

DEPARTMENT OF THE NAVY



TRAINING AIR WING ONE
MERIDIAN, MS 39039-5403

TRAINING AIR WING TWO
KINGSVILLE, TX 78363-5038

TRAINING AIR WING SIX
PENSACOLA, FL 32508-5509

COMTRAWINGONEINST 3740.1

COMTRAWINGTWOINST 3740.7

COMTRAWINGSIXINST 3740.4

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COMTRAWING ONE INSTRUCTION 3740.1

COMTRAWING TWO INSTRUCTION 3740.7

COMTRAWING SIX INSTRUCTION 3740.4

Subj: CREW RESOURCE MANAGEMENT PROGRAM

Ref: (a) OPNAVINST 3710.7T

(b) OPNAVINST 1542.7C

Encl: (1) Definitions

1. Purpose. To establish policies, responsibilities and procedures for administration of the T-45 A/C Crew Resource Management (CRM) Program.

2. Cancellation. COMTRAWINGTWOINST 3740.6A.

3. 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 Navy implemented an Interim Aircrew Coordination Training (ACT) Program, OPNAVINST 1542.7, designed to address these seven skills on a limited level and improve standardization. OPNAVINST 1542.7, published in 1995, described initial Chief of Naval Operations policy for implementation of the still developmental Integrated ACT Program. OPNAVINST 1542.7B, published in 1998, and the OPNAVINST 1542.7C, published in 2001, established annual ground training and annual flight evaluation requirements. This instruction delineates specifics for program implementation in T-45 T/M Aircraft.

4. Objective. The overall integration of CRM principles into all facets of flight operations to achieve optimal mission effectiveness. CRM principles shall be taught and applied in all academics, simulators, and flight training. Practicing the principles of CRM will improve mission effectiveness and serve to prevent mishaps that result from poor crew coordination.

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5. Scope. The provisions of this instruction are applicable to all commands flying the T-45 A/C Goshawk aircraft. All personnel whose duties involve flying as an aircrew member in T-45 aircraft shall receive integrated CRM training in accordance with the policies of this instruction and the appropriate provisions of references (a) and (b). CRM shall be an integral part of every flight operation and it is the responsibility of all aircrew members to evaluate ways in which lessons learned during crew resource management training can be incorporated into their flight operations.

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

7. Policy. CRM shall be conducted as outlined below:

a. Goal. The goal of CRM is to improve mission effectiveness by minimizing crew preventable errors, maximizing crew coordination, and optimizing risk management.

b. CRM Qualification and Life Cycle Training Model. The T-45 CRM Program is designed to acquaint aircrew members with T-45 Type/Model (T/M) specific aircrew coordination requirements. All Navy and Marine Corps aircrew members shall receive integrated CRM training throughout their aviation careers. The result will be that CRM skills are learned, accepted, and incorporated in daily flight operations. The ultimate goal is behavioral modifications in the approaches to airmanship that ultimately results in improved mission effectiveness for Naval Aviation. The following is a breakdown of the different stages of the CRM lifecycle:

(1) CRM introductory training during Aviation Preflight Indoctrination.

(2) Initial T-45 specific 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). Initial training is required for aircrew who were previously qualified in T-45 and return from duties not requiring currencies and qualifications in the specific T/M. The training shall be conducted by a CRM Instructor (CRMI) or CRM Facilitator (CRMF). The initial T-45 ground training shall be conducted prior to the first flight.

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(3) Annual T-45 specific CRM ground recurrency training while in a flight billet shall be conducted by a CRMI or CRMF.

(4) An annual CRM flight evaluation is required for all NATOPS qualified aircrew members. The CRM flight evaluation should be conducted, but is not limited to, one of the following events in the aircraft or simulator:

- (a) T-45A/C Instrument Flight Evaluation
- (b) T-45A/C NATOPS Flight Evaluation

(5) The evaluation shall be conducted by a qualified CRMI or CRMF, providing feedback on the utilization of individual CRM skills.

c. Initial CRM T/M Training. Initial T-45 CRM training for Student Naval Aviators/Naval Flight Students shall be taught during the academics phase of training prior to flight in the aircraft. Initial T-45 CRM training for instructors shall be taught to IUTs during the academics phase of training prior to designation as a flight instructor. IUT Training shall be focused on instructing CRM principles in flight at the student learning level. It should also prepare the IUT for the unique aspect of CRM at the practical level for mission accomplishment with a student. IUTs should be briefed on cockpit/cabin dynamics, communication barriers and specific T/M intricacies that lead to CRM breakdowns among student/instructor crews. All flight instructors shall be cognizant of their responsibility to incorporate CRM into all flight training evolutions. Initial training shall be conducted by a designated CRMI or CRMF and shall include:

(1) CRM training and controls that focus on the previously defined topics to include the applicable Seven Critical Skills.

(2) Discussion of T/M specific aircraft historical data and causal factors of mishaps and Hazard Reports that correspond to student's missions and level of learning. Include any topics or community areas of concern that show trends of reoccurring problems for aircraft and aircrew.

(3) Discussion of cockpit/cabin dynamics, communication barriers and specific T/M intricacies that lead to CRM breakdowns.

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(4) Several T/M specific case studies or scenarios.

(5) A flight evaluation conducted by a CRMI or CRMF designated for that T/M aircraft.

(a) Civilian Contractors may be designated as CRMIs or CRMFs and provide ground instruction, but shall not conduct flight checks.

d. Recurrency. All aircrew are considered CRM current and are qualified to perform aircrew duties following successful completion of ground training and the CRM flight evaluation.

(1) Renewal of CRM Flight Evaluation may be accomplished within 60 days preceding the expiration of the current evaluation and is valid for 12 months from the last day of the month in which the current evaluation expires. Otherwise, currency shall be valid for 12 months from the last day of the month in which the evaluation was flown. The flight evaluation will be conducted concurrently with the respective NATOPS or instrument evaluations, using the practice and feedback instructional strategies.

(2) The T/M CRM recurrency ground training may be accomplished at any time during year before the evaluation flight. CRMIs and CRMFs that have taught ground training for others are required to meet their annual CRM ground training requirement. Ground training, at this level of CRM in the life cycle training model, shall be designed as a follow-on to the initial T/M training to be commensurate with the aircrew members' experience level. At a minimum, it shall include a discussion of CRM principles as they relate to the current and expected missions/operations including how CRM will be applied to reduce errors and increase mission efficiencies. It shall summarize with an in-depth case study that highlights correctable trends for the specific T/M.

(3) In cases where students require greater than 12 months to become NATOPS qualified, CRM recurrency ground training shall be conducted.

e. Multiple T/M aircraft qualifications. Personnel who perform duties as an aircrew member in more than one T/M aircraft shall receive initial CRM training in each T/M aircraft.

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Full recurrency training shall be completed in at least one T/M aircraft and modified recurrency training consisting of a T/M case study or scenario for all other T/M aircraft.

f. CRM Instructor Training. CRM Instructor training shall be provided by the CRM Instructional Model Manager. After receiving the prescribed course of training, a CRMI will be designated in writing by the CRM Curriculum Model Manager (CTW-2).

g. CRM Facilitator training. CRM Facilitator training shall be provided by a T/M CRMI. The instruction shall be T/M specific and include: CRM history, Seven critical skills, OPNAVINST 1542.7, program administration, facilitation and evaluation techniques, workload management, and teamwork. CRMFs can be designated in writing by Squadron Commanding Officers or Wing Commanders.

h. Documentation requirements. CRM Training/Evaluation Record shall document CRM courses, designations, ground training, extensions, and flight evaluations in the individual's NATOPS Flight Personnel Training/Qualification Jacket in section II, part C, of enclosure (4) of reference (b). Any CRM designation letters shall also be filed in the NATOPS Jacket. In addition to section II, part C entries, CRM flight evaluations shall be commented on in the remarks section of the NATOPS or instrument evaluation form. A sample comment for this section is as follows:

"Conducted CRM flight evaluation IAW OPNAVINST 1542.7C. LT XXXX flew a/an (acceptable/good/excellent/outstanding) CRM flight evaluation with emphasis on (primary CRM skills evaluated)."

Annual CRM flight evaluations shall be documented in the individual aircrew logbooks as well as the NATOPS jacket.

i. 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.

8. Responsibilities. The following responsibilities are general in nature. Specific guidance and standard operating procedures should be developed at each level to ensure proper implementation of this program.

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a. COMMANDER, TRAINING AIR WING TWO (T-45 CRM T/M Curriculum Model Manager)

(1) Designate in writing the TRAWING TWO Safety Officer as the CRM Curriculum Program Manager.

(2) Designate in writing a T/M CRM Program Manager for each Wing activity flying T-45 A/C aircraft.

(3) Designate all T-45 A/C CRMIs in writing.

b. CRM Curriculum Program Manager (TRAWING TWO SAFETY OFFICER) shall:

(1) Maintain and disseminate a standardized CRM training program for all units utilizing their respective T/M training aircraft in accordance with ref (b).

c. Designated Wing T/M CRM Program Manager shall:

(1) Provide standardized CRM unit level instructor/facilitator training and ground training (initial and recurrent) to units under Curriculum Model Manager (TW-2) cognizance.

(2) Maintain an adequate number of designated CRM instructors to provide qualification of CRM facilitators and to perform CRM Program Manager functions.

(3) Ensure the respective CRM curriculum is reviewed and updated as necessary, 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.

(4) Coordinate with the Ground Training Department to incorporate T/M specific CRM ground training into ground school. Ensure that a facilitator is available for each T/M aircraft.

(5) Ensure flow of pertinent CRM related issues to all units under cognizance to include T/M CRM lessons learned, documented CRM breakdowns, and specific areas of concern for the T/M. Ensure appropriate material is briefed to all aircrew members.

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(6) Review all commands/units under Curriculum Model Manager (TW-2) cognizance to ensure CRM program standardization and compliance with this instruction.

(7) Coordinate with the T-45 NATOPS Model Manager (TW-2) 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.

(8) Randomly audit instructor/facilitator ground training to ensure standardization and compliance with PA guidance.

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

d. Unit Level (Squadrons, Contractors):

(1) Respective Commanding Officers (COs) shall designate, in writing, a CRM ULM. Unit COs shall designate each facilitator in writing after formal training is complete (COs requesting CRMF designation for themselves shall make the request to their Wing Commander for designation in writing).

e. CRM ULM shall:

(1) Coordinate with the designated T/M CRM Program manager to schedule facilitator training.

(2) Maintain an adequate number of qualified CRM Instructors/Facilitators, approved in writing by squadron Commanding Officers (CRMF) or the CRM Curriculum Model Manager (CRMI), to properly administer ground training and flight evaluations for each T/M. Nominate only highly qualified instructors to be designated as CRM Instructors and Facilitators.

(3) Ensure all Instrument Ground School Instructors, NATOPS Instructors, Instrument Flight Evaluators and academics instructors who teach CRM are qualified as facilitators or instructors.

(4) Implement and administer the ongoing T/M CRM program and training as directed by the CRM PM.

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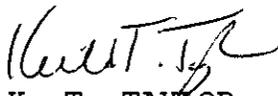
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(5) Utilize the most up to date information and training from PM.

(6) Conduct thorough initial and recurrent CRM training as scheduled in accordance with this Instruction and its references.

(7) Provide timely written documentation of training completion to the TRAWING TWO CRM Program Manager, designated T/M CRM PM, and squadron NATOPS Officers as necessary.

(8) Ensure flow of pertinent CRM related issues to CRM Curriculum Model Manager and Curriculum Program Manager to include T/M lessons learned, documented CRM breakdowns, and specific areas of concern for the T/M.



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Distribution:

Electronic only, via TW-1/TW-2/TW-6 Website:

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DEFINITIONS

1. Crew Resource Management. 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.
2. Naval Aircraft. Any aircraft assigned to a U.S. Navy (USN), U.S. Naval Reserve (USNR), U.S. Marines Corps (USMC), a U.S. Marine Corps Reserve (USMCR) unit. This definition includes Unmanned Aviation Vehicles (UAVs) and other flight vehicles remotely operated by an operator, or team of operators.
3. 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.
4. CRM Instructional Model Manager (IMM). Naval Aviation Schools Command is designated as the Navy/Marine Corps CRM Instructional Model Manager.
5. T-45A/C CRM Curriculum Model Manager. Commander, Training Air Wing TWO is the CRM Curriculum Model Manager for the T-45A/C.
6. T-45A/C CRM Curriculum Program Manager. Training Air Wing TWO Safety Officer.
7. T-45A/C CRM 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 Program Manager should be highly qualified in model and has successfully completed the Naval Aviation Schools Command Instructional Model Manager's CRM Instructor Course.
8. CRM Unit Level Manager (ULM). A NATOPS-qualified O-3 or above or Civilian Contractor who has successfully completed the Naval Aviation Schools Command Instructional Model Manager's CRM Instructor Course and the approved CMM ground training. The ULM shall be designated in writing by their respective Commanding Officer, Officer In Charge, or civilian equivalent.

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A ULM is responsible for the squadron or unit's CRM program and is qualified to train CRM Facilitators, conduct CRM flight evaluations, and conduct CRM ground training. A ULM may also provide CMM approved training to individuals who are graduates of the IMM Instructor Course, so that they may be designated CRMIs for the specific T/M.

9. CRM Instructor (CRMI). A NATOPS-qualified O-3 or above who has successfully completed the Naval Aviation Schools Command Instructional Model Manager's CRM Instructor Course. The CRMI qualification is a lifetime qualification, however an individual must be approved by the CMM for the specific T/M. 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. A CRMI is qualified to train CRM facilitators, conduct CRM ground training and CRM flight evaluations. The CRMI shall be designated in writing by Commander, Training Air Wing TWO.

10. CRM Facilitator. A NATOPS-qualified O-3 or above who has successfully completed the CRM facilitator course provided by the T/M specific Program Manager. The course may be given by the specific T/M PM, ULM, or CRMI. The CRM facilitator 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. The facilitator shall be designated in writing by their respective Commanding Officer, Officer in Charge, or civilian equivalent. A facilitator is qualified to conduct CRM ground training and CRM flight evaluations. Nominees to become CRM Facilitators should meet the following requirements: One year as a squadron Aircraft Commander and minimum of one year remaining in the squadron.