



DEPARTMENT OF THE NAVY  
COMMANDER NAVAL AIR FORCES  
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COMNAVAIRFOR INSTRUCTION 1542.7E

From: Commander, Naval Air Forces

Subj: NAVY AND MARINE CORPS CREW RESOURCE MANAGEMENT PROGRAM

Ref: (a) COMNAVAIRFOR M-3710.7  
(b) NAVMC 3500.14

Encl: (1) Threat and Error Management Model  
(2) Definitions  
(3) CRM Training and Evaluation Record  
(4) CRM Community Model Managers and Instructor Requirements  
(5) COMNAVAIRSYSCOM Field Activity CRM Guidelines  
(6) CRM Instructional Model Manager Assessment Checklist  
(7) CRM Program Manager Assessment Checklist (Template)

1. Purpose. To establish policies, responsibilities, and procedures for administration of the Navy and Marine Corps Crew Resource Management (CRM) program, per references (a) and (b), utilizing enclosures (1) through (7).

2. Cancellation. COMNAVAIRFORINST 1542.7D.

3. Background. In 1991, the Navy began a research and development effort into aviation mishaps and identified seven behavioral skills common to the mishaps. An Aircrew Coordination Training (ACT) program was developed in 1993, in an effort to reduce the number of potential mishaps by addressing these seven skills and to improve training standardization. The integrated ACT program was implemented in 1995. Annual ground training and flight evaluation requirements were included in 2001 to accurately evaluate and educate aircrew within CRM. In 2016, the requirement to incorporate Threat and Error Management (TEM) into all CRM programs was included as a tool to identify threats and manage errors to avoid undesired states by utilizing the seven critical skills.

4. Objective. Integrate CRM into all facets of flight operations, manned and unmanned, to achieve optimal mission effectiveness by applying specifically defined behavioral skills into all Navy and Marine Corps (USMC) aviation processes. Integrating CRM principles will improve mission effectiveness, minimize preventable crew errors, improve recovery from crew and external errors, and serve to reduce the number of mishaps resulting from poor CRM and TEM decisions. Implement TEM to complement CRM by providing a structure to apply the seven critical skills and prevent potentially fatal mishaps due to human error. TEM concepts are discussed in enclosure (1).

5. Scope. The provisions of this instruction are applicable to all Naval Aviation activities operating manned or unmanned aircraft. Aircrew requirements apply to all aeronautically designated personnel serving in a crew position or performing a crew function in a naval aircraft to include Simulator-Based Training (SBT) aircrew. For the purpose of this instruction, aeronautically designated medical personnel, flight surgeons, and aerospace physiologists are exempt from any annual CRM training requirements.

6. Definitions. Enclosure (2) provides a list of terms used in this instruction.

7. 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 must be an integral part of every flight operation and it is the responsibility of all aircrew to evaluate ways to capture lessons learned during CRM training and incorporate during flight-related operations including academics, simulators, flight training, and operational missions. Minimum CRM Instructor (CRMI) requirements for each aircraft Type/Model/Series (T/M/S)-specific integrated CRM program are outlined in enclosure (4).

b. CRM Qualification and Life Cycle Training Model. All Navy and Marine Corps aircrew must receive CRM training throughout their aviation careers. All CRM training shall be logged using enclosure (3) and filed in their Naval Air Training and Operating Procedures Standardization (NATOPS) flight personnel training and qualification jacket in Section II, Part C.

c. Introductory CRM ground training shall be provided during the officer and enlisted introductory aviation pipeline with curriculum approved by the Instructional Model Manager (IMM). Initial CRM flight training will be provided during primary flight training. Commands that do not operate aircraft but conduct SBT shall also provide initial CRM training.

(1) Initial T/M/S or SBT-specific CRM ground training shall be conducted in all Chief of Naval Air Training (CNATRA) and Fleet Replacement Squadrons (FRS) prior to the first flight and required for all students, instructors under training, and any NATOPS qualified aircrew without documented initial T/M/S-specific ground training as defined in reference (a). In circumstances where formal FRS or equivalent training is not available, initial CRM ground and/or flight training may be completed at a fleet squadron. These training requirements apply to all Navy and Marine Corps aircraft flown in training, testing/evaluation, or operational environments and must be completed by aircrew returning from duties not involving flying or whose T/M/S NATOPS qualifications have expired.

(2) Annual T/M/S or SBT-specific recurrent CRM ground training and flight evaluation is required while in a flying status. The flight evaluation may be conducted concurrently with any operational or training flight or simulator, including NATOPS and instrument evaluations.

d. Initial T/M/S-Specific Training. Initial CRM ground training and flight evaluation shall be completed by a designated CRMI or CRM Facilitator (CRMF) and shall include:

(1) Discussion of T/M/S-specific aircraft historical data and causal factors of mishaps, Hazard Reports (HAZREPS), and Safety Investigation Reports (SIRs) that correspond to aircrew missions and experience levels. Community topics or areas of concern identifying recent trends of recurring CRM problems for aircraft and aircrew should be included.

(2) CRM training and controls that focus on the application of the seven critical skills and the TEM model utilizing enclosure (1).

(3) Discussion of the history of CRM.

(4) Discussion of T/M/S CRM barriers and challenges that impact mission effectiveness.

(5) Discussion of CRM integration with aircraft automation.

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

e. Annual T/M/S or SBT-Specific Recurrent Training. Annual CRM ground training and flight evaluations shall be completed by a designated CRMI or CRMF. Renewal CRM ground trainings and renewal CRM flight evaluations may be accomplished within 60 days preceding expiration of a current qualification and will be valid for 12 months from the last day of the month in which the current qualification expires. Otherwise, qualifications will be valid for 12 months from the last day of the month in which the evaluation is completed. This latitude is afforded to facilitate scheduling and allow for the best possible training in larger groups. The CRMI or CRMF conducting an annual ground training meets their own annual requirement for ground training. When possible, the CRM flight evaluation should be conducted in a full-motion, high-fidelity simulator to provide realistic flight scenarios. CRM Ground training shall include:

(1) Discussion of CRM principles and the seven critical skills, as they relate to the current and expected missions or operations of the squadron or unit.

(2) Any topics or community areas of concern that show recent trends or recurring problems for aircraft and aircrew. In particular, highlight, review, and discuss any recent and relevant community HAZREPS or SIRs resulting from CRM causal factors or those with significant CRM implications.

(3) An in-depth case study utilizing the TEM model 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 should include best practices, areas for improvement, suggested changes to this instruction, and any other CRM ideas or topics to improve the program. Results shall be forwarded to the community CRM Program Manager (PM) for annual review.

f. CRM Facilitator Training. CRMF training shall be approved by the respective T/M/S

CRM Community Model Manager (CMM), and instructed by qualified CRMIs in the respective T/M/S. Initial instruction of CRMF ground training shall be completed before initial CRMF flight evaluation. CRMF training shall be logged in the NATOPS flight personnel training and qualification jacket on enclosure (3) in Section II, Part C (Miscellaneous). CRMF Designation Letters shall be logged in Section II, Part A (Designations).

(1) CRMF qualification training shall only be conducted by a CRMI and shall be completed whenever an individual changes T/M/S or upon NATOPS qualification expiration. The CMM shall develop standardized training to qualify CRMFs based upon the IMM curriculum and identify any additional required topics. CRMF ground training requirements shall be T/M/S or SBT-specific and include:

- (a) CRM history with a focus on military aviation.
- (b) CRM seven critical skills and TEM model provided in enclosure (1).
- (c) Program administration and a thorough understanding of this instruction.
- (d) Facilitation and evaluation techniques.
- (e) Workload, automation management, and teamwork.
- (f) A review of the community-specific annual ground training brief, to include a T/M/S specific case study.

(2) The prospective CRMF shall receive current CRMF ground training from a CRMI, then facilitate CRM ground training while under the instruction of a CRMI, and conduct a CRM flight evaluation while under the instruction of a CRMI.

(3) Prospective CRMFs must be NATOPS qualified and meet minimum experience levels and prerequisites determined by the T/M/S CMM. CRMF flight evaluation should not coincide with an initial T/M/S NATOPS check unless it has been approved in writing by the CMM. Civilian SBT CRMFs are not required to be NATOPS qualified. CRMFs shall be designated by the unit Commanding Officer (CO).

(4) CRMFs shall receive subsequent CRM ground training and flight evaluations from a CRMF or CRMI. These subsequent evolutions shall be logged in the NATOPS flight personnel training and qualification jacket on enclosure (3) in Section II, Part C (Miscellaneous) under CRM Facilitator Training.

g. CRM Instructor Training. Initial CRMI training shall be provided by a Naval School of Aviation Safety IMM through the CRMI course. Successful completion of the CRMI course is a prerequisite for designation as a CRM T/M/S PM or CRMI. CRMI designation letters shall be logged in the NATOPS flight personnel training and qualification jacket in Section II, Part A (Designations).

(1) Prospective CRMIs shall be O-3/E-5/GS-9/CWO-1 or above. Select O-2s and E-4s may qualify provided they have an approval letter from the T/M/S PM or CMM. Prospective T/M/S or SBT CRMIs shall be designated CRMFs prior to attending the CRMI course and should have at least 12 months remaining in their respective squadrons upon completion of the CRMI course. PMs shall provide justification to the IMM for any prospective CRMIs with less

than 12 months remaining in their respective squadrons.

(2) Upon completion of the CRMI course, the PM will recommend the prospective CRMI be designated by the CMM. CRMI course certificate shall be logged in the NATOPS flight personnel training and qualification jacket in Section III, Part A (Schools & Courses). The CRMI course is a “lifetime” course and only needs to be attended once in a career. However, CRMIs who transition to a new T/M/S or whose NATOPS qualification has expired shall complete the CRMF requirements above. CRMIs who transition to a new T/M/S shall be designated by the new T/M/S CMM once CRMF requirements are complete. Civilian SBT CRMIs are not required to be NATOPS qualified.

(3) CRMIs shall receive subsequent annual CRM ground training and flight evaluations from a CRMF or CRMI. These subsequent evolutions shall be logged in the NATOPS flight personnel training and qualification jacket on enclosure (3) in Section II, Part C (Miscellaneous) under CRM Facilitator Training.

h. Multiple Aircraft and SBT Qualifications and Designations. CRM qualifications and designations are typically valid for a single aircraft T/M/S. However, individual CRM CMMs may require type/model qualification in lieu of multiple series-specific qualifications.

(1) Personnel who perform aircrew duties in more than one aircraft T/M/S or SBT shall receive initial CRM training in each aircraft T/M/S. Recurrent training shall be completed in at least one aircraft T/M/S or SBT, and abbreviated recurrent ground training provided for additional aircraft series shall consist of a series-specific case study or scenario at a minimum.

(2) COs of units with more than one aircraft T/M/S or SBT assigned may designate, with approval from each applicable T/M/S or SBT CMM, a CRMI or CRMF to conduct ground training and flight evaluations in different aircraft series under their purview. Specific guidelines for Commander, Naval Air Systems Command (NAVAIR) field activities are provided in enclosure (5).

i. Flight Instructor Training. FRS and Naval Training Command (TRACOM) units shall incorporate formal CRM training into instructor indoctrination with a focus on instructing CRM principles in flight at the student learning level. Training should prepare instructors for unique CRM challenges present in the training environment including cockpit or cabin dynamics, communication barriers, and specific T/M/S characteristics that may lead to CRM breakdown. This requirement can be combined with ground training.

j. Civilian Aircrew or Instructors. All Government Services (GS) and contract civilians who function as active aircrew shall maintain the same CRM qualifications as military aircrew. Non-flying civilians designated as a CRMF or CRMI are required to maintain CRM ground training currency and annual flight evaluation in SBT. If non-flying civilians only teach CRM ground training, they can be designated with this single qualification and shall maintain ground training currency. PMs shall maintain records of all CRMF and CRMI civilian instructors and their appropriate training.

k. Unmanned Aircraft Systems (UAS). All UAS crewmembers shall conduct CRM training including UAS commanders, Air Vehicle Operators (AVO), safety or visual observers, UAS mission commanders, Mission Payload Operators (MPO), and ground maintenance vehicle operators.

l. Extension to Expiration Date. COs may grant a written extension to the CRM expiration date for aircrew who would otherwise expire during deployment. The extension shall not exceed 90 days after return from deployment.

m. Failure to Meet CRM Requirements. Personnel who fail to meet CRM requirements shall not serve as aircrew. Once CRM requirements are met, aircrew duties may resume.

n. Documentation Requirements. Enclosure (3) shall be used to document CRM courses, designations, ground training, flight evaluations, and extensions in individual NATOPS flight personnel training and qualification jackets in Section II, Part C. CRM flight evaluations shall be documented on an applicable T/M/S-approved form and include, "Conducted CRM flight evaluation per COMNAVAIRFORINST 1542.7 (series)" along with any specific comments regarding CRMF or CRMI qualifications.

8. Responsibilities. Specific guidance and standard operating procedures should be developed at each level to ensure proper implementation of this program.

a. Commander, Naval Air Forces (COMNAVAIRFOR). Responsible for overall management of the CRM program.

b. COMNAVAIRFOR NATOPS Officer (N455). Serve as CRM program administrator for the overall management of the CRM program and policy.

c. Commander, Naval Air Systems Aviation Safety Director (AIR-09F/5.0F). Serve as CRM program administrator for NAVAIR, working with N455 for the overall management of the CRM program for NAVAIR and maintaining enclosure (5).

d. Deputy Commandant for Aviation. Serve as the USMC representative for the CRM program.

e. Naval School of Aviation Safety

(1) CRM Department Head (CRM DH)

(a) Shall maintain the CRM training program, to include the CRMI course, incorporating the latest academic and commercial CRM research and developments.

(b) Designate a Tactical Air, Rotary, Prop/Heavy, CNATRA, USMC, and Enlisted IMM from the CRM Department of the Naval School of Aviation Safety. Assign CMM T/M/S Programs to the respective IMM. The following tasks may be delegated to IMMs:

(c) As requested, dispatch a mobile training team to fleet concentration areas to provide CRMI courses to fleet units. Fleet units are responsible for any funding requirements.

(d) Provide CRM training to students attending courses at the Naval School of Aviation Safety.

(2) CRM Instructional Model Manager (IMM)

(a) Perform annual CRM assessments for assigned CRM Programs, not to exceed an 18-month cycle. IMMs shall use the IMM Assessment Checklist in enclosure (6) to ensure T/M/S CMMs are in compliance with this instruction.

(b) Develop, maintain, and disseminate a standardized assessment checklist template for all T/M/S PMs to use to inspect Unit-Level Managers (ULM) programs, included in enclosure (7).

(c) Collect, maintain, and disseminate instructional materials, and relay pertinent CRM-related issues to all CMMs and PMs as a resource for updating CRM programs.

(d) Instruct relevant lectures in CRMI course.

f. T/M/S or SBT Community Model Manager (CMM). Refer to enclosure (4).

(1) Designate a T/M/S CRMI as CRM T/M/S Program Manager (PM) in writing. The CRM T/M/S PM shall be an O-3 (or equivalent) or above. CMM may designate an Assistant Program Manager (APM) who is a qualified T/M/S or SBT CRMI for programs with large fleet concentrations at multiple geographic locations under their cognizance.

(2) TRACOM Air Wing Commanders (CTW) may designate a PM or APM in writing for each aircraft T/M/S and/or SBT under their cognizance when designated as the CMM for multiple T/M/S or SBT. T/M/S CMMs are still responsible for the CRM programs of all units operating that T/M/S platform.

(3) The CMM, by direction authority, may delegate and provide any of the following duties to the PM or APM.

(a) Designate all CRMIs in their respective community.

(b) Ensure that the CRM Programs under their cognizance are in compliance with this instruction to maintain a grade of Qualified (Q). CMMs shall adequately prepare their PMs for a CRM assessment, performed by the IMM utilizing the IMM Assessment Checklist in enclosure (6).

(4) If a program receives an overall grade of Conditionally Qualified (CQ) during the CRM assessment, the CMM/PM has 90 days from the completion of the assessment to correct any deficiencies, at which point the CMM/PM will coordinate with the IMM to evaluate the

corrected items. Failure to correct any CQ or Unsatisfactory (U) items will result in the program maintaining a grade of CQ until the next assessment cycle.

(5) If a program receives an overall grade of Unsatisfactory (U) during the CRM assessment, the CMM/PM has 90 days from the completion of the assessment to correct any deficiencies. Depending on the nature of the deficiencies, the CRM DH and CNAF N455 will determine the required nature of the re-assessment (virtual, in person, etc.). If it is deemed that the re-assessment warrants an in-person visit, the unit being assessed will be responsible for funding IMM travel/expenses. Failure to correct any CQ or U items will result in the program maintaining a grade of U until the next assessment cycle.

g. T/M/S Program Manager (PM).

(1) Develop and disseminate T/M/S specific CRM standard operating procedure, which states specific requirements for personnel, training, and instruction.

(2) Administer a standardized CRM training program (Initial, Annual, CRMF, and Civilian) for all units under their cognizance operating a common aircraft T/M/S. Ensure flow of pertinent CRM and TEM issues to all units under their cognizance (e.g., lessons learned, CRM breakdown, best practices, and specific areas of concern for the T/M/S). Ensure applicable T/M/S CRM curriculum reflects current missions, aircraft configuration, integration of CRM behavioral skills, and current relevant HAZREPS / SIRs.

(3) Develop and provide a standardized T/M/S specific CRMF ground training and flight evaluation syllabus to all units under their cognizance. Establish minimum aviation experience requirements for ULMs, CRMIs, and CRMFs within their T/M/S. The CRMF syllabus and these requirements should be included in the T/M/S specific CRM standard operating procedure.

(4) Ensure an adequate number of CRMIs are designated by the CMM to provide fleet wide qualification of CRMFs.

(5) Coordinate with T/M/S NATOPS model managers to integrate CRM behaviors into all NATOPS publications, as practical, to include minimizing errors, CRM, TEM, cockpit interruptions and distractions, interfacing with automation, specific CRM-related crew responsibilities, and standardized CRM verbiage. If able, PM should attend NATOPS conference and provide inputs related to CRM.

(6) Perform assessment visits, not to exceed an 18-month cycle, to all units under their cognizance to ensure CRM program compliance and assist in the further development of CRM initiatives. The 18-month cycle may be waived to 24-months with prior approval in writing from CMM in order to coincide with a unit NATOPS evaluation. A standardized CRM Program Manager Assessment Checklist template has been provided in enclosure (7). PMs may reformat and/or add to this checklist to cover additional T/M/S CRM requirements or specific community trends. Completed assessments shall be briefed to the unit CO and tracked for program trends. Assessments may be conducted concurrently with unit NATOPS evaluations.



(7) The PM Assessment Checklist Template (enclosure (7)) is not to be confused with the IMM Assessment Checklist (enclosure (6)), which is utilized by the IMM during CMM/PM program assessments. It is recommended that the PM use enclosure (6) during PM turnover and prior to IMM Assessments to ensure CRM program continuity and compliance.

(8) Maintain cognizance over ULMs and CRMIs within the T/M/S or SBT. The PM shall maintain a current POC listing of all T/M/S CRM ULMs and all T/M/S CRMIs to include name, command, phone number, email, and Projected Rotation Date (PRD) / Permanent Change of Station (PCS) date. If an APM maintains the POC listing for the units under their cognizance, an updated listing shall be forwarded to the PM. ULMs will maintain cognizance over CRMFs within the T/M/S or SBT. A PM shall act as the ULM for their command, unless a separate ULM is designated by the CMM.

(9) Maintain copies of all current ULMs, CRMIs, and APM (as required) designation letters.

h. Unit Level Manager (ULM).

(1) Shall be an O-2 (or equivalent) or above, qualified as a T/M/S CRMF, and designated in writing by the unit level CO. ULM should normally be the unit NATOPS Officer.

(2) Ensure an adequate number of designated CRMFs are available to provide ground training and flight evaluations. Update the PM with a current listing of unit CRMFs.

(3) Administer the CRM program as directed by the T/M/S CMM and this instruction.

(4) Ensure pertinent CRM-related issues, including T/M/S lessons learned, documented CRM breakdowns, and specific areas of concern for the T/M/S are forwarded to the CMM via the PM. Ensure appropriate material is briefed to all aircrew.

i. Individual Aircrew.

(1) Ensure CRM is applied to all phases of flight planning, flight execution, and debriefing.

(2) Ensure the ULM is informed of all CRM-related incidents, including breakdown of CRM and hazard mitigation resulting from effective CRM practices. Focus on increasing mission effectiveness by learning from mistakes, employing positive CRM practices, and mitigating crew preventable errors.

9. Forms and Reports. Enclosure (3) of this instruction may be locally produced to document CRM qualifications and must be permanently maintained in the NATOPS Flight Personnel Training and Qualification Jacket Section II, Part C.

10. Change Recommendations. The effectiveness of the CRM program depends on the currency of this instruction and relies heavily upon individual participation to facilitate improvements.

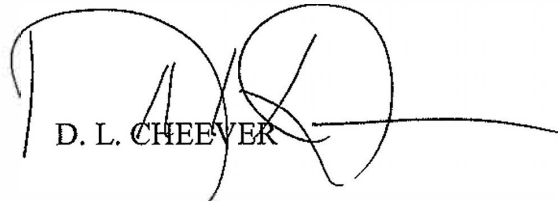
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11. Records Management.

a. Records created as a result of this instruction, regardless of format or media, must be managed per Secretary of the Navy Manual 5210.1 of September 2019.

12. Review and Effective Date. Per OPNAVINST 5215.17A, COMNAVAIRPAC N45 will review this instruction annually around the anniversary of its issuance date to ensure applicability, currency, and consistency with Federal, DoD, SECNAV, and Navy Policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will be in effect for 10 years, unless revised or cancelled in the interim, and will be reissued by the 10-year anniversary date if it is still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. Otherwise, if the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.

  
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## THREAT AND ERROR MANAGEMENT MODEL

1. The Threat and Error Management Model is a framework that assists in understanding the relationship between safety and human performance in dynamic and challenging operational environments. TEM development is closely coupled with advanced human factor research which acknowledges human error is inevitable. TEM is to be employed as a unique model which will facilitate the effective application of CRM's seven critical skills to efficiently prepare for threats, repair mismanaged errors, and recover from undesired aircraft states to avoid potentially fatal incidents or accidents.
2. The three basic components in the TEM model are threats, errors, and undesired aircraft states. The basic components are complemented by mechanisms to facilitate increased mission effectiveness by preparing for threats, repairing errors, and recovering from undesired aircraft states by positively utilizing the seven critical skills of CRM. Flight crews must properly identify threats as well as manage errors properly utilizing the CRM skills. Undesired aircraft state recognition and recovery represents the last opportunity to recover before an incident/accident.
3. Threats are defined as events that occur beyond the influence of the aircrew and must be managed to maintain margins of safety. Examples of threats include: adverse meteorological conditions, mountainous terrain, congested airspace, aircraft malfunctions, and errors committed by people outside of the aircraft. Some threats can be anticipated and prepared for, such as weather and congested airspace. Other threats can happen unexpectedly and can only be managed through effective use of the CRM critical skills and knowledge acquired through training and operational experience. Lastly, latent threats such as a poor command culture or normalized deviance may not be obvious to the aviator. Latent threats can be uncovered through safety analysis. Regardless of whether threats are expected, unexpected, or latent they can be managed by proper preparation of the aircrew and thorough knowledge of the seven critical skills.
4. Errors are defined as actions or inactions by the aircrew resulting in deviations from organizational standards, aircrew intentions, or expectations. Examples of errors may include the inability to maintain stabilized approach parameters, executing the wrong procedure or misinterpreting an air traffic control clearance. An error's potential to develop into an undesired aircraft state depends on the timeliness of its detection and correctly repairing the error.
5. Undesired aircraft states are defined as the final state of the aircraft, crew, and environment prior to the mishap. In near miss cases or hazard reports where a final recovery prevented a mishap, the undesired aircraft state is defined as the state of the aircraft, crew, and environment at the nearest point to a mishap. An example of undesired aircraft state would be crew communication failure during low-level flight with an excessive descent rate in a low light level environment. Whether or not a mishap occurs, the undesired aircraft state is defined the same way. Undesired aircraft states are caused by ineffective identification and corrections to threats and errors. Undesired aircraft states are the flight regimes with the smallest safety margin and are the final chance to recover via the seven skills before an incident or accident occurs.
6. The seven critical CRM skills provide a means to ensure mission effectiveness by helping aircrew prepare for and repair threats and errors. The seven CRM critical skills are applied at each echelon of the TEM model to maintain mission effectiveness and safe operation. The

incorporation of TEM into the CRM program will help mitigate human error and the potential for mishaps. The primary objective for the application of the TEM model is mission effectiveness. Safe operations are a result of attaining mission effectiveness. Aircrew will move up and down the diagram with the successes or failures of the critical skills. By preparing, repairing, and recovering from the threats, errors, and undesired aircraft states, aircrew maintain mission effectiveness and ultimately avoid incidents or accidents by positive implementation of the seven critical skills of CRM. The utilization and subsequent learning from the TEM model can be most effectively accomplished in an analytical classroom setting as well as updating threats in different phases of flight.

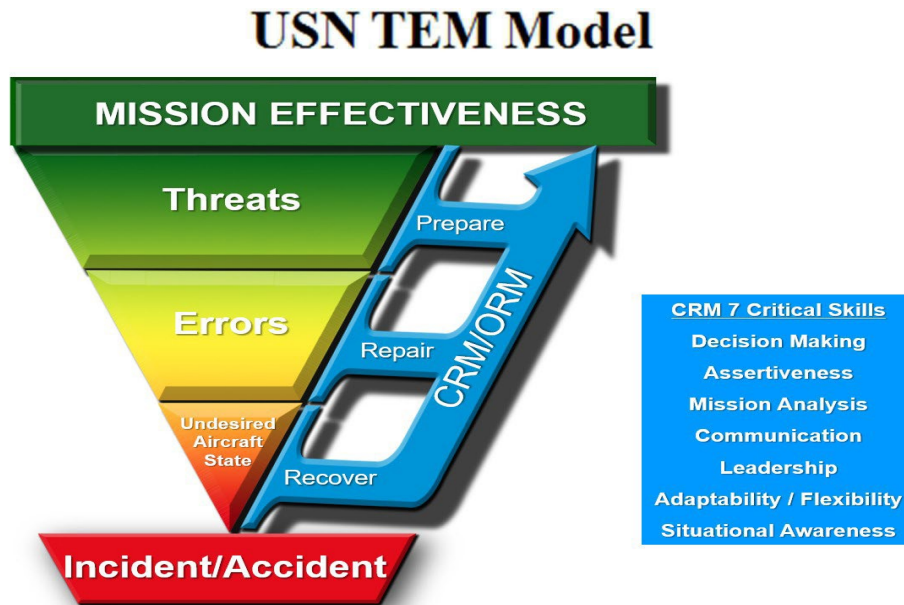


Figure 1 – US Navy TEM Model

7. Mission effectiveness for aircrew relies on TEM to focus on data collection to conduct proactive identification of threats and errors prior to any aircraft operations for the increased likelihood of recognition and action. Programs such as the All-hands Safety Action Program (ASAP), wardroom “true confessions”, and thorough use of the TEM model in case study analysis and discussion help identify potential threats and errors prior to aircraft operations. These programs are important tools to help combat human error and preventable mishaps. These programs are also part of the proactive approach to trend analysis, threat mitigation, error reduction, mishap prevention, and bring a paradigm shift from a reactive to a proactive approach to mishap prevention.

## DEFINITIONS

1. Aircrew. All aeronautically designated personnel serving in a crew position or performing a crew function in a naval aircraft to include SBT aircrew. For the purpose of this instruction, aeronautically designated medical personnel, flight surgeons, and aerospace physiologists are exempt from any annual CRM training requirements.
2. CRM. The effective use of all available resources by individuals, aircrews, and teams to safely and efficiently accomplish a mission or task. CRM also identifies and manages conditions leading to error.
3. TEM. Cognitive tool that aids in identifying threats and errors, as well as providing a means to prepare for and repair such occurrences. TEM is the execution tool for CRM and is the link between operational risk management and the seven critical skills of CRM. CRM is a foundational skill set that enables the proper use of TEM.
4. CRM Critical Skills
  - a. Decision Making. The ability to choose a course of action using logical and sound judgment based on available information.
  - b. Assertiveness. An individual's willingness to actively participate, state, and maintain a position, until convinced by the facts that other options are better. Assertiveness is respectful and professional, used to resolve problems appropriately, and to improve mission effectiveness and safety.
  - c. 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.
  - d. Communication. The ability to clearly and accurately send and acknowledge information, instructions or commands, and provide useful feedback. Effective communication is vital ensuring all crewmembers understand aircraft and mission status.
  - 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. There are two types of leadership:
    - (1) Designated Leadership. Leadership by authority, crew position, rank, or title. This is the normal mode of leadership.
    - (2) Functional Leadership. Leadership by knowledge or expertise. Functional leadership is temporary and allows the most qualified individual to take charge of the situation.
  - f. Adaptability and 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.

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.

5. Mission Effectiveness. The measurable results and impact of a mission based on how well it is executed. It is achieved through CRM using standard operating procedures, instructions, and assessment of all available resources.

6. CRM Integrated Syllabus. A T/M/S or SBT-specific syllabus in which the CRM critical skills are integrated throughout academic, simulator, and flight instruction using the instructional strategies of information, demonstration, practice, feedback, and relevance.

7. Naval Aircraft. For the purpose of this instruction, any aircraft assigned to a U.S. Navy (USN), USN Reserve, USMC, or USMC Reserve unit. This definition includes UASs and other remotely controlled flight vehicles.

8. Naval Aviation Activity. Any squadron, unit, or organization directly involved in the operation of USN or USMC aircraft.

9. SBT Command. Any CNATRA or flight training squadron whose entire curriculum is computer based.

10. CRM Instructional Model Manager (IMM). An aircrew assigned to the CRM Department of the Naval School of Aviation Safety that assists in the development, instruction, and compliance of the Navy and Marine Corps CRM Program.

11. T/M/S or Simulator Based Training (SBT) Community Model Manager (CMM). A unit commander responsible for administering the CRM program for a specific aircraft T/M/S. FRS COs and CTWs will usually be designated as a CMM with specific CMM assignments listed in enclosure (4). Any activity operating aircraft T/M/S not listed in enclosure (4) must comply with this instruction and act as T/M/S CMM for that specific aircraft.

12. T/M/S or SBT Program Manager (PM). A CRMI 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 is responsible for developing and distributing standardized briefing material and must be designated by the CMM. T/M/S NATOPS PM should be designated as a CRM PM.

13. T/M/S or SBT APM. A CRMI who performs administrative responsibilities for the CRM program and who has written authority to act on behalf of the CMM and PM in CRM-related matters.

14. CRM ULM. A NATOPS-qualified CRMF or above and designated by their respective unit CO who is responsible for a unit CRM program. Unit NATOPS instructors will usually be designated as

a ULM.

15. CRMI. A NATOPS-qualified individual who has successfully completed a CRMI course provided by the IMM and has been designated as a CRMI by the CMM. CRMIs may qualify command CRMFs. CRMIs may provide annual CRM ground training and flight evaluations to other aircrew in the command.

16. CRMF. A NATOPS-qualified individual who successfully completed the ground training and flight evaluation conducted by a qualified CRMI and who has been designated as a command CRMF. CRMFs may provide annual CRM ground training and flight evaluations to other aircrew in the command.

CRM TRAINING & EVALUATION RECORD

1. NAME ( <i>Last, first, middle initial</i> ):	2. RANK:	3. EDIPI NUMBER:
---	----------	------------------

Note: This form shall be permanently maintained in the NATOPS Flight Personnel Training/Qualification Jacket (Section II, Part C).

CRM Instructor Course	4. Date: _____	5. Location: _____
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CRM FACILITATOR TRAINING

6. T/M/S AIRCRAFT	7. UNIT	8. DATE	9. GROUND/FLIGHT	10. INSTRUCTOR

GROUND TRAINING / FLIGHT EVALUATIONS

Note: Valid for 12 months from the last day of the month in which training/evaluation was completed; Renewal evaluations may be completed within 60 days preceding the expiration of the current qualification.

11. T/M/S AIRCRAFT	12. UNIT	13. GROUND/ FLIGHT	14. INITIAL/ RENEWAL	15. DATE COMPLETED	16. EXPIRATION DATE

EXTENSIONS

17. T/M/S AIRCRAFT	18. UNIT	19. GROUND/ FLIGHT	20. AUTHORITY	21. EXPIRATION DATE



**CRM COMMUNITY MODEL MANAGERS AND INSTRUCTOR REQUIREMENTS**

Specific T/M/S CRM Community Model Managers, CRM Instructor requirements, and controlling custodians are listed below. In order to reinforce CRM in NATOPS, the CRM CMM should be the NATOPS Model Manager to maximum extent possible. To facilitate an effective assignment of Model Managers, any changes or updates to this list shall be authorized by the CRM IMM. The table indicates both the minimum number and type of CRM Instructors that must be trained and designated at the CMM command. For platforms not listed below, the NATOPS Model Manager or equivalent shall serve as the CRM CMM.

AIRCRAFT	T/M/S or SBT COMMUNITY MODEL MANAGER COMMAND	CONTROLLING CUSTODIAN	MINIMUM NUMBER/ TYPE INSTRUCTOR/
AH-1	HMLAT-303	MCCDC	(1)P
AV-8B	VMA-223	MCCDC	(1)P
C-2	VAW-120	COMNAVAIRFOR	(1)P, (1)LM
C/UC-12 (USN)	COMFAIRWESTPAC	COMNAVAIRFOR	(1)P, (1)NAC
C/UC-12 (USMC)	VMR(DET) Belle Chasse JRB	MCCDC	(1)P, (1)NAC
NC-20G (USN)	VX-30	COMNAVAIRFOR	(1)P, (1)NAC
C-20G (USMC)	MCAS Kaneohe Bay, HI	MCCDC	(1)P, (1)NAC
C-26	NAS Sigonella	COMNAVAIRFOR	(1)P, (1)NAC
C-37	NAF Washington	COMNAVAIRFORES	(1)P, (1)NAC, (1)TSS
UC-35	VMR(DET) Andrews	COMMARFORES	(1)P, (1)NAC
C-40	COMFLELOGSUPP WING	COMNAVAIRFORES	(1)P, (1)NAC, (1)LM
C-130T	COMFLELOGSUPP WING	COMNAVAIRFORES	(1)P, (1)FE, (1)LM
KC-130J	KC-130J FRD	MCCDC	(1)P, (1)LM
CMV-22	VRM-50	COMNAVAIRFOR	(1)P, (1)NAC
E-2	VAW-120	COMNAVAIRFOR	(1)P, (1)N
E-6	VQ-7	COMNAVAIRFOR	(1)P, (1)FE, (1)ACO, (1)RO, (1)P-20, (1)P-30
EP-3	CPRW-10	COMNAVAIRFOR	(1)P, (1)N, (1)FE, (1)NAC, (1)NAO
F-5 (USN/USMC)	VFC-111	COMNAVAIRFORES	(1)P
F-16	NAWDC	COMNAVAIRFOR	(1)P
F/A-18A-D	VMFA-323 FRD	MCCDC	(1)P, (1)N
F/A-18E/F, EA-18G	VFA-122	COMNAVAIRFOR	(1)P, (1)N

F-35B	VMFAT-501	MCCDC	(1)P
F-35C	VFA-125	COMNAVAIRFOR	(1)P
UH-1	HMLAT-303	MCCDC	(1)P, (1)NAC
CH-53E	HMHT-302	MCCDC	(1)P, (1)NAC
CH-53K	HMH-461	MCCDC	(1)P, (1)NAC
MH-53E	HM-12	COMNAVAIRFOR	(1)P, (1)NAC
MH-60R	HSM-41	COMNAVAIRFOR	(1)P, (1)NAC
MH-60S	HSC-3	COMNAVAIRFOR	(1)P, (1)NAC
MV-22	VMMT-204	MCCDC	(1)P, (1)NAC
P-3	VX-30	COMNAVAIRFOR	(1)P, (1)N, (1)FE, (1)NAC
P-8	VP-30	COMNAVAIRFOR	(1)P, (1)N, (1)NAC
T-6A	TRAWING 6	CNATRA	(1)P
T-6B	TRAWING 5	CNATRA	(1)P
T-34	VFA-122	COMNAVAIRFOR	(1)P
T-44/54	TRAWING 4	CNATRA	(1)P
T-45	TRAWING 2	CNATRA	(1)P
TH-57B/C	TRAWING 5	CNATRA	(1)P
TH-73A	TRAWING 5	CNATRA	(1)P, (1)NAC
UAS (N) MQ-4C	VP-30	COMNAVAIRFOR	As Applicable
UAS (N) MQ-8B/C	HSC-3	COMNAVAIRFOR	(1)AVO, (1)MPO
UAS (MC) MQ-9	VMUT-2	MCCDC	(1)P, (1)MPO
UAS (N) MQ-25	TBD	TBD	TBD
VH-3	HMX-1	MCCDC	(1)P, (1)NAC
VH-60/VH-92	HMX-1	MCCDC	(1)P, (1)NAC, (1)CSO

**Legend:**

ACO – Airborne Comm. Officer  
 ACS – Airborne Comm. Supervisor  
 AVO – Air Vehicle Operator  
 CP – Copilot  
 CSO – Communication Systems Operator  
 EP – External Pilot  
 FE – Flight Engineer  
 IFT – In-Flight Technician  
 LM – Loadmaster  
 MC – Mission Commander  
 MPO – Mission Payload Operator  
 N – Naval Flight Officer

NAC – Naval Aircrewman  
 NAO – Observer  
 NV – Navigator  
 P – Pilot  
 PO – Payload Operator  
 P-20 – Avionics Tech  
 P-30 – Avionics Tech  
 RO – Reel Operator  
 TSS – Transport Safety Specialist  
 UAC – UAS Aircraft Commander

**NAVAL AIR SYSTEMS COMMAND (NAVAIR) CRM PROGRAM**

1. Purpose. The provisions of the CRM instruction apply to all NAVAIR activities, but specific portions are modified to accommodate the unique nature of NAVAIR and recognize the extensive CRM training involved in test and evaluation missions.

2. Program Administration. The NAVAIR Aviation Safety Director works with the Commander, Naval Air Forces NATOPS Officer (N455) as the NAVAIR CRM Program Administrator, managing the CRM program for NAVAIR and maintaining this enclosure.

3. Program Modifications.

a. CRM Qualification and Life Cycle Training Model. Activities shall ensure CRM training is completed per this instruction with the following modifications:

(1) NAVAIR activities are permitted to accept FAA or DoD CRM introductory training.

(2) The activity CRMI may provide introductory and initial T/M/S specific CRM ground training in circumstances where no formal API, FRS, or equivalent training is available locally.

(3) For individuals holding qualifications in multiple aircraft, annual CRM ground training conducted for one aircraft may cover the CRM ground requirement for other aircraft as long as a case study or scenario is completed for each aircraft. Annual ground training may consist of a group training event covering CRM principals and current state of CRM within the organization followed by an additional event for T/M/S specific case studies.

(4) Activities shall designate a minimum of one CRMI who should have a minimum of 12 months left at the activity. The CRMI shall be qualified in at least one T/M/S aircraft flown by the activity.

(5) The CRMI is authorized to qualify CRMFs in any T/M/S aircraft at the activity as long as the CRMI has consulted with the applicable T/M/S CMM.

(a) The CRMI shall provide all CRMFs with additional NAVAIR unique CRM differences training prior to designation at the activity.

(b) Short term expiration of T/M/S NATOPS qualification due to USN Test Pilot School attendance does not require CRMF requalification training.

(c) The CRMF flight evaluation while under instruction is considered a one-time requirement. Prospective CRMFs who previously completed this requirement at another command are not required to do it again for CRMF qualification at NAVAIR.

(d) If a CRMF flight evaluation while under instruction is required and the activity CRMI is not qualified in the particular T/M/S, or unable to observe, a qualified CRMF may

conduct the flight event on behalf of the CRMI.

(e) CRMFs may evaluate CRM for each aircraft T/M/S in which they hold a current NATOPS qualification.

b. CRM Training for Project Specialists. Project specialists, as defined in reference (a), are required to complete the ground portions of both initial and annual CRM training.

c. CRM in aircraft without a NATOPS Program, including Non-Program of Record (Non-POR) UAS. NAVAIR Aviation Safety Director shall act as T/M/S CMM and designate an adequate number of CRMIs to provide qualification of CRMFs.

(1) Qualifications equivalent to a NATOPS check will meet T/M/S CRMI or CRMF requirements.

(2) All CRM designations, training and extensions are considered equivalent to those for aircraft with a NATOPS program.

(3) When no case studies exist for a specific non-POR group 1 and 2 UAS, CRM training may use case studies from similar UAS platforms.

d. Liaison with the CMM. CRMIs and CRMFs shall liaise with CMMs in each of the T/M/S operated by their activity to ensure use of the most up to date CRM training material.



**CRM Instructional Model Manager**  
**Assessment Checklist**

**CREW RESOURCE**  
**MANAGEMENT**  
*"Supporting Mission Effectiveness*  
*Through Enhanced Aircrew Performance"*

Naval Schools of Aviation Safety  
181 Chambers Avenue, Suite A  
Pensacola, Florida 32508-5221  
[https://navalsafetycommand.navy.mil/  
Learning/Naval-School-of-Aviation-  
Safety/Course-Information/](https://navalsafetycommand.navy.mil/Learning/Naval-School-of-Aviation-Safety/Course-Information/)

October 2024 Revision

CRM Program Manager \_\_\_\_\_ Unit \_\_\_\_\_  
IMM Team Member(s) \_\_\_\_\_ Date \_\_\_\_\_

Qualified (Q) – Item is recognized in compliance with the CNAFINST 1542.7E.  
Conditionally Qualified (CQ) – One or more areas need improvement before it can be considered  
standard per the CNAFINST 1542.7E.  
Unsatisfactory (U) – Item does not meet requirements of the CNAFINST 1542.7E.  
Not Applicable (NA) – Item is not required by current instruction/not applicable to program

**PROGRAM MANAGEMENT**

**Program Manager (PM)**

1. **Does the PM have all current applicable instructions on hand to include CNAFINST 1542.7 (series) and a T/M/S-specific CRM SOP?** Q CQ U

Ref: CNAFINST 1542.7E, para 8.g (1)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Q** – The PM has the current CNAF instruction and has developed and disseminated their own T/M/S-specific CRM SOP.
- CQ** – The PM has a T/M/S-specific SOP, but is outdated or incomplete.
- U** – The PM does not have the CNAF and/or T/M/S-specific SOP instructions.

2. **Is the PM a graduate of the CRM Instructor Course?** Q CQ U

Ref: CNAFINST 1542.7E, para 7.f, 8.f (1)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Q** – The PM has attended the CRMI Course and the certificate is documented in NATOPS jacket.
- CQ** – The PM is either missing documentation in NATOPS jacket or is unable to produce their certificate. IMM is able to verify attendance via a class roster.
- U** – PM has not attended CRMI Course or no proof of attending the CRMI course exists.

**CRM Instructional Model Manager**  
**Assessment Checklist**

3. **Is the PM designated in writing by the CMM?** Q   CQ   U

Ref: CNAFINST 1542.7E, para 8.f (1)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – PM designation and any APM designations are easily referenced. Date of designation is prior to PM acting in the capacity of PM.

**CQ** – Incomplete/incorrect designation letter.

**U** – PM does not have a designation letter, or cannot find their designation letter.

4. **Does the PM maintain the required number of designated CRMIs as per Encl (4)?** Q   CQ   U

Ref: CNAFINST 1542.7E, para 8.g (4); Encl. (4)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – PM has the required number of CRMIs and has proper designation of all CRMIs.

**CQ** – Incomplete or needs improvement. Errors in designation paperwork.

**U** – PM does not have the required number of CRMIs.

5. **Does the PM maintain a current POC listing of all T/M/S CRM ULMs, T/M/S CRMIs, and their unit T/M/S CRMFs including: name, command, phone number, email, and PRD/PCS?** Q   CQ   U

Ref: CNAFINST 1542.7E, para 8.g (8)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – PM maintains current POC listing and makes regular contact with ULMs and APMs (as required).

**CQ** – The PM has a POC listing but it is either incomplete or has not been updated.

**U** – PM does not have a POC listing.

**CRM Instructional Model Manager**

**Assessment Checklist**

6. **Does the CMM/PM conduct required assessments for ULM CRM programs, not to exceed an 18-month cycle?** Q   CQ   U

Ref: CNAFINST 1542.7E, para 8.g (6)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – Assessments occur at least every 18 months (typically concurrent with unit NATOPS evaluation), a standardized checklist is used, and results are debriefed with unit CO. Previous ULM assessment results are easily referenced. If assessment timeline is extended to 24 months, a waiver has been signed by CNAF N455.

**CQ** – Incomplete or needs improvement.

**U** – One or more of the CNAF requirements are not met.

7. **Does the PM coordinate with the T/M/S NATOPS model manager to integrate CRM behaviors into NATOPS publications?** Q   CQ   U

Ref: CNAFINST 1542.7E, para 8.g (5)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – Thorough and current CRM integration exists in community CRM/NATOPS procedures and publications. If able, PM attends NATOPS conferences and provides inputs related to CRM.

**CQ** – Incomplete or needs improvement.

**U** – PM and NATOPS model manager do not coordinate. CRM has not been integrated into NATOPS publications.

8. **Does CMM/PM maintain copies of previous IMM assessments?** Yes   No

While not instructionally required, copies of previous assessment reports and IMM completed checklists are easily referenced. Recommended to maintain previous 3 assessments.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CRM Instructional Model Manager**  
**Assessment Checklist**

**CRM Instructor (CRMI)**

9. **Are all CRMIs NATOPS qualified, graduates of the CRMI Course, previously designated as a CRMF in T/M/S, and designated as CRMI in T/M/S by the CMM?** Q   CQ   U

Ref: CNAFINST 1542.7E, para 7.f , 8.f

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – All CRMIs have course completion certificate, CMM signed designation letter, and CRMI course date logged in NATOPS jacket. PM maintains copies of all CRMI designations and are easily referenced. CRMIs were properly designated as CRMF in T/M/S prior to becoming a CRMI.

**CQ** – Incomplete documentation or item needs improvement.

**U** – CRMI tracking, qualification and designation is not sufficient. Individuals have been acting in the capacity of a CRMI without proper qualification or documentation.

**CRM Facilitator (CRMF)**

10. **Have all CRMFs completed T/M/S CRMF syllabus and been designated by the unit level Commanding Officer to conduct CRM ground training and flight evaluations?** Q   CQ   U

Ref: CNAFINST 1542.7E, para 7.e

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – PM maintains a T/M/S specific CRMF syllabus. All CRMF ground training, flight training, and designations are logged properly and easily referenced in the individual’s NATOPS jacket.

**CQ** – Incomplete documentation or item needs improvement.

**U** – One or more of CNAF requirements are not met. CRMF training syllabus or designation process is not sufficient.



**CRM Instructional Model Manager**  
**Assessment Checklist**

**CRM Unit Level Manager (ULM)**

11. Are all CRM ULMs either a CRMI or CRMF and designated as the ULM by the unit level Commanding Officer? Does the PM maintain ULM designation letters?      Q    CQ    U

Ref: CNAFINST 1542.7E, para 8.g (9), 8.h (1)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – ULMs meet all requirements and designation is completed properly. PM maintains copies of all ULM designations and are easily referenced.

**CQ** – Incomplete or needs attention. PM is missing ULM designations, but ULM is properly qualified.

**U** – A unit does not have a ULM or a ULM does not meet the CNAF requirements.

**Civilian Aircrew Members/Instructors**

12. Are all civilian staff who conduct CRM ground training and/or flight evaluations qualified as a CRMI or CRMF?      Q    CQ    U    N/A

Ref: CNAFINST 1542.7E, para 7.e, 7.f, 7.i, 8.g (8)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – Civilian staff are properly qualified. PM has copies of all of civilian CRMI or CRMF designation letters and are easily referenced.

**CQ** – Incomplete paperwork or tracking.

**U** – Civilians are not CRMF or CRMI qualified and are conducting CRM training. Civilians are not using CMM approved ground training material.

**N/A** – Civilian aircrew members/instructors do not conduct CRM training.

13. Are all civilians, in a flight status, who conduct flight training maintaining CRM qualifications as applicable?      Q    CQ    U    N/A

Ref: CNAFINST 1542.7E, para 7.d, 7.i, 7.l

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – PM has documentation of civilians in a flight status attending CRM initial and recurrent training. Civilians are maintaining currency in T/M/S or SBT. Documents are typically in a NATOPS jacket.

**CQ** – Incomplete or needs attention.

**U** – Civilian CRM qualifications are out of date or not present and they have been acting as aircrew.

**N/A** – Civilian instructors are not in a flight status.

**CRM Instructional Model Manager**

**Assessment Checklist**

14. Does the PM maintain copies of civilian-used CRM training? Q CQ U N/A

Ref: CNAFINST 1542.7E, para 8.g (2)

Comments: \_\_\_\_\_

\_\_\_\_\_

**Q** – PM has assisted in developing CRM training used by civilians. All material has been approved by CMM. Training is updated frequently to match fleet CRM training, reflecting fleet trends and current issues.

**CQ** – Incomplete or needs attention.

**U** – Civilians do not use CMM approved training.

**N/A** – Civilian aircrew members/instructors do not conduct CRM training.

15. Does the Program Manager maintain a turnover binder? Yes No

While not instructionally required, a PM binder or turnover binder can help ensure a CRM program in good health as PM turnover occurs (typically every 12 months).

Comments: \_\_\_\_\_

\_\_\_\_\_

16. Are CRM ground training and flight evaluations documented correctly? Q CQ U

Ref: CNAFINST 1542.7E, para 7.b, 7.e, 7.m, 9, Encl. (3)

Note: At a minimum, the NATOPS jackets and logbooks of the **CO (or OIC), XO, PM, (1) CRMI, (1) CRMF, and (2) non-CRMF/CRMI aircrew of each designator** will be reviewed. NATOPS review of Section II, Part C: Enclosure (3), CRMI/CRMF designation letters, applicable extension letters, and CRMI Course Certificates. Match flight evaluation dates from Enclosure (3) with corresponding logbook entries.

Comments: \_\_\_\_\_

\_\_\_\_\_

**Q** – All training is documented correctly within specific timelines in NATOPS Jackets. Additional tracking is typically accomplished using SHARP/TSHARP/MSHARP.

**CQ** – Documentation has small, correctable errors.

**U** – Training is not documented correctly or conducted in the appropriate timeline. No process exists for proper documentation.

**CRM Instructional Model Manager**  
**Assessment Checklist**

17. **Are extensions (when applicable) documented correctly?** Q CQ U N/A

Ref: CNAFINST 1542.7E, para 7.k, 7.m, and Encl. (3)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Q** – Documentation is accurate with specific training plan for expired individuals.
- CQ** – Extension request was incomplete or incorrectly completed.
- U** – No extension exists for expired aviators or is not requalified within the 90 day time frame.
- N/A** – Extensions are not applicable/extensions are not required at this time.

**TRAINING**

Review all media and training materials used for Initial, Annual, and CRMF training.

1. **Have personnel who perform duties as aircrew in more than one T/M/S received initial CRM in each T/M/S? Has full annual currency training been conducted in at least one T/M/S and modified re-currency training been conducted for all other T/M/S?** Q CQ U N/A

Ref: CNAFINST 1542.7E, para 7.g, Encl. (3)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Q** – CMM approved initial CRM ground training for each T/M/S is conducted before flight and documented appropriately. Full annual CRM ground training is given in at least one T/M/S, in addition to an abbreviated recurrent ground training provided for additional aircraft series. Additional T/M/S training shall consist of a series-specific case study or scenario at a minimum.
- CQ** – Incomplete or needs attention.
- U** – One or more of the CNAF requirements are not met.
- N/A** – Unit maintains only one T/M/S.

2. **Does the PM maintain and disseminate a standardized CRM initial, annual, and facilitator ground training program for their T/M/S units?** Q CQ U

Ref: CNAFINST 1542.7E, para 8.g

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Q** – PM disseminates regularly updated and customized T/M/S specific materials (Initial, Annual and CRMF) approved by CMM. PM takes feedback from ULMs to update the training material regularly.
- CQ** – Incomplete or needs attention.
- U** – PM does not provide or disseminate T/M/S specific training materials to units. ULMs/CRMIs/CRMFs are not using CMM approved CRM training.

## CRM Instructional Model Manager

### Assessment Checklist

3. **Do prospective CRMFs receive CRM ground training from a CRMI, facilitate a CRM ground training under the instruction of a CRMI, and conduct a CRM flight evaluation under the instruction of a CRMI?**      Q      CQ      U

Ref: CNAFINST 1542.7E, para 7.e (2), 8.g (3), Encl (3)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – Prospective CRMFs complete all applicable training in accordance with this instruction and local T/M/S CRM SOP and properly document on enclosure (3).

**CQ** – Incomplete or needs attention.

**U** – One or more CNAF requirements are not met. CRMFs are not properly qualified.

4. **Does the PM review and update the CRM curriculum to reflect current missions, aircraft configuration, integration of CRM behavioral skills, and current relevant HAZREPS / SIRs?**      Q      CQ      U

Ref: CNAFINST 1542.7E, para 8.g (2)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – PM updates curriculum to reflect current missions, configurations, and trends.

**CQ** – Incomplete or needs attention.

**U** – CRM curriculum is not current or relevant. CRM issues and trends are not shared to units under the PM’s cognizance.

5. **Is CRM initial and annual ground training tailored toward various experience levels?**      Q      CQ      U

Ref: CNAFINST 1542.7E, para 7.c, 7.d

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – Initial and Annual CRM curriculum meets all requirements and are tailored to different experience levels.

**CQ** – Incomplete or needs attention.

**U** – Initial or Annual CRM ground training does not meet CNAF requirements.

**CRM Instructional Model Manager**

**Assessment Checklist**

6. **Is the PM collecting CRM trends from the fleet?** Q      CQ      U

Ref: CNAFINST 1542.7E, para 7.c (1), 7.d (2) (4)

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – PM ensures flow of pertinent CRM and TEM issues to all units under their cognizance. PM has a mechanism for collecting and implementing fleet trends.

**CQ** – Incomplete or needs attention.

**U** – PM does not collect recent trends from the community.

7. **Observe a local command's CRM training:** Q      CQ      U

Initial             Annual             CRMF

Conducted by CRMI/CRMF (*All*): Y N \_\_\_\_\_

Seven Critical Skills (*All*): Y N \_\_\_\_\_

TEM (*All*): Y N \_\_\_\_\_

T/M/S Specific Case Study (*All*): Y N \_\_\_\_\_

CRM History (*Initial/CRMF*): Y N N/A \_\_\_\_\_

CRM Barriers/Challenges (*Initial*): Y N N/A \_\_\_\_\_

CRM Integration/Aircraft Automation (*Initial/CRMF*): Y N N/A \_\_\_\_\_

Community CRM Trends (*Annual*): Y N N/A \_\_\_\_\_

Program Administration/Facilitation/Evaluation Techniques (*CRMF*): Y N N/A \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Q** – Training in compliance with this instruction and T/M/S CRM SOP. Group participation was encouraged and CRMI/CRMF facilitated good CRM discussion. Curriculum was CMM approved, current and relevant.

**CQ** – Incomplete or needs attention.

**U** – Training does not meet CNAF requirements. CRMI/CRMF did not use approved curriculum.

8. **Observe CRM evaluation being conducted (sim/flight/brief) if available:**

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CRM Instructional Model Manager**  
**Assessment Checklist**  
**GRADING**

**Grading Scale:** At this time, the IMM will tally the number of grades throughout the overall CRM Assessment Checklist. To receive an overall grade of Qualified (Q), there must be four or less Conditionally Qualified (CQ) items and no Unsatisfactory (U) items. Five to eight total CQ items or one U item will result in an overall grade of CQ. More than one U item; or more than eight CQ items; or one U and more than four CQ items will result in an overall grade of U.

**Overall Grade of Conditionally Qualified (CQ):** If a program receives an overall grade of Conditionally Qualified (CQ), Program Managers have 90 days from the completion of the assessment to correct any deficiencies, at which point the PM will coordinate with the IMM to evaluate the corrected items. Failure to correct any CQ or U items will result in the program maintaining a grade of CQ grade until the next assessment cycle.

**Overall Grade of Unsatisfactory (U):** If a program receives an overall grade of Unsatisfactory (U), Program Managers have 90 days from the completion of the assessment to correct any deficiencies. Depending on the nature of the deficiencies, the CRM DH and CNAF N455 will determine the required nature of the re-assessment (virtual, in person, etc.). If it is deemed that the re- assessment warrants an in-person visit, the unit being assessed will be responsible for funding IMM travel/expenses. Failure to correct any CQ or U items will result in the program maintaining a grade of U until the next assessment cycle.

**CRM Assessment Checklist**

Number of CQ	
Number of U	

0 – 4 items graded (CQ) = Qualified (Q)

1 item graded (U) = Conditionally Qualified (CQ)

5 – 8 items graded (CQ) = Conditionally Qualified (CQ)

>1 items graded (U) = Unsatisfactory (U)

>8 items graded (CQ) = Unsatisfactory (U)

1 item graded (U) & >4 items graded (CQ) = Unsatisfactory (U)

**OVERALL:**

**QUALIFIED (Q)**    **CONDITIONALLY QUALIFIED (CQ)**    **UNSATISFACTORY (U)**

**Q** – The CRM program in place is in compliance with CNAF requirements.

**CQ** – The CRM program in compliance pending correctable deviations. Once corrected, the IMM will change the program’s status to Q.

**U** – The CRM program is failing to meet CNAF requirements. Once deficiencies are corrected, IMM will re-assess CRM program.

**CRM Instructional Model Manager**  
**Assessment Checklist**

Additional Notes/Comments:

CRM Program Manager  
Assessment Checklist



**CREW RESOURCE MANAGEMENT**  
*"Supporting Mission Effectiveness  
Through Enhanced Aircrew  
Performance"*

(CMM/ PROGRAM MANAGER  
SQUADRON LOGO)

October 2024 Revision

Squadron Unit Level Manager \_\_\_\_\_ Unit \_\_\_\_\_  
CRM Program Manager \_\_\_\_\_ Date \_\_\_\_\_

- Qualified (Q) – Item is recognized in compliance with the CNAFINST 1542.7E.
- Conditionally Qualified (CQ) – The item meets the intention, but one or more areas need improvement before it can be considered standard per the CNAFINST 1542.7E.
- Unsatisfactory (U) – Item does not meet requirements of the CNAFINST 1542.7E.
- Not Applicable (NA) – Item is not required by current instruction/not applicable to program

At a minimum, the NATOPS jackets of the **CO (or OIC), XO, ULM, (1) CRMF and (1) aircrew of each designator** will be reviewed. NATOPS review of Section II, Part C: Enclosure (3), CRMI/CRMF designation letters, applicable extension letters, and CRMI Course Certificates. Match flight evaluation dates from Enclosure (3) with corresponding logbook entries.

**Unit Level Manager (ULM)**

1. **Does the ULM have all current applicable instructions on hand to include CNAFINST 1542.7 (series) and a T/M/S specific CRM SOP?** Q CQ U  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. **Is the CRM ULM (typically unit NATOPS Instructor) a NATOPS-qualified O-2 or above, CRMF or CRMI in T/M/S, and designated by the unit Commanding Officer?** Q CQ U  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. **Does the ULM maintain an adequate number of CRMFs? Does the ULM update the PM with a current listing of unit CRMFs?** Q CQ U  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**CRM Instructional Model Manager**  
**Assessment Checklist**

4. **Does the ULM ensure pertinent CRM-related issues, including T/M/S lessons learned, documented CRM breakdowns, and specific areas of concern are forwarded to the PM? Does the ULM ensure appropriate material is briefed to all aircrew and/or incorporated into CRM training?** Q CQ U

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. **Does the ULM maintain a program/turnover binder?** Yes No

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CRM Instructors (CRMI) and CRM Facilitators (CRMF)**

6. **Are all CRMIs NATOPS qualified, graduates of the CRMI Course, previously designated as a CRMF in T/M/S, and designated as CRMI in T/M/S by the CMM?** Q CQ U

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. **Have all CRMFs completed CMM approved T/M/S CRMF ground training instructed by a CRMI?** Q CQ U

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. **Do prospective CRMFs receive CRM ground training from a CRMI, facilitate a CRM ground training under instruction of a CRMI, and conduct a CRM flight evaluation under instruction of a CRMI?** Q CQ U

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. **Are CRMFs designated by the unit level Commanding Officer to conduct CRM ground training and flight evaluations?** Q CQ U

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. **Are all civilian staff conducting CRM ground/simulator/flight training qualified as a CRMI or CRMF?** Q CQ U N/A

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CRM Instructional Model Manager**  
**Assessment Checklist**

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**CRM Training and Evaluation**

11. **Is CRM ground and flight training documented correctly and completed on correct timeline?** Q CQ U  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
12. **Are extensions (when applicable) documented correctly?** Q CQ U N/A  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
13. **Have personnel who perform duties as aircrew in more than one T/M/S aircraft received initial CRM in each T/M aircraft? Has full annual currency training been conducted in at least one T/M/S aircraft and modified re-currency training been conducted for all other T/M/S aircraft?** Q CQ U N/A  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
14. **Does the ULM ensure all CRM ground training and flight evaluations are conducted by a CRMI or CRMF?** Q CQ U  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
15. **Does the ULM ensure initial CRM ground training is completed prior to the first flight?** Q CQ U  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
16. **Are all civilians conducting flight training/in a flight status maintaining CRM qualifications?** Q CQ U N/A  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
17. **Does the ULM use PM/CMM approved CRM training? Are there specified trainings for initial and annual? Does the ULM disseminate this training to all CRMI/Fs?** Q CQ U  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CRM Instructional Model Manager**  
**Assessment Checklist**

**CRM Training Observation (optional)**

**Observe a local command's CRM training (optional):**

Q      CQ      U      N/A

Initial               Annual               CRMF

Conducted by CRMI/CRMF (All): Y N \_\_\_\_\_

Seven Critical Skills (All): Y N \_\_\_\_\_

TEM (All): Y N \_\_\_\_\_

T/M/S Specific Case Study (All): Y N \_\_\_\_\_

CRM History (Initial/CRMF): Y N N/A \_\_\_\_\_

CRM Barriers/Challenges (Initial): Y N N/A \_\_\_\_\_

CRM Integration/Aircraft Automation (Initial/CRMF): Y N N/A \_\_\_\_\_

Community CRM Trends (Annual): Y N N/A \_\_\_\_\_

Program Administration/Facilitation/Evaluation Techniques (CRMF): Y N N/A \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- Q** – Training in compliance with T/M/S specific CRM SOP and CNAFINST 1542.7. Group participation was encouraged and CRMI/CRMF facilitated good CRM discussion. Curriculum was CMM approved, current and relevant.
- CQ** – Incomplete or needs attention.
- U** – Training does not meet CNAF requirements. CRMI/CRMF did not use approved curriculum.

**CRM Instructional Model Manager**  
**Assessment Checklist**  
**GRADING**

**QUALIFIED (Q)**    **CONDITIONALLY QUALIFIED (CQ)**    **UNSATISFACTORY (U)**

Number of CQ	
Number of U	

**Additional Notes:**

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