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

MCO 8085.1
LMW/37-dld
24 Mar 1986

MARINE CORPS ORDER 8085.1

From: Commandant of the Marine Corps
To: Distribution List

Subj: Advance Logistics Order on the Position and Azimuth Determining System (PADS), AN/USQ-70, TAMCN E1210; PADS Test Set, AN/USM-427, TAMCN E1960; and Power Supply Test Set, AN/USM-428, TAMCN E1970

Ref: (a) MCO 4105.1A
(b) MCO 4400.32E
(c) MCO P4400.79D
(d) UM 4400.15, Vol. II.
(e) MCO P4790.2B
(f) TM-4700-15/1E
(g) TM 5-6675-308-12

Encl: (1) Power Supply Test Set Planned Distribution
(2) PADS Test Set Planned Distribution
(3) Logistics Data and Publications for the PADS
(4) PADS Planned Distribution

1. Purpose. To provide logistics information to field commanders regarding the introduction of the PADS into the Marine Corps inventory in accordance with references (a) through (c).

2. Background

a. Requirement. To effectively mass available artillery firepower, all firing elements must be accurately located by common survey control. The PADS will be used by artillery survey parties as a secure, all-weather, day-night means for rapidly extending survey control to satisfy the demands of mobile weapons systems.

b. Capabilities. The PADS and existing manual equipment satisfies Marine Corps artillery survey requirements. It extends common survey control at a rate that permits survey data to be immediately available to target acquisition and fire support elements when they occupy new positions. The PADS uses inertial navigation techniques and provides the capability for simultaneous determination of position in universal transverse

mercator (UTM) coordinates, azimuth, and difference in elevation in meters from the starting survey control point. The accuracy of the PADS is as follows:

Position: 2.0 meters, circular error probable (CEP).

Elevation: 1.98 meters, probable error (PE).

Azimuth: .58 mil, root mean square (rms).

The accuracy of the PADS increases as the interval between updates is shortened.

c. Operational Characteristics. The PADS is capable of worldwide operation between 75 degrees north latitude and 75 degrees south latitude. It can accomplish its survey mission day and night under all conditions of weather and visibility that do not prevent movement of the supporting vehicle (M151A2 or M998). The PADS mobility is relative to its assigned prime mover and can operate while its support vehicle is fording through fresh or salt water, up to the maximum depth allowable without a fording kit. The system continuously calculates position, elevation, and azimuth in any one of seven earth-spheroid references that are programmed into the computer by designating a number code entry into the PADS control and display unit. It establishes 4 to 7 horizontal and vertical positions and 3 to 6 grid azimuths during a mission time of 5 hours. The mission time includes the time necessary to prepare the system for operation. A stop is required every 10 minutes for approximately 20 seconds to provide a zero velocity reference. The average distance traveled in a mission is 30 kilometers of which 31 percent is over improved roads, 67 percent over unimproved roads, and 2 percent cross country.

3. General Information

a. Item Description. The PADS is an inertial positioning system employing advanced error controlling techniques. The major subassemblies are the Inertial Measurement Unit (IMU), Computer, Control and Display Unit (CDU), and Power Supply (PS).

(1) IMU. The IMU maintains the system coordinate reference frame and measures acceleration in each of the three orthogonal axes. Accelerometers and gyros are mounted to a stable platform assembly which is supported by motor driven gimbals. Changes in pitch, roll, and heading, sensed by the gyros, cause the gimbals to be driven in such a manner that the coordinate system orientation is maintained.

(2) Computer. The computer is a general purpose computer performing the functions of systems control, signal conditioning and conversion, and computation. The system software includes relatively sophisticated error modeling and error controlling techniques to maintain system accuracy.

(3) CDU. The CDU is the prime operator interface with PADS. It provides system control data input and data output functions to the operator.

(4) PS. The PS converts vehicle power to voltages necessary for system operation and provides a standby capability using batteries.

b. Replaced Items. The PADS provides a new capability to Marine Corps artillery units and will replace one Battalion Survey Set (Table of Authorized Material Control Number (TAMCN) E1846) in each artillery battalion. Certain items of equipment presently contained in Battalion Surveying Sets (TAMCN E1846) will be reassociated with the PADS as SL-3 components. All remaining items will be disposed of in accordance with reference (d). Common items are listed as follows:

NSN	Nomenclature	Unit of Issue	Qty.
6675-00-566-8507	Case, Computer	ea	1
6675-01-117-4648	Case, Surveying Set	ea	1
9330-01-124-3273	Flagging, Marking - Orange	RL	5
7520-01-124-2889	Flagging Dispenser	ea	1
6674-00-641-3536	Light Surveying	ea	2
5210-00-224-8794	Plumb-Bob	ea	2
6675-00-183-6486	Protractor, Semicircle	ea	1
6675-00-283-0018	Scale, Plotting	ea	1
5210-00-561-0119	Sheath, Plumb-Bob	ea	2
6675-01-125-6473	Survey Instrument, DI4L	ea	1
6675-00-065-7502	Target Set	ea	2

NSN	Nomenclature	Unit of Issue	Qty.
6675-01-127-1426	Theodolite, Surveying, T16E	ea	1
	or T2E		
6675-00-301-1317	Tripod - GST-20	ea	3

c. Training Required To Place Equipment in Service

(1) New Equipment Training Teams (NETT). NETT consisting of two instructors from the U.S. Army Field Artillery School (USAFAS), Fort Sill, Oklahoma; two instructors from Newark Air Force Station, Ohio; and one instructor from the U.S. Army Troop Support Command (TROSCOM), St. Louis, Missouri, will conduct training commencing approximately 1 month after receipt of the PADS. Training for II Marine Amphibious Force (MAF) will be conducted at Camp Lejeune, North Carolina, during the 1st quarter of fiscal year (FY) 86. Training for I MAF will be conducted at Camp Pendleton, California, during the 3d quarter of FY86. Training for III MAF will be conducted at Okinawa, Japan during the 1st quarter of FY87 and training for Marine Corps Reserves will be conducted at Dallas, Texas, during the 2d quarter of FY87. Personnel requiring training at Twentynine Palms, California, will attend training at Camp Pendleton, California and personnel assigned to the 1st Marine Brigade, Hawaii, will be trained on Okinawa. The NETT will install each PADS into an M151A2 vehicle as part of the training instruction. Personnel completing training will then supervise the installation of the PADS in the appropriate vehicles organic to their unit.

(a) Operator Training For Field Artillery Fire Control Man (Military Occupational Specialty (MOS 0844) and Field Artillery Operators Man (MOS 0848)). This 40-hour course will include organizational maintenance. Attendees must be proficient in surveying procedures (use of T-2 or T-16 Theodolite). Personnel (MOS 0844 and MOS 0848) must possess a vehicle operators permit (for M151). Resources to be provided by the host command are as follow:

1 20-person classroom.

2 Overhead projector.

3 35mm slide projector.

4 Chalkboard and chalk.

5 Video player and TV.

6 MO-Gas (for M151A2 - 25 gal).

7 Battery storage, 12 volt (2 each per system) BB-249/U (purchase with unit's own funds).

8 Truck 1/4-ton, M151A2, w/60 Amp Alt (1 per system) (Table of Equipment (T/E) item).

9 Theodolite T-16 and tripod (2) (SL-3 item).

10 Survey control point.

(b) Maintenance Training for Ground Radar Maintenance Officer (Military Occupational Specialty (MOS 2830), FADAC Radar Repairer (MOS 2885), and Ground Radar Technician (MOS 2889)). The 120-hour maintenance course will be conducted for personnel at the intermediate maintenance activity (IMA). Resources to be provided by the host command are as follows:

1 20-man classroom - (with 110 Vac and 220 Vac PS).

2 35mm slide projector.

3 Chalkboard and chalk.

4 Video player and TV.

5 Hard stand (20 x 50 ft.).

6 MO-gas (10 gals).

7 Battery storage, 12 Volt (2) BB-249/U (purchased with units own funds).

8 Truck, 1/4-ton, M151A2 w/60 Amp Alt (T/E item).

9 Theodolite T-2 and Tripod (SL-3 item).

10 UGC-74 Teletypewriter (TAMCN A0284). 1/

11 Tool Kit (TAMCN A3160).

12 Oscilloscope.

13 Multimeter (dial).

14 Multimeter (digital) (If available).

15 28-Volt 200 Amp variable power supply.

16 Banana plug test leads (4).

1/ Allowances are being established for one each per headquarters battery, artillery regiment.

(2) Formal Schools

(a) The USAFAS is conducting the following PADS Operator/Supervisor Courses:

Course	MOS	Hours
FA Survey Course (Operator)	0844, 0848	2
FA Tgt Acq/Survey Officer	0803	12 1/
FA Officer Basic	0802	2
FA Officer Advanced	0802	2
FA Survey & Tgt Acq NCO (Advanced)	0844, 0848	12
FA Chiefs Advanced	0848	2

1/ Additional 17 hours concurrent training in survey field exercises is provided.

(b) The U.S. Army Signal School, Fort Gordon, Georgia, provides the following PADS maintenance training:

Course	MOS	Hours
Special Electrical/Electronic Device Repair	Enlisted 2885	80
Senior Special Electrical/ Electronic Device Repair	Officer and Enlisted 2830, 2885	120

(c) No additional facilities or manpower impacts on formal schools training is anticipated.

d. Test/Support Equipment and Tools Required

(1) Special Test Equipment (STE). STE required for the PADS at the IMA are as follows (see enclosures (1) and (2) for distribution):

(a) PADS Test Set, AN/USM-427 (NSN 6675-01-081-9198). The PADS test set consists of a Signal Processing Unit, TS-3617/USM-427 and a Reader Punched Tape, RP-239/USM-427. It is a semiautomatic portable set for testing, calibrating, and filling memory of the PADS. A UGC-74 Teletypewriter (TAMCN A0284) is used as an input/output device for the test set and the PADS computer.

(b) Power Supply Test Set, AN/USM-428 (NSN 6675-01-075-4033). The power supply test set, used in conjunction with an oscilloscope and multimeter, provides the means to test the PADS power supply.

(c) STE Calibration Requirement. None.

(2) Special Support Equipment. None.

(3) Common Support Equipment

NSN	TAMCN	Description
6130-00-669-6659	N/A	Battery Charger, PP-1660/G (or equivalent) 75 amperes capacity 6-24V charging Input -110/125 Vac, 60 Hz
5895-01-097-3942	A1255	Power Supply, PP-7332
6130-00-504-0327	N/A	Power Supply Output -28 Vdc, 200 amps Input -220/440 Vac, 60 Hz
5815-00-503-2763	A0284	Teletypewriter Set UGC-74 (or equivalent) Input power - 85-250 Vac, 60 Hz Coding - 5 Level Signal - 20 or 60 MA Speed - 70 to 100 wpm
6675-01-127-4974	N/A	Theodolite, Directional 0.002 mil graduation, T-2E O, I calibration

(4) Common Tools

NSN	TAMCN	Description
TBD	A3160	Tool Kit

(5) Test Equipment

NSN	TAMCN	Description
6625-00-999-7465	H2366	Multimeter, AN/USM-223 (or equivalent) Range: 5000.0 millivolts to 5.000 kilovolts ac 2.5000 to 5.000 kilovolts dc 250.0 to 10.000 microamps dc 0 to 10.00 - dc amperes 0 to 10.00 - megohm Transistorized, Operating Power; Internal Battery Powered. 1 ea TM 11-6625-654-12 1 Test Lead Set 1 Cord 1 Test Adapter 1 Input Impedance Set Mfr Hickok Electrical Inst. Co. FSCM 28569
6625-00-022-7894	A3262	Voltmeter, Digital, AN/GSM-64B (or equivalent) manufacturer Mr John Fluke
6625-00-228-2201	A1195	Oscilloscope, AN/USM-281A (or equivalent) 5-inch, Hewlett-Packard Horizontal ampere dc to 5 MHz

e. Repair Parts Support. Repair parts, secondary reparables, end item components, and SL-3 components for the PADS will be supplied by the Supported Activity Supply System (SASSY). Headquarters Battery, 14th Marines will requisition repairs parts directly from the inventory control point, Marine Corps Logistics Base (MCLB), Albany, in accordance with reference (d). In keeping with the component replacement maintenance concept, provisioning efforts will concentrate on identifying, coding, and stocking end item components and

secondary reparables rather than individual repair parts. The Maintenance Float Program will be used to stock and exchange both depot and nondepot reparable items. In order to minimize the range, quantity, and distribution of support and test equipment, intermediate maintenance activities will test and replace secondary reparables and perform almost all piece part repair on the PADS. End item components and collateral equipment will be identified in the SL-3. The organizational and intermediate maintenance technical manual will identify authorized repair parts and secondary reparables. Initial issue provisioning (IIP) will be accomplished in accordance with reference (c) IIP codes are: PADS, U3W; AN/USM-427, E3X; and AN/USM-428, U4B.

f. Combat Active Factors. See enclosure (3).

g. Retrofit and Modification Kits. There are currently no retrofit or modification kits planned for the PADS. An installation kit is required for mounting the PADS into the M151A2. Instructions for use are contained in reference (e). One PADS installation kit is furnished with each PADS issued. If the M151A2 is equipped with a hard-top, the rear panel will require modification. If the hard-top equipped vehicle contains a gasoline fired heater, the air intake duct must be modified to accommodate the PADS. The necessary modification hardware is contained in the PADS winterization kit. A separate adapter kit to modify the vehicular installation kit for use in the M998 will be provided. This kit will be procured separately and detailed in a modification instruction when the final configuration is available.

h. Technical Representatives. None.

i. Maintenance Support Plan. The PADS maintenance support concept is predicated on requiring only a minimum of system/equipment downtime for maintenance repairs, which significantly enhances system/equipment operational availability. The basic maintenance concept philosophy uses a "restoration-by-replacement" approach to minimize system/equipment downtime at the organizational maintenance level and assures meeting the 15-minute meantime-to-repair (MTTR) requirement. The optimum approach to "restoration-by-replacement" is supported by such inherent equipment maintenance features as built-in-test (BIT), fault diagnostic capabilities, unobstructed access for rapid unit replacement, ease of access to internal cards/module, and functional verification using system BIT. The PADS maintenance support concept presently encompasses the three established maintenance categories: Organizational, intermediate, and depot. All authorized maintenance within the capability of an

organization will be accomplished whenever possible before evacuation of items to the next higher maintenance level. Higher categories will perform the maintenance functions of lower categories when required or directed by appropriate commanders. Maintenance management and administrative procedures will be in accordance with references (e) and (f).

(1) Organizational Maintenance. Determine failures using BIT and operator's manual. A faulty CDU is replaced at this level. In the case of a faulty major unit (IMU, Computer, and PS), the entire pallet, consisting of the above units, is evacuated to the intermediate maintenance activity for exchange with a serviceable pallet. System alignment will be performed by the operator/crew approximately every 30 days for a period of about 2.5 hours. System alignment is performed automatically under computer control. Repair and/or replace parts in accordance with the Maintenance Allocation Chart (MAC).

(2) Intermediate Maintenance. The IMA is the Artillery Electronics Maintenance Section of the Headquarters Battery, Artillery Regiment for all units except the 1st Battalion, 12th Marines. The brigade service support group will be the IMA for that unit. Required maintenance/repair of Operational Readiness Float assets held by the force source support group will be accomplished by the IMA. Intermediate maintenance includes repair of the computer and CDU by circuit card replacement, and replacement of computer, computer power supply, IMU, PS, CDU, and cables. The faulty units and mounting frame assembly will be repaired in accordance with the MAC. A 28 Vdc power source is required to allow testing of the PADS using the BIT. Major units received from using units will be tested, using test sets to confirm or deny reported failures. Those that are confirmed (computer, CDU, computer PS, and PS) will be further tested using standard testing and evaluation to isolate the malfunctioning module or circuit card. The module or circuit card will then be replaced, and verification testing repeated to ensure that the unit is now operating properly. The computer, CDU, and PS have a few chassis mounted parts. Defective chassis mounted parts will be isolated and replaced. Items not reparable at intermediate level are forwarded to depot level for repair. Repaired units or subsystems (PS, CDU, computer, etc.) are placed in supply stocks, returned to direct exchange, or turned into depot as appropriate. A check of the IMU porro prism calibration data can be accomplished. IMA will also have the capability of verifying IMU failures, performing higher level alignment of the IMU, and performing all other testing and repairing of the PADS as authorized by the MAC.

(3) Depot Level. All PADS that are beyond the repair capabilities of the IMA will be evacuated to the depot level (Aerospace Guidance and Metrology Center, Newark, Ohio) per the Recoverable Items Program. Faulty circuit cards are repaired at depot and returned to the supply system.

j. Packaging, Handling, Storage, and Transportability (PHS&T). Items being prepared for long term storage, prepositioned war reserves (PWR) and surface shipment overseas will be preserved, packaged, packed, and marked in accordance with MIL-STD-2073-1A. Items scheduled for shipment to continental United States (CONUS) units for limited storage or immediate use will be accepted in commercial packaging in accordance with ASTM D3951-82. Maritime Prepositioned Stocks destined for dehumidified storage aboard ship may be processed in accordance with ASTM D3951-82, unless item characteristics require a higher level of protection, then the intermediate level and MIL-STD-2073-1A is acceptable.

4. Initiating Service. The initial shipment of the PADS to using units was in September 1985. The final shipment of PADS to units will be December 1986. Distribution and delivery of the PADS and test sets is shown in enclosure (4).

5. Action. The following actions will be required by the gaining commands to support the PADS:

a. Provide administrative, supply, maintenance, and operating personnel to receive, inventory, deprocess, and service the PADS.

b. Provide consumables, common supplies, and tools to deprocess the PADS.

c. Provide transportation necessary to locate the equipment in the maintenance facilities.

d. Provide equipment for NETT as described in paragraph 3c(1), preceding.

6. Logistics Planning Data, and Publications

a. Logistics planning data, and publications (enclosure (3)).

b. Allowances. Planned allocation of the PADS, PADS test set, and power supply test set are presented in enclosures (4), (1) and (2).

c. Budget Data

(1) Operational and Maintenance (O&M) funds to be provided by Headquarters Marine Corps for new equipment are as follows:

Unit	Amount ($000)	Date
I MAF	33.2	FY86
	33.2	FY87
	20.0	FY88
	21.0	FY89
II MAF	33.2	FY86
	33.2	FY87
	20.0	FY88
	21.0	FY89
III MAF	33.2	FY87
	37.2	FY88
	20.4	FY89
	16.6	FY90
4thMarDiv	50.0	FY87

(2) Budget information for projected O&M costs and recurring costs are as follows:

Organization Maintenance	$1,000 per system
Intermediate Maintenance	$4,000 per system
Sets, Kits	$ 500 per system
Special Tools	$ 50 per system

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

ROBERT J. WINGLASS
By direction

DISTRIBUTION: 6025 (5)
4255/5275/5276/6600/6901/7000161/7373
7401/7651/7655/7722/7782/8145004, 005/8201 (2)

Copy to: 7000045 (10)
7000062, 106, 144, 148, 148, 160/8145001 (1)

POWER SUPPLY TEST SET PLANNED DISTRIBUTION

T/E No.	Unit	Qty.
	I MAF	
N-2101	HqBtry, ArtyRegt, 1stMarDiv	3
N-3247	ORF (4001)	1
	II MAF	
N-2201	HqBtry, ArtyRegt, 2dMarDiv	3
N-3247	ORF (4002)	1
	III MAF	
N-2301	HqBtry, ArtyRegt, 3dMarDiv	2
B-3310	BSSG	1
N-3247	ORF (4003)	1
	IV MAF	
N-1261	HqBtry, ArtyRegt, 4thMarDiv	2
7011	MCLB, Barstow (M/F)	1
7014	MCLB, Albany (M/F)	2

ENCLOSURE (1)

PADS TEST SET PLANNED DISTRIBUTION

T/E No.	Unit	Qty.
	I MAF	
N-2101	HqBtry, ArtyRegt, 1stMarDiv	3
N-3247	ORF (4001)	1
	II MAF	
N-2201	HqBtry, ArtyRegt, 2dMarDiv	3
N-3247	ORF (4002)	1
	III MAF	
N-2301	HqBtry, ArtyRegt, 3dMarDiv	2
B-3310	Brigade Service Support Group	1
N-3247	ORF (4003)	1
	IV MAF	
N-1261	HqBtry, ArtyRegt, 4thMarDiv	2
7011	MCLB, Barstow (M/F)	2
7014	MCLB, Albany (M/F)	1

ENCLOSURE (2)

LOGISTICS DATA AND PUBLICATIONS FOR THE PADS

1. Logistics data

Item name: Position Azimuth Determining System (PADS)

TAM No.: E1210

Identification No: 08837A

NSN: 6675-01-071-5552

Unit of issue: ea

Unit standard package: 1

Unit cost: $325,000

Item classification: SAC 3

Dimensions: Primary Pallet: 25.8 in (654mm) x 30.5 in (775mm) 19.5 in (495mm)

Transit Case: 38.7 in (983mm) x 39.5 in (1003mm) x 37.3 in (947mm)

Battery Box: 17.9 in (454mm) x 13.5 in (343mm) x 14 in (356mm)

Weight: Primary Pallet: 210 lbs (95.5kg)

Transit Case: 205 lbs (93.2kg)

Battery Box: 124 lbs (56.5kg)

Standardization: standard

Life of type: 15 years

Replacement factors: European intensive, .0792; European sustained, .0396; worldwide intensive, .0528; worldwide sustained, .0264 mobilization training, .0000; peacetime training; .0000

2. Publications

a. PADS

Publication No.	Title	PCN
TM 5-6675-308-12/ 08837A-12/1	Operator and Organizational Maintenance for Position Azimuth Determining System	184 079871 00
TM 5-6675-308-34/ 08837A-34/2	Intermediate Maintenance Manual for Position Azimuth Determining System	184 079873 00
TM 5-6675-308-24P/ 08837A-24P/3	Organizational and Intermediate Maintenance Repair Parts List for Position Azimuth Determining System	184 079872 00

b. PADS Test Set

Publication No.	Title	PCN
TM 5-6675-238-14/ 08839A-14/1	Operator Through Intermediate Maintenance for Test Set PADS	184 079874 00
TM 5-6675-238-24P/ 08839A-24P/2	Organizational and Intermediate Maintenance Repair Pars List for PAD Test Set	184 079875 00

c. Power Supply Test Set

TM 5-6675-309-14/ 08840A-14/1	Operator Through Intermediate Maintenance for Power Supply Test Set	184 079876 00
TM 5-6675-309-24P/ 08840A-24P/2	Organizational and Intermediate Maintenance Repair Parts List for Power Supply Test Set	184 079877 00

PLANNED PADS DISTRIBUTION

T/E No.	Unit	Qty.
	I MAF	
N-2101	HqBtry, ArtyRegt, 1stMarDiv	2
N-2102	TaBtry, ArtyRegt, 1stMarDiv	1 1/
N-2109	HqBtry, D/S (T)Bn, ArtyRegt, 1stMarDiv	1 2/
N-2119	HqBtry, G/S (T) Bn, ArtyRegt, 1stMarDiv	1 1/ 2/
N-2139	HqBtry, G/S (SP) Bn, ArtyRegt, 1stMarDiv	1 2/
N-3247	ORF (4001)	2
	II MAF	
N-2201	HqBtry, ArtyRegt, 2dMarDiv	2
N-2202	TabBtry, ArtyRegt, 2dMarDiv	1
N-2209	HqBtry, D/S (T) Bn, ArtyRegt, 2dMarDiv	1 2/
N-2219	HqBtry, G/S (T) Bn, ArtyRegt, 2dMarDiv	1 2/
N-2239	HqBtry, G/S (SP) Bn, ArtyRegt, 2dMarDiv	1 2/
N-3247	ORF (4002)	2
	III MAF	
B-2309	HqBtry, D/8 (T) Bn, ArtyRegt, 1stMarBde	1 2/
N-2301	HqBtry, ArtyRegt, 3dMarDiv	2
N-2302	TabBtry, ArtyRegt, 3dMarDiv	1 1/
N-2309	HqBtry, D/S (T) Bn, ArtyRegt, 3dMarDiv	1 2/

T/E No.	Unit	Qty.
N-2319	HqBtry, G/S (T) Bn, ArtyRegt,	1 2/
N-2339	HqBtry, G/S (SP) Bn, ArtyRegt, 3dMarDiv	1 1/ 2/
N-3247	ORF (4003)	2
	IV MAF	
N-1271	HqBtry, 155mm(SP), G/SBn, ArtyRegt, 4thMarDiv	1 2/
N-2402	TabBtry, ArtyRegt, 4thMarDiv	1 1/
N-2409	HqBtry, D/S (T) Bn, ArtyRegt, 4thMarDiv	1 2/
N-1274	HqBtry, 8" (SP), G/SBn, ArtyRegt, 4thMarDiv	1 2/
N-1261	HqBtry, ArtyRegt, 4thMarDiv	2
N-3247	ORF (4004)	2
	MCLB, ALBANY	
	I MAF	
H-2209	MPS-1	1 2/
I-2209	MPS-2	1 2/
J-2209	MPS-3	1
W-2209	584 Norway	1/
7011	Barstow, CA (M/F)	2
7014	Albany, GA (M/F)	2
	PWRS	3

1/ Allowance to be established upon activation of unit.

2/ Allowance will increase to two in FY89 following FY87/88 procurement.