is available only for extremely high priority special missions). The AN/PSC-3 may be used to communicate with the AN/MRC-140 or with another AN/PSC-3 terminal or with other UHF SATCOM terminals. Selective call is provided and may be used to page units in the field. The terminal is compatible with TSEC/KY-65 and TSEC/KY-57 encryption devices.

Position Locating and Reporting System (PLRS) Master Station, AN, AN/TSQ-129A—The AN/TSQ-129A is an automated tactical navigation aid which provides accurate and reliable 3-dimensional, near real-time position, navigation, and conflict avoidance information to Landing Force Control agencies in display form for fire support planning, command and control functions, and coordination purposes. The radio system operates in the UHF band and is cryptographically

secure. The system incorporates a family of radios such as: AN/PSQ-4 Manpack, AN/USQ-1 Vehicle, AN/GRC-210 Ground Forces, AN/ASQ-177(V)1 Airborne (Fixed Wing), and AN/ASQ-177(V)2 Airborne (Helicopter).

Radio Set, AN/GRC-201—The AN/GRC-201 is a modified AN/TRC-97C used with the AN/TCC-72A to provide tactical two-way FM communications by means of troposcatter, line of sight (LOS), or obstacle gain diffraction propagation. Pulse coded modulation and time division multiplexing is utilized to provide up to 24 channels of voice, data, and facsimile for transmission over distances of 1 to 100 nautical miles. Secure voice transmission is possible if a TSEC/KG-27 is used with the AN/TCC-72A.

Radio Set, AN/VRC-12—The AN/VRC-12 family of radio sets provides short range, two-way, VHF FM, radio communications. It is capable of monitoring two channels simultaneously or operating full-duplex. It is a basic radio set which requires additional equipment and a 25-volt (nominal) DC power source to complete its function. NOTE: The AN/VRC-12 family of radio sets include one or two receiver-transmitters and, in some cases, one or more receivers (R-442/VRC). The receiver and receiver-transmitter are compatible.

Radio Terminal Set, AN/MRC-135A—The AN/MRC-135A is a mobile telegraph-telephone set which provides two order wires, eight telegraph and eight telephone channels between two terminal sites. It operates in the VHF FM range using components of the AN/VRC-12 family of radio equipment.

Radio Terminal Set, AN/TRC-170(V)—The AN/TRC-170(V)3 is a transportable, self-enclosed troposcatter terminal (multichannel) capable of transmitting and receiving digital data over varying distances (up to 100 miles). This terminal is comprised of modular electronic equipment in various configurations with GFE multiplexers and cryptographic items all housed in a modified S-250/G shelter.

Switchboard, Telephone SB-3614(V)/TT—The SB-3614(V)/TT provides cordless service to two-wire Common Battery Signalling (CBS) lines, 20Hz ringdown (RD) lines or trunks, common battery dial pulse or DTMF lines, and four-wire tone signalling trunks over 15 links in a non-blocking matrix arrangement. The unit itself has 30 lines/trunk, but interconnection with 2 additional SB-3614s provides 60 or 90 lines/trunk respectively. The unit is designed to be team-transportable for tactical field use.

Switching Unit, Telephone, Automatic SB-3865(P)TTC—The SB-3865(P)TTC is a team-transportable telephone switchboard that provides automatic switching service functions to the TRI-TAC family. This unit provides switching service to and from a variety of digital and analog loops and trunks. A single unit can provide automatic switching for 30 lines and up to 90 lines by stacking the units. It will be used at the Regiment/Group level and above within the FMF.