



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, DC 20350-2000

OPNAVINST 1542.7C
N789F3
12 Oct 01

OPNAV INSTRUCTION 1542.7C

From: Chief of Naval Operations

Subj: CREW RESOURCE MANAGEMENT PROGRAM

Ref: (a) OPNAVINST 3710.7R
(b) MCO P3500.14F (NOTAL)

Encl: (1) Definitions
(2) Table of CRM Curriculum Model Managers and Instructor/Facilitator Requirements
(3) Naval Air Systems Command Field Activity CRM Guidelines
(4) CRM Training and Evaluation Record

1. Purpose. To establish policies, responsibilities and procedures for administration of the Crew Resource Management (CRM) program (formally known as the Aircrew Coordination Training (ACT) program). This instruction has been substantially revised and should be reviewed in its entirety.

2. Cancellation. OPNAVINST 1542.7B. Due to rewrite, paragraph indicators annotating additions, deletions, and revisions are not included.

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 ACT program, OPNAVINST 1542.7, designed to address these seven skills on a limited level and improve standardization. OPNAVINST 1542.7A, published in 1995, described initial Chief of Naval Operations (CNO) policy for implementation of the still-developmental Integrated ACT program. OPNAVINST 1542.7B, published in 1998, established annual ground training and annual flight evaluation requirements. This instruction further refines that CNO policy.

4. Objective. Integrated CRM incorporates the use of specifically defined behavioral skills into all Navy/Marine Corps aviation operations. Standardized training strategies shall be used in such areas as academics, simulators, and flight training. Practicing CRM principles will improve mission effectiveness and serve to prevent mishaps that result from poor crew coordination.

5. Scope. The provisions of this instruction are applicable to all Naval Aviation communities. All personnel whose duties involve flying as an aircrew member in naval aircraft shall receive integrated CRM training in accordance with the policies of this instruction and the appropriate provisions of references (a) and (b). Aircrew coordination will be an integral part of every flight

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operation and it is the responsibility of all aircrew members to evaluate ways in which lessons learned during aircrew coordination 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. Integration of specifically defined behavioral skills throughout Naval Aviation academics, simulators and flight training shall be accomplished using task-based analyses developed by Naval Air Warfare Center (Training Systems Division), and taught by the Instructional Model Manager. This instruction establishes minimum standards for each aircraft type/model (T/M) integrated CRM program.

b. CRM Qualification. CRM is designed to acquaint aircrew members with T/M-specific aircrew coordination requirements. Initial CRM shall occur during undergraduate aviation training (UAT) and during all Fleet Replacement Squadron (FRS) training leading to T/M designation in accordance with reference (a). In circumstances where formal FRS or equivalent training is not available, initial CRM may be completed at the squadron. Recurrency training shall occur annually thereafter while in a flight billet. Initial and recurrency CRM training shall be conducted by a designated CRM instructor or facilitator and shall include:

(1) CRM history

(2) Seven (7) critical skills

(3) OPNAVINST 1542.7C

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

(5) A flight evaluation conducted by a CRM Instructor or CRM facilitator designated for that T/M aircraft.

c. Currency. All Aircrew are considered CRM current and are qualified to perform aircrew duties following successful completion of ground training and a flight evaluation.

(1) The flight evaluation may be conducted concurrent with any operational or training flight or simulator, including NATOPS evaluation and instrument evaluation, using the practice and feedback instructional strategies. The renewal flight evaluation may be accomplished within 60 days preceding expiration of a current evaluation and is valid for 12 months from the last day of the month in which the current evaluation expires.

(2) The ground training must be accomplished once per year and may be accomplished at any time during the year before the flight evaluation. This leeway is afforded in order to ease

scheduling and to yield the best possible training. The ground training is valid for 12 months from the last day of the month in which the current ground training was conducted.

d. 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. 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, and a flight evaluation) shall be completed for all other T/M aircraft. Commanding officers of units with more than one T/M aircraft assigned may designate, with approval from each applicable Curriculum Model Manager, a facilitator qualified in one platform to conduct CRM ground training for other platforms. Specific guidelines for Naval Air Systems Command (NAVAIRSYSCOM) field activities are provided in enclosure (3).

e. CRM Instructor training. CRM Instructor training shall be provided by the CRM Instructional Model Manager. The course of instruction includes: CRM history, the seven critical skills, CRM methodology, computer aided curriculum development, contract administration, CRM instruction and evaluation, case study and scenario development, instructional techniques, program management and administration, and OPNAVINST 1542.7C.

f. CRM Facilitator training. CRM Facilitator training shall be provided by designated T/M CRM Instructors. The course of instruction shall be T/M specific and include: CRM history, seven critical skills, OPNAVINST 1542.7C, CRM program administration, CRM instruction and evaluation techniques.

g. Documentation requirements. CRM training and flight evaluations shall be logged in the individual NATOPS Flight Personnel Training/Qualification Jacket in section II, part C on enclosure (4). 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 when the flight evaluation is performed in conjunction with one of these flights. Annual CRM flight evaluations shall be documented in the individual aircrew logbooks as well as the NATOPS jacket.

h. Extension to expiration date. Extension authorization shall be filed in the individuals NATOPS flight personnel training/qualification jacket. The expiration date for CRM may be extended under the following conditions:

(1) Commanding officers may grant written extension to the CRM expiration date for aircrew members that would otherwise expire during long deployments. Extensions shall not exceed 90 days after return from deployment.

(2) Controlling Custodians may grant written extension of CRM training requirements in those cases which so merit. COMNAVAIRESFOR is authorized to grant written extension of CRM training requirements for reserve units.

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i. Failure to meet CRM requirements. Personnel who fail to meet CRM requirements without a written extension shall not serve as aircrew members. Once CRM requirements are met, or an extension is approved, aircrew member duties may be resumed.

j. Interim CRM courses. Many Naval Aviation communities are using the interim CRM course and will continue to do so until delivery of an integrated CRM Course. Documented completion of the existing interim CRM course on an annual basis is recognized as meeting the academic requirements for CRM. A flight evaluation shall be accomplished in accordance with paragraphs 7b and 7c. Completion of this course of instruction shall be logged in the NATOPS jacket as indicated in paragraph 7g. The interim course is superseded upon receipt of an approved T/M-specific integrated program, as it is only intended to fill the void until an integrated CRM syllabus and a T/M specific annual CRM course is in place.

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.

a. Chief of Naval Operations (N78). Serve as approving authority, requirements officer, and sponsor for all CRM programs.

b. CG Marine Corps Combat Development Command (C473). Serve as USMC representative for CRM program issues. Function as USMC CRM instructor course quota and funding coordinator.

c. Commander, Naval Air Systems Command (PMA-205). Serve as principal development activity for integrated CRM programs. Serve as T/M curriculum model manager until initial operating capability (IOC) for all new aircraft programs. Provide a copy of final accepted deliverables to the CRM Instructional Model Manager.

d. Naval Safety Center. Coordinate with the Instructional Model Manager for the dissemination of aviation mishap investigation and hazard report data where aircrew coordination may have been a contributing factor in causing or averting a mishap or hazard.

e. Controlling Custodians

(1) Coordinate with Chief of Naval Air Training (CNATRA), (N3), to establish annual CRM instructor course quotas and funding requirements.

(2) Provide the CRM Instructional Model Manager with quarterly CRM instructor course quota requests. CG MCCDC (C473) will serve as USMC CRM instructor course quota and funding coordinator.

(3) Be familiar with the status of CRM curriculum model manager programs under their cognizance. Ensure that the Program Management Plan is submitted as indicated in paragraph 8g(1).

(4) Provide for revision and maintenance of initial and annual CRM programs after delivery.

(5) Monitor the CRM Program through the type/model NATOPS Model Managers and ensure CRM Program compliance is evaluated during NATOPS Inspection Visits.

f. CRM Curriculum Model Manager

(1) When appropriate, participate in contractor development of the T/M-specific integrated CRM program.

(2) Maintain and disseminate a standardized CRM training program for their respective T/M units.

(3) Provide CRM Facilitator training to fleet squadrons and contract instructors, as applicable. Establish minimum experience level requirements for facilitators (e.g. O-3/E-5 and above). Establish currency requirements for instructors/facilitators regarding minimum classroom lectures and flight evaluations conducted per year.

(4) Request via the Controlling Custodian an initial standardization assistance visit, from the CRM Instructional Model Manager, between 6 and 18 months following integrated CRM program implementation. Subsequent assistance visits shall be accomplished at intervals not to exceed 18 months. Provide an information copy of the request to the chain of command and to COMNAVAIRSYSCOM (PMA205-3).

(5) Maintain an adequate number of designated CRM instructors to provide for qualification of CRM facilitators and to perform CRM curriculum model manager functions. Submit annual instructor training requirements to the Controlling Custodian for budgeting and quota management. The minimum numbers and types of instructors are delineated in enclosure (2).

(6) Coordinate with T/M NATOPS Model Manager to integrate CRM behaviors in all NATOPS publications.

(7) Coordinate with T/M NATOPS Model Manager to ensure the CRM program is inspected at each fleet activity during NATOPS inspections.

g. CRM Curriculum Program Manager

(1) Submit an annual Program Management Plan, utilizing the format located on the Navy/Marine Corps CRM website (www.crm.navy.mil), to the Controlling Custodian no later than 31 July for the next fiscal year. Information copies shall be forwarded to CNO (N789F3), COMNAVAIRSYSCOM (PMA-205), and the CRM Instructional Model Manager.

(2) Ensure that the CRM curriculum is reviewed and updated as necessary, to reflect current missions, aircraft configuration, and integration of CRM behavioral skills. Forward

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applicable changes to the Controlling Custodian for incorporation during the revision and maintenance cycle.

(3) Provide CRM materials upon request to the Instructional Model Manager.

h. CRM Instructional Model Manager

(1) Provide training and certification for CRM instructors.

(2) Augment the curriculum model manager Fleet Project Team, when requested, to assist in the development, implementation, and maintenance of initial and recurrency CRM programs.

(3) Collect, maintain, and disseminate CRM program instructional materials. Make these resources available to all curriculum model manager commands as a resource database for revision and update of CRM programs.

(4) Coordinate with the Naval Safety Center for the dissemination of aviation mishap investigation and hazard report data where aircrew coordination may have been a contributing factor in causing or averting a mishap or hazard.

(5) Respond to Controlling Custodian requests for standardization assistance visits to curriculum model manager commands, normally within 6 to 18 months of program implementation, or when requested. Subsequent standardization assistance visits shall be accomplished at intervals not to exceed 18 months. Provide copies of the assist visit results to the curriculum model manager command, to the appropriate Controlling Custodian, and to COMNAVAIRSYSCOM (PMA205-3).

(6) Develop, maintain, and disseminate a standardization assistance visit checklist.

i. Unit Level

(1) Maintain an adequate number of qualified CRM facilitators on hand to properly administer recurrency ground training and flight evaluations.

(2) Implement and administer the ongoing type/model CRM programs as directed by the cognizant CRM Curriculum Model Manager.

9. Reports. The reporting requirements required by this instruction are exempt from reports control per SECNAVINST 5214.2.

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DEFINITIONS

1. Naval Aircraft. Any aircraft assigned to a U.S. Navy (USN), U.S. Naval Reserve (USNR), U.S. Marine Corps (USMC), U.S. Marine Corps Reserve (USMCR) unit.
2. Aircrew Member. All aeronautically-designated personnel serving in a crew position or performing a crew function on a naval aircraft.
3. Controlling Custodian. Commander, Naval Air Force Atlantic/Pacific Fleet; Commanding General, Fleet Marine Force Atlantic/Pacific; Chief of Naval Air Training; Commander, Naval Air Reserve Force; Commander, Naval Air Systems Command; Commanding General, 4th Marine Air Wing.
4. CRM Instructional Model Manager. Naval Aviation Schools Command is designated as the Navy/Marine Corps CRM Instructional Model Manager.
5. CRM Curriculum Model Manager Command. Specific curriculum model manager commands are listed in enclosure (2).
6. CRM Curriculum Model Manager. The commanding officer of a curriculum model manager command.
7. CRM Curriculum Program Manager. A CRM instructor designated by the curriculum model manager.
8. CRM Instructor. A NATOPS-qualified O-3/E-5 or above who has successfully completed both the Naval Aviation Schools Command Instructional Model Manager's CRM Instructor Course and the curriculum model manager command's CRM facilitator course, and who has been designated by the type/model (T/M) curriculum model manager. A CRM Instructor is qualified to train CRM facilitators.
9. CRM Facilitator. A graduate of the CRM facilitator course provided by the CRM curriculum program manager for the applicable T/M aircraft. Facilitators shall be trained by a CRM instructor and designated by their respective commanding officer to conduct CRM flight evaluations, initial and recurrency training. The curriculum model manager shall establish minimum experience level requirements.
10. CRM Integrated Syllabus. A T/M specific syllabus in which the CRM behavioral skills are integrated throughout the academic, simulator and flight syllabi using the instructional strategies of information, demonstration, practice, and feedback.

TABLE OF CRM CURRICULUM MODEL MANAGERS AND
INSTRUCTOR/FACILITATOR REQUIREMENTS

Specific CRM curriculum model managers and CRM instructor requirements for each naval aircraft are listed below. This table lists for each type/model of naval aircraft the corresponding curriculum model manager command and the associated Controlling Custodian. The last column indicates both the minimum number and type of CRM instructors that must be trained and designated at the curriculum model manager command in order to train fleet CRM facilitators and the minimum number and type of facilitators that must be trained and designated at each Naval Aviation activity flying the type/model of aircraft indicated.

T/M AIRCRAFT	CURRICULUM MODEL MANAGER COMMAND	CONTROLLING CUSTODIAN	MINIMUM NUMBER/ TYPE INSTRUCTOR*
A-4	VC-8	COMNAVAILANT	1P
AH-1	HMT-303	FMFPAC	1P
AV-8	VMAT-203	FMFLANT	1P
C-2	VAW-120	COMNAVAILANT	1P, 1LM
C-9/C-20/C-40	COMFLELOGSUPPWING	COMNAVAIRESFOR	1P, 1CC, 1LM
C/UC-12	VRC-30	COMNAVIRPAC	1P, 1EAC
C/UC-12 Reserves	COMFLELOGSUPPWING	COMNAVAIRESFOR	1P, 1EAC
C-26	NAS Sigonella	COMNAVAILANT	1P, 1EAC
C-130	COMFLELOGSUPPWING	COMNAVAIRESFOR	1P, 1FE, 1LM
KC-130	VMGRT-253	FMFLANT	1P, 1N, 1FE, 1LM
E-2	VAW-120	COMNAVAILANT	1P, 1N, 1EAC
E-2Reserves	VAW-77	COMNAVAIRESFOR	1P, 1N, 1EAC
E-6/TC-18F	VQ-7	COMNAVIRPAC	1P, 1FE, 1ACO, 1RO, 1IFT, 1N, 1RM
EA-6B	VAQ-129	COMNAVIRPAC	1P, 1N
F-5	VFC-13	COMNAVAIRESFOR	1P
F-14	VF-101	COMNAVAILANT	1P, 1N
F/A-18A/C	VFA-125	COMNAVIRPAC	1P
F/A-18D	VMFAT-101	FMFPAC	1P, 1N
F/A-18E/F	VFA-122	COMNAVIRPAC	1P, 1N
UH-1N/ HH-1N	HMT-303	FMFPAC	1P, 1EAC
H-2	COMHELWINGRES	COMNAVAIRESFOR	1P, 1EAC
H-3	HC-2	COMNAVAILANT	1P, 1EAC
H-46D	HC-3	COMNAVIRPAC	1P, 1EAC
H-46E	HMM(T)-164	FMFPAC	1P, 1EAC
H-53D	HMT-301	FMFPAC	1P, 1EAC

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CH-53E	HMT-302	FMFLANT	1P, 1EAC
MH-53E	AWSTS	COMNAVAILRLANT	1P, 1EAC
H-60B	HSL-41	COMNAV AIRPAC	1P, 1EAC
H-60F/H	HS-10	COMNAV AIRPAC	1P, 1EAC
H-60H Reserves	COMHELWINGRES	COMNAV AIRESFOR	1P, 1EAC
CH-60	PMA-205/HC-3	COMNAV AIRSYSCOM	1P, 1EAC
MV-22	VMMT-204	FMFLANT	1P, 1EAC
NFO-B	TRAWING 6	CNATRA	1P, 1N
NFO-J	TRAWING 6	CNATRA	1P, 1N
P-3	VP-30	COMNAVAILRLANT	1P, 1N, 1FE, 1EAC
EP-3J	VP-66	COMNAV AIRESFOR	1P, 1N, 1EAC
EP-3R	VQ-1	COMNAV AIRPAC	1P, 1N, 1FE, 1EAC, 1NSGA
S-3	VS-41	COMNAV AIRPAC	1P, 1N, 1EAC
T-2	TRAWING 1	CNATRA	1P
T-34	TRAWING 5	CNATRA	1P
T-39	TRAWING 6	CNATRA	1P, 1N
T-44	TRAWING 4	CNATRA	1P
T-45A	TRAWING 2	CNATRA	1P
T-45C	TRAWING 1	CNATRA	1P
TC-12	VT-35/ TRAWING 4	CNATRA	1P
TH-57	TRAWING 5	CNATRA	1P
UAV	VC-6	COMNAVAILRLANT	1MC, 1IP, 1EP, 1PO
VH-3/VH-60	HMX-1	COMNAV AIRSYSCOM	1P, 1EAC

* Legend:

P - Pilot

N - NFO

EAC - Enlisted Aircrew

ACO - Airborne Comm. Officer

FE - Flight Engineer

LM - Load Master

CC - Crew Chief

IFT - In-Flight Technician

RM - Radioman

RO - Reel Operator

MC - Mission Commander

IP - Internal Pilot

EP - External Pilot

PO - Payload Operator

Naval Air Systems Command Field Activity CRM Guidelines

1. Naval Air Warfare Center Aircraft and Weapons Divisions. Due to the unique nature of the Naval Air Systems Command (NAVAIRSYSCOM) field activities with multiple service T/M aircraft, and the extensive crew coordination training involved in the test and evaluation mission, CRM requirements for these units are specified below.

a. For aircraft where FRS attendance is required for NATOPS qualification or performance of aircrew duties, initial integrated CRM will occur at the FRS.

b. All aircrew and unmanned air vehicle (UAV) operators will complete a local introductory CRM course in accordance with paragraph 7b.

c. Aircrew are considered CRM qualified to perform aircrew duties following completion of the ground portion of the local introductory or refresher CRM course. The CRM flight evaluation is required for aircrew NATOPS positional qualification and may be conducted in conjunction with any flight or simulator evolution. The expiration date of recurrency training for NATOPS-qualified aircrew shall be as specified in paragraph 7c.

d. Aircrew who are NATOPS - qualified in more than one T/M aircraft shall receive full recurrency training in at least one T/M aircraft and modified recurrency training, consisting of a T/M case study or scenario and a flight evaluation, in all other T/M aircraft in which they are qualified.

e. CRM qualified aircrew may perform aircrew duties in any T/M aircraft when not prohibited by other directives. The pilot in command shall ensure that aircrew not qualified in model are thoroughly briefed on aircrew coordination requirements.

f. Naval Air Warfare Center (Aircraft Division) and (Weapons Division) shall each select an 0-3, GS-12 or E-5 or above to serve as the CRM instructor for each respective division. Those personnel shall be required to complete the CRM instructor course at Naval Aviation Schools Command prior to designation.

g. CRM facilitators shall be trained by the applicable division CRM instructor, or be a graduate of a CRM facilitator course provided by a CRM curriculum program manager. These facilitators may teach CRM for more than one T/M aircraft. They shall maintain close liaison with the various CRM curriculum model managers for the T/M aircraft that they instruct.

h. The required minimum number of CRM instructors shall be determined by the commanding officer of each NAVAIRWARCEN Division.

