

Marine Corps Casualty Evacuation: Rapid Fielding of Capabilities To Meet Wartime Needs

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Introduction

The mission of Marine Corps health service support (HSS) is to minimize the effects that wounds, injuries, and disease have on units' effectiveness, readiness, and morale. The HSS system provides support from the point of wounding, injury, or illness and evacuation to a medical treatment facility that can provide the level of care required by the patient. It also strives to minimize morbidity and mortality in those who are injured and cannot be returned to duty.

Purpose

This paper focuses on the above-stated aspect of the evacuation of the patient from point of injury to a location where life-saving treatment can be rendered, followed by evacuating the stabilized patient to a facility where even more advanced treatment can be given. The goals of this paper are to:

1. Explain how the Marine Corps end-users went through the process of communicating a needed capability of better equipment, and training for medical evacuation of patients
2. Explain how headquarters personnel vetted the requirement and documented what was required in terms of personnel, training, and material
3. Demonstrate that military acquisition teams can rapidly respond to wartime needs and field medical material solutions in a rapid fashion. While still ensuring that costs are controlled, and a quality product is fielded. In the case of the Marine Corps, we responded to the requirement by providing a final material solution, procuring the material, finalizing and implementing the training plan, and identifying personnel for the mission

4. Provide lessons learned for future acquisition efforts

USMC Field Medical Background

Before I can introduce the patient evacuation solution, I must first explain how the patient flows from point of injury on the battlefield, through different points of treatment, and on to more definitive care. The Marine Corps refers to the different levels of treatment as “echelons of care.”

The echelons of care are:

Level I. Unit level HSS is typically provided by the first responder; that is, the personnel of a unit and its organic battalion aid stations (BASs) or squadron medical sections. In the case of organizations without organic medical elements, unit level care is provided by medical elements at the regimental, group, or support squadron level or other designated medical elements.

Level II. Level II care includes initial emergency resuscitative and stabilization surgery, coupled with life and limb saving actions. It provides, as soon as tactically possible, a mobile surgical capability within theater and as close to the battlefield as is tactically possible. It does, however, require operational and logistical support when employed. Location and accessibility of forward resuscitative surgery is critically linked to the capability to evacuate casualties rapidly to the appropriate level of care. The specific tactical situation, time available, evacuation capability, and available resources determine which surgical procedures may be performed. It is essential to establish the capabilities of Level II treatment and the relationship to the next appropriate level of care. The preparation of casualties for further evacuation and treatment at the theater hospital dictates standards of essential care.

Level III. Level III provides essential care within the theater and is characterized by the use of a theater hospital. The theater hospital is at the core of ensuring quality health care to our forces, and the key to its success is the ability to provide care within 12 hours from time of injury.



Level IV. Level IV provides definitive health care and requires that the military healthcare system develop and establish the most efficient means to interface with HSS requirements. This requires evacuation and hospitalization strategies that can maintain the capability to provide a fit and healthy force, prevent casualties, and provide care and management of casualties in theaters as well as in CONUS.

Level V. Limited resources preclude the ability to complete long-term courses of health care in a theater. Level V care that is convalescent, restorative, and rehabilitative care is normally provided in CONUS. Level V care is provided in military hospitals, other federal hospitals, and selected civilian facilities that may be activated under the National Disaster Medical System. The Global Patient Movement Requirements Center coordinates movement of patients to and between CONUS medical treatment facilities.

As you can surmise, getting the patient transported quickly through the echelons of care is vital; delays in getting the patient more definitive, life saving care can lead to loss of life or limb.

Step 1: Communicating the USMC Patient Evacuation Needs

The process of pushing for the rapid development and fielding a Marine Corps En Route Care System began in response to the Operation Iraqi Freedom (OIF). The Marine Corps entered the conflict early, and was unable to depend on the other branches of service for medical evacuation. The Marine Corps medical program had made strong efforts to provide surgery in far-forward areas with the Forward Resuscitative Surgery System (FRSS); as a result, medical units were now able to be at the front lines, providing life-saving surgery. However, support services like re-supply and transportation were unable to keep up. The Air Force Aeromedical Evacuation (AE) system, for instance, was not yet in place, and could not support the Marine Corps FRSS. Army systems also cannot always be depended on due to available personnel and air assets. Marine Corps medical team members performed the mission anyhow, using on-hand assets to transport critically injured patients from the FRSS (an echelon II facility) to higher levels of care, using “non-dedicated” (helicopter assets that are used for multiple purposes to include patient evacuation) Marine Corps helicopters called the CH-46 and the CH-53. However, the equipment and supplies employed were non-standard, there was no definitive training plan, and the equipment was not ideal for the mission. Medical team members would typically place patient movement items (PMI) between the patient’s legs. This was inconvenient for the provider and potentially dangerous if turbulence was encountered.

The system operators at the First Service Support Group (FSSG) submitted a Universal Needs Statement (UNS) to the requirements developers at the Marine Corps Combat Development Command (MCCDC) in Quantico, VA to fill the medical evacuation need. The UNS was initially submitted July 12, 2000.

MCCDC’s role is to receive material requirement needs, vet those requirements through a process weighing the pros and cons of adding a new system, and articulate the final requirement to the material developer, Marine Corps Systems Command (MARCORSYSCOM).

The UNS did not proceed for months, but became more urgent when the United States was attacked September 11, 2001. A Subject Matter Expert (SME) Panel was held in April 2002

to begin development of a material solution. When the Marine Corps was called to support OIF, the need became even more urgent, and 1st FSSG end-users began to conduct the mission on an ad hoc basis. The Marine Corps Systems Command (MCSC) responded to this urgent need by fielding twelve En Route Care Systems (ERCS) to 1st FSSG at a cost of \$1.7 million. The ERCS systems were, for the most part, an Air Force system that had already been developed. This allowed for minimal product development, immediate funding, and rapid employment to the end-user.

Step 2: MCCDC's Role in Further Defining the Requirement

While the initial 12 systems were being fielded, MCCDC developed a formal requirement for the system for eventual fielding to all FSSG units in the Marine Corps. This would allow expansive fielding beyond the 45,000 Marines in Iraq, to coverage for over 160,000 Marines worldwide, to be utilized whenever and wherever Marines deploy. While developing the documents, MCCDC decided to divide the casualty evacuation missions into "Casevac" and "En Route Care." The En Route Care requirement was written first, since the urgent need was pressing for the FSSG customer. The formal requirement, called a Statement of Need (SON), was released October 8, 2003, and mandated "the ERCS shall be capable of supporting two critically injured/ill but stabilized casualties for two hours during flight." Casevac was later defined as the system that transports unstable patients directly from the battlefield to level II care. The rest of this paper will focus on the ERCS portion of the patient evacuation mission.

Step 3: Rapid Acquisition and Fielding

I was able to exert influence over the process primarily at this phase, since my role as the Medical Project Officer at MARCORSYSCOM is to deliver the material solution to the Marine Corps customer. Outlined below are the acquisition steps that can normally take a number of years. These steps were rapidly accelerated so we could meet the medical evacuation needs in less than 18 months. The key acquisition steps include:

- Finalize the material solution

- Ensure funds are available to fully field the system
- Write training plans and make sure an adequate number of personnel are available to perform the ERCS mission
- Perform safety analysis and obtain certification for the ERCS to be flown on all USMC helicopter assets
- Receive final approval to procure the ERCS and field the system
- Pursue a contract to purchase, assemble, and deliver the system

The below sections further explain these steps in detail.

An ERCS Materiel Solution

After a formal requirement was signed, it became MCSC's task to develop a material solution for Marine Corps wide deployment, fund the solution, field the systems, and plan training, manpower and logistical support to the fielded systems. The Analysis of Alternatives (AOA) analyzes all of the possible solutions to the needs of the field; this analysis began in early 2004, and lasted until April 2004.

The ERCS solution decided upon features the Special Medical Emergency Evacuation Device (SMEED) platform. It is designed to carry all of the current Patient Movement Items (PMI). The equipment is mounted by a variety of standard accessory clips. Each accessory clip has a standard design which allows it to mount in a variety of positions. The height of the equipment mounted on the platform, as well as the vehicle/aircraft to be used, determine the height adjustment required. Individual equipment has its own height projection that will increase the overall height of the platform ensemble. This cumulative height projection from the individual equipment and the platform itself will directly relate to the available space between litter berths. This system fits the most commonly used equipment in commercial use and the U.S. military inventory, and is easily customized to fit other devices. The SMEED is rugged, lightweight, inexpensive, compatible with current and future commercial medical devices, rapidly

customizable to meet individual customer and patient needs, and approved for in-flight use aboard U.S. Air Force and selected U.S. Army aircraft.

PMI consists of designated medical equipment, durable supplies, and consumables supplies necessary to support a patient during Aero-medical Evacuation. The PMI is mounted, in a variety of different ways to the SMEED bracket, which is then attached to any NATO litter. The ERCS PMI is battery powered, since there are no helicopters in the Marine Corps dedicated to patient transport. The medical evacuation missions are “flights of opportunity” (“non-dedicated” as discussed earlier) requiring quick loading and unloading of patients, equipment and supplies. In addition, no equipment could utilize the aircraft’s power supply. This required battery powered PMI.

The supply quantities and number of required systems were determined in conjunction with the Naval Health Research Center (NHRC). NHRC took combat injury and death data, and entered the information into their algorithm called the Estimating Supplies Program (ESP). ESP could then tell us, based on the casualty rates, what types of injuries (patient condition codes) we might expect to handle over a period of time with the ERCS. This then gave us the required supplies we would need to support the ERCS, and in what quantities.



ERCS Financial Considerations and Acquisition Strategy

The medical team planned and budgeted for the ERCS after the initial UNS in July, 2000. The budgeted amount included funds for ERCS in FY04 and FY05. The United States Marine Corps Decision Support Cost Estimate (DSCE) assists in determining if planned budgetary amounts are adequate to cover the initial purchase costs. It also forces program managers to budget for the training, re-supply, and further research and development costs associated with the system, over the entire life of the system. Ceilings are established, restricting spending on one system to a fixed amount. The total procurement costs to date for the initial delivery of ERCS are \$6.5 million.

ERCS Personnel and Training

The medical Staff will consist of a Critical Care Nurse and Corpsmen specialties that have received ERCS specific training. MCSC turned to the Naval Operational Medicine Institute (NOMI) to assist in the development and execution of ERCS training. NOMI established a liaison with the USMC Training and Education Command (TECOM), and developed a training plan and curriculum for ERCS. The training covers these basic areas:

- Swimming proficiency and water survival
- Trauma training
- Critical Care Air Transport
- Specific training on the USMC En Route care System

Course specifics are located in enclosure (1).

The ERCS will be assigned to the Force Service Support Group (FSSG). ERCS personnel and supporting equipment will be staged at forward operating bases or on the sea base. On notification of an urgent casualty transport and assignment of an evacuation platform, ERCS personnel will board the aircraft and configure the cabin for transport of litter casualties. Upon arrival at the transferring facility, ERCS personnel will take report on the casualty and assist in loading the casualty on the aircraft. The ERCS personnel will retain all ERCS equipment and PMI. While in transit, ERCS personnel will monitor the status of the casualty and apply clinical interventions per pre-approved protocols. The ERCS personnel will only perform those procedures necessary to prevent clinical degradation while in transit.

ERCS Safety Considerations and Flight Certification

Safety releases were relatively easy to secure, since the items are medical, and they are used throughout military medicine. The System Safety Management Plan (SSMP) was approved in July, 2004.

Flight Certification was more difficult to achieve. MCSC coordinated with NAVAIR, an organization that certifies that equipment and supplies can be placed aboard aircraft, and ensures that equipment will not interfere with the aircraft's navigational system. In July through November 2004, the system was tested aboard Marine Corps helicopters CH-53, CH-46, and the newly developed MV-22. The first NAVAIR certification was received in January 2005 and is located in enclosure (2).

ERCS Field User Evaluations

With the material solution complete, financial aspects analyzed, training plans finalized, and NAVAIR certification imminent, it was then time to actually evaluate the system from the end-user's perspective. Starting in July, 2004, MCSC tested key parameters to meet the requirements in the ERCS SON. The key parameters included:

- Set up time for the system (CH-46) →
- Ease of transporting the system onto the aircraft
- Placing the patient on the USMC aircraft (CH-53, CH-46, MV-22), and hooking the patient up to the SMEED and PMI
- Exiting the aircraft with the patient



The ERCS passed all the parameters outlined above the for USMC helicopters specified.



MV-22



CH-53

ERCS Milestone Decision

On January 14, 2005, LtCol Reinwald, on behalf of BGen Catto approved the USMC procurement and fielding of ERCS. This marked the most important decision regarding this program to date, and allowed us to move forward with full fielding of ERCS.

ERCS Procurement and Integration Contract

We pursued a procurement and integration contract with one company. This allows the vendor to procure all of the items, assemble them, and deliver them to the FSSG customer. To avoid delays and requirements for competitive sourcing, MCSC went to a preferred supplier, the national Institutes for the Severely handicapped (NISH). On May 2, 2005, NISH approved the contract for ERCS. Later that month, MCSC sent a fielding message to the FSSG customers, informing them as to how many systems they should expect, and when (enclosure(3)).

Step 4: Conclusions and Lessons Learned

Medical evacuation of casualties has come a long way since World Wars I and II. Technology increases and systems have responded to the ever-increasing complexity of modern warfare. The warfare of the past with clear lines of demarcation have been replaced with a battlefield that spans wide areas, including towns, cities, and the home base of operations. The Defense aeromedical evacuation systems have responded; evacuation of casualties from point of

injury to definitive care in a medical treatment facility has improved from 30 days in Vietnam to 3-4 days in OIF per CDR Fowler, Officer in Charge, Naval Operational Medicine Institute, Detachment Surface Warfare Medicine Institute.

The Marine Corps has responded to the needs of modern warfare in general, and particularly to the current conflict. The processes for requirements development, material solution development and fielding, followed by research and development for the next generation of systems, will need to continue to evolve and improve. The Marine Corps must remain responsive to the health care provider who needs improved systems continually in a timely manner.

The Marine Corps Medical Team has been able to respond to urgent wartime needs by streamlining the acquisition process. The team has been able to do this by:

- Focusing on Commercial-off-the-Shelf (COTS) items that do not require extensive development, evaluation, and testing. Items are for the most part are immediately procurable.
- Educating decision-makers on the immediate needs that the field is requesting so that there are no surprises when the push is made for quick procurement
- Allowing staffers to review supporting documentation on a continual basis, so that most of the documentation is already reviewed and edited before a final decision is requested
- Medical systems have a low purchase amount relative to other military hardware, allowing for a lower level of review
- MARCORSYSCOM has streamlined acquisition procedures through a matrix organization
- MARCORSYSCOM has worked tirelessly to streamline vital medical support items in support of OIF efforts
- The MARCORSYSCOM medical team was aggressive in obtaining training on acquisition procedures

The MARCORSYSCOM medical team has also learned powerful lessons that we will use to streamline future acquisition efforts:

- Work to limit turnover of MARCORSYSCOM medical contractor personnel so that the corporate knowledge is maintained, and program momentum is maintained.
- Involve the field earlier in training and personnel issues. If we had done that, we would not have had to “sell” the training plan late in the process
- Utilize the Medical Officer of the Marine Corps early on as an advocate for medical programs. ERCS would have moved along more quickly had we better utilized the advocacy of the Medical Officer of the Marine Corps and his staff.

References

Green, BGen Bruce, Air Ambulance: An Illustrious History, U.S. Air Force, 2000.

Spurgeon, Ned, Major General, U.S. Army, Vietnam Studies: Medical Support 1965-1970, 1991.

United States Air Force Museum, Aeromedical Evacuation, 2004.

Marine Corps Publication MCRP 4-11.1E, Health Service Support Field reference Guide, 2004.

Marine Corps Order 3900.15A, Marine Corps Expeditionary Force Development System, November 26, 2002.

TRAINING	HOSPITAL CORPS REQUIREMENTS
Prerequisites	8404: Completed Field Medical Service Technician Course at FMSS
Medical Qualification	Selected Passenger: Physically qualified (PQ) as documented by an Aeromedical up-chit.
Swimming Proficiency Qual.	Second-Class Swimmer: Swimming ability prerequisite for N-9 Water Survival curriculum is US Navy 2 nd Class or better
Water Survival Training	N9 Water Survival Curriculum (required for Select Passengers) from the nearest ASTC (1 day) ***MUST be completed prior to ERCS Course.***
Academic Training	<i>US Army Combat Flight Medic Course: 20 training days at Ft. Rucker, Al.</i> . ***MUST be completed prior to attending ERCS Course***
ERCS TRAINING (MTT)	En Route Care System (ERCS) Course: 2.5 day course of combined lectures, small group interaction, flight-line ground based simulations, in-flight simulations. ***PREREQUISITES: US Army Combat Flight Medic Course; N9 Water Survival Training.***
TRAINING DAYS	TOTAL TRAINING DAYS: 23.5

TRAINING	NURSE CORPS REQUIREMENTS
Prerequisites	Critical Care (1960S) or Emergency Care (1945S) Nurses with critical care skills assigned to the FSSG. (Full-time and MAP assigned NC) ACLS, & TNCC or Transport Nurse Advanced Trauma Course (TNATC)
Medical Qualification	Selected Passenger: Physically qualified (PQ) as documented by an Aeromedical up-chit.
Swimming Proficiency Qual.	Second-Class Swimmer: Swimming ability prerequisite for N-9 Water Survival curriculum is US Navy 2 nd Class or better
Water Survival Training	N9 Water Survival Curriculum (required for Select Passengers) from the nearest ASTC (1 day) ***MUST be completed prior to ERCS Course.***
Academic Training	<i>Joint Medical Enroute Care Course (12 days).</i> ***MUST be completed prior to attending ERCS Course***
ERCS TRAINING (MTT)	En Route Care System (ERCS) Course: 2.5 day course of combined lectures, small group interaction, flight-line ground based simulations, in-flight simulations. ***PREREQUISITES: JMERC; N9 Water Survival Training.***
TRAINING DAYS	Total: 15.5

Encl (1)
 FM COMNAVAIRSYSCOM PATUXENT RIVER MD//4.0P//
 TO COMNAVAIRFOR SAN DIEGO CA//N421H//
 INFO NAVAIRSYSCOM PMA TWO SIX CHERRY POINT NC
 //014//
 COMNAVAIRSYSCOM PATUXENT RIVER MD//4.0P//

COMNAVAIRFOR SAN DIEGO CA//FILE//
COMNAVAIRWARCENACDIV PATUXENT RIVER MD//3.6K//
NAVAIRDEPOT CHERRY PT NC//H46FST//
COMNAVAIRES NEW ORLEANS LA//N421C/N421C1/N421C3//
//N13034//

MSGID/GENADMIN/COMNAVAIRESYSCOM/AIR-4.0P//
REF/A/MSG/COMNAVAIRFOR/240614ZNOV2004//
REF/B/DOC/USAF RESEARCH LAB/01JAN1998//
REF/C/DOC/USAF RESEARCH LAB/01FEB2000//
REF/D/DOC/USAF RESEARCH LAB/01JUN1998//
REF/E/DOC/USAF RESEARCH LAB/15MAR2002//
REF/F/DOC/NAVAIR/28SEP2004//

NARR/REF A IS FLIGHT CLEARANCE REQUEST.
REFS B THRU E ARE TEST AND EVALUATION REPORTS FOR THE INDIVIDUAL
COMPONENTS THAT MAKE UP THE EN ROUTE CARE SYSTEM.

REF F IS NAVAIRINST 13034.1C, FLIGHT CLEARANCE POLICY FOR AIR
VEHICLES AND AIRCRAFT SYSTEMS.//

RMKS/1. CH-46E INTERIM FLIGHT CLEARANCE FOR ENROUTE CARE SYSTEM
(ERCS). IRT REF A, AN INTERIM FLIGHT CLEARANCE IS GRANTED FOR
TYCOM DESIGNATED CH-46E ACFT TO OPERATE WITH ENROUTE CARE SYSTEM
(ERCS). THIS FLIGHT CLEARANCE IS SUBJECT TO NATOPS AND THE
FOLLOWING CONFIGURATION AND LIMITS.

2. TAKEOFF CONFIGURATION AND LOADING: IAW H-46 NATOPS/TACMAN,
APPLICABLE NAVAIR FLIGHT CLEARANCES AND THE FOLLOWING CARRY-ON/
CARRY-OFF EQUIPMENT:

A. EN ROUTE CARE SYSTEM, CONSISTING OF ALL OR A COMBINATION OF
THE FOLLOWING PIECES OF EQUIPMENT SECURED TO AN INDIVIDUAL
PATIENT LITTER USING THE SPECIAL MEDICAL EMERGENCY DEVICE
(REF E) AS A PLATFORM:

1. PROPAQ 206 EL ENCORE VITAL SIGNS PATIENT MONITOR PER REF
B - WEIGHT 11.1 LB.
2. 745/754M PORTABLE VENTILATION SYSTEM PER REF C. - WEIGHT
14.5 LB.
3. 326M SUCTION APPARATUS PER REF D. - WEIGHT 11.42 LB.
4. OXYGEN BOTTLE-WEIGHT 13.10 LB.
5. INFUSION PUMP - WEIGHT 4.62 LB.
6. SPECIAL MEDICAL EMERGENCY DEVICE (SMEED)- WEIGHT 20 LB.
THE TOTAL WEIGHT OF A SINGLE ERCS SYSTEM IS 75 LB.

3. LIMITS: IAW H-46 NATOPS/TACMAN AND APPLICABLE NAVAIR FLIGHT
CLEARANCES (MOST RESTRICTIVE LIMITS APPLY) AND AS FOLLOWS:

A. ERCS NOT AUTHORIZED FOR NIGHT AIDED (NVG) FLIGHT WITH
SYSTEM(S) POWERED ON.

4. SPECIAL WARNINGS, CAUTIONS AND NOTES: IAW H-46 NATOPS/TACMAN
AND APPLICABLE NAVAIR FLIGHT CLEARANCES AND AS FOLLOWS:

A. -----CAUTION-----
ENSURE SMEED DOES NOT IMPEDE EGRESS POINTS WHEN INSTALLED
ON LITTER AND INSTALLED ON THE RACK.

B. -----NOTE-----
ERCS SHALL BE POWERED BY SELF CONTAINED RECHARGABLE
BATTERIES AND SHALL NOT BE CONNECTED TO AIRCRAFT POWER
RECEPTICALS.

C. -----NOTE-----
AN EMC SAFETY OF FLIGHT TEST (SOFT) MUST BE SUCCESSFULLY
COMPLETED PRIOR TO FIRST FLIGHT.

D. -----NOTE-----
ENSURE ALL MISSION SPECIFIC EQUIPMENT HAS BEEN ACCOUNTED

FOR ON EITHER CHART C - BASIC WEIGHT AND BALANCE RECORD (DD FORM 365-3) OR WEIGHT AND BALANCE CLEARANCE FORM F (DD FORM 365 4 OR AN APPROVED FACSIMILE) AND THAT A WEIGHT AND BALANCE CLEARANCE FORM F IS COMPLETED AND ON FILE FOR EACH MISSION.

E. -----NOTE-----

RETENTION OF ALL SMEED RELATED EQUIPMENT SHALL BE INSPECTED PRIOR TO EACH FLIGHT.

5. TIME PERIOD: THIS IFC EXPIRES 30 DEC 2007.

6. POINT OF CONTACT:

A. MAJ DAVE FORRESTER, PMA-226, H-46 CLASS DESK, DSN 451-7152, (252) 464-7152 OR EMAIL: DAVID.FORRESTER(AT)NAVY.MIL.

B. PAUL FITZGERALD, PMA-226, H-46 DEPUTY CLASS DESK, DSN 451-8382, COMM (252) 464-8382 OR EMAIL: PAUL.FITZGERALD(AT)NAVY.MIL.

C. KRISTI ROMEO, FLIGHT CLEARANCE SUPPORT, DSN 757-9454 OR (301) 757-9454, EMAIL: KRISTEN.ROMEO(AT)NAVY.MIL

D. INFORMATION REGARDING THE AIRWORTHINESS OFFICE AND PROCESS, INCLUDING A LIST OF ALL CURRENT NAVAIR FLIGHT CLEARANCES AND 24/7 CONTACT NUMBERS CAN BE FOUND AT OUR WEBSITE: AIRWORTHINESS.NAVAIR.NAVY.MIL. OUR GLOBAL CUSTOMER SUPPORT TEAM CAN BE CONTACTED AT (301) 757-0187 OR BY EMAIL AT AIRWORTHINESS(AT)NAVY.MIL

7. OTHER REMARKS:

A. USE OF TWO COMPLETE EN ROUTE CARE SYSTEMS PER AIRCRAFT

AUTHORIZED. WHEN NOT IN USE THE TWO ERCS WILL BE STORED IN TWO 1660 PELICAN CASES FOR THE PATIENT MOVEMENT ITEMS, TWO 0370 PELICAN CASES FOR THE OXYGEN BOTTLES, AND ONE LONDON BRIDGE BAG FOR THE CONSUMABLES. CASES TO BE SECURED IAW A1-H46AE-CLG-000.

B. REQUEST TYCOM READD THIS INTERIM FLIGHT CLEARANCE TO APPROPRIATE SUBORDINATE UNITS FORAC.

C. PER REF F, THIS INTERIM FLIGHT CLEARANCE PROVIDES NAVAIR AIRWORTHINESS CERTIFICATION SUBSEQUENT TO A DESIGN ENGINEERING REVIEW. IT DOES NOT AUTHORIZE AIRCRAFT/SYSTEM MODIFICATION, NOR DOES IT SATISFY NAVAIR REQUIREMENTS FOR CONFIGURATION MANAGEMENT. REFER TO OPNAVINST 4790.2H FOR POLICY GUIDANCE ON CONFIGURATION MANAGEMENT AND MOD AUTHORITY.//

Encl (2)

RTTUZYUW RHSSXYZ0001 1270744-UUUU--RHSSSUU.

ZNR UUUUU

R 070738Z MAY 05

FM CG MARCORSYSCOM QUANTICO VA CESS(UC)

TO HQMC LCC1

CNO N ONE WASHINGTON DC

CNO WASHINGTON DC
COMMARFORPAC
COMMARFORPAC G4
COMMARFORPAC G3
COMMARFORLANT
COMMARFORLANT G-4
COMMARFORLANT G3-5-7
COMMARFORRES
COMMARFORRES G4
COMMARFORRES G3
BUMED WASHINGTON DC
CG MARCORLOGCOM ALBANY GA
CG I MEF
CG I MEF G-4
CG I MEF G-3
CG II MEF
CG II MEF G4
CG II MEF G3
CG III MEF
CG III MEF G-4
CG III MEF G-3
INFO CG 1ST MARDIV
CG 1ST MARDIV G-4
CG 1ST MARDIV G-3
CG 2ND MARDIV
CG 2ND MARDIV G4
CG 2ND MARDIV G3
CG 3RD MARDIV
CG 3RD MARDIV G-4
CG 3RD MARDIV G-3
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CG 4TH MAW
CG 4TH MAW G4
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CG 3RD MAW
CG 3RD MAW G4
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CG 1ST FSSG
CG 1ST FSSG G-3
CG 1ST FSSG G-4
CG 2ND FSSG
CG 2ND FSSG G3
CG 2ND FSSG G4
CG 3RD FSSG
CG 3RD FSSG G-3
CG 3RD FSSG G-4
CG 4TH FSSG
CG 4TH FSSG G3
CG 4TH FSSG G4
CG TECOM QUANTICO VA
BLOUNT IS CMD JACKSONVILLE FL

1ST MEDBN
2ND MED BN
4TH MED BN
CG MARCORSSYSCOM CESS
BT

UNCLAS

MSGID/GENADMIN/MARCORSYSCOM-CESS-NBCDS//

SUBJ/EN ROUTE CARE SYSTEM (ERCS) FIELDING// POC/D.L. SCHOO/LCDR

/MARCORSYSCOM-NBCDS/LOC: QUANTICO, VA

/COML: 703-432-3221 DSN 378-3221/EMAIL: DAVID.SCHOO@USMC.MIL//

GENTEXT/REMARKS/1. THIS MSG PROVIDES INFORMATION REGARDING THE FIELDING OF THE EN ROUTE CARE SYSTEM (ERCS). CURRENTLY THE MARINE CORPS DOES NOT HAVE THE CAPABILITY TO SAFELY TRANSPORT AND PROVIDE CRITICAL/REQUIRED MEDICAL CARE OF PATIENTS WHO ARE AT RISK OF SUDDEN, LIFE THREATENING CHANGES IN THEIR CLINICAL STATUS DURING TRANSPORT TO HIGHER LEVELS OF CARE OVER THE TIMES AND DISTANCES EXPECTED IN A WARFIGHTER ENVIRONMENT. THE EN ROUTE CARE SYSTEM (ERCS) SATISFIES THIS NEED AND IS AN ESSENTIAL FOLLOW-UP PROGRAM TO THE FORWARD RESUSCITATIVE SURGERY SYSTEM (FRSS).

2. ERCS HAS A MULTITUDE OF PREREQUISITE TRAINING REQUIREMENTS AS IDENTIFIED IN PARAGRAPH 3. TRAINING CONDUCTED BY THE COMMAND THAT EMULATES PREREQUISITE TRAINING CAN BE SUBSTITUTED TO QUALIFY PERSONNEL FOR ERCS TRAINING BLOCK.

3. NAVAL OPERATIONAL MEDICINE INSTITUTE (NOMI) N3 IS THE PROGRAM TRAINING SPONSOR OF BOTH CORPSMAN AND NURSE EN ROUTE CARE PROVIDER TRAINING. FUNDING FOR THIS TRAINING IS PROVIDED BY NOMI FOR ACTIVE DUTY NURSES AND CORPSMEN IDENTIFIED BY THE MARINE CORPS. THE FOUNDATION OF THE PROPOSED ERCS TRAINING COURSES CAPITALIZES ON THE USE OF EXISTING AEROMEDICAL AND TRAUMA/CRITICAL CARE TRAINING OPPORTUNITIES CONTROLLED BY OTHER NAVY COMMANDS AND MILITARY SERVICES. THE ERC TRAINING PLAN WILL BE PROVIDED AS:

NURSES AND CORPSMEN

N9 WATER SURVIVAL

TRAUMA TRAINING

AEROMEDICAL TRAINING

NAVAL ERC COURSE

4. EACH FORCE SERVICE SUPPORT GROUP (FSSG) WILL BE RESPONSIBLE FOR CONDUCTING ERCS SUSTAINMENT TRAINING. TO MAINTAIN PROFICIENCY WITH THE ERCS APPLICATIONS, THE FSSG'S SHOULD CONDUCT ERCS SUSTAINMENT TRAINING ANNUALLY, AT A MINIMUM. ALL ERCS PERSONNEL WILL BE REQUIRED TO MAINTAIN N9 WATER SURVIVAL CERTIFICATION, AND RE-CERTIFY ON A FOUR-YEAR INTERVAL, WHILE ASSIGNED TO THE ERCS MISSION.

5. THE ERCS WILL BE FIELDDED "HORIZONTALLY" TO I, II, III MEF'S, MARITIME PREPOSITIONING SHIPS (MPS) AND RESERVES. THE REQUIREMENTS WILL BE FIELDDED TO THE MARINE CORPS OPERATING FORCES OVER A TWO-YEAR PERIOD. ERCS WILL BE FIELDDED AS: READ FIVE COLUMNS

UNIT	QTY	FY FIELDDED	QTY	FY
H&SCO, MEDBN, 1ST FSSG	8	FY05	8	FY06
H&SCO, MEDBN, 2ND FSSG	8	FY05	8	FY06
H&SCO, MEDBN, 3RD FSSG	8	FY05		
H&SCO, MEDBN, 4TH FSSG			8	FY06
DET, H&SCO, MEDBN/MPS1			4	FY06
DET, H&SCO, MEDBN/MPS2			4	FY06
DET, H&SCO, MEDBN/MPS3			4	FY06

6. POC'S ARE LCDR A. P. CATANESE AND CDR J. P. FOWLER AT DSN:

922-5488/2292, FOR NURSES AND CORPSMEN IDENTIFIED FOR THE EN ROUTE CARE TRAINING PIPELINE. THE FOLLOWING WEB PAGE PROVIDES ADDITIONAL INFORMATION ON THE TRAINING COURSES:

[HTTP://WWW.NOMI.MED.NAVY.MIL/NOMI/TRAININGPAGES/INDEX.HTM](http://www.nomi.med.navy.mil/nomi/trainingpages/index.htm)

7. REQUEST MEDLOGCO TO COORDINATE FIELDING. PLEASE PROVIDE SPONSOR'S NAME, RANK, ORGANIZATION, TELEPHONE NUMBER AND EMAIL ADDRESS VIA EMAIL TO JACK.WINE@USMC.MIL NLT 30 DAYS AFTER MESSAGE RELEASE.

8. ADDITIONALLY, REQUEST CONCURRENCE VIA NAVAL MESSAGE FROM EACH MEF /MFR AND/OR SUPPORTING ESTABLISHMENT WITH MARCORSYSCOM'S INTENT TO FIELD THE ERCS SYSTEM.//

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