

#### DEPARTMENT OF THE NAVY HEADQUARTERS UNITED STATES MARINE CORPS 3000 MARINE CORPS PENTAGON WASHINGTON, DC 20350-3000

MCO 3500.42B POG-40 1 Oct 12

#### MARINE CORPS ORDER 3500.42B

- From: Commandant of the Marine Corps To: Distribution List
- Subj: MARINE CORPS HELICOPTER/TILTROTOR ROPE SUSPENSION TECHNIQUES (HRST) POLICY AND PROGRAM ADMINISTRATION
- Ref: (a) MCO P5102.1B
  - (b) MCO 1553.1B
  - (c) MCO 1553.2A
  - (d) MCO 3500.27B
  - (e) MCO 3502.2A
  - (f) MCRP 3-11.4A
  - (g) TM 72101A-14 (NOTAL)
  - (h) SOCOM 350-6 SOCOM Insertion/Extraction Manual (NOTAL)
  - (i) SECNAV M-5210.1
  - (j) OPNAVINST 5102.1D
  - (k) NAVAIR 13-45-2
  - (1) MCRP 3-11.3A
  - (m) COMNAVSPECWARCOMINST 3000.3B
- Encl: (1) Qualification Requirements for HRST Master
  - (2) Qualification Requirements for Static Rope Suspension Techniques (SRST) Master
  - (3) Manifest for HRST Operations

1. <u>Situation</u>. HRST is the collective term for rappel, fast rope, Special Patrol Insertion/Extraction (SPIE) and Jacob's Ladder operations. HRST systems were developed as a means to insert and/or extract, by helicopter or tiltrotor, ground forces (primarily reconnaissance teams) into or from rough terrain, urban areas or water. HRST is designed to be used in situations where aircraft landings are impractical due to terrain or tactical situation. The policies and procedures described herein are intended to maximize unit and individual combat effectiveness, interoperability, and safety. Commanders and authorized personnel will ensure that unit and activity programs are administered in accordance with this Order and references (a) through (k). Requests to waive any criteria or coordinate permanent changes to this Order, must be submitted via the chain of command to Deputy Commandant, Plans, Policies & Operations (POG-40) for approval.

2. Cancellation. MCO 3500.42A.

3. <u>Mission</u>. Establish policy designating assigned responsibilities for the conduct of the Marine Corps HRST programs. HRST skills apply to insertion/extraction by helicopter and include the developmental preliminary training conducted from static towers. HRST gives the unit the ability to conduct helicopter/tiltrotor insertions or extractions where aircraft landings are impractical.

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#### 4. Execution

## a. Commander's Intent and Concept of Operations

(1) <u>Commander's Intent</u>. Commanding Generals, Marine Forces Pacific/Command/Special Operations, Reserves and Commanders/Officers in Charge of units performing HRST operations will conduct all HRST operations and training in accordance with this Order and other applicable directives. All safety related reporting will also be submitted as required.

(2) Concept of Operations

(a) <u>Rappelling</u>. Rappelling from aircraft shall only be conducted by units whose operational requirements dictate insertion by that means.

(b) <u>SPIE</u>. SPIE shall be conducted by units whose operational requirements dictate insertion/extraction by that means.

(c) <u>Fast Roping</u>. Fast roping from aircraft shall be conducted by units whose operational requirements dictate insertion by that means.

(d) <u>Jacob's Ladder</u>. Units, whose operational requirements dictate extraction by that means, shall conduct Jacob's Ladder training from aircraft for currency.

(e) <u>Specialized Night Operations.</u> Units, whose operational requirements dictate the necessity for insertion and extraction from aircraft; during periods of limited visibility; employing rappelling, SPIE, Fast Roping, and Jacob's Ladder techniques.

#### b. Subordinate Element Mission

(1) Deputy Commandant, Plans, Policies, and Operations (PP&O)

(a) Serve as the Headquarters Marine Corps functional expert in all reconnaissance and HRST related issues. Additionally, serve as the Reconnaissance Occupational Field Manager, Reconnaissance Military Occupational Specialty (MOS) Specialist, and the Marine Corps Supervisor for HRST.

(b) Serve as a proponent in the Combat Developmental System (CDS), assisting in the development of Marine Air Ground Task Force (MAGTF) organization, training, equipment and doctrine related to reconnaissance, HRST and related special reconnaissance capabilities/skills.

(c) Consolidate, submit, and/or monitor reports as required in this Order and initiate Marine Corps-wide corrective/preventive action as required.

(d) Establish, enforce and monitor policy to ensure standards are being met.

(2) Commanding General, Marine Corps Combat Development Command (MCCDC)

(a) Take the lead, in coordination with DC, PP&O (POG-40), on annual validation of all Marine Corps HRST school requirements.

(b) Develop, publish, and review as required, Marine Corps training policy and standards (Infantry Training Standards (ITS), Mission Performance Standards (MPS) and/or Training & Readiness (T&R) Manual) related to HRST.

(c) Evaluate the effectiveness of current and proposed training programs, review and approve Programs of Instruction (POI), inspect and identify deficiencies and forward recommendations DC, PP&O (POG-40) measures to correct noted deficiencies.

(d) Standardize HRST training in the Marine Corps.

(e) Ensure the standardization of HRST courses in instruction (HRST Master and Unit Refresher Training). Review and approve Programs of Instruction submitted by Lead Agencies.

(f) In conjunction with DC, PP&O (POG-40), serve as the User Representative for all HRST equipment related issues. Coordinate with operating forces, supporting establishments, higher headquarters, and interservice and government agencies to ensure current equipment deficiencies are corrected and desired HRST capabilities support Marine Corps Required Operational Capabilities.

(g) Take all actions necessary to support equipment requirements for HRST capabilities.

(h) In coordination with Commander, Marine Corps Systems Command (C 2IA), maintain inter-service liaison to ensure equipment inter operability and facilitate requirement development to support HRST operations.

(3) Commanding General, Marine Corps Systems Command (CBG)

(a) Coordinate and manage all HRST equipment, research, development and acquisition as identified by MCCDC (C 443) and validated by DC, PP&O (POG-40).

(b) Provide for Marine Corps-wide coordination and standardization of all approved and fielded systems.

(c) Serve as the HRST Equipment Sponsor, responsible for developing technical operational procedures, refining employment techniques, updating equipment and monitoring compliance with applicable safety procedures.

(d) Provide assistance to DC, PP&O (POG-40) and CG MCCDC (C 443) with regard to safety, procedures and techniques as requested.

(4) Commander, Naval Safety Center

(a) <u>USMC Parachute Safety Analyst (Code 44)</u> and <u>High Risk</u> Training Analyst (Code 41)

<u>1</u>. Evaluate all HRST equipment malfunctions/HRST incidents and related mishaps. As directed by DC, SD and DC, PP&O (POG-40), participate in the conduct of safety mishap review boards, as a board member and technical advisor, providing technical and procedural expertise for class A, B, and selected C and D, HRST mishap investigations.

 $\underline{2}$ . Provide assistance to CG MCCDC (C 443) with regards to safety, procedures, and techniques, pertaining to HRST equipment and operations.

<u>3</u>. Maintain a data repository for all HRST equipment malfunction/incident reports. Analyze compiled data for trends in personnel and equipment performance and procedural adequacy. Annually distribute statistics to all commands that conduct HRST operations.

(b) USMC Parachute Safety Analyst (Code 44)

<u>1</u>. Provide a safety assessment on all HRST equipment under research, development and acquisition as identified by CG MCCDC (C 443) and validated by DC, PP&O (POG-40).

2. Conduct a HRST equipment inspection on all Marine Corps • units authorized to conduct refresher training at least once every 2 years. Conduct assistance inspections requested by the commanding officer or directed by DC, PP&O (POG-40).

(c) <u>High Risk Training Analyst (Code 41)</u>. Conduct High Risk Training Safety Inspections on all Marine Corps units authorized to conduct HRST Master Instructor Training at least once every 2 years.

(5) <u>Commanding General, II Marine Expeditionary Force, Special</u> Operations Training Group (SOTG)

(a) II MEF SOTG is designated the Lead Agency for HRST courses of instruction and shall submit to CG, Training Command (C 472) for review and approval all required and appropriate documentation for HRST Master and Unit HRST Refresher Training.

(b) In coordination with those Units and Activities authorized to instruct/train HRST courses, develop and submit POIs for the HRST Master Course and Unit HRST Refresher Training to CG, Training Command (C 472) for review and approval.

(c) Upon approval of HRST Programs of Instruction (HRST Master and Unit HRST Refresher Training) provide a complete Master Lesson File (one copy each of: POI, lesson plans, student outlines, class instructional support material) to each activity and unit authorized to instruct and CG, Training Command (C 472).

(d) Establish and convene a Course Content Review Board (CCRB), and coordinate participation by all authorized HRST training sites and Units per reference (c). At the conclusion of the CCRB, submit a Record of

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Proceedings via the chain of command to CG, Training Command (C 472) and provide copies as required to DC, PP&O (POG-40) and the Naval Safety Center.

(e) Maintain an information base of all current and ongoing HRST developments with COMMARCORSYSCOM (CBG) on new equipment, procedures, and items of safety for HRST operations.

(6) <u>Training Activities/Unit Commanders</u>. Commanders will ensure the safe conduct of all HRST training/operations. All HRST operations will use Operational Risk Management (ORM) procedures for mitigating risk in accordance with reference (g).

(a) Maintain HRST Master Lesson Files provided by the Lead Agency.

(b) Ensure HRST operations within the organization are conducted and supervised by a currently certified HRST Master and Safety Insert Officer.

(c) Ensure HRST Refresher Training, certification and recertification dates are properly annotated in each Marine's Officer Qualification Record (OQR)/Service Record Book (SRB), as appropriate, and the Training Record.

(d) Ensure all personnel conducting HRST from a helicopter have successfully completed static tower training within the previous 60 days for rappelling operations, and 120 days for fast rope operations, per paragraph 3.c.(6) of this Order.

(e) Ensure all HRST equipment is properly maintained, inspected, and stowed after use, per references (b) and (g).

(f) Ensure only a currently certified HRST Master maintains the HRST storage locker.

(g) Ensure all HRST Master Refresher Training is conducted in accordance with this Order and the Master Lesson File for HRST Master Refresher Training.

(h) Submit recommended additions and/or changes to this Order to DC, PP&O (POG-40).

(i) In coordination with the Lead Agency for course of instruction, participate in HRST CCRBs. At anytime submit recommended changes to courses of instruction to Lead Agency.

(7) <u>Unit Commanders</u>. The Commander is responsible for ensuring that all HRST within the unit is accomplished per this Order. Additional responsibilities include, but are not limited to the following:

(a) Ensure HRST operations within the unit are conducted and supervised by a certified and current HRST Master and Safety Insert Officer (SIO).

(b) Ensure all HRST Refresher Training, certification and recertification dates are properly annotated in each Marines OQR/SRB as appropriate, and the Training Record.

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(c) Ensure that all personnel conducting rope suspension training from a helicopter have successfully completed static tower training within the previous 60 and 120 day rule for rappelling and fast rope operations.

(d) Ensure that all HRST equipment assigned on the unit's Table of Equipment is properly maintained, inspected and stowed after use, per references (a) to (k).

(e) Ensure that only a properly certified and current HRST Master maintains the HRST locker.

(f) Ensure that all HRST Master Refresher Training is conducted per this Order.

(g) Submit any recommended additions or changes to this Order to DC, PP&O (POG-40).

(h) Always use reference (d) to properly evaluate Operational Risk.

(i) MARSOC will use reference (h) to incorporate SOCOM specific requirements.

(8) <u>HRST Masters</u>. NCOs and above who successfully complete the HRST Masters Course, outlined in enclosure (1), will be certified as HRST Masters. This qualification and date of qualification shall be annotated in the Marine's OQR/SRB, as appropriate, and the Training Record. A certified and current HRST Master is responsible for the training of personnel, as well as the direct supervision of all HRST operations. All training will be conducted in accordance with this Order, individual training standards and information contained in reference (f). Prior to the conduct of training, qualified HRST Masters will be assigned in writing by the Commanding Officer of the unit conducting training.

(9) <u>Safety Insert Officer (SIO)</u>. An assigned SIO will be a SNCO or above, who has successfully completed the HRST Masters Course. The SIO will be fully qualified and current in order to conduct HRST operations. The SIO is in charge of the HRST operation regardless of rank. Until relieved, his decisions are final during the HRST operation. The SIO makes the final decision as to whether or not it is safe to conduct HRST operations.

(10) <u>Medical Support</u>. Assignment of a qualified military medical support person (i.e. HM 8404, HM 8427, HM 8403, HM 8425, IDC, Air Force Medic, Army Medic, Physician Assistant, or Medical Officer) is mandatory. Civilians who are licensed (i.e. EMTs, Paramedics) may be used when military medical support is not available. The medical support must be trained and equipped for HRST type emergencies. The medical support works for the SIO and is responsible for treating all injuries. If the assigned medical support leaves the area, the HRST operation will cease until medical support resumes.

(11) U.S. Navy Personnel. Navy personnel are subject to this Order while assigned to Marine Corps units and activities except as stipulated in the Navy Military Personnel Manual NAVPERS 15560D. Unless otherwise stated, all references to Marines apply to Navy personnel assigned to Marine Corps units. Naval Special Warfare personnel who have attended their service

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Helicopter Rope Suspension Training and Helicopter Cast Master certification are authorized to conduct training on USMC aircraft as long as their qualifications are current. Additionally, current HRST Masters assigned to MARSOC and Recon units are considered qualified cast masters per reference (1). These personnel must conduct all training in accordance with this Order and references (a) to (m).

## c. Coordinating Instructions

(1) <u>USMC Authorized Courses of Instruction</u>. Only those Marines who have graduated from a HRST Master Course or other service training courses for helicopter rope suspension may be designated as a HRST Master. The Marine Corps trains to meet only valid operational requirements. Quotas to these courses will be assigned to authorized Units/Activities only. The following are the only training organizations authorized to qualify HRST Masters:

- (a) Special Operations Training Groups (SOTG)
- (b) Division Schools, 1ST Marine Division
- (c) Marine Corps Forces, Special Operation Command (MARSOC)

Marine Special Operations School is the lead school house for all MARSOC HRST courses. They will serve as the single point of contact for all HRST related issues within MARSOC and its subordinate elements.

HRST courses will be taught by certified HRST Master Instructors. Per reference (e) the only authorized training organization for HRST Master Instructors certification is the formal school houses listed in this paragraph. Foreign and civilian HRST or related specialties are not recognized courses of instruction because course content and training standards may be different from those of the Marine Corps.

(2) <u>Authorized Units/Activities</u>. Only those units/activities having mission essential requirements, as indicated by their T/O mission statement and appropriate allowance in their Table of Equipment (T/E) are authorized to possess the equipment for the conduct of HRST operations. Requests for changes to current T/Os and mission statements will be forwarded via the chain of command to their designated advocate at HQMC, Washington DC for review and final endorsement/approval. Only the following units/activities are authorized to conduct HRST operations and maintain appropriate equipment. Authorized HRST units include the following:

(a) Active Component and Reserve, Force Reconnaissance Companies

(b) Active Component and Reserve, Reconnaissance Battalions

(c) Active Component and Reserve, Air Naval Gunfire Liaison

Companies

(d) Radio Battalion, Radio Reconnaissance Platoon

(e) Ground Weapons Raid Reconnaissance Section/Test Facility, Marine Corps Systems Command (CBGR)

(f) Special Operations Training Groups

- (g) Division Schools, 1ST Marine Division
- (h) Marine Corps Recruit Depots (Tower Only, See Enclosure 2)
- (i) Marine Corps University (TBS, IOC)
- (j) Infantry Battalions
- (k) Marine Corps Security Force Regiment
- (1) Marine Corps Special Operations Battalions
- (m) Marine Corps Special Operations Schools
- (n) Military Police Special Reaction Teams
- (3) Authorized Units HRST Master Refresher Course

(a) The HRST Master Refresher Course is designed to keep certified HRST Masters current in their skills. The course is taught by the following units:

- 1. Special Operations Training Groups
- 2. Active Component and Reserve, Reconnaissance Battalions
- 3. Active Component and Reserve, Force Reconnaissance

Companies

- 4. Division Schools, 1ST Marine Division
- 5. 3D Marines Regimental Schools, 3D Marine Division
- 6. Marine Corps Special Operations Battalions

(b) The Commanding Officer will appoint, in writing, a senior, current HRST Master as the HRST Master Refresher Course Instructor and will ensure that the refresher training is taught in accordance with this Order, the approved Program of Instruction from II MEF SOTG, and that all requirements are met before a non-current HRST Master is recertified. The course will be documented with a signed LOI and attendance roster, and reflect training received. These files shall be maintained at the unit for two years. The course may be tailored to the individual HRST Master needing specific currency training. During the course, HRST Masters will be expected to:

<u>1</u>. Demonstrate knowledge and proficiency in proper storage, preventative maintenance, marking, rope logs, shelf/service life requirements, current authorized modifications to equipment, equipment serviceability requirements, equipment malfunction and incident reporting, and HRST operation administrative requirements.

 $\underline{2}$ . Demonstrate knowledge and proficiency in rope management and knots.

 $\underline{3}$ . Demonstrate knowledge and proficiency in the briefing and debriefing of all individuals participating in HRST operations to include pilots.

 $\underline{4}$  . Demonstrate knowledge and proficiency in equipment, tower inspection, and helicopter inspection.

 $\underline{5}.$  Properly rig a rappelling tower for all rappelling and Fast Rope training.

 $\underline{6}$  . Properly rig the following aircraft for HRST operations: CH-46E, MV-22B, UH-1N/Y, and the CH-53E.

(4) <u>Demonstrations</u>. HRST demonstrations shall be conducted only by units authorized to conduct HRST operations. Additionally, the same demonstration personnel must be retained from the rehearsal period to the actual event.

(5) <u>HRST Master Currency</u>. HRST Masters, once certified, must maintain a current status in three separate areas: Rappel, SPIE, and Fast Rope. The Commanding Officer will ensure that all HRST Masters remain current per this Order. HRST Masters that are not current in one area may perform duties in another provided they hold currency in that area. Noncurrent HRST Masters shall attend a HRST Master Refresher Course to renew their currency. The refresher course shall be annotated in the Marine's OQR/SRB and Training Record. Additionally, current HRST Masters assigned to MARSOC and Recon units are considered qualified Cast Masters per reference (1). HRST Master currency standards are set forth according to the following guidelines:

(a) Rappel: As the HRST Master, conduct a rappel operation within 12 months.

(b) SPIE: As the SPIE Master, conduct a SPIE operation within 12 months.

(c) Fast Rope: As the Fast Rope Master, conduct a fast rope operation within 12 months.

(6) <u>HRST 60 and 120-Day Rule</u>. Prior to an individual conducting/participating in HRST operations from a helicopter, they must have conducted/participated in a HRST operation within the previous 60 days for rappelling operations, and 120 days for fast rope operations. If not, refresher training from a static tower must be conducted. A roster of all personnel participating in this training will be maintained in the unit training files.

(7) Participation with Other Services and Agencies. Marine Corps unit commanders and officers in charge are authorized to determine the necessity and feasibility of Marine Corps participation in HRST operations conducted by other U.S. Military services, U.S. Government agencies or foreign military services. Other agencies and services may not follow the same high quality standards for the maintenance of life support equipment. Therefore requests for authorization for participation in HRST operations with foreign military services with the use of foreign military equipment will be granted in writing by the first Lieutenant Colonel or 0-5 in the chain of command, or the Commanding Officer of the participating unit after an in-depth risk assessment has been conducted per reference (d). Other U.S. services, U.S. Government, U.S. Government Civilian Employees, MCCDC approved civilian contractors, and foreign military personnel may participate in Marine Corps HRST operations, if authorized by competent orders from their operational commander, and on a not-to-interfere basis, based on operational mission requirements. Authorization for this will be granted in writing by the first Lieutenant Colonel or 0-5 in the chain of command after an in-depth risk assessment has been conducted per reference (d).

(8) Participation with COMMARCORSYSCOM (CBGR). Participation in HRST operations with COMMARCORSYSCOM (CBGR) using equipment under research, development and acquisition status requires a special set of permissive orders from the individual's Commanding Officer stating that the individual will be using equipment under research, development and acquisition by COMMARCORSYSCOM (CBGR) that is of a nonstandard nature. COMMARCORSYSCOM will authorize, in writing, the use of equipment identified as under research, development and acquisition status. When COMMARCORSYSCOM issues research and development equipment to other units, that is under an acquisition status; an authorization of use letter will accompany the equipment that specifically identifies the command, dates of use and type of equipment. The unit Commanding Officer will identify the personnel authorized to use the equipment.

# 5. Administration and Logistics

## a. <u>Safety</u>

(1) Safety is a paramount concern in all training exercises. Requests for waiver or modification of stated procedures, techniques or equipment as established by this Order, will be submitted via the chain of command to DC, PP&O (POG-40). All equipment malfunctions and incidents will be reported per this Order and reference (a).

(2) During combat operations, safety policies and prescribed operating procedures will be adhered to unless mission accomplishment is jeopardized by the policy/procedure. Commanders and other authorized personnel will exercise extreme caution when modifying or waiving approved procedures, techniques or equipment. When operationally feasible, requests for waiver or modification of standard procedures, techniques or equipment as established by this Order will be submitted via the appropriate chain of command to DC, PP&O (POG-40). All equipment malfunctions and incidents will be reported per this Order and reference (a).

b. <u>Facilities and Personnel</u>. Due to the sensitivity of handling and maintaining HRST equipment, centralization of support facilities and personnel is encouraged when operationally feasible.

c. <u>Authorized Equipment</u>. The use of HRST equipment, which is not approved for military service use or unauthorized modification of approved equipment, is strictly prohibited. Any request to modify equipment will be forwarded via the chain of command to DC, PP&O (POG-40) for approval with an info copy to COMMARCORSYSCOM (CBGR), and COMNAVSAFECEN (C 41/44). Request for changes to current equipment allowances will be forwarded via the chain of command and to CG MCCDC (TFSD) for review and approval with info copy to DC, PP&O (POG-40), COMMARCORSYSCOM (CBGR), and COMNAVSAFECEN (C 41/44). Present and potential equipment deficiencies that negatively impact mission capability or safety should be identified to CG MCCDC (C 44). Only government-owned HRST equipment will be used for military operations and shall not be used for off duty activities.

d. <u>Course Management</u>. The lead agency, per reference (e), will submit Programs of Instruction for HRST Master and Unit HRST Master Refresher Training for review and approval to CG, Training Command (C 472) per references (b) and (c). The lead agency will also conduct Course Content Review Boards (CCRB) at a minimum of every two years.

e. <u>Publications</u>. Authorized units/activities that maintain HRST lockers will retain and maintain current copies of this Order, the appropriate references, HRST advisories, and the publications that pertain to their equipment and operations. This library will be readily accessible to all personnel.

(1) NAVMC 3500.55A, Reconnaissance Training and Readiness Manual

(2) MCO 3501.10A, MCCRES MEU/SOC

(3) MCO 1510.87B, Individual Training Standards (HRST)

(4) MCRP 3-11.4A, Marine Corps Helicopter Rope Suspension Techniques (HRST) Operations

(5) TM 72101A-14, Principal Technical Characteristics and Components List of Helicopter Ropé Suspension Equipment

(6) MCO P5102.1B Navy and Marine Corps mishap and safety investigation, reporting, and record keeping manual

(7) MCO 3500.27B Operational Risk Management

(8) SOCOM 350-6 SOCOM Insertion/Extraction Manual (NOTAL)

(9) SECNAV M-5210.1 Records Management Manual

(10) OPNAVINST 5102.1D Navy and Marine Corps mishap and safety investigation, reporting, and record keeping manual

(11) NAVAIR 13-45-2 Special Patrol Insertion/Extraction (SPIE) System

## f. Record Keeping/Reports

(1) <u>Individual Records/Logs</u>. HRST Master Certification, assignment, termination, and reinstatement entries will be made in the individual's OQR/SRB as appropriate and the Marine Corps Total Force System (MCTFS) Basic Training Record (BTR) under the local schools section with date, location and course description.

(2) <u>Unit/Activity Logs</u>. All authorized units/activities described in paragraph 3.b.(2) of the HRST Order will maintain consolidated records per reference (i).

(a) HRST logs will include:

<u>1</u>. A unit special order assigning each qualified HRST Master.

<u>2</u>. A current HRST operations order, LOI including a signed manifest and assigned safety, support, and supervisory personnel, for each operation.

<u>3</u>. Operational Risk Management. Each operation involving HRST will conduct a risk assessment done per reference (d), utilizing the Risk Assessment Matrix. This assessment will be part of the HRST LOI.

 $\underline{4}$ . Detailed after-action notes based on the HRST Master's observations of operational conditions, debriefing of all participants, and recommendations for future operations.

(b) Copies of all malfunction and mishap reports.

(c) HRST qualifications, certifications, and refresher training letters.

## (3) HRST Reports

(a) Equipment Malfunctions/Incident. An equipment malfunction is defined as a piece of equipment that fails to function as designed. Some examples are: rope breaks, carabineer bends or breaks. An incident is defined as anything that is not normal during the operation. Some examples include: individual falls off the rope, rope is fouled in the trees, rope becomes prematurely disconnected, rope is cut, individual is injured for any reason, or equipment damage for any reason. Per references (a) and (j), all equipment malfunctions or HRST incidents will be reported on the Naval Safety Center HRST Equipment Malfunction and Incidents Reporting website within 10 days of the actual incident. Do not report fatalities on the website. The timely reporting of all equipment malfunctions and incidents may save lives and equipment in ongoing and future operations.

(b) Accidents Involving Death or Injury

<u>1</u>. In addition to the requirements outlined above, notification of HRST equipment malfunctions/HRST incidents which result in death or in patient hospitalization of three (3) or more personnel will be submitted by the individual's parent command (to arrive within eight (8) hours) to DC, SD and DC, PP&O (POG-40), and COMNAVSAFECEN (C 40) per reference (a).

2. If a HRST equipment malfunction is suspected, a message will be transmitted within 12 hours and simultaneously to the appropriate chain of command, CMC (SD), COMMARCORSYSCOM (C2IA), DC, PP&O (POG-40), and COMNAVSAFECEN (C 41/44), USMC Parachute Safety Analyst, DSN 564-3520 ext 7160/59 or commercial (757) 444-3520 ext 7160/59/76 or Fax DSN 564-6044.

g. <u>HRST Locker Requirements</u>. The climate control, maintenance and storage requirements for HRST Life Support Equipment will be strictly maintained and stored IAW all applicable equipment technical publications, references (g) and (k). Due to the safety hazard from improperly maintaining and storing HRST Live Support Equipment, waivers for maintenance and storage requirements will not be granted. Humidity and temperature sensors will be used to assist compliance to acceptable humidity/temperature ranges as listed in reference (k). All HRST equipment will be stored off the floor and maintained in a manner to prevent condensation, mold, mildew, high humidity, direct sunlight, rodent and insect infestations. The HRST Life Support Equipment will be kept locked in a secure area at all times. HRST equipment, when taken on deployment and/or aboard shipping, will be locked in a secure area under the control of the HRST Master, and stored in containers such as small sealable moisture proof boxes. Desiccant bags will be used inside the moisture proof box as a means of moisture control.

h. Wet SPIE or Jacob's Ladder Operations. Wet SPIE/Jacob's Ladder operations are methods of amphibious extraction from an area of operations for reconnaissance and other authorized units. Reconnaissance and other authorized units should conduct this training on a regular basis. For safety purposes the guidelines below will be strictly adhered to. All other procedures will be strictly followed per reference (f).

(1) <u>Safety Boats</u>. At a minimum, two power driven recovery boats are required near the extract point. The safety boat must have an "easy access" platform for recovery of personnel and must have an inflatable boat or ladder rigged alongside if they have to freeboard more than three feet and/or the boat does not provide an easy platform for recovery of personnel. The coxswain's only duty is to navigate the boat. The boat coxswain cannot act as the safety swimmer or corpsman.

(2) <u>Safety Swimmers</u>. A minimum of one safety swimmer must be on board each safety boat. The safety swimmer must have fins, facemask, knife, and an inflatable life preserver. The safety swimmer cannot be additionally assigned as the boat coxswain or corpsman. The safety swimmer will have a minimum swim qualification of WS-I. The safety swimmer will attend pretraining for SPIE/Jacob's Ladder water operations.

(3) <u>Corpsman</u>. A minimum of one safety Corpsman must be on board a safety boat and one located on shore/landing area. Each corpsman must have a cervical collar, backboard, and fully stocked medical bag. The safety boat corpsman will have a minimum swim qualification of WS-A.

(4) <u>Individual Requirements</u>. The minimum swim qualification for participation in SPIE/Jacob's Ladder water operations is WS-A. Pre-training for SPIE/Jacob's Ladder water operations, will be done at a minimum of once every six months for maintaining currency. All personnel involved in executing these types of waterborne operations must attend unit level refresher training if currency lapses beyond 6 months.

i. <u>Specialized Night Operations</u>. Specialized night operations are rappelling, SPIE, Fast Roping, and Jacob's Ladder techniques conducted during periods of limited visibility by reconnaissance and Marine Special Operations Forces (MARSOF). These designated units should conduct this training on a regular basis. For safety purposes the guidelines below will be strictly adhered to. All other procedures will be strictly followed per reference (f).

(1) <u>Night Vision Devices</u>. Binocular depth perception is required for specialized night operations. Only Night Vision Devices (NVDs) that offer binocular depth perception via dual image intensifier tubes are authorized.

MCO 3500.42B

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(2) <u>Personnel</u>. Personnel may conduct specialized night operations utilizing NVDs after pre-training has been completed and an Operational Risk Matrix (ORM) has been completed.

j. <u>Records Management</u>. Developers, owners, and users of all Marine Corps information systems have the responsibility to establish and implement adequate operation and information technology controls including records management requirements to ensure the proper maintenance and use of records, regardless of format or medium, to promote accessibility and authorized retention per the approved records schedule and reference (i).

## 6. Command and Signal

- a. Command. This Order is applicable to the Marine Corps Total Force.
- b. Signal. This Order is effective the date signed.

un R. T. TRYON Deputy Commandant for Plans, Policies and Operations

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## QUALIFICATION REQUIREMENTS FOR HRST MASTER

1. <u>Qualification Requirements</u>. Non-Commissioned Officers (NCOs) through Commissioned Officers will be considered qualified as HRST Masters and Safety Insert Officers when the following requirements are met at a HRST course:

2. <u>Rappelling</u>. A suitable 30-90 foot tower shall be used. There will also be a written test which is covered in the student handout. Airframes will be rigged in an 8 minute time limit while static. This must be done successfully before the student can attempt to rappel with personnel from an aircraft. No helicopter rappel training will be conducted prior to satisfactory completion of the tower portion of the training.

#### a. <u>Tower</u>

(1) Conduct 4 daylight wall rappel descents, 2 with and 2 without combat equipment.

(2) Conduct 2 night wall rappel descents, 1 with and 1 without combat equipment.

(3) Conduct 2 daylight skid rappel descents, 1 with and 1 without combat equipment.

(4) Conduct 1 carabineer tie-off, 1 rescue eight tie-off, and 1 self rescue rappel.

(5) Conduct 2 evolutions of at least 4 personnel, each as a HRST Master, 1 daylight and 1 night.

## b. Aircraft

(1) Conduct 2 daylight rappel descents from either a CH-46E, MV-22B, UH-1N/Y, or CH-53E, 1 rappel must be with combat equipment.

(2) Conduct 2 night rappel descents from either a CH-46E, MV-22B, UH-1N/Y, or CH-53E, 1 rappel must be with combat equipment.

(3) Conduct 2 evolutions of at least 4 men, each as a HRST Master from either a CH-46E, UH-1N/Y or CH-53E, 1 daylight, 1 night.

(4) If qualifying with the MV-22B, conduct 1 evolution of at least 4 men, each as a HRST Master from a MV-22B. This event may take the place of one of the events listed in paragraph 2.b.(3).

NOTE: Rappelling operations from the MV-22B shall only be conducted by personnel trained in self belay/rescue techniques.

#### c. Rigging

(1) Properly rig the CH-46E or CH-53E, MV-22B and UH-1N/Y for rappelling.

NOTE: Both the CH-46E and CH-53E aircraft are rigged in the same manner.

(2) Properly rig the tower for available rappel points (wall, helicopter skid and hellhole).

Enclosure (1)

d. Demonstrate proficiency in all rappelling operations.

3. <u>Fast Roping</u>. No helicopter fast rope training will be conducted prior to satisfactory completion of the tower portion of fast rope training.

a. <u>Tower</u>

(1) Conduct 4 daylight fast rope descents, 2 with and 2 without combat equipment.

(2) Conduct 2 night fast rope descents, 1 with and 1 without combat equipment.

(3) Conduct 2 evolutions of fast rope operations as a HRST Master, 1 daylight, 1 night.

b. Aircraft

(1) Conduct 4 daylight fast rope descents from either a CH-46E, MV-22B, UH-1N/Y or CH-53E. At least 1 fast rope must be made with combat equipment.

(2) Conduct 2 night fast rope descents form either a CH-46E, MV-22B, UH-1N/Y or CH-53E. One fast rope must be made with combat equipment.

(3) Conduct 2 evolutions of at least 4 men, each as a HRST Master from either a CH-46E, UH-1N/Y or CH-53E, 1 daylight, 1 night.

(4) If qualifying with the MV-22B, conduct 1 evolution of at least 4 men, each as a HRST Master from a MV-22B. This event may take the place of one of the events listed in paragraph 3.b.(3).

c. Rigging

(1) Properly rig the tower for fast rope operations.

(2) Properly rig the CH-46E, MV-22B or CH-53E, UH-1N/Y for fast rope operations.

NOTE: Both the MV-22B and CH-53E aircraft are rigged in the same manner.

(3) Demonstrate proficiency in all fast rope operations.

# 4. SPIE

a. Conduct 1 SPIE.

b. Properly rig the CH-46E or CH-53E, MV-22B and UH-1N/Y for SPIE operations.

NOTE: Both the CH-46E and CH-53E aircraft are rigged in the same manner.

c. Conduct 1 evolution of SPIE operations as a HRST Master.

d. Demonstrate proficiency in all SPIE operations.

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Enclosure (1)

5. Jacob's Ladder. For use with reconnaissance or MARSOC units only.

a. Conduct 1 climb from pool to 10 foot platform.

b. Properly rig the CH-46E or CH-53E, MV-22B and UH-1N/Y for Jacob's ladder operations. NOTE: Both the CH-46E and CH-53E aircraft are rigged in the same manner.

c. Conduct 1 evolution of Jacob's Ladder operations as a HRST Master.

d. Demonstrate proficiency in all Jacob's Ladder operations.

#### 6. Demonstrate Proficiency in the Following:

- a. Rope grading and gear inspection.
- b. HRST commands and hand and arm signals.
- c. Knot proficiency.
- d. HRST members and aircrew briefs.

NOTE: When conducting HRST training, for familiarity, all USMC airframes that HRST is conducted from should be utilized.

7. <u>HRST Master Refresher Training Requirements</u>. Non-current HRST Masters will be considered current as a HRST Master/SIO when the following requirements have been met as supervised by a current HRST Master per this Order, paragraphs 3.c.(3) and 3.c.(5).

NOTE: Regualification requires 100% mastery.

a. Pass a knot test.

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b. Properly rig the tower for all rappelling and fast rope operations.

c. Properly rig the CH-46E, MV-22B, UH-1N/Y and CH-53E for all HRST operations.

d. Conduct 3 evolutions of HRST operations, one from a tower, one from a CH-46E, UH-1N/Y or CH-53E and one from a MV-22B.

e. Demonstrate proficiency in tower inspection, helicopter inspection and equipment inspection.

f. Demonstrate proficiency in briefing, debriefing, and all HRST operations.

g. Demonstrate proficiency in rope management and knots.

h. Demonstrate proficiency in proper storage, preventative maintenance, marking, rope logs, shelf/service life requirements, current authorized modifications to equipment, equipment serviceability requirements, equipment malfunction and incident reporting, and HRST operation paperwork requirements.

Enclosure (1)

i. Recommendation from the HRST Master that conducted the refresher training and assigned in writing by the unit's commanding officer.

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#### QUALIFICATION REQUIREMENTS FOR SRST MASTER

1. <u>Qualification Requirements</u>. NCOs through Commissioned Officers will be considered qualified as SRST Masters and Safety Insert Officers when the following requirements are met at a SRST course:

2. <u>Rappelling</u>. A suitable 30-90 foot tower shall be used. There will also be a written test which is covered in the student handout. Tower systems will be rigged in an 8 minute time limit while static.

a. Tower

(1) Conduct 4 daylight wall rappel descents, 2 with and 2 without combat equipment.

(2) Conduct 2 night wall rappel descents, 1 with and 1 without combat equipment.

(3) Conduct 2 daylight skid rappel descents, 1 with and 1 without combat equipment.

(4) Conduct 1 carabineer tie-off, 1 rescue eight tie-off, and 1 self rescue rappel.

(5) Conduct 2 evolutions of at least 4 personnel, each as a SRST Master, 1 daylight and 1 night.

b. Rigging

(1) Properly rig the tower for available rappel points (wall, helicopter skid and hellhole).

(2) Demonstrate proficiency in all rappelling operations.

3. <u>Fast Roping</u>. A suitable 30-90 foot tower shall be used. There will also be a written test which is covered in the student handout. Tower systems will be rigged in an 8 minute time limit while static.

a. Tower

(1) Conduct 4 daylight fast rope descents, 2 with and 2 without combat equipment.

(2) Conduct 2 night fast rope descents, 1 with and 1 without combat equipment.

(3) Conduct 2 evolutions of fast rope operations as a SRST Master, 1 daylight, 1 night.

b. Rigging

(1) Properly rig the tower for fast rope operations.

(2) Demonstrate proficiency in all fast rope operations.

# 4. <u>Demonstrate Proficiency in the Following:</u>

- a. Rope grading and gear inspection.
- b. SRST commands and hand and arm signals.
- c. Knot proficiency.
- d. SRST members and tower safety brief.

5. <u>SRST Master Refresher Training Requirements</u>. Non-current SRST Masters will be considered current as a SRST Master/SIO when the following requirements have been met as supervised by a current SRST Master per this Order, paragraphs 3.c.(3) and 3.c.(5).

NOTE: Requalification requires 100% mastery.

- a. Pass a knot test.
- b. Properly rig the tower for all rappelling and fast rope operations.
- c. Conduct an evolution of SRST operations from a tower.
- d. Demonstrate proficiency in tower inspection and equipment inspection.

e. Demonstrate proficiency in briefing, debriefing, and all SRST operations.

f. Demonstrate proficiency in rope management and knots.

g. Demonstrate proficiency in proper storage, preventative maintenance, marking, rope logs, shelf/service life requirements, current authorized modifications to equipment, equipment serviceability requirements, equipment malfunction and incident reporting, and SRST operation paperwork requirements.

h. Recommendation from the SRST Master that conducted the refresher training and assigned in writing by the unit's commanding officer.

Enclosure (2)

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MANIFEST FOR HRST OPERATIONS						
Type of HRST Operation	<u>in 1</u>			Date		
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HRST Master	SIO					
Type Aircraft	Locatio	n				
Name (Last, First)	Rank		Command	d .		
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Commanding Officer (Typed Name)			Commanding Offi	сег		

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