



DEPARTMENT OF THE NAVY

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IN REPLY REFER TO:
COMTRAWINGFIVEINST 1542.7
N71
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COMTRAWINGFIVE INSTRUCTION 1542.7

Subj: CREW RESOURCE MANAGEMENT PROGRAM

Ref: (a) OPNAVINST 3710.7U
(b) COMNAVAIRFORINST 1542.7A

Encl: (1) Definitions

1. Purpose. To establish policies, responsibilities, and procedures for administration of the Crew Resource Management (CRM) Program within the T-6B and TH-57 communities. As such, this instruction should be reviewed in its entirety.

2. Background. In 1991, the Navy began a research and development effort that identified seven common behavioral skills that were related to aviation mishaps. In 1993, the Chief of Naval Operations (CNO) implemented an interim Aircrew Coordination Training Program, OPNAVINST 1542.7, designed to address these seven skills on a limited level and improve standardization. In 2012, the CNO assigned responsibility for CRM Program administration to Commander, Naval Air Forces. This instruction delineates specifics for program implementation at all units operating the T-6B Texan II and the TH-57 Sea Ranger.

3. Objective. The overall objective is the integration of CRM principles into all facets of flight operations to achieve optimal mission effectiveness. CRM incorporates the use of specifically defined behavioral skills into all aviation operations. These CRM principles shall be taught and applied in all academics, simulators, and flight training events. Ultimately, practicing CRM principles will improve mission effectiveness, minimize crew preventable errors, improve recovery from crew and external errors, and serve to reduce mishaps that result from poor CRM and Time Critical ORM practices.

4. Scope. The provisions of this instruction are applicable to all units operating the T-6B Texan II and TH-57 Sea Ranger aircraft. All personnel whose duties involve flying as an aircrew member in the T-6B, TH-57B, and TH-57C aircraft shall receive integrated CRM training per the policies of this instruction and the appropriate provisions of references (a) and (b). For the purposes of CRM, TH-57 qualifications shall be considered applicable to both series aircraft (TH-57B and TH-57C).

5. Definitions. A glossary of terms used in this instruction is provided in enclosure (1).

6. Policy.

a. Goal. The goal of CRM is to improve mission effectiveness by minimizing crew preventable errors, maximizing crew coordination, and optimizing risk management. CRM shall be an integral part of every flight operation. It is the responsibility of all aircrew members to evaluate ways in which lessons learned during CRM training can be incorporated into their flight operations, to include academics, simulators, flight training, and actual missions. The result will be that CRM skills are learned, accepted, and incorporated into daily flight operations.

b. CRM Qualification and Life Cycle Training Model. All aircrew shall receive integrated CRM training throughout their aviation careers. The CRM training continuum requires that:

(1) Initial Type/Model/Series (T/M/S) specific CRM ground training is required for all students, Instructors Under Training (IUT), and Naval Air Training and Operating Procedures Standardization (NATOPS) qualified aircrew members as defined by reference (a) prior to the first flight. Initial CRM training requirements apply to all T/M/S aircraft flown in training, testing/evaluation, or operational environments. Initial training is required for aircrew previously qualified in a T/M/S, but are returning from duties not involving flying or whose T/M/S NATOPS qualifications have expired.

(2) Initial and annual CRM ground training and flight evaluations are each valid for a period of 12 months from the last day of the month in which it was conducted (i.e. training conducted May 15th this year will expire May 31st next year). Ground training may be accomplished at any time during the year before the flight evaluation. Annual CRM flight evaluations flown within 60 days preceding the current flight evaluation expiration date are valid for 12 months from the last day of the month in which the current flight evaluation expires (i.e. current flight evaluation was flown May 15th last year and expires May 31st this year. An annual evaluation flight flown between Apr 1st and May 31st will expire May 31st of next year).

(3) Annual T/M/S specific recurrency CRM ground training and flight evaluation is required while in a flying billet.

(4) A CRM Flight evaluation is required for all NATOPS qualified aircrew. Flight evaluations may be conducted in the aircraft or T/M/S specific Operational Flight Trainer (OFT) simulator as a stand-alone event or concurrently with any operational or training flight event.

(5) Ground training and flight evaluations shall be conducted by a qualified CRM Instructor (CRMI) or Facilitator (CRMF), providing feedback on the utilization of individual CRM skills.

c. Initial T/M/S Specific Training. Initial CRM ground training and flight evaluation shall include:

(1) Discussion of T/M/S specific aircraft historical data and causal factors of mishaps and Hazard Reports (HAZREPS) that correspond to the aircrew member's missions and experience level. Include any topics or community areas of concern that show trends of recurring problems for aircraft and aircrew.

(2) CRM training and controls which focus on previously identified topics to include the application of the Seven Critical Skills.

(3) Discussion of T/M/S cockpit/cabin dynamics, CRM barriers and challenges which impact mission effectiveness.

(4) A T/M/S specific case study or scenario.

(5) A flight evaluation.

d. Annual T/M/S Specific Recurrency Training. Annual CRM ground training and flight evaluation shall be completed by a designated CRMI or CRMF. Annual recurrency training shall include:

(1) A discussion, commensurate with the aircrew member's experience level, of CRM principles and critical skills as they relate to the current and expected missions/operations of the squadron or unit.

(2) Topics or community areas of concern that show recent trends of recurring problems for aircraft and aircrew. In particular, highlight, review and/or discuss any recent/relevant community SIRs/HAZREPS that have CRM causal factors and/or have significant CRM implications.

(3) An in-depth case study that highlights CRM trends and control measures for the specific T/M/S.

(4) An open and frank discussion on the current state of CRM within the community, to include; best practices, areas for improvement, suggested changes to this instruction and any other CRM ideas/topics to improve the program. Results shall be forwarded to the T/M/S CRM Program Manager for review/implementation.

(5) A flight evaluation.

e. Multiple T/M/S aircraft qualifications.

(1) Qualification. All aircrew operating the T-6B aircraft shall receive Initial T/M/S-specific training. All aircrew operating the TH-57B or TH-57C aircraft shall receive Initial T/M-specific training. Annual recurrency training shall be completed in at least one T/M/S aircraft. When Annual recurrency training is completed in another aircraft, modified recurrency training consisting of a T/M/S (T-6B) or T/M (TH-57) case study or scenario shall be completed for the T-6B and/or TH-57. Further guidelines for Naval Air Systems Command (NAVAIRSYSCOM) field activities are provided in enclosure (2) of reference (b).

(2) Designations. All T-6B and TH-57 CRMIs shall be designated by the T-6B/TH-57 CRM Curriculum Model Manager (CMM). CRMI designations shall be T/M/S-specific for the T-6B and T/M-specific for the TH-57 aircraft.

f. CRM Instructor (CRMI).

(1) Qualification. Basic CRM Instructor training shall be conducted by the CRM Instructional Model Manager per reference (b). Additionally, T/M/S specific CRMF training must be completed in order to be designated a CRMI.

(2) Designation. T-6B and TH-57 CRMIs shall be designated by the CMM. CRMI designations shall be T/M/S-specific for the T-6B and T/M-specific for the TH-57 aircraft.

(3) Expiration of Designation. CRMI designations are considered permanent unless specifically revoked.

g. CRM Facilitator (CRMF).

(1) Qualification. CRM Facilitator training shall be provided by the T/M/S CMM, T/M/S Program Manager, or any T/M/S CRMI. The training shall be T/M/S specific and include:

(a) CRM history, Seven Critical Skills, CNAFINST 1542.7(series), program administration, facilitation and evaluation techniques, workload management, teamwork, and a review of the T/M/S annual ground training brief.

(b) A CRM flight evaluation under instruction conducted and graded by the prospective CRMF.

(2) Designation. T-6B and TH-57 CRMFs shall be designated by the CMM or unit Commanding Officer, as applicable. CRMF designations shall be T/M/S-specific for the T-6B and T/M-specific for the TH-57 aircraft.

(3) CRMF designation is T/M/S specific. Therefore, T/M/S specific CRMF qualification training must be completed for each CRMF designation.

(4) Expiration of Designation. CRMF designations shall be considered expired if the individual's T/M/S CRM qualification expires. If CRM qualification expires, CRMF training shall be completed prior to redesignation as a CRMF. CRMF designations shall also be considered expired if the individual's T/M/S NATOPS qualification has been expired greater than 30 days. CRMFs may not act as a CRMF with an expired NATOPS qualification.

h. Training Command (TRACOM) Flight Instructor CRM Training. TRACOM Units shall incorporate formal CRM training into instructor indoctrination. Training shall be focused on instructing CRM principles in flight at the student learning level. It should also prepare the IUT for unique CRM challenges present in the training environment. IUTs should be briefed on cockpit/cabin dynamics, communication barriers and specific T/M/S characteristics that lead to CRM breakdowns among student/instructor crews. All flight instructors shall be made cognizant of their responsibility to incorporate CRM into all flight training evolutions. These requirements may be combined with initial ground training.

i. Student Naval Aviator CRM Training. T/M/S specific Initial CRM training for Student Naval Aviators (SNA) shall be taught during the academics phase of training prior to flight. The training should prepare the SNA for the unique CRM challenges present in the training environment. SNAs should be briefed on cockpit/cabin dynamics, communication barriers, and T/M/S specific characteristics that lead to CRM breakdowns among student/instructor crews. These requirements may be combined with initial ground training.

j. Civilian Aircrew Members/Instructors. All GS and Contract Civilians who fly as active aircrew members shall maintain the same qualifications as a uniformed aviator. Non-flying civilians who provide flight instruction are required to maintain the same ground CRM currencies as uniformed aviators, regardless of NATOPS qualification status. If they are providing CRM Initial or Annual ground training, they shall be a CRMI or CRMF.

k. Failure to meet CRM requirements. Personnel who fail to meet CRM requirements shall not serve as aircrew members. Once CRM requirements are met, aircrew member duties may be resumed.

l. Documentation requirements.

(1) NATOPS Jacket. The CRM Training/Evaluation Record, enclosure (3) of reference (b), shall be used to document CRM courses, designations, ground training, extensions, and flight evaluations. The CRM Training/Evaluation Record shall be permanently maintained in

Section II, Part C of the individual's NATOPS Flight Personnel Training/Qualification Jacket. All CRM designation letters and flight evaluations shall be filed in the NATOPS Jacket. CRM flight evaluations shall be documented on an applicable T/M/S form (e.g. NATOPS/Instrument eval or grade sheet) with the following statement included in the remarks section:

"Conducted CRM flight evaluation IAW COMNAVAIRFORINST 1542.7A."

Specific comments that document CRM performance and classification or qualification should be included, as applicable.

(2) Pilot Log Book. Annual CRM flight evaluations shall use the 2L5 code for "Kind of Flight" when flown as a stand-alone flight. 2L3/2L4 is acceptable when flown in conjunction with the Instrument/NATOPS flight evaluation flights.

7. Responsibilities. CRM Program responsibilities are delineated below. Further guidance and standard operating procedures should be developed at the unit level to ensure proper implementation of this program.

a. CRM T-6B and TH-57 CMM (CTW-5) shall:

(1) Designate in writing a CRM T-6B and TH-57 Community Program Manager.

(2) Maintain overall oversight of and set policy for the T-6B and TH-57 CRM Programs per reference (b).

(3) Designate and maintain an adequate number of CRMIs to provide qualification of CRMFs.

b. CRM T-6B and TH-57 Community Program Manager shall:

(1) Administer a standardized CRM training program for all units operating the T-6B and TH-57. Ensure flow of pertinent CRM (and Time Critical ORM) related issues to all units under their cognizance (i.e. lessons learned, CRM breakdowns, best practices, and specific areas of concern for the T/M/S).

(2) Provide standardized CRM unit-level Instructor/Facilitator training to units operating the T-6B and TH-57.

(3) Maintain an adequate number of CRM Instructors to provide qualification of CRM Facilitators and to perform CRM Program Manager functions as required.

(4) Ensure the respective CRM curriculum is reviewed and updated to reflect current missions, aircraft configuration, and integration of the CRM behavioral skills. Forward applicable changes

to the IMM and Curriculum Program Manager (PM) for review and to Chief of Naval Air Training for incorporation during the revision and maintenance cycle.

(5) Perform annual assist visits of all units operating the T-6B and TH-57, not to exceed an 18-month cycle. Ensure the unit is in compliance with reference (b) and this instruction and assist in further development of CRM initiatives.

(6) Develop, maintain, and disseminate a standardized assist visit checklist.

(7) Coordinate with T/M/S NATOPS Model Manager to integrate CRM behaviors in all NATOPS publications to include: minimizing errors, Operational Risk Management as a sub-set of CRM, cockpit interruptions and distractions, and CRM related crew responsibilities and standardized CRM verbiage.

(8) Provide CRM materials upon request to the IMM and Curriculum PM.

(9) Forward detailed copies of contractor-developed CRM materials to the IMM for review and concurrence.

(10) Maintain cognizance over the CRMIs, CRMFs, and Unit Level Managers within the T-6B and TH-57 communities.

(11) Submit CRM Instructional Model Manager Course requirements to the CRM IMM.

c. Unit Level Commanding Officers shall:

(1) Designate in writing a CRM Unit Level Manager (ULM). ULMs shall be a qualified CRMI or CRMF and should normally be the unit's NATOPS Instructor. ULM designations are T/M/S-specific for the T-6B and T/M-specific for the TH-57.

(2) Ensure the command complies with reference (b) and this instruction.

d. CRM Unit Level Managers shall:

(1) Administer the T-6B and TH-57 CRM Programs as directed by reference (b) and this instruction.

(2) Maintain the flow of pertinent CRM related issues to the CRM CMM via the PM to include T/M/S lessons learned, documented CRM breakdowns, and specific areas of concern for the T/M/S. Ensure appropriate material is briefed to all aircrew.

(3) Submit and coordinate CRM Instructor Instructional Manager Course requirements to the CRM T/M/S PM.

(4) Submit copies of all CRM ULM and CRMF designations to the PM along with PRD and email address.

(5) Inform the PM of any changes (i.e. transfers, revocation of designation, etc.) to the ULM, CRMIs, or CRMFs.

(6) Maintain an adequate number of qualified CRM Instructors and Facilitators to properly administer ground training and flight evaluations for each T/M/S. All units shall maintain a minimum of one CRMI. TW-5 subordinate commands shall maintain at least three CRMIs or CRMFs to support instructor/student ground training courses.

(7) Maintain a copy of reference (b) and this instruction.

e. CRM Unit Level Managers should:

(1) Maintain a copy of the previous Unit CRM Assist Visit reports.

(2) Maintain a turnover binder.

(3) Perform a self-assessment and request assistance (as required) from the PM after taking over the unit's CRM program and on yearly basis thereafter. Self-assessment checklists are maintained by the PM.


G. A. KLING

Distribution:

COMTRAWINGFIVEINST 5216.1T

List I (e), List II (a-c, f, i, k-t), List III (f-g)

USNTPS

Cubic (TW-4, TW-5)

DEFINITIONS

1. Aircrew Member. All aeronautically designated personnel serving in a crew position or performing a crew function on a naval aircraft. For the purpose of this instruction, all aeronautically designated medical personnel (i.e. flight surgeons, aerospace physiologist, etc.) are exempt from any annual CRM training requirements.
2. Crew Resource Management (CRM). The effective use of all available resources by individuals, crews, and teams to safely and efficiently accomplish the mission or task. CRM also refers to identifying and managing the conditions that lead to error.
3. Crew Resource Management Critical Skills
 - a. Adaptability/Flexibility. The ability to alter a course of action based on new information, maintain constructive behavior under pressure and adapt to internal and external environmental changes. The success of a mission depends upon the crew's ability to alter behavior and dynamically manage crew resources to meet situational demands.
 - b. Assertiveness. One's willingness to actively participate, state and maintain a position, until convinced by the facts that other options are better.
 - c. Communication. The ability to clearly and accurately send and acknowledge information, instructions, or commands and provide useful feedback. Effective communication is vital to ensuring all crewmembers understand aircraft and mission status.
 - d. Decision Making. The ability to choose a course of action using logical and sound judgment based on available information.
 - e. Leadership. The ability to direct and coordinate the activities of other crewmembers or wingmen and to encourage the crew to work together as a team.
 - f. Mission Analysis. The ability to develop short term, long term and contingency plans and to coordinate, allocate and monitor crew and aircraft resources. Effective planning leads to flight conduct that removes uncertainty, increases mission effectiveness and enhances safety.
 - g. Situational Awareness. The degree of accuracy by which one's perception of the current environment mirrors reality. Maintaining a high level of situational awareness will better prepare crews to respond to unexpected situations.

4. CRM T/M/S Curriculum Model Manager (CMM) Command. TRAWING FIVE is the CRM CMM Command for the T-6B and TH-57.
5. CRM T/M/S Community Model Manager (CMM). The unit commander or head of department responsible for administering the CRM Program for a specific aircraft model. The CRM CMM for the T-6B and TH-57 is the Commander, Training Air Wing FIVE.
6. CRM T/M/S Community Program Manager (PM). A CRM instructor, designated in writing by the CMM, who performs administrative responsibilities for the CRM Program and who is given written authority to act on behalf of the CMM in CRM related matters. The PM should be highly qualified in model and should be assigned these responsibilities for a minimum of 12 months and has successfully completed the Naval Aviation Schools Command Instructional Model Manager's CRM Instructor Course.
7. CRM T/M/S Facilitator (CRMF). A NATOPS-qualified O-3 or above who has been designated in writing by the CMM or unit Commanding Officer and has successfully completed the CRMF course provided by the CRM T/M/S Community PM. The course may be given by the specific T/M/S PM or a T/M/S CRMI. The CRMF qualification is not a lifetime qualification, but is maintained as long as the aircrew member maintains their currency and qualification for the specific T/M/S. A CRMF is qualified to conduct CRM ground training and CRM flight evaluations.
8. CRM Instructional Model Manager (IMM). Naval Aviation Schools Command is designated as the Navy/Marine Corps CRM IMM.
9. CRM T/M/S Instructor (CRMI). A NATOPS-qualified O-3 or above who has been designated in writing by the CMM and has successfully completed both the Naval Aviation Schools Command Instructional Model Manager's CRM Instructor Course and the CMM's approved CRMF training. The CRMI qualification is a lifetime qualification, however an individual must be approved by the CMM for the specific T/M/S. In addition, the CRMI must complete the CMM's approved instructor/facilitator training prior to conducting ground training or flight evaluations for the specific T/M/S. A CRMI is qualified to train CRMFs, conduct CRM ground training and CRM flight evaluations. All CRMIs shall be designated in writing by COMTRAWING FIVE.
10. CRM Unit Level Manager (ULM). A NATOPS-qualified O-3 or above who has been designated in writing by their respective Commanding Officer and who is responsible for the squadron or unit's CRM program. A ULM shall be a CRMI or CRMF. The Unit NATOPS Officer should normally serve as the CRM ULM.
11. Naval Aircraft. Any aircraft assigned to a U.S. Navy, U.S. Naval Reserve, U.S. Marine Corps, a U.S. Marine Corps Reserve unit. This

definition includes Unmanned Aviation Vehicles and other flight vehicles remotely operated by an operator, or team of operators.

12. Naval Aviation Activity. Any squadron, unit, or organization directly involved in the operation of Naval Aircraft.