



DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, DC 20380-0001

MCO 2040.9  
C2CT  
18 Dec 89

MARINE CORPS ORDER 2040.9

From: Commandant of the Marine Corps  
To: Distribution List

Subj: ADVANCE LOGISTICS ORDER FOR THE ST-58 AUTOMATIC TEST  
EQUIPMENT

Encl: (1) Material Fielding Plan

1. Purpose. To provide logistics information pertaining to the ST-58 Automatic Test Equipment (ATE) (hereinafter referred to as the ST-58 ATE) and its components.

2. Background

a. Requirement. The ST-58 ATE was designed to provide an automatic test capability for the VINSON, KG-84 () and common fill device families of communications security (COMSEC) equipment. Its flexibility and modular construction allow for future expansion to incorporate additional COMSEC equipment testing capabilities.

b. Operational Description. The ST-58 ATE is a self-contained, user friendly, limited test set. It is designed to test the KY-57, KY-58, HYX-57, Z-AHP, Z-AHQ, KOI-18, KYX-15, KYK-13, KG-84, KG-84A, and KG-84C down to the circuit card level. It also has a built-in self-test capability. The ST-58 ATE is portable and can be rack or bench mounted. It is intended for operation in a protected fixed plant environment. The ST-58 ATE is a modularized system consisting of three separate sections: the ST-58 Main Test Section, which contains the basic test and simulation software; the VINSON Test Adapter Z-APA, which mates the test set to the VINSON equipment family and holds the VINSON software; and the KG-84 Test Adapter Z-APD which mates the test set to the KG-84 equipment family and holds the KG-84 software. Both test adapters are equipped to test the common fill devices. The test equipment will interface with the units under test via the interface cables provided with the Z-APA and Z-APD test adapters. The ST-58 Main Test Section/Z-APA/Z-APD configuration is collectively referred to as the ST-58 ATE. There also exists a KG-84 Test Adapter Z-APB that allows for test of the KG-84 and KG-84A devices but not of the KG-84C. The few Z-APB adapters that have been fielded to Marine Corps maintenance activities will be replaced by the Z-APD.

c. Replaced Equipment. The ST-58 ATE will augment the KY-57 Back-to-Back Test Set ST-43/TSEC, Table of Authorized Material Control Number (TAMCN) A8053, and the KY-58 Back-to-Back Test Set ST-44/TSEC, TAMCN A8054. The ST-58 ATE will not replace any existing equipment.

d. Related New Systems. The ST-58 ATE will provide an automatic test capability for the newly fielded TSEC/KG-84(), TAMCN A8082.

e. Item Description. There is no national stock number (NSN) assigned to the ST-58 ATE Main Test Section/Z-APA/Z-APD configuration as a whole. TAMCN allowances will be provided for the ST-58 ATE Main Test Section only. The supporting test adapters Z-APA and Z-APD and the ancillary cables will be held as SL-3 components.

- (1) ST-58 ATE Main Test Section
  - (a) TAMCN: A8096 VII G
  - (b) ID No.: To be determined (TBD)
  - (c) NSN: 5810-01-173-6242
  - (d) Unit of issue: ea
  - (e) Unit standard package: 1
  - (f) Unit cost: \$18,859.86
  - (g) Square: 1.31 ft(2)
  - (h) Cube: 1.37 ft(3)
  - (i) Weight: 35 lb
  - (j) Standardization: standard
  - (k) Combat active replacement factors: not applicable
- (2) VINSON Test Adapter Z-APA
  - (a) TAMCN: not applicable
  - (b) ID No.: TBD
  - (c) NSN: 5810-01-173-1421
  - (d) Unit of issue: ea

- (e) Unit standard package: 1
  - (f) Unit cost: \$3,500
  - (g) Square: 1.31 ft(2)
  - (h) Cube: 1.37 ft(3)
  - (i) Weight: 29 lb
  - (j) Standardization: standard
  - (k) Combat active replacement factors: not applicable
- (3) KG-84 Test Adapter Z-APD
- (a) TAMCN: not applicable
  - (b) ID No.: TBD
  - (c) NSN: 5810-01-276-4811
  - (d) Unit of issue: ea
  - (e) Unit standard package: 1
  - (f) Unit cost: \$7,000
  - (g) Square: 1.31 ft(2)
  - (h) Cube: 1.37 ft(3)
  - (i) Weight: 32 lb
  - (j) Standardization: standard
  - (k) Combat active replacement factors: not applicable

3. Action. The Commanding Generals (CG) Fleet Marine Force (FMF) Pacific, Atlantic, Base, and 4th Division Wing Team (DWT) Commanders are authorized to place the ST-58 ATE in service at their discretion.

MCO 2040.9  
18 Dec 89

4. Reserve Applicability. This Order is applicable to the  
Marine Corps Reserve.



J. R. Dailey  
By direction

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MATERIAL FIELDING PLAN

1. General Information

a. Fielding Methodology and Justification

(1) General Fielding Plan. The ST-58 ATE will be fielded horizontally to those activities responsible for intermediate level maintenance of COMSEC equipment.

(2) Method of Fielding. The ST-58 ATE will be force-fed by the Director, COMSEC Material System (DCMS) to the Marine Corps intermediate maintenance activities indicated in Annex A.

b. Essential Points of Contact

Project officer: Captain W. H. Augustin  
MCRDAC (C2CTC)  
AUTOVON 225-5530/1187  
Commercial (202) 695-5530/1187

Program sponsor: Major P. Hindsley  
HQMC (CCT-634)  
AUTOVON 223-3138  
Commercial (202) 693-3138

Program manager: Mr. V. Carter  
NSA (V222)  
AUTOVON 235-0111 ext 6496  
Commercial (301) 859-6496

Equipment Specialist: Mr. M. Rosario-Felix  
NESSEC (0231C)  
AUTOVON 292-0342  
Commercial (202) 282-0342

Service Item manager: Mr. J. Miller  
DCMS (T60)  
AUTOVON 292-0695  
Commercial (202) 282-0695

c. Logistics Assistance During Fielding. The ST-58 ATE is a self-contained system. A 115 Vac power cable and all required interface cables will be provided with the test equipment. No additional logistics assistance is required during fielding.

2. Supply Support/Provisioning Availability Schedule

a. Repair Parts Support. No repair parts support for the ST-58 will be required by Marine Corps maintenance activities. Replacement power and interface cables can be requisitioned through the supply system per the MILSTRIP procedures described in MCO 4400.150 and UM 4400-124.

ENCLOSURE (1)

b. Retrofit and Modification Kits. No retrofit, modification, or installation kits are required at this time. When directed, all Z-APB Test Adapters will be returned to the contractor via DCMS for subsequent upgrade to Z-APD. The National Security Agency (NSA) has configuration management responsibility. Any future modifications to the ST-58 ATE will be listed in the Mandatory Modification Guide and in the CMS-5. Any future modification kits will be force fed by DCMS to the holders of the ST-58 ATE test equipment.

3. Maintenance Support concept

a. General Maintenance Plan. The modular construction, high reliability, and built-in test capability of the ST-58 ATE allow a maintenance concept that minimizes the degree of maintenance performed at the organizational and intermediate levels and concentrates the repair work at the depot level.

b. Maintenance Concept

(1) Organizational Level Maintenance. No maintenance will be performed on the ST-58 ATE at the organizational level.

(2) Intermediate Level Maintenance. Maintenance performed at the intermediate level will be preventive in nature and will include the cleaning, inspection, and operational testing of the components of the ST-58 ATE. The built-in test capability will allow the operator to determine if any of the ST-58 ATE components are defective. Defective components will be evacuated through the Force Logistics Support Cryptographic Facility to the supporting Naval Cryptographic Repair Facility for subsequent repair and return.

(3) Depot Level Maintenance. The Cryptographic Repair Facilities at the Naval Shipyard, Norfolk, Virginia and Naval Electronic Systems Engineering Center, San Diego, California will perform all ST-58 ATE intermediate and depot level maintenance.

(4) Contractor Support Requirements. There are no contractor support requirements.

4. Support Equipment. There is no support equipment required for the ST-58 ATE.

5. Classification and Accounting Requirements

a. Classification. The ST-58 ATE and its components are unclassified.

ENCLOSURE (1)

18 Dec 89

b. CMS Accounting. ST-58 ATE and its components will remain under the control of DCMS for central accounting purposes. The ST-58 ATE has been assigned accountability legend code ALC-1 and will be accounted for by serial number per the CMS-4L. As indicated in the CMS-5, for end item accounting purposes, the ST-58 ATE Main Test Section/Z-APA/Z-APD configuration will be designated as the ST-58-001, and the ST-58 ATE Main Test Section/Z-APA configuration will be designated as the ST-58-002. Only the serial number of the ST-58 ATE Main Test Section will be used to account for the test equipment held by the using unit.

c. Supply System Accounting. Marine Corps supply system accounting of the ST-58 ATE will be per MCO P4400.150 and MCO P4400.82.

#### 6. Packaging, Handling, Storage, and Transportation Requirements

a. Packaging. The ST-58 ATE and its components shall be separately preserved, packaged, and packed per the standards of MIL-E-17555.

b. Handling. A security clearance is not required for viewing of or access to the ST-58 ATE and its components. Access shall be restricted to U.S. citizens whose duties require such access. Access may also be granted to permanently admitted resident aliens, who are either U.S. Government civilian employees, active duty military, or Reserve members of the U.S. Armed Forces, whose duties require such access.

c. Storage. The ST-58 ATE and its components must be stored in a manner that affords a level of protection at least equal to that normally provided to high value material.

d. Transportation. The equipment may be transported only by traceable means. Authorized transportation media are: Defense Courier Service, State Department Diplomatic Courier Service, Officially Designated Command Couriers, U.S. registered mail (provided that it never passes out of U.S. control or through a foreign postal system or any foreign inspection), and military or commercial transportation systems with strict accountability provided by the Department of Defense Constant Surveillance System (DoD CSS). In foreign countries where there is a significant U.S. military presence (two or more military bases where U.S. military personnel are stationed), foreign nationals who are employed by the U.S. Government may transport the equipment, provided there is a signature record from the pick-up location to the ultimate destination and a U.S. citizen accompanies the foreign employee in couriating the equipment or the equipment is contained in a closed vehicle or shipping container which is locked and has a shipping seal. A completed SF-153 (COMSEC Material Report)

ENCLOSURE (1)

must accompany each item during any transfer of ST-58 equipment. Shipment must always be made with a DD-1149 (Requisition and Invoice/Shipping Document) attached to the outside container.

7. Technical Publication and Configuration Requirements

a. Manuals. The following manuals are used for the operation and maintenance of the ST-58 ATE. The technical manual (TM), TM 11-5810-369-13&P, will be force-fed to the fleet by the 1st quarter of FY 1990 and will be distributed per appendix B. This manual will also satisfy the SL-3 documentation requirements for the ST-58 ATE and its ancillary components. Additional and replacement copies of this manual can be obtained from the Marine Corps Logistics Base (MCLB) (Code 876), Albany, GA 31704-5000. The ST-58 ATE limited and full maintenance manuals are available for informational purposes only and may be obtained from DCMS (Code T60) per CMS-4.

<u>TM Identification No.</u>	<u>Title and PCN</u>
TM 11-5810-369-13&P	Operator's, Unit and Intermediate Direct Support Maintenance Manual for Test Set, ST-58, KG-84 Test Adapter Z-APB, and VINSON Test Adapter Z-APA (PCN 351 586000 00)
SAM-151	ST-58 Limited Maintenance Manual Classification: FOUO
SAM-150	ST-58 Theory and Full Maintenance Manual Classification: FOUO

b. Configuration Requirements. NSA will upgrade the SAM-150 and SAM-151 maintenance manuals to include the KG-84 Test Adapter Z-APD. These changes will be made available through DCMS. The Army will upgrade TM 11-5810-369-13&P to incorporate the operation of the KG-84 Test Adapter Z-APD. These changes will be forwarded to MCLB (Code 876), Albany, GA who will automatically distribute to those activities included in appendix B.

8. Computer Resources Support. The NSA will be responsible for all software support and software configuration management for the ST-58 ATE.

9. Warranty Provisions. There are no warranty provisions for the ST-58 ATE.

ENCLOSURE (1)

10. Training Requirements

a. Operator Training. The Military Occupational Specialties (MOS) 2881 (COMSEC Equipment Technician) and 2825 (Fixed Ciphony Technician) will learn to operate the ST-58 ATE while attending their respective MOS training at the U.S. Army Signal Schools, Fort Gordon, Georgia. ST-58 ATE operator training will be incorporated in the Limited Maintenance Training Course, Army course identification number 160-29S10, and in the Fixed Ciphony Repair Course, Army course identification number 160-29F10.

b. Maintenance Training. Marine Corps personnel will not receive ST-58 ATE maintenance training.

11. Facilities Requirements/MILCON Project Status. There are no special facilities requirements for the ST-58 ATE. The ST-58 ATE is designed for use in a protected, fixed plant environment.

12. Personnel Requirement. The fielding of the ST-58 ATE will not result in an increased manpower requirement to any existing table of organization (T/O).

13. Gaining Command Responsibility. Ensure only properly trained personnel are allowed to operate the equipment.

ENCLOSURE (1)

APPENDIX A

TABLE OF EQUIPMENT ALLOWANCES

<u>T/E No.</u>	<u>Unit</u>	<u>Qty.</u>
7401	Hq, MCCDC, Quantico	1
7720	Comm-ElectScol, MCAGCC, Twentynine Palms	2
B-3331	MaintCo, BSSG-1, 1stMEB	2
N-1015	CommCo, HqBn, 1stMarDiv	1
N-1025	CommCo, HqBn, 2dMarDiv	1
N-1035	CommCo, HqBn, 3dMarDiv	1
N-1045	CommCo, HqBn, 4thMarDiv	1
N-3132	ELMACO, MaintBn, 1stFSSG	4
N-3232	ELMACO, MaintBn, 2dFSSG	4
N-3332	ELMACO, MaintBn, 3dFSSG	4
N-3432	ELMACO, MaintBn, 4thFSSG	2
N-4014	CommSuptCo, CommBn, 1stMEF	2
N-4034	CommSuptCo, CommBn, 3dMEF	2
N-4044	CommSuptCo, CommBn, 4thMEF	2
N-4737	H&S Co, RadioBn, SRIGroup 1stRadioBn 2dRadioBn	1
N-8612	Marine WingCommSqd, MACG, MAW (Res) MWCS-48	2
N-8651	Hq, MarineWingCommSqd MWCS-18 MWCS-28 MWCS-38	2
N-4863	CommSuptCo, CommBn, SRIGroup	2

Appendix A to  
ENCLOSURE (1)

DELIVERY SCHEDULE

<u>T/E No.</u>	<u>Unit</u>	<u>Qty.</u>	<u>Otr/FY</u>
7401	Hq, MCCDC, Quantico	1	1/89
7720	CommElectScol, MCAGCC, Twentynine Palms	2	1/89
B-3331	MaintCo, BSSG-1, 1stMEB	1	3/89
		1	2/90
N-1015	CommCo, HqBn, 1stMarDiv	1	1/89
N-1025	CommCo, HqBn, 2dmardiv	1	1/89
N-1035	CommCo, HqBn, 3dmardiv	1	1/89
N-1045	CommCo, HqBn, 4thMarDiv	1	2/90
N-3132	ELMACO, MaintBn, 1stFSSG	1	4/88
		2	1/89
		1	2/90
N-3232	ELMACO, MaintBn, 2dFSSG	1	4/88
		2	1/89
		1	2/90
N-3332	ELMACO, MaintBn, 3dFSSG	1	4/88
		2	1/89
		1	2/90
N-3432	ELMACO, MaintBn, 4thFSSG	1	1/89
		1	2/90
N-4014	CommSptCo, CommBn, 1stMEF	1	1/89
		1	2/90
N-4034	CommSptCo, CommBn, 3dMEF	1	1/89
		1	2/90
N-4044	CommSptCo, CommBn, 4thMEF	1	1/89
		1	2/90
N-4737	H&SCo, RadioBn, SRIGroup		
	1stRadioBn	1	1/89
	2dRadioBn	1	1/89
N-8612	MarineWingCommSqd, MACG, MAW (Res)	2	2/90
	MWCS-48		

Appendix A to  
 ENCLOSURE (1)

18 Dec 89

<u>T/E No.</u>	<u>Unit</u>	<u>Qty.</u>	<u>Otr./FY</u>
N-8651	Hq, MarineWingCommSqd		
	MWCS-18	2	1/89
	MWCS-28	1	1/89
		1	2/89
	MWCS-38	2	1/89
N-4863	CommSptCo, CommBn, SRIGroup	1	1/89
		1	2/90

This listing provides scheduled and completed deliveries of the ST-58 ATE Main Test Section and the Test Adapter Z-APA. Test Adapter Z-APD delivery will commence during the 2d quarter of fiscal year (FY) 1990.

Appendix A to  
ENCLOSURE (1)

APPENDIX B

DISTRIBUTION LIST/SCHEDULE FOR TECHNICAL MANUAL

<u>IAAC</u>	<u>Unit</u>	<u>Qty.</u>
1025001	CG, 1stMEB, Kaneohe	2
2030001	CG, 1stMAW	2
2030002	CG, 2dMAW	2
2030003	CG, 3dMAW	2
2134001	MWCS-18, MACG-18	3
2134002	MWCS-28, MACG-28	3
2134003	MWCS-38, MACG-38	3
5138001	CommCo, HqBn, 1stMarDiv	3
5138002	CommCo, HqBn, 2dmardiv	3
5138003	CommCo, HqBn, 3dmardiv	3
5139001	CommSptCo, 7th CommBn	3
5139002	CommSptCo, 8th CommBn	3
5139006	CommSptCo, 9th CommBn	3
5145002	ELMACO, MaintBn, 2dFSSG	3
5145003	ELMACO, MaintBn, 3dFSSG	3
5145005	ELMACO, MaintBn, 1stFSSG	3
5511001	H&SCo, 1stRadBn	3
5511002	H&SCo, 2dRadBn	3
5551001	MaintCo, BSSG-1	3
6025002	MCLB (Code B-112), Barstow	5
6025003	MCLB, Base Files, Albany	5
6600001	CG, 1stMarDiv	2

Appendix B to  
ENCLOSURE (1)

MCO 2040.9  
18 Dec 89

<u>IAAC</u>	<u>Unit</u>	<u>Qty.</u>
6600002	CG, 2dmardiv	2
6600003	CG, 3dmardiv	2
6600004	CG, 4thMarDiv	2
6967001	CG, 1stFSSG	2
6967003	CG, 3dFSSG	2
6967004	CG, 2dFSSG	2
7230001	MCCDC	3
7501001	CG, 4thMAW	2
7504067	ELMACO, MaintBn, 4thFSSG	3
7713001	CommCo, HqBn, 4thMarDiv	3
7713012	CommCo, 6thCommBn	3
7801006	MCCES, MAGCC, Twentynine Palms	3
8145004	HQMC Liaison, MCLB, Albany	1
8350001	MWCS-48, MACG-48	3
8360001	CG, 4thFSSG	2

Appendix B to  
ENCLOSURE (1)