

**BY ORDER OF THE COMMANDER
COMBAT FORCES COMMAND**

**COMBAT FORCES COMMAND MANUAL
13-602DCO-S, VOLUME 1**



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***Nuclear, Space, Missile, Command and
Control Operations***

***DEFENSIVE CYBERSPACE
OPERATIONS FOR SPACE (DCO-S) –
TRAINING***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This manual implements Department of the Air Force Guidance Memorandum (DAFGM) 2025-13-01, Volume 1, *Ready Spacecrew Program Training*. This publication applies to all United States Space Force (USSF) and United States Air Force (USAF) uniformed members, Department of Defense (DoD) civilian personnel, civilian contractors (as applicable per contract documentation), allied mission partners (as applicable per international agreement) performing Defensive Cyberspace Warfare (DCW) operations duties on a Defensive Cyberspace Operations for Space (DCO-S) Weapon System (WS) in support of USSF or a Combatant Command (CCMD). This manual requires the collection and/or maintenance of information protected by the Privacy Act of 1974 authorized by 10 U.S.C. 9013, Secretary of the Air Force. The applicable System of Record Notice(s) (SORN) F011 AF AFMC B, *Patriot Excalibur (PEX) System Records* is available at: <https://pctl.defense.gov/DIRECTORATES/Privacy-and-Civil-Liberties-Directorate/Privacy/SORNsIndex/DOD-Component-Notices/Air-Force-Article-List/>. Ensure all records generated as a result of processes prescribed in this manual adhere to Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and are disposed of in accordance with (IAW) the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Department of the Air Force (DAF) Form 847, *Recommendation for Change of Product*; route DAF Forms 847 from the field through the appropriate functional chain of command. This manual may not be supplemented. The authorities to waive wing, unit, or delta level requirements in this manual are identified with a tier (“T-0, T-1, T-2, T-3”) number following the compliance

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Chapter 1

GENERAL INFORMATION

1.1. General. This manual provides basic guidance for training USSF DCW crewmembers IAW DAFGM 2025-13-01, Volume 1, *Ready Spacecrew Program Training*. In the context of this document, “DCO-S WS” can describe either a specific WS (e.g. Manticore, Kraken) or a grouping of similar systems into a single category.

1.2. Objective. The overall objective of the DCO-S WS training program is to develop and maintain a high state of readiness for the expeditious and effective employment across a full range of military operations. Mission readiness and effective employment are achieved through the development and mastery of core competencies for DCW crewmembers. The secondary objective is to implement the minimum training requirements to operate a DCO-S WS and establish conditions to ensure training is continuously employed, reported, resourced, and executed.

1.3. Scope. This manual was developed to define training for DCO-S WSs. It is applicable to all spacecrew members performing DCW on a DCO-S WS in support of USSF or a CCMD. Applicability includes USSF and USAF uniformed members, DoD civilian personnel, civilian contractors (as applicable per contract documentation), Qualification Training (QT) instructors, allied mission partners (as applicable per international agreement), and other selected personnel performing or instructing Combat Mission Ready (CMR) DCW operations duties on a DCO-S WS.

1.3.1. A DCW spacecrew consists of officers, enlisted, government civilians, and civilian contractors who conduct space operations and are assigned to the DCO-S WS. A detailed depiction of DCO-S crew positions is identified in Combat Forces Command Manual (CFCMAN) 13-602DCO-S, Volume 3, *Defensive Cyberspace Operations for Space (DCO-S) – Operating Procedures*.

1.3.2. Throughout this manual, DCW spacecrews will be referred to as spacecrews. **(T-2)**

1.4. Waivers. Units requiring a waiver will submit a new DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*, and route it to the appropriate level. **(T-2)**

1.4.1. CFC/CC delegated T-2 waiver authority to the CFC Deputy Commander (CD) in the SpOC/CC Memorandum, *Delegations and Withholding of Authorities*, 23 October 2024.

1.4.2. The following organizations will provide coordination in Section II of the DAF 679: **(T-2)**

1.4.2.1. Squadron Commander (SQ/CC)

1.4.2.2. Delta Commander (DEL/CC)

1.4.2.3. CFC Cyber Warfare Division (CFC/S35C)

1.4.2.4. CFC Training and Readiness (CFC/S73)

1.4.3. Place a copy of approved waivers in the individual’s training folder in the current records management system, PEX, or its successor programs. PEX can be accessed at <https://test.omni.af.mil/ePex/Login?location=Login%2FHome%2FSelectPexPerson>.

1.4.4. For more detailed guidance, reference Department of the Air Force Manual (DAFMAN) 90-161, *Publishing Processes and Procedures* or contact CFC Training Branch (CFC/S735T) for questions on the waiver coordination process.

1.5. Certifying Official. The certifying official is responsible for ensuring a crew member has demonstrated sufficient proficiency to perform all tasks assigned to the newly appointed position (e.g., crew position, instructor, evaluator).

1.5.1. The certifying official is the final signatory of certifications in PEX (e.g., evaluation AF Form 8, *Certificate of Aircrew Qualification*).

1.5.2. Certifying official responsibilities reside with the SQ/CC. Responsibilities of the certifying official will not be delegated. **(T-2)** For Cyberspace Warfare (CW) Detachments (Dets) that are aligned directly to a DEL, the Det/CC is the certifying official.

1.6. Governing Guidance. SQ/CC and the on-duty Crew Chief will ensure compliance with the operational aspects of this manual and the following instructions specific to DCW: **(T-2)**

1.6.1. Combatant Commander (CCDR) instructions and associated USSF Components directives.

1.6.1.1. The Commander of Space Forces (COMSPACEFOR) standards direct staff and all Tactical Control units on normal, recurring tasks within mission/subject area annexes within their CCMD.

1.6.1.2. COMSPACEFOR standards are effective upon COMSPACEFOR approval until superseded or rescinded. The signature on the COMSPACEFOR standards cover sheet applies to the COMSPACEFOR standards and all annexes.

1.6.2. Operational tasking orders (e.g. Combined Space Tasking Order (CSTO), Cyber Tasking Order (CTO)).

1.6.2.1. Operational tasking orders will take precedence over local Special Instructions (SPINS). **(T-2)**

1.6.2.2. In the case of a guidance conflict, operational SPINS will take priority over the component standards. **(T-2)**

1.6.3. Orders from Commander, United States Space Command and Commander, United States Cyber Command that direct presentation of forces and execution of operations in support of CCDR authority.

1.6.3.1. Planning Order (PLANORD). PLANORDs are planning directives that provide essential planning guidance and direct the development, adaptation, or refinement of a plan or order.

1.6.3.2. Deployment Order (DEPOD). DEPODs are directives from the Secretary of Defense, issued by the Chairman of the Joint Chiefs of Staff, authorizing the transfer of forces between CCDRs, Services, and DoD agencies. It outlines the gaining CCDR's authority over the transferred forces.

1.6.3.3. Operations Order (OPORD). OPORDs are directives issued by a CC to subordinate CCs for the purpose of effecting the coordinated execution of an operation.

1.6.3.4. Execution Order (EXORD). EXORDs are directives to implement an approved Concept of Operations. It is authorized by the President and Secretary of Defense and may be issued by the Chairman of the Joint Chiefs of Staff at their direction. CCMDs and subordinate components use EXORDs to initiate and execute military operations.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Overview. The roles and responsibilities listed below will be executed at all levels within FLDCOMs, DELs, and CW operational units, unless otherwise stated. (T-2) CCs at every level are responsible for ensuring the personnel under their command are qualified to perform the DCW mission in a contested, degraded, and operationally-limited environment.

2.2. Combat Forces Command (CFC) Cyberspace Warfare (CW) Division. HQ CFC/S35C will:

2.2.1. Forward newly identified crew force personnel training requirements, that are required prior to entering the Ready Spacecrew Program (RSP) training program, to HQ USSF CW Career Field Manager for incorporation into existing planning processes.

2.2.2. Communicate to the USAF Warfare Center and Space Training and Readiness Command (STARCOM) any Combat Training (CT) requirements to realize desired learning objectives that inject planning and execution objectives into upcoming events and exercises.

2.2.3. Conduct the DCO-S Training Planning Team (TPT). The DCO-S TPT Chair may be a member of either CFC/S35C or Mission Delta (MD) 6 Staff. The TPT Chair will define training tasks for the DELs, 66 CYS Formal Training Flight (FTF), and operational units, including but not limited to the following tasks:

2.2.3.1. Ensure DELs, 66 CYS/FTF, and operational units conduct annual reviews of training products and associated training materials for each task on the Master Task List (MTL). Updates of the associated training materials will be necessary based on the results of the annual reviews. Training products include but are not limited to the unit's Annual Training Plan (ATP), Annual Plan of Instruction (APOI), MTLs, lesson plans, evaluation scripts, CT, and RT requirements.

2.2.3.2. Ensure systematic recording of spacecrew personnel certification and currency in PEX to ensure compliance with Higher Headquarters (HHQ) training requirements and standards.

2.2.3.3. Identify and document issues with training and/or training systems.

2.2.3.4. Verify and validate unit Mission Essential Tasks (METs) to include CT assessment and update as necessary within Defense Readiness Reporting System - Strategic (DRRS-S).

2.2.3.5. Review and update the System Training Plan annually.

2.2.3.6. Identify and document mission specific training system gaps and coordinate with STARCOM and the Operational Test and Training Infrastructure (OTTI) Program Executive Officer to recommend/advocate for fix actions and track to closure.

2.3. Delta Commanders (DEL/CC). For the purposes of this manual, Delta (DEL) refers to Space Base Deltas (SBD), Space Launch Deltas (SLD), MD, or Space Deltas. DEL/CCs will:

2.3.1. Ensure spacecrew members comply with all RSP training requirements.

2.3.2. Oversee programs to ensure operational requirements and mission training objectives are met.

2.3.3. Oversee the identification and submission of training shortfalls that adversely impact combat capability to HQ CFC.

2.3.4. Oversee the identification and submission of training shortfalls that adversely impact combat capability to HQ USSF Directorate of Operations using DRRS-S.

2.3.5. Ensure appropriate funding for Temporary Duty (TDY) to Geographically Separated Units to train and certify instructors.

2.3.6. Serve as the Office of Primary Responsibility (OPR) for intelligence integration programs to include (but not limited to) intelligence professional training and intelligence spacecrew training.

2.3.7. Ensure adequate funding and training for the accomplishment of operational missions.

2.3.8. Serve as the waiver authority to allow Basic Mission Qualified (BMQ) spacecrew members to perform CMR duties on an operational system.

2.4. Delta (DEL) Chief of Training. The Chief of Training will:

2.4.1. Review unit CT programs to ensure that all spacecrew members are prepared to perform assigned roles and missions.

2.4.2. Lead DEL Realistic Training Review Board (RTRB) and prepare final DEL inputs for CFC RTRB.

2.4.3. Review unit ATP (e.g., Threat Priority List (TPL), MTLs, APOI, RSP Tasking Memorandum (RTM), knowledge and performance tests) for operational viability and recommend updates to SQ/CC and TPT Chair prior to RTRB IAW CFC timelines.

2.4.4. Develop initial and recurring instructor training and certification program for all operational instructors.

2.4.5. Ensure QT tasks are linked to METs, Operations Plans, United States Space Command directives, and all other mission requirements.

2.4.6. Support development of OTTI ranges to the maximum extent possible, to include the following activities:

2.4.6.1. Participate in developer cross-talks and working groups.

2.4.6.2. Coordinate with OTTI Range developers for software install activities, necessary troubleshooting, and resolution of hardware and/or software issues.

2.4.6.3. Perform OTTI Range testing checkout following installation actions.

2.4.6.4. Assess OTTI Range capabilities to perform training on MTL performance tasks and subtasks using established assessment parameters.

2.4.7. Support WS development activities to the maximum extent possible, to include the following activities:

2.4.7.1. Attending and participating in Problem Review Boards, providing operational expertise in the Change Review Boards and Deficiency Review Boards, advocating for system issue resolution actions, and determining DT requirements for system workarounds.

2.4.7.2. Attending system transition meetings to advise on training requirements and impacts resulting from decisions concerning events, tests, and operational functions.

2.4.7.3. Coordinating instructors, trainees, training space, and system requirements to ensure operators are fully trained prior to required development activities.

2.4.7.4. Testing, reviewing, and advising on newly developed systems for the DCO-S enterprise through familiarization (i.e., Type-1) training and participating in testing and training.

2.5. 66 CYS Formal Training Flight (FTF). All DCO-S QT and UT will be provided through MD 6 by the 66 CYS/FTF. The 66 CYS/FTF will:

2.5.1. Develop and conduct QT and UT IAW Department of the Air Force Handbook (DAFH) 36-2675 for all DCO-S operators ensuring procedures, guidelines, and training materials (e.g., objectives, samples of behaviors, lesson plans, courseware, scripts and tests) all remain in compliance with operational unit's mission training requirements.

2.5.2. Develop training procedures and guidelines to ensure compliance with training requirements.

2.5.3. Coordinate with the operational units at least monthly to project class schedules based on inbound personnel and unit needs.

2.5.4. Coordinate with operational Senior Line Instructor regarding applicable trainee actions.

2.5.5. Provide unit Senior Line Instructors with official training records to be documented in PEX.

2.5.6. Provide simulator and facility support for RT products and scenarios.

2.5.7. Ensure training resources (e.g., classrooms, OTTI Ranges) are deconflicted between all using units and serve as central point of contact for training resource scheduling.

2.5.8. Implement process for quarterly Curriculum Change Management Review Board for all 66 CYS/FTF courses.

2.5.9. Implement process for quarterly review of Training Tactics Integration Review Board for all 66 CYS/FTF courses.

2.5.10. Ensure applicable Senior Line Instructor is notified of all registrar changes.

2.5.11. Oversee QT Top Graduate Program.

2.5.12. Provide administrative oversight of MD 6 Liaison Officer to OTTI 33rd Range Squadron.

2.6. Cyberspace Warfare (CW) Squadron Commander (SQ/CC). This section includes both Force Generation and Institutional Force Squadrons and Detachments. Most operational units employing DCO-S to perform DCW are Cyberspace Squadrons (CYS). However, some DCW units are Dets, and in those cases, the Det/CC is responsible for all SQ/CC responsibilities outlined

in this manual. SQ/CC will ensure all provisions of DAFGM 2025-13-01V1 are adhered to, with the addition of the following:

- 2.6.1. Draft a set of CT requirements within the RTM for their mission area that are informed by threat assessments, CCMD Unit Prep Messages (UPM), and exercises derived from Service Exercise Plan.
- 2.6.2. Ensure continuity and supervisory reviews of training and evaluation records/currencies of all spacecrew members.
- 2.6.3. Designate spacecrew members as BMQ/CMR when appropriate training requirements have been met.
- 2.6.4. Utilize DRRS-S (or other service-approved applicable readiness reporting) to identify conditions that prohibit or limit training standards on operational systems.
- 2.6.5. Determine utilization of BMQ/CMR spacecrew members.
- 2.6.6. Provide support for exercises and CT events directed by HHQ, to include participation in flag-level exercises (e.g., Space Flag).
- 2.6.7. Publish ATP based on TPL and current RTM no later than 30 days after receipt of current RTM. At a minimum, ATPs will account for mission objectives, goals, inbound and outbound personnel, and anticipated upgrades. ATPs will include BMQ and CT MTLs, range task list, CT and RT lesson plans, and scripts based upon the most recent Training System Requirements Analysis.
- 2.6.8. Ensure that individuals and crews receive RT and CT to successfully attain and maintain the required qualifications, certification, and proficiency for combat missions.
- 2.6.9. Develop and maintain a list of training events and topics not supported by OTTI Ranges or other ranges/simulators. SQ/CCs will provide this list to TPT, Weapons and Tactics, and the RTRB for possible future resource allocation and acquisition.
- 2.6.10. Review training and evaluation records of newly assigned spacecrew members and those completing formal training to determine the training required to achieve BMQ/CMR and to ensure compliance with provisions of this manual.
- 2.6.11. Maintain a force of line instructors and evaluators to conduct Training and Evaluations. Line instructors and evaluators will fill crew positions and will not have dedicated, authorized billets. **(T-2)**
- 2.6.12. Ensure applicable training and evaluation products and materials are accurate and approved prior to implementation.
- 2.6.13. SQ/CC will develop local training events to ensure spacecrew members are qualified to perform duty following successful completion of QT, Requalification Training (RqT), or Upgrade Training (UT).
- 2.6.14. Inform Senior Line Instructor of de-certifications.
- 2.6.15. Serve as the certifying official for ensuring a crew member has demonstrated sufficient proficiency to perform all tasks assigned to the newly appointed position.

2.6.16. Appoint unit personnel for instructor training. SQ/CC has the final determination of line instructor availability and assignment within or outside of unit.

2.6.17. Direct support for Tactics Development (TACDEV) and the maintenance of WS Tactical Standard Operating Procedures (TACSOPs) under the DEL Weapons and Tactics process, and the Integrated Test Teams (ITTs) to maximize mission effectiveness for the larger operational community.

2.7. Senior Line Instructor. Senior Line Instructor will:

2.7.1. Develop and conduct CT, RT, DT, and RqT IAW DAFH 36-2675 for all Active Duty, Associated Units, contractors, and civilian members requiring unit-specific WS training.

2.7.2. Provide oversight to Line Instructor personnel augmenting and performing CT instruction.

2.7.3. Ensure Line Instructors create user accounts on WSs and supporting systems for new CT trainees.

2.7.4. Schedule instructors and training resources (i.e., range time, simulators, classrooms, etc.) prior to each CT, RT, DT, and RqT class. Perform instructor personnel and training resource scheduling preparation actions for each CT class.

2.7.5. Provide RT to Line Instructors as required to maintain their Line Instructor qualification.

2.7.6. Attend and participate in Operational Review Boards to provide operational expertise. Operational Review Board activities include:

2.7.6.1. Advocate for system issue resolution actions and determine DT requirements for system workarounds.

2.7.6.2. Attending system transition meetings to advise on training requirements and impacts resulting from decisions concerning events, test, and operational functions.

2.7.6.3. Coordinating instructors, trainees, training space, and system requirements to ensure operators are fully trained prior to required development activities.

2.7.6.4. Testing, reviewing, and advising on newly developed systems for DCO-S by receiving familiarization (i.e., Type-1) training.

2.7.6.5. Participating in testing and training scripts, scenarios, preparing products for handovers and mission transfers to alternate DCO-S operating locations in support of development testing.

2.8. Line Instructor. Line Instructors will:

2.8.1. Document all training performed by trainees in PEX and provide relevant instructor documentation for processes (e.g., Training Review Board) as established in this manual and/or local procedures.

2.8.2. Create and implement WS-related training products such as lesson plans, visual aids, presentations, study guides, written knowledge tests, performance scenario scripts, OTTI Range scenarios, and APOIs.

2.8.3. Follow Instructional System Design processes and methodologies during training product development IAW DAFGM 2025-13-01V1.

2.8.4. Update training products on a continuing basis to maintain currency with WS design/functionality updates, evolving adversary systems/capabilities, and governing/tasking authority changes/updates to guidance.

2.8.5. Coordinate training packages and products (e.g., lesson plans, scenario scripts, DT packages) for approval through DEL Chief of Training and share with MD 6 Chief of Training.

2.8.6. Ensure training resources (e.g., classrooms, OTTI Ranges) are scheduled between all units and/or crews and serve as central point of contact for training resource scheduling.

2.8.7. Provide support for all exercises and CT events directed by HHQ, to include participation in flag-level exercises (e.g., Space Flag).

2.8.8. Support OTTI Ranges development to the maximum extent possible. Support includes participating in developer cross-talks working groups. Coordinating with OTTI Range developers on software install activities. Performing limited OTTI Range testing checkout following installation actions and assessing OTTI Range capabilities to perform training on MTL performance tasks and subtasks using established assessment parameters and coordinating with OTTI Range developer agencies for necessary troubleshooting and resolution of hardware/software issues.

2.8.9. Conduct CT, RT, DT, and RqT IAW DAFH 36-2675 for all Active Duty, Associated Units, contractor, and civilian members requiring unit-specific WS training.

2.8.9.1. Create WS and support system user accounts for new CT students.

2.8.9.2. Review all training products prior to each CT/RT/DT/RqT class.

2.8.9.3. Ensure training resources (i.e., range, classroom) are available prior to each CT/RT/DT/RqT class.

2.8.10. Manage PEX administrative permissions for unit level personnel. Contact HQ CFC program office for PEX administration issues that cannot be resolved by unit administrators.

2.8.11. Conduct lookbacks on all CMR qualified personnel IAW CT currency requirements and notify supervisors of required training.

2.8.12. Conduct Training Review Boards IAW locally determined procedures.

2.9. Mission Support Cell (MSC) Chief. MSC Chief will:

2.9.1. Perform Crew Force Management functions to ensure only qualified and current operators are recommended for spacecrew operations. Crew Force Management functions include:

2.9.1.1. Manage spacecrew records for assigned personnel. Oversee and update personnel mission qualifications and certifications (e.g., Letter of X, AF Form 8, AF Form 4348, *USAF Aircrew Certifications*) within PEX as needed.

2.9.1.2. Assist the Unit Training Manager in administering career field training requirements within PEX to include Career Field Enlisted Training Plan task assignment,

Career Development Course tracking, and personnel status change documentation via DAF Form 2096, *Classification/On-The-Job-Training Action*.

2.9.1.3. Manage and publish centralized currency mission schedule. Coordinate with operational crew CCs to ensure currency shift minimums are recorded for operational and support personnel.

2.9.1.4. Update personnel Assignment Availability Code per Department of the Air Force Instruction (DAFI) 36-2110, *Total Force Assignments* for spacecrew operators upon initial operator CMR qualification.

2.9.1.5. Document the qualification using applicable Memorandum for Record (MFR) in PEX upon successful completion of the CT course.

2.9.1.5.1. Maintain records of CMR qualification within the individual's training folder.

2.9.1.5.2. Document CMR status with signature from the member's certifying official on MFR in PEX.

2.9.1.6. Coordinate proficiency shift scheduling requirements with Combat Squadron (CSq) leadership and external agencies (e.g., MD 6 through 66 CYS Cyberspace Warfare Operations Center (CWOC)) as required.

2.10. Crew Chief and Supervisors. Crew Chief and Supervisors will:

2.10.1. Conduct lookbacks on all spacecrew members upon completion of QT, utilizing currency tables/requirements and direct required training.

2.10.2. Ensure mission objectives are mission planned, debriefed, trained, and evaluated to determine successful accomplishments.

2.10.3. Identify individuals at risk of not meeting RSP requirements and report to SQ leadership.

2.11. Individual Spacecrew. Individual Spacecrew members will:

2.11.1. Review/sign off Crew Information Files (CIF) prior to operating the WS.

2.11.2. Document completion of all mission-related training in PEX.

2.11.3. Complete training requirements and maintain currencies within the guidelines of the current RTM. Individuals will only be marked current on a task by an authorized individual as defined in DAFGM 2025-13-01V1.

2.12. Embedded Cyber Intelligence Squadron/Detachment Commander. The embedded Cyber Intelligence SQ/Det CC, also known as the Senior Intelligence Officer (SIO), is responsible for the execution of the Intelligence function within the DEL and its subordinate units. The SIO will:

2.12.1. Advise DEL/CCs on intelligence integration to include but not limited to cyber and space intelligence spacecrew training.

2.12.2. Ensure all Cyber Intel Analysts complete the Cyber Intel Analyst Course (CIAC) at the 66 CYS/FTF or a sister service course which meets all requirements for a Cyber Mission Force All Source Analyst IAW USCYBERCOM and the DoD Cyber Workforce Framework.

2.12.3. Ensure intelligence support to spacecrew members comply with all requirements of the RSP.

2.12.4. Oversee the development of evaluation procedures and guidelines to ensure compliance with intelligence evaluation and training requirements.

2.12.5. Oversee intelligence oversight and other intelligence programs to ensure operational requirements and mission training objectives are met.

2.12.6. Coordinate and integrate intelligence support with MD 6 S2 to ensure all planned missions are threat informed and required dedicated support is scheduled.

Chapter 3

READY SPACECREW PROGRAM (RSP)

3.1. General. The RSP is the overarching spacecrew training program comprised of QT, RT, CT, UT, RqT, and DT. The objective of the training programs is to prepare spacecrews for operations throughout the continuum of conflict from a benign environment to contested operations. Units should structure training plans to achieve optimum training experience before the presentation of forces to the CCDR.

3.2. Ready Spacecrew Program (RSP) Policy and Management. The RSP allows for the implementation of operational training, CT, Standardization and Evaluation (Stan/Eval), operational procedures, and tactics for Guardians and Airmen. The USSF uses the RSP to ensure the generation and presentation of forces to CCDRs, utilizing both Employed-in-Place (EiP) and deployable forces in three cyclic phases IAW the Space Force Generation (SPAFORGEN) model: (1) Prepare, (2) Ready, (3) Commit. RSP requires accomplishment of training or real-world mission and events where a set of tasks are accomplished by the spacecrew member.

3.2.1. All spacecrew members assigned to an operational unit as part of a Cyber Force Element, Mission Planning Cell (MPC), or Mission Support Cell (MSC), that is either presented to a CCMD as part of a CSq or as an Institutional Force will be CMR. **(T-2)**

3.2.2. All spacecrew members of operational forces will maintain CMR in all core missions IAW CT MTL, RTM, and currency tables. **(T-2)**

3.2.3. Training curriculum for MPC and MSC positions will be developed and maintained in the DCO-S MPC & MSC MTL. **(T-2)** MPC and MSC members will receive on-the-job training based on the MPC & MSC MTL, and will maintain CMR certification from their CC. **(T-2)**

3.2.4. Upon completion of RSP training, the individual spacecrew members will ensure their task qualifications are documented in PEX. **(T-2)**

Chapter 4

DEFENSIVE CYBERSPACE OPERATIONS FOR SPACE (DCO-S) TRAINING PROGRAM MANAGEMENT

4.1. General. This chapter establishes the minimum spacecrew member training requirements to maintain CMR status. The SQ/CC will ensure each spacecrew member receives sufficient training to maintain individual currency. **(T-2)**

4.2. Training Concepts. This volume provides training concepts to be used in conjunction with the guidance and requirements specified in the applicable referenced publications (**Attachment 1**). Training programs will be designed to achieve the highest degree of combat readiness consistent with safety and resource availability. **(T-2)**

4.2.1. Training will balance the need for realism against current and emerging threats, spacecrew capabilities, and operational safety. **(T-2)**

4.2.2. Units will complete training requirements during all SPAFORGEN phases, including the Commit phase IAW Staff Bulletin (SB) 24-002, *Training During Commit Phase*. **(T-2)**

4.2.3. The following personnel must be under the direct supervision of an instructor when performing spacecrew duties on a DCO-S WS: **(T-2)**

4.2.3.1. Non-Combat Mission Ready (N-CMR) spacecrew members.

4.2.3.2. Spacecrew members performing tasks in which they are not current or qualified.

4.2.3.3. Spacecrew members performing UT, RqT, or Difference Training (DT).

4.3. Training via Operational or Simulator Systems. DCO-S Spacecrew members will train on a recurring basis to enhance proficiency, develop skills, refine Tactics, Techniques, and Procedures (TTP), and to meet currency requirements. **(T-2)** Training during operational missions will be performed IAW local procedures. **(T-2)**

4.3.1. Training will prioritize the use of OTTI Ranges to effectively prepare trainees for real-world events. **(T-2)** To the maximum extent possible, training should consist primarily of hands-on, performance-based lessons utilizing OTTI Ranges. Offline systems (i.e., closed loop) will be used when OTTI Ranges are not appropriate or available. **(T-2)**

4.3.2. Units will actively coordinate with the OTTI Ranges and National Space Test and Training Complex (NSTCC) to achieve CT and exercise objectives. **(T-2)** The USSF has designated the 33rd Range Squadron, under DEL 11, as the primary authority for managing all test and training cyber ranges and cyber aggressor operations under its purview.

4.3.3. OTTI Range use requirements for DCO-S operations will be outlined in the annual DCO-S RTM. **(T-2)**

4.3.4. Trainees must have environments to safely allow for mistakes to facilitate enhanced learning. **(T-2)** Units will make every effort to maximize use of offline training or ranges to minimize the impact of training upon the real-world operational environment. **(T-2)**

4.3.5. Units will utilize the BMQ and CT MTLs to develop their APOI. **(T-2)**

4.3.6. Units will train spacecrews on assigned tasks and its associated venues (live, virtual or both), as depicted in MTLs. **(T-2)**

4.4. Combat Mission Ready (CMR) Requirements. CMR certification indicates that a spacecrew member has successfully completed all CMR requirements IAW this manual, including subsequent CFC guidance related to it, and maintains qualifications for all core mission activities (i.e., Continuous Monitoring, Threat Hunt, Enable Hardening, Assess, Clear), as defined in CFCMAN 13-602DCO-SV3.

4.4.1. CMR applies to crew positions of operational forces which consists of CSqs and Combat Detachment (CDets) as well as other units performing DCW as institutional or service retained forces.

4.4.2. Spacecrew members will maintain their CMR status IAW currency requirements in the BMQ MTL, CT MTL, and RTM. **(T-2)** Failure to maintain CMR currency will result in a change of status to N-CMR, unless waived by the certifying official. **(T-2)**

4.4.3. A spacecrew member must fulfill the requirements outlined in their “get-well plan” or plan of action related to their N-CMR status IAW commander-prescribed timelines to regain CMR status before entering the Commit phase. **(T-2)**

4.4.4. Reference CFCMAN 13-602DCO-S Volume 2, *Defensive Cyberspace Operations for Space (DCO-S) – Standardization and Evaluation Criteria*, for evaluation requirements to meet and maintain CMR status.

4.5. Training Missions and Tables. Standardized training events, identifiers, and descriptions are located in the annually published RTM, based on the CT MTL, as specified herein in **Chapter 9**. Units will include unit-specific task descriptions and requirements in their local training documentation. **(T-2)**

4.5.1. Annually released RTMs will be used in conjunction with ATPs to address immediate training changes and prevent any training shortfalls. **(T-2)**

4.5.2. Spacecrew members can receive credit for RSP requirements through training events, accomplishment of tasks while on mission, evaluations, or certifications that receive a satisfactory (i.e., Q or Q-) rating. Use date of successful evaluation as the date of accomplishment for all mission-related training events that were trained during a formal course. A successful evaluation establishes a new, current, and qualified reference date for all accomplished events. In all cases, numbers of events successfully accomplished during the evaluation are credited toward the crew position.

4.5.3. Instructors and evaluators may credit up to 100 percent of their total CT requirements while instructing or evaluating.

4.6. Responsibilities and Requirements. Completion and tracking of RT is ultimately the responsibility of the individual spacecrew member.

4.6.1. Spacecrew members are responsible for actively working with their supervisor, Crew Chief, line instructors, unit schedulers, and training offices to ensure accomplishment of their RT requirements.

4.6.2. Crewmembers will comply with requirements of the RTM for their respective position. **(T-2)** The RTM establishes minimums to ensure that training continually meets tasked requirements and will not be reduced except by waiver. **(T-2)**

4.6.3. The following methods are approved for currency task exposure: Academic (ACAD), Tabletop Exercise (TTX), Live Training (LIVE), Virtual Training Environment (VIRT). These methods will be included in the DCO-S CT MTL. **(T-2)**

4.7. Line Instructor Currency. To maintain instructor certification, instructors must meet the following requirements: **(T-2)**

4.7.1. Maintain CMR status in their WS per the RTM and DAFGM 2025-13-01V1. Contract instructors will maintain instructor certification IAW with Performance Work Statement requirements. **(T-2)**

4.7.2. Perform instruction at least twice per SPAFORGEN cycle or as required at the discretion of the SQ/CC. Instruction may include, but is not limited to, the following: administering CT or individual training sessions or tasks, performing in a White Cell capacity for exercise events (e.g., SPACE FLAG), and administering Combat Training Missions (CTMs) or Crew Readiness Verifications (CRV) in an instructor capacity. Senior Line Instructor will be responsible for managing and tracking this process utilizing applicable forms (e.g., *Record of Training* in PEX, CTM Out brief memos, approved training forms). **(T-2)**

4.7.3. Completion of an Instructor Evaluation within 12 months of the instructor's last Instructor Evaluation, IAW AFI 13-602, Volume 2, *Spacecrew Standardization and Evaluation Program*. Instructor Evaluations following completion of the Instructor Qualification Course (IQC) will include the Proficiency Validation (ProVal) component as part of the overall evaluation. **(T-2)**

4.7.4. Instructors who complete a positional upgrade (e.g., Cyberspace Defense Operator (CDO) to Incident Responder (IR)) may need to accomplish an Instructor Evaluation in their new crew position to hold instructor qualification in that position, at the discretion of the SQ/CC.

4.8. Loss of Line Instructor Status. Instructors serve at the discretion of the SQ/CC, and the decision to place instructors into non-current status will be documented via MFR. **(T-2)** Instructors will lose instructor status for the following: **(T-2)**

4.8.1. Failure to meet currency requirements.

4.8.2. Instructor demonstrates lack of ability. Instructor exhibits substandard performance by demonstrating ineffective performance or behavior, providing incorrect procedures, techniques, or guidance.

4.8.3. Receiving an overall Q3 rating on an evaluation.

4.9. Line Instructor Requalification. SQ/CCs, in coordination with the Senior Line Instructor, will determine instructor requalification requirements for spacecrew members that have previously accomplished an instructor course on a case-by-case basis. **(T-2)** At a minimum, this will require: **(T-2)**

4.9.1. SQ/CC approval through the Training Review Board process.

4.9.2. Complete applicable DEL/CC specific training objectives contained within the IQC.

4.9.3. Crewmembers may regain instructor status by correcting applicable deficiencies and completing the training as specified by the SQ/CC.

4.10. Regression. Regression is failure of a spacecrew member to maintain currency requirements. RSP training missions, events, and combat operations will be used for currency. **(T-2)** If a spacecrew member does not maintain currency requirements throughout the training cycle, the SQ/CC may regress the member to N-CMR, remove the member from a CMR manning position, and declare the member Unqualified.

4.10.1. RSP training missions and operations may be used for lookback. Crew lookback requirements and procedures will be IAW this manual. **(T-2)**

4.10.2. Lookback computations begin following completion of QT. Operational SQ/CCs may apply probation and proration rules.

4.10.3. If a qualified spacecrew member demonstrates lack of knowledge, the SQ/CC may elect to regress the individual to N-CMR. These crewmembers will remain N-CMR until successful completion of corrective action as prescribed by the SQ/CC. **(T-2)**

4.10.4. If a crew member fails a ProVal, they are deemed Unqualified and will regress to N-CMR. **(T-2)**

4.10.5. Crewmembers will remain N-CMR until they successfully complete required corrective actions, and/or pass a re-evaluation and are re-qualified to CMR status by the SQ/CC. **(T-2)**

4.11. Proration of Training.

4.11.1. Proration of End-of-Cycle Requirements. The SQ/CC may prorate any training requirements where a spacecrew member is temporarily unavailable for spacecrew duties (e.g., relocations, emergency leave, non-mission TDYs). Ordinary annual leave will not be considered as non-availability. **(T-2)**

4.11.2. Only use proration to adjust for genuine circumstances of training non-availability or other extenuating circumstances (as determined by the SQ/CC) that prevent spacecrew members from mission duties for more than 15 consecutive days. The following guidelines apply:

4.11.2.1. Proration will not be used to mask training or planning deficiencies. **(T-2)**

4.11.2.2. Proration is based on cumulative days of non-availability for mission duties in the training cycle. Use **Table 4.1** to determine the number of months to be prorated based on each period of cumulative non-mission duty calendar days.

4.11.2.3. If QT is re-accomplished, a spacecrew member's training cycle will start over at a prorated share following completion of QT. **(T-2)**

4.11.2.4. Proration does not preclude the SQ/CC from assigning additional training prior to the spacecrew member resuming operational duties. Any additional training should be commensurate with the length of the spacecrew member's absence.

4.11.2.5. Proration of currency requirements does not apply if the spacecrew member is available for 15 days or more of the calendar month. For personnel not available for spacecrew operations duties for 16 days or more, the SQ/CC will determine if any proration requirements are needed. **(T-2)** Currency requirements may be prorated in direct proportion to the number of days of non-availability.

Table 4.1. Proration Allowance.

Cumulative Days of non-Mission Activity	Proration Allowed (Months)
0-15	0
16-45	1
46-75	2
76-105	3
106-135	4
136-165	5
166-195	6
196-225	7
226-255	8
256-285	9
286-315	10
316-345	11
>345	12

4.12. Requalification Training (RqT). RqT may be administered to qualify individuals previously CMR in the WS at the discretion of the SQ/CC.

4.12.1. Spacecrew member RqT is tailored from the BMQ MTL, CT MTL, and RTM to meet the training needs of the individual(s).

4.12.2. When prescribing requalification for spacecrew members that have held recent DCO-S qualifications (i.e., less than 23 months of lapse of qualification), consider experience level, the member's ability to succeed in an operational environment, and duration of QT. Members are encouraged to re-complete QT if possible.

4.12.3. Spacecrew members not maintaining DCO-S CMR for more than 24 months will re-complete the full DCO-S QT course. **(T-2)**

4.13. Unqualified. Spacecrew members previously BMQ who are no longer qualified in a crew position are Unqualified. Senior Line Instructors will engage with the SQ/CC and the 66 CYS/FTF for Unqualified spacecrew members to regain qualification. **(T-2)** Spacecrew members may be Unqualified for reasons including, but not limited to:

4.13.1. Spacecrew members no longer meet standards required for the position as determined by the SQ/CC or based on substandard performance during an evaluation (e.g., member earned a Q3).

4.13.2. Spacecrew members are no longer required for the position.

4.13.3. Non-current in a crew position for 24 consecutive months.

4.14. Commander-Directed Non-Combat Mission Ready (N-CMR). SQ/CCs may direct that a spacecrew member be placed into N-CMR status even if the individual meets currency requirements when the SQ/CC determines that the member is not able to perform unsupervised operations and Unqualified status is not appropriate.

4.14.1. At the discretion of the on-duty Crew Chief, a spacecrew member on shift who is deemed unfit to conduct operations may be relieved of operational responsibilities for the

duration of the shift. The Crew Chief must notify the SQ/CC as soon as practical, but no later than the end of the current shift. **(T-2)**

4.14.2. The member's SQ/CC determines corrective actions and returns the spacecrew member to duty after corrective actions have been taken. Alternatively, the spacecrew member may remain in N-CMR status if corrective action is prolonged.

4.15. Difference Training (DT). DT is administered for new or changed procedures, hardware, or software updates when RT is not required. The SQ/CC may direct DT to be developed by their unit instructors and provide guidance on the purpose and scope of the training. Operational unit CCs directing DT will ensure their Senior Line Instructor coordinates with the 66 CYS/FTF to maintain standardization and application of developed DT packages. **(T-2)**

4.15.1. DT is tailored based on the operational impact(s) of the new or changed hardware, software, and/or procedure(s) when compared to the previous iteration of hardware, software, and/or procedures.

4.15.2. Changes directly affecting mission accomplishment or safety will be administered through DT to all personnel before they perform crew duty (e.g., new task, upgraded proficiency level). **(T-2)**

Chapter 5

QUALIFICATION TRAINING (QT)

5.1. General. This chapter specifies minimum training requirements to become BMQ.

5.1.1. DCO-S QT is WS, position-specific training that provides the necessary knowledge and task proficiency for BMQ. It serves as initial WS training, preparing trainees for safe and effective operation of the DCO-S WS.

5.1.2. DCO-S QT consists of formal training, knowledge-based assessments, and performance-based assessments.

5.1.3. Assessed current threats are part of the QT curricula and a current and qualified instructor must be present for QT. **(T-2)**

5.1.4. Spacecrew members are considered BMQ after:

5.1.4.1. Completion of all DCO-S QT academics.

5.1.4.2. Pass final knowledge assessment and proficiency assessment.

5.1.4.3. Successful completion of Initial Qualification (QUAL) evaluation by a unit line evaluator, as prescribed in CFCMAN 13-602DCO-SV2.

5.2. Qualification Training (QT) Administration. Trainees will complete QT prior to accomplishing CT at their operational unit. **(T-2)**

5.2.1. DCO-S QT will be developed, administered, and conducted by the 66 CYS/FTF. **(T-2)**

5.2.2. QT testing will consist of knowledge-based and performance-based assessments to gauge the trainees' progress throughout the course. **(T-2)** A review of all tests will be conducted following any changes in source documents and/or as needed. **(T-2)**

5.2.2.1. A current and qualified instructor must administer knowledge-based and performance-based tests. **(T-2)**

5.2.2.2. A minimum passing score of 80% is required for all knowledge-based tests. **(T-2)**

5.2.3. QT and UT instructors will develop and utilize an Initial Plan of Instruction (IPOI) for all trainees outlining tasks needed for basic spacecrew duties within the training day timeline. **(T-2)**

5.2.3.1. The 66 CYS/FTF will develop all training materials based on the BMQ MTL, approved by the TPT Chair, utilizing the instructional systems design model. **(T-2)**

5.2.3.2. The proficiency level of training will be based on the requested needs of the operational units, coordinated through the TPT, and will not exceed the proficiency of CT or RT. **(T-2)**

5.2.4. The QT curriculum consists of a combination of ACAD instruction and operational system training. QT is broken into an ACAD portion focused on creating foundational knowledge and a performance portion where the knowledge is applied to processes, procedures, and overall DCO-S Operations.

5.2.4.1. Use of the OTTI Ranges is crucial to achieving effective practical instruction for DCO-S operators.

5.2.4.2. Failure to successfully meet proficiency code requirements for critical tasks will result in automatic failure for that test due to anticipated impact to mission or safety. **(T-2)**

5.2.4.3. The instructor-to-trainee ratio must be no greater than 16 trainees per one instructor for ACAD Instruction. **(T-2)**

5.2.4.4. The instructor-to-trainee ratio must be no greater than 10 trainees per one instructor for performance instruction, labs, and performance tests that assign a performance level Proficiency Knowledge Code on the DCO-S BMQ MTL. **(T-2)**

5.2.4.5. QT instructors assigned to the 66 CYS/FTF should spend 5 out of 8 duty hours on primary duties (e.g., trainee contact hours, developing new course curriculum) with the remaining 3 out of 8 duty hours spent on reconstitution (e.g., technical training, maintaining instructor certification, additional duties).

5.2.4.6. At a minimum, 66 CYS/FTF instructors must complete Basic Instructor Skills Course (BISC), Fundamentals of Instructional System Design (FISD), and qualify IAW criteria in the 66 CYS/FTF Instructor Evaluation Guide. **(T-2)**

5.2.4.7. Trainees will be given two attempts to pass the final QT assessments. **(T-2)**

5.2.4.8. No written or performance assessments will be executed on the same test version a second time. **(T-2)**

5.2.5. The TPT, with input from the 66 CYS/FTF and operational units, will create training objectives, and define knowledge levels from the BMQ MTL for each crew position. **(T-2)** The 66 CYS/FTF will develop QT material that matches these operational requirements. **(T-2)** This process relies on constant feedback from the operational SQs to ensure that trainees are instructed to the correct standard.

5.2.6. HQ CFC/CD is the waiver approval authority for in-unit training to include syllabus and prerequisite waivers. Before submitting a waiver, review the appropriate syllabus and consider availability of formal instruction and requirements.

5.3. Qualification Training (QT) Prerequisites. Crewmembers must meet the QT prerequisites to be eligible for CMR status. **(T-2)** QT prerequisites includes the successful completion of Undergraduate Cyberspace Training (UCT), Officer Training Course (OTC), Cyber Combat Course (C3), Cyberspace Warfare Operations (CWO), or equivalent Initial Skills Training (IST), any follow-on courses or required certifications (e.g., qualification requirements within Department of Defense Manual (DoDM) 8140.03, *Cyberspace Workforce Qualification and Management Program*), and award of the applicable Space Force Specialty Code (or allied equivalent). Units are encouraged to further tailor their program for individual spacecrew members based on current qualifications (e.g., USAF Weapons School (USAFWS) graduate, instructor), certifications, experience, currency, documented performance, and formal training.

Chapter 6

RECURRING TRAINING (RT)

6.1. General. This chapter outlines RT requirements for spacecrew members to maintain CMR status, currency, and proficiency on the DCO-S WS. Spacecrew must be qualified IAW this manual, AFI 13-602V2, applicable CFCMAN 13-602DCO-SV2, and applicable FLDCOM and local instructions. **(T-2)** Spacecrew members must complete QT, CT, and RT to operate in CMR status. **(T-2)**

6.1.1. The RT program provides spacecrew members with the volume, frequency, and mix of training necessary to maintain proficiency and currency in their assigned position and experience level.

6.1.2. RT consists of both specific mission-related training that focuses on skills needed to accomplish core-tasked wartime missions as well as spacecrew training in basic skills that ensure safe and effective operation of the equipment.

6.1.3. The following will be considered in RT: **(T-2)**

6.1.3.1. Appropriate supervision levels for OTTI Ranges missions. SQs will track all spacecrew virtual-environment training used to satisfy RSP requirements. **(T-2)**

6.1.3.2. **Chapter 10** depicts minimum training requirements based on experience levels. SQ/CCs will determine additional RT virtual-environment requirements based on expected employment tasking, range utilization requirements, and mission training objectives. **(T-2)** SQ/CCs will outline these requirements in the RTM. **(T-2)**

6.2. Responsibilities. Spacecrew members are responsible for understanding RT requirements and maintaining currency.

6.2.1. All CMR spacecrew members will complete RT IAW currency requirements identified in BMQ MTLs, CT MTLs, and the RTM. **(T-2)**

6.2.2. Senior Line Instructor will provide minimum task coverage requirements to DEL Chief of Training according to RTRB timelines. **(T-2)** Members may complete RT tasks via real-world experience or training events.

6.3. Execution. Complete RT tasks via real-world operations, training, exercise, and evaluation events.

6.3.1. Spacecrews will reference CT MTL criteria (Proficiency Code, Timing, Performance Standard, and Venue) to ensure proper task completion before logging a task in the Training Activity Report within PEX for currency purposes. **(T-2)**

6.3.2. Current and qualified spacecrew members do not require instructor supervision to count a task toward currency. However, validation is required from a Crew Chief, supervisor, or line instructor to count a task towards currency. **(T-2)** A certified instructor may validate tasks trained in RT or performed under evaluation.

6.3.3. Non-current spacecrew members require instructor or evaluator supervision to count a task toward currency. **(T-2)**

6.3.4. SQs will coordinate crew training materials through the 66 CYS/FTF, DEL Chief of Stan/Eval, DEL Weapons and Tactics, DEL Chief of Training, and the other operational SQs via the TPT. **(T-2)**

6.4. Failure to Complete RT Requirements.

6.4.1. SQ/CCs will declare individuals as unavailable in DRRS-S within 24 hours of the lapse if they fail to complete RT requirements for CMR. **(T-2)**

6.4.2. Individuals who fail to accomplish minimum RT requirements and subsequently become Unqualified will not conduct spacecrew operations unsupervised until CMR status is regained. **(T-2)**

6.5. Failure to Maintain Proficiency Standards. If a qualified spacecrew member demonstrates a lack of knowledge, the SQ/CC may elect to regress the individual to Unqualified and/or N-CMR status. These spacecrew members will remain Unqualified and/or N-CMR until successfully completing corrective actions as determined by the SQ/CC. **(T-2)** Decisions to retain or regress a spacecrew member's training status must be documented following failure of the individual to meet required standards in PEX. **(T-2)**

Chapter 7

COMBAT TRAINING (CT)

7.1. General. The purpose of CT is to qualify spacecrew members in an assigned spacecrew position for combat missions. Spacecrew members should be qualified as CMR after successful completion of all CT tasks. CT is defined as the overarching collection of requirements, standards, activities, and events designed to provide Force Elements (combat crews, intel support, cyber defense, mission planning, and mission support) with the knowledge, skills, and experience needed to:

- 7.1.1. Execute WS procedures and tactics above and beyond those needed for day-to-day safe and effective operations.
- 7.1.2. Rapidly identify and diagnose system issues and adversary activities in a contested, degraded, and operationally-limited environment that threaten mission accomplishment.
- 7.1.3. Develop, refine, and employ tactics to overcome adversary threat systems and actions.
- 7.1.4. Integrate tactical actions, capabilities, and effects with multiple units within operational-level employment schemes when feasible.

7.2. Responsibilities. CT is a SQ/CC-led program. Spacecrew members will complete squadron-derived and led CT requirements to maintain CMR status. **(T-2)**

- 7.2.1. SQ/CC's will draft a minimum set of combat requirements specific to their respective defended mission system(s) informed by threat assessments, CCMD UPMs, exercises, and/or wargames. **(T-2)**
- 7.2.2. Mission Plan, Brief, Execute, and Debrief (PBED) are critical to successful CT.
- 7.2.3. Units will use Prepare and Ready phases to accomplish CT requirements for assigned and attached spacecrew members if not accomplished during the Commit phase. **(T-2)**
- 7.2.4. Units that are not presenting forces to a CCMD will specify a dedicated timeframe for their CT cycle. See unit ATP for details. **(T-2)**
- 7.2.5. The main goal of the Prepare and Ready phases is to increase readiness and operator knowledge through focused CT as well as RT, to ensure the crew force is fully proficient, current, and ready for combat operations prior to entering the next Commit phase.
- 7.2.6. CT tasks will be based on the CFC and DEL TPLs and outlined in the CT MTL. **(T-2)** SQ/CC's will utilize the CT MTL to develop their APOI, ATP, and RTM. **(T-2)**
- 7.2.7. CT will include an ACAD lesson and/or a performance scenario IAW the proficiency code for the CT task outlined in the DCO-S CT MTL. **(T-2)**
- 7.2.8. SQ/CC's will coordinate CT material with MD 6 Operations, Training, and Force Development (MD 6 S3/7) and DEL Chief of Training prior to implementation. **(T-2)**
- 7.2.9. FLDCOMs will ensure subordinate units comply with CT. **(T-2)** Inspections conducted to meet CT intent and objectives will note best practices, record deficiencies, and provide recommended Courses of Action (COAs) to enhance SQ CT programs. **(T-2)**

7.3. Prerequisites. The ATP details both threat-based training and system-based training, and therefore will be based on the BMQ and CT MTLs. **(T-2)** Annual training requirements, developed by the operational SQ/CC, will address, at a minimum: **(T-2)**

7.3.1. WS Technical Knowledge. In-depth, technical knowledge and skills on individual WSs and their associated support infrastructure (e.g., system architecture, capabilities, limitations, vulnerabilities).

7.3.2. Negate and fight through threats. Introductory knowledge of contested, degraded, and operationally-limited challenges threatening mission success. Training will cover adversary threats, systems, doctrine, and TTPs, in addition to environmental impacts and system degradation in space systems. **(T-2)**

7.4. Objectives. The ATP sections will detail how spacecrew members receive the necessary training to develop skills to satisfy the following CT objectives: **(T-2)**

7.4.1. WS Employment TTP. Develop in-depth knowledge and skills to employ WS capabilities under a wide range of operating environments and threat conditions. Training supports the identification and initial development of TTP.

7.4.2. Defensive TTP. Overcome adversary attempts to undermine mission success (e.g., defensive capabilities). Training supports identification of adversary actions against space systems and initial development of defensive TTP.

7.4.3. System and Operational Integration. Effectively and rapidly integrate operations with external organizations (e.g., Combined Space Operations Center (CSpOC), Air Operations Centers, Space Operations Squadrons, National Space Defense Center (NSDC)). Understand impacts of contested, degraded, and operationally-limited events to supported missions (e.g., command and control relationships, Operation Orders, crisis action planning, published Operations Plans, theater CC guidance and intent, space operator requirements, Operations Center integration).

7.4.4. Make Appropriate Risk Decisions. Effectively determine sources of risk and make sound decisions to take appropriate operational and system risks based on a wide range of scenarios, mission constraints, mission restraints, and authorities.

7.4.5. Threat hunting and critical vulnerability identification and remediation.

7.5. Combat Training (CT) Requirements. Spacecrew members will receive CT that supports deeper WS knowledge and enduring competencies. **(T-2)** At a minimum, CT will ensure the spacecrew members are exposed to the following: **(T-2)**

7.5.1. WS Technical Knowledge. Spacecrew members will be CMR certified and have in-depth, technical knowledge of their WS's infrastructure to enable crew members to accomplish operations. **(T-2)**

7.5.1.1. Training will include review of Lessons Learned (and Lessons Observed) which have been finalized since the previous CT session along with implementing the Lessons Learned in virtual training environments (i.e., OTTI Ranges). **(T-2)**

7.5.1.2. Each CT session will include a classroom instruction portion which focuses on a specific part of the DCO-S WS and defended terrain. **(T-2)**

7.5.2. CT Enduring Competencies. Spacecrew members will receive CT as outlined in the DCO-S CT MTL and based on threats listed in the TPL and RTM. **(T-2)** Each threat may be placed in categories to implement training and may adjust based on SQ/CC direction. CT categories are listed and described below:

7.5.2.1. Phase 1: Unit Training. The purpose of this block is to develop in-depth technical and operational knowledge and skills to the sub-system level to perform advanced operations on the DCO-S WS, defended terrain, and associated support infrastructure. This block covers foreign space and cyberspace capabilities, Advanced Persistent Threats, and TTPs. The purpose of this block is to develop a comprehensive knowledge of contested, degraded, and operationally-limited environment(s), current intelligence on threats or high interest areas, upcoming focus areas, current CSTO/Mission Type Order/Special Instructions (or other tasking orders), TTPs, and adversary threats, tactics, and doctrine. Actionable cyber-related intelligence (beyond all-source analysis) is required for development of this block. **(T-2)** This block also includes enhancement of essential mission planning and debriefing skills given a specific scenario.

7.5.2.2. Phase 2: Intra-Delta Training. The purpose of this block is to develop a greater understanding of how the WS integrates into a larger warfighting architecture. This block focuses on in-depth knowledge and skills necessary to understand the integration of space operations and to achieve current and emerging tactical and operational space and cyberspace objectives in a contested, degraded, and operationally-limited environment. This includes threats to coalition on-orbit assets and threats to ground based WSs. In addition, this block should be used to develop and practice the skills necessary to accomplish the mission given the current operating environment.

7.5.2.3. Phase 3: Integrated Warfighting Training. The purpose of this block is to develop the skills to effectively and rapidly integrate WS operations with defended and external organizations using established Joint and/or Combined processes. This block aims to enhance the skills necessary to understand the defended Mission Relevant Terrain – Cyber (MRT-C) and improve detection and response to any indicators of compromise, malicious cyber actions, cyber emergency, and environmental situations which may prevent the ability to operate in a contested, degraded, and operationally-limited cyber environment.

7.6. Combat Training Mission (CTM) Execution. CTMs are training scenarios comprised of Combat Training Learning Objectives (CTLO) that seek to improve the spacecrew member's ability to operate under taxing contested, degraded, and operationally-limited conditions and are the primary means of achieving CT. Units should limit CTMs in scope and focus on the specific threat(s). CTMs should include mission PBED and be conducted during the Prepare and Ready phase of the SPAFORGEN cycle. Unlike evaluations, the CTMs test the crews' ability (rather than individual task performance) to operate beyond their limits, sometimes to failure.

7.6.1. CTMs require the spacecrew to execute the wartime mission based on threats in a contested, degraded, and operationally-limited environment and fulfill the mission and CT priorities specified in the RTM. **(T-2)**

7.6.1.1. CTMs may leverage existing training or exercises on the current USSF Service Exercise Plan to meet CT objectives and METs.

7.6.1.1.1. CSqs and Dets will coordinate amongst each other to design and develop CTMs that focus on specific threats across multiple tactical units as applicable. **(T-2)**

7.6.1.1.2. The Line Instructors, weapons & tactics, and intelligence personnel will develop training missions. **(T-2)** Line Instructors may provide supplemental support.

7.6.1.2. CTMs will be debriefed by the spacecrew in training and out briefed later by the instructor(s). **(T-2)**

7.6.1.3. CT will primarily be conducted in the Prepare and Ready phase of the SPAFORGEN cycle. **(T-2)**

7.6.1.4. CTM Lessons Learned will be maintained electronically in the Joint Lessons Learned Information System (JLLIS). **(T-2)**

7.6.2. Do not grade CTMs. **(T-2)** Instructor judgment determines the requirement for additional training. There is an expectation of spacecrew mission failure in a stressful, offline training environment, which is not a reason for recommending corrective action. Instructors may recommend re-accomplishing the CTM scenario or other training event to strengthen lessons learned and improve spacecrew skills. CTMs may be used for unit-level competition scenarios. Instructors balance spacecrews' performance against the intentionally complex nature of the CTM when recommending additional training.

7.6.3. DEL Weapons & Tactics functions, along with SQ tacticians, will ensure that CTMs are standardized across the CW operational units as much as practical in both events and mission objectives. **(T-2)**

7.7. Exposure. Line Instructors will expose spacecrews to different missions and scenarios during each Ready phase of the SPAFORGEN model to ensure proper breadth, depth, mix, and focus of CT events to satisfy objectives and meet RTM requirements. **(T-2)**

7.7.1. Some CT tasks may be phased out entirely while others become part of QT or RT for Guardians.

7.7.2. Units that are not force-presented through SPAFORGEN will adopt and adapt CT methods to meet mission needs. **(T-2)**

7.8. Reference Material. DELs and operational units will develop and maintain a list of minimum acceptable actions, events, and methods spacecrews need to reference to ensure CT objectives are met before counting an event for CT purposes. **(T-2)**

7.9. Enablers. CT programs utilize a variety of tools and expertise to achieve objectives. These include, but are not limited to, MD 6 S3/7, intelligence support, STARCOM resources including aggressors, ranges, USAF Weapons School, Tier 1 through 4 exercises, table-top exercises, DEL exercises, simulators and emulators, etc.

7.10. Failure to Receive Combat Training (CT). Individuals who fail to complete CT requirements prior to entering the Commit phase are considered N-CMR.

7.10.1. In readiness reporting, individuals who fail to remain current in CT requirements will be declared N-CMR. **(T-2)**

7.10.2. Individuals who fail to accomplish minimum CMR requirements (and subsequently become non-current) will only operate under the supervision of a qualified and current

instructor/evaluator. **(T-2)** Non-current spacecrew members will not perform unsupervised spacecrew duties until currency is reestablished. **(T-2)**

7.10.3. Newly graduated QT trainees are required to complete CT before entering their first Commit phase. **(T-2)**

7.10.4. SQ/CCs will report spacecrew members who fail to complete CMR requirements as unavailable in the Training Measured Area in DRRS-S within 24 hours of the lapse in currency IAW Space Force Instruction (SPFI) 10-201, *Force Readiness Reporting*. **(T-2)**

7.11. End-of-Cycle Requirements. Spacecrew members who fail to complete CT requirements by the end of the Prepare and Ready phases may require additional training, depending on the type and magnitude of the deficiency. The SQ/CC will determine if these spacecrew members require additional training. **(T-2)**

7.11.1. If a qualified spacecrew member demonstrates a lack of CT knowledge, the SQ/CC may elect to regress the individual to N-CMR status. These spacecrew members will remain N-CMR until successfully completing corrective actions as determined by SQ/CC. **(T-2)** Decisions to retain or regress a spacecrew member's training status must be documented following failure of the individual to meet required standards in PEX. **(T-2)**

7.11.2. To regain CMR status, the spacecrew member will complete training on all deficient enduring competencies. **(T-2)** Units may count these CT blocks against the total requirement for the new CT cycle.

7.12. Initial Certification. Initial Certification of CMR crewmembers, to include certification brief to SQ/CC (at a minimum), will be completed within 90 days after completing QT. **(T-2)** Failure to comply will result in a N-CMR status until complete. **(T-2)** If Initial Certification is not achieved within 90 days, Line Instructors will develop a "get-well plan" or plan of action for the N-CMR crewmember and the SQ/CC will be notified. **(T-2)**

Chapter 8

UPGRADE TRAINING (UT)

8.1. General. UT is used to qualify spacecrew operators in new mission positions or qualifications. UT requirements are completed during formal training courses conducted by the 66 CYS/FTF. This chapter outlines duties and responsibilities for operational units to upgrade, certify, and maintain currency and proficiency for special capabilities, certifications, qualifications, and positions. **Table 8.1** lists the requirements for UT. In such cases where more than one line item has been listed under the Prerequisites or Completion Criteria, both line items must be fulfilled. (T-2)

Table 8.1. CMR Positions & Training Requirements.

Base Qualification	Criteria
Cyberspace Defense Operator (CDO)	Prerequisites
	UCT or OTC or C3 or CWO
	Completion
	CDO QT
Position Upgrade	Criteria
Incident Responder (IR)	Prerequisites
	CDO QT EXP
	Completion
	IR UT
Crew Chief	Prerequisites
	CDO QT EXP
	Completion
	1) Crew Chief UT
Instructor Upgrade	Criteria
Line Instructor	Prerequisites
	EXP or HEXP
	Completion
	1) BISC 2) FISD
Evaluator Upgrade	Criteria
Line Evaluator	Prerequisites
	HEXP and be an instructor for at least one SPAFORGEN Cycle
	Completion
	DEL Evaluator Certification Course (ECC)

8.2. Positional Upgrade. The SQ/CC approves individuals for positional upgrade with UT provided by the 66 CYS/FTF.

8.2.1. Prerequisites for positional upgrades are included in **Table 8.1** and **Figure 8.1**.

8.2.2. INEXP spacecrew personnel are not eligible for positional upgrade (i.e., INEXP CDO attempting to upgrade to IR) unless the individual is a Company Grade Officer or Senior Non-Commissioned Officer or waived by the DEL/CC. **(T-2)**

8.2.3. Prerequisites that do not interfere with operations, RT, or CT will be accomplished prior to obtaining SQ/CC positional upgrade approval. **(T-2)**

8.2.4. Tasks common to multiple positions are not required to be trained multiple times if the requirements are equivalent. **(T-2)**

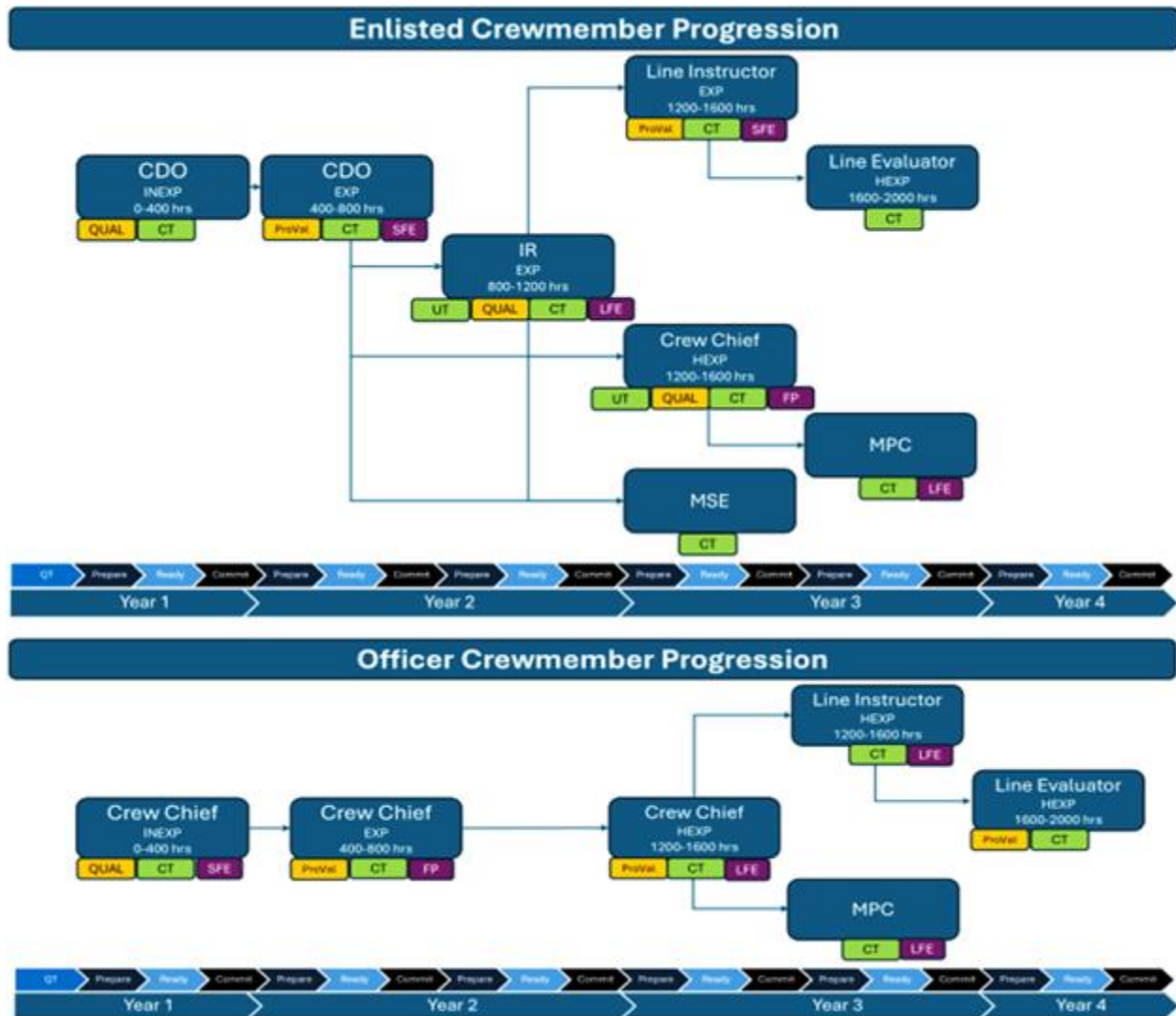
8.2.5. The decision to conduct positional upgrades within the operational units will be coordinated with the 66 CYS/FTF prior to the training start date, if applicable. **(T-2)** The operator's unit Senior Line Instructor will document completion and tracking. **(T-2)**

8.2.6. All positional upgrades will be documented within PEX as an UT course assigned to an individual. **(T-2)** Instructors will use 66 CYS/FTF unit-developed training products to document the trainee's performance and maintain course documentation accuracy. **(T-2)**

8.2.7. Senior Line Instructor will review all positional upgrade documentation on the upgraded member for final processing and approval after being signed by the operator's SQ/CC. **(T-2)**

8.3. Defensive Cyberspace Operations for Space (DCO-S) Crewmember Progression. Experience levels act as gateways towards career progressing positions as well as exercise and training opportunities. Not all crewmembers will progress at the same pace, but recommended crewmember progression is outlined in **Figure 8.1** to aid operators and leadership alike by providing a way to measure experience and define a career progression model.

Figure 8.1. DCO-S Crewmember Progression.



8.4. Instructor Upgrade. The SQ/CC will nominate individuals for instructor upgrade. (T-2)

8.4.1. Instructor candidates are selected from Experienced (EXP) or Highly Experienced (HEXP) spacecrew members who have demonstrated technical expertise, WS knowledge, operational excellence, and strong leadership. INEXP spacecrew members are not eligible for instructor upgrade. (T-2)

8.4.2. Instructors responsible for Senior Line Instructor will be designated in writing by the SQ/CC to which the spacecrew member is assigned prior to conducting instructor duties. (T-2)
At a minimum, instructor training will consist of: (T-2)

8.4.2.1. Completing both BISC and FISD courses before being appointed as an instructor. However, both courses must be completed within 60 days of selection for instructor upgrade. (T-2)

8.4.2.2. Reviewing applicable HHQ instructions pertaining to spacecrew instruction (e.g., DAFGM 2025-13-01V1).

8.4.2.3. Observing a current and qualified instructor teaching a trainee on an operational system or simulator and a classroom presentation at least once.

8.4.2.4. Providing instruction to a trainee on an operational system or simulator and a classroom presentation under the supervision of a qualified instructor at least once.

8.4.2.5. Pre- and post-training scenario activities which may include standardized verbiage, training location preparation (i.e., clearing binders, logs, computer systems), preparing and briefing scenario starting status, and providing trainees with instructor feedback post-scenario.

8.4.2.6. Training regarding tips and techniques, additional WS knowledge to the subsystem level, TTPs, and CT topics as applicable to the instructor candidate's mission area.

8.4.2.7. Configuring and operating the OTTI cyber ranges and other operational system ranges or simulators. Instruction on these systems will be provided by qualified instructors and example range configurations will be thoroughly observed by the instructor candidate. **(T-2)**

8.4.2.8. Completing training on the PEX system to track training documentation. Documentation requirements include:

8.4.2.8.1. Required instruction forms (i.e., *Record of Training* in PEX).

8.4.2.8.2. Record of RT, CT, and QT progress in PEX.

8.4.2.8.3. Instructor RT completion according to local directives.

8.4.2.9. Instructional System Design process and procedures.

8.4.2.10. Construction and administration of knowledge tests.

8.4.2.11. Construction and administration of training scenarios (individual tasks or multiple tasks).

8.4.2.12. Construction and administration of lesson plans.

8.4.2.13. Effective instruction techniques.

8.4.2.14. Receipt of an Instructor Observation is meant to assess the instructor candidate's ability to instruct. The observation will be conducted via Air Education and Training Command (AETC) Form 281, *Instructor Evaluation* (or other locally determined forms) and documented in PEX. **(T-2)** The Instructor Observation will include: **(T-2)**

8.4.2.14.1. Training session taught to a training audience (consisting of at least one individual). A training audience may consist of other certified crewmembers, currently certified instructors or evaluators, or the instructor observer.

8.4.2.14.2. To aid in training scenario and/or session preparation, the instructor being observed may receive, at the discretion of the assigned instructor observer, advanced notice of instructional tasks for which to perform classroom-based instruction.

8.4.2.14.3. Outbrief from a qualified instructor observer capturing the instructor candidate's performance in all phases of training.

8.4.3. Line Instructors will maintain CMR qualification for each position they instruct. **(T-2)**

8.4.4. The Senior Line Instructor or designated representative will recommend instructor certification, restriction, or decertification to the unit certifying official. **(T-2)** Changes in instructor status may be driven by N-CMR, decertification, failure to maintain professionalism, failure to pass an annual instructor observation, and/or any combination of the reasons previously mentioned.

8.4.5. Instruction Observation. Any CMR qualified evaluator will conduct an observation on each certified instructor at least once every 12 months to ensure the quality and accuracy of instruction is standardized and maintained. **(T-2)**

8.4.6. Instructor Restricted Status Requirements. An individual may be prohibited from performing instructor duties without being decertified within a WS. The Senior Line Instructor may place an instructor in instructor restricted status and document reason within PEX on the *Individual's Record of Duties and Qualifications* for the following reasons:

8.4.6.1. The instructor is placed in N-CMR status.

8.4.6.1.1. When placed in N-CMR for currency reasons, the instructor will not administer instruction for any position in which he/she is N-CMR. **(T-2)**

8.4.6.1.2. When an instructor is N-CMR for lack of performing currency mission or medical reasons, the instructor may conduct classroom, range, or real-world training on equipment that is logically isolated if he/she has maintained currency in all instructed tasks.

8.4.6.2. When an instructor does not receive instructor RT or if an instructor fails to receive an instructor observation.

8.4.6.3. When an instructor receives a Q3 rating on any evaluation.

8.4.6.4. Following a real-world deviation from approved procedures.

8.4.6.5. At the direction of the SQ/CC.

8.4.7. Remove an instructor from instructor restricted status and document the reason in PEX when the reason for the restriction is resolved. RqT is not required. **(T-2)**

8.4.8. Instructor Decertification and Recertification Requirements. Certifying officials will decertify instructors in writing when: **(T-2)**

8.4.8.1. Individual is no longer needed as an instructor.

8.4.8.2. Individual no longer possesses the degree of currency or professionalism to be an effective instructor.

8.4.8.3. Individual is decertified from CMR crew positions.

8.4.9. Instructor Personnel Transfer. Once an individual has been certified as an instructor, it is not necessary to re-accomplish an entire training program at each new assignment. Training offices will assess the individual's previous instructor experience to ascertain whether an individual requires further training to meet the unit's needs. **(T-2)** At a minimum, provide training on local procedures and equipment. Transferred personnel must still possess the required spacecrew experience level for instructor selection. **(T-2)**

8.4.10. Civilian or Contractor Instructors may be used to instruct any RSP training and perform courseware development.

8.4.10.1. Civilian and Contractor Instructors may serve as primary instructors in tasks they have been certified to teach by the 66 CYS/FTF CC, operational SQ/CC, or Senior Line Instructor. Civilian and Contractor Instructors will not be required to attain CMR status. **(T-2)**

8.4.10.2. Civilian and Contractor Instructors will receive QT for the tasks they will instruct from a certified instructor. **(T-2)**

8.4.10.3. Civilian and Contractor Instructors will adhere to all documentation standards. **(T-2)**

8.4.10.4. Civilian and Contractor Instructors will perform Instructor RT as specified by this manual and/or local procedures. **(T-2)**

8.4.10.5. N-CMR Instructors will not perform instruction on a live WS at any time. **(T-2)**

8.5. Evaluator Upgrade. Reference CFCMAN 13-602DCO-SV2 for evaluator training and certification requirements.

8.6. Other Upgrades. SQ/CC may implement upgrade programs for specific mission or exercise requirements. Upgrade programs will train purpose, terms, methods, TTP, and processes to successfully meet operational manning requirements. **(T-2)**

Chapter 9

CURRENCY

9.1. General. Currency refers to the minimum required frequency a spacecrew member needs to perform a specific task to maintain proficiency.

9.1.1. It is the individual's responsibility to maintain their currency in their certified positions. If a spacecrew member loses a particular currency, that mission will not be performed except for the purpose of regaining currency. **(T-2)** Members must requalify on non-current events before the spacecrew member is considered qualified to perform those events unsupervised. **(T-2)**

9.1.2. Unqualified or non-current spacecrew members require instructor or evaluator supervision to count a task toward currency. **(T-2)**

9.2. Currency Period. The currency period will align to SPAFORGEN cycles. **(T-2)** Each crewmember must be current on all RT and CT tasks prior to entering the commit phase. **(T-2)**

9.2.1. Currency requirements may specify a task to be exposed multiple times within the current period.

9.2.2. Individuals current on the first day of a given month will remain current as prescribed in the unit's ATPs. **(T-2)** Failure to meet currency requirements will result in non-currency. **(T-2)**

9.3. Currency Tracking. Crew Chiefs will track their crew members' exposure to currency tasks throughout all SPAFORGEN phases. **(T-2)**

9.3.1. For spacecrew members qualified in more than one operational position, the currency is determined independently; they may be current in one position and non-current in another. However, units may count exposure to currency tasks common to both positions if the method and level of exposure meet the criteria of the RTM for both positions.

9.3.2. Unless otherwise specified, CMR spacecrew members do not require instructor supervision to count a task toward currency. **(T-2)** Evaluators will validate tasks for currency only following an evaluation. **(T-2)**

9.3.3. Unless otherwise specified, tasks performed successfully under evaluation may count toward currency requirements based on the evaluator's judgment. Non-current spacecrew members require instructor or evaluator supervision to count a task toward currency. **(T-2)**

9.4. Lookback. A lookback is an interim currency check to ensure that individuals remain on track to meet currency requirements. Unit ATPs will account for lookback requirements for each task required to be accomplished on the live WS, as articulated in the CT MTL, based on operational needs. **(T-2)**

9.4.1. Although units will continue to track task exposure, units will not conduct lookbacks while in the Commit phase. **(T-2)** Lookbacks will resume upon the individual's return from the Commit cycle. **(T-2)**

9.4.2. A unit's lookback table will include all currency requirements from the BMQ MTL, CT MTL, and the RTM. **(T-2)**

9.4.3. Lookbacks for DCO-S systems are established to coincide with SPAFORGEN cycles. A spacecrew member may complete some of their lookback requirements while in the Commit phase but must have all lookback requirements complete before entering the next Commit phase. **(T-2)** Additional priority will be placed on meeting currency requirements to avoid regression to N-CMR status. **(T-2)**

9.5. Proficiency Shift Requirements. See **Table 9.1** below for Proficiency Shift Requirements.

Table 9.1. Proficiency Shift Requirements for All DCO-S Spacecrew Positions.

Mission	Cycle	CMR	
		INEXP	EXP
Any	365-Day	12	6
	180-Day	6	3
	90-Day	3	2
NOTE: To be credited with an effective proficiency shift, a proficiency shift will be from spacecrew shift changeover to changeover.			

Chapter 10

EXPERIENCE LEVELS

10.1. General. Three experience levels describe the demonstrated performance of individual spacecrew members: INEXP, EXP, or HEXP. The purpose of an experience level is to manage the crew force by identifying readiness for upgrades and ensuring an appropriate mix of individual experience within spacecrews. Experience levels enable tailored training for mission-specific skill sets. They are based not only on demonstrated performance but also on the time the spacecrew member has performed space operations, including time in other space mission areas.

10.1.1. Experience level changes will be accomplished in a sequential fashion unless otherwise determined by the SQ/CC. **(T-2)**

10.1.2. SQ/CCs will assess crewmembers prior to entering each SPAFORGEN phase. **(T-2)** Squadrons will forward the experience level assessment to Senior Line Instructor for entry into PEX. **(T-2)**

10.1.3. SQ/CCs may designate a spacecrew member from a higher experience level to a lower experience level if the spacecrew member fails to maintain the skill required of the higher experience level or when initially qualified in a new operational position.

10.1.4. Specific skill requirements and experience level progression are specified in **Table 10.1**.

10.2. Experience Levels. DAFGM 2025-13-01V1 Chapter 9 covers the requirements for each experience level in detail. **Table 10.1** outlines crewmember experience eligibility based on experience level.

10.3. Experience Level Progression. Document by crew position within PEX and make available to CCs at future assignments. Positional upgrades may change a spacecrew member's experience level in the new position to a level lower than in the previous position. (e.g., CDO is EXP, but upgrades to become an IR is now INEXP).

Table 10.1. Experience Eligibility Letter of Xs.

DCO-S Crewmember Experience Eligibility Letter of Xs						
Experience Level	INEXP	EXP	HEXP			
Years in Ops Tour	Year 1	Year 2	Year 3		Year 4	
Position/Role for Officer (O) and Enlisted (E)	Crew member (O: Crew Chief / E: CDO)	Crew member (O: Crew Chief / E: CDO)	O: Crew Chief or MPC E: IR	Line Instructor/ Line Evaluator	O: MPC E: MSC / MPC	O: DEL Chief of Stan/Eval E: Crew Chief / MSC / MPC
DCO-S Hours	0-400	400-800	800-1200	1200-1600	1200-1600	1600-2000
SPAFORGEN CYCLES	1	2-3	3-4	3-4	4	4
QT	X	X	X	X	X	X
Proficient in DCO-S	X	X	X	X	X	X

DCO-S Crewmember Experience Eligibility Letter of Xs						
Experience Level	INEXP	EXP	HEXP			
Years in Ops Tour	Year 1	Year 2	Year 3		Year 4	
Position/Role for Officer (O) and Enlisted (E)	Crew member (O: Crew Chief / E: CDO)	Crew member (O: Crew Chief / E: CDO)	O: Crew Chief or MPC E: IR	Line Instructor/ Line Evaluator	O: MPC E: MSC / MPC	O: DEL Chief of Stan/Eval E: Crew Chief / MSC / MPC
DCO-S Hours	0-400	400-800	800-1200	1200-1600	1200-1600	1600-2000
SPAFORGEN CYCLES	1	2-3	3-4	3-4	4	4
Quantified task coverage (BMQ & CT MTLs, RTM)	X	X	X	X	X	X
Practical application of DCO-S TTPs	N/A	X	X	X	X	X
Basic understanding of Cyber Threats (TPL & RTM) applicable to assigned terrain	X	X	X	X	X	X
Participation in Warfighter event with specific cyber-related DLOs: SPACE FLAG, BLUE SKIES, CYBEREX, etc. and LFE in SEP (*desired)	N/A	X*	X	X	X	X
Participation in FLASHPOINT TTX (*desired)	N/A	N/A	X	X*	X	X*
Completed commit cycle executing ops as part of CCMD	N/A	X	X	X	X	X
Leads MP; develops, refines, applies TTPs	N/A	N/A	X	X	X	X
Teaches INEXP member(s) (*desired)	N/A	X*	X	X	X	X
Highly proficient in DCO-S and assigned terrain	N/A	N/A	X	X	X	X
Eval: Achieves Q1	N/A	N/A	1	2	3	3
Advanced understanding of	N/A	N/A	X	X	X	X

DCO-S Crewmember Experience Eligibility Letter of Xs						
Experience Level	INEXP	EXP	HEXP			
Years in Ops Tour	Year 1	Year 2	Year 3		Year 4	
Position/Role for Officer (O) and Enlisted (E)	Crew member (O: Crew Chief / E: CDO)	Crew member (O: Crew Chief / E: CDO)	O: Crew Chief or MPC E: IR	Line Instructor/ Line Evaluator	O: MPC E: MSC / MPC	O: DEL Chief of Stan/Eval E: Crew Chief / MSC / MPC
DCO-S Hours	0-400	400-800	800-1200	1200-1600	1200-1600	1600-2000
SPAFORGEN CYCLES	1	2-3	3-4	3-4	4	4
Cyber Threats (TPL & RTM) to Mission Area						
Mentors other members during CT and ops for MP and execution (*desired)	N/A	N/A	X*	X*	X*	X*

Chapter 11

DOCUMENTATION

11.1. General. Administration of the spacecrew training program requires accurate and standardized documentation. Spacecrew training and currency events will be documented in PEX. **(T-2)**

11.2. Requirements. Individuals are responsible for ensuring all documentation is accurate and comprehensive. Crew Chiefs will validate the accuracy of all formal documentation submitted. **(T-2)** Crew Chiefs, instructors, evaluators, or individuals will document the following in PEX: **(T-2)**

11.2.1. The type of training (e.g., QT, CT, RT, UT), date completed, hours trained, and the method used (e.g., range/simulator, offline system, online system, ACAD).

11.2.2. Training and test events in QT, RT, CT, and UT; including tasks, trainee/evaluatee strengths, weaknesses, and corrective action (if required).

11.2.3. Explanation of delays or breaks in training as well as any problems encountered with qualification.

11.2.4. Changes to positional qualifications, certifications, and experience level.

11.2.5. Transitions to N-CMR status.

11.2.6. MPC & MSC MTL, DT, RqT, and evaluation activities.

11.2.7. Waivers to DAF and/or CFC training requirements will be documented by MFR and signed by the DEL/CC. **(T-2)** Waiver MFRs will be maintained in the individual's training folder located within PEX. **(T-2)**

11.2.8. DT will be managed by the SQ/CC and administered by current and certified instructors and maintained on the locally approved system. **(T-2)** Crew Chiefs will ensure personnel on shift have completed DT prior to those operators performing operations for the duty shift. **(T-2)**

11.2.9. Instructor RT and applicable instructor observations will be documented in PEX. **(T-2)**

11.2.10. All other miscellaneous operations-related documentation (e.g., Training Review Board MFRs, Counseling for Training) will be maintained electronically in PEX. **(T-2)**

11.2.11. Below are the approved forms for documentation:

11.2.11.1. AF Form 8

11.2.11.2. AF Form 942, *Record of Evaluation*

11.2.11.3. AF Form 4025, *Aircrew Summary/Close-Out Report*

11.2.11.4. AF Form 4348

11.2.11.5. *Record of Training* (via PEX)

11.2.11.6. *Individual's Record of Duties and Qualifications* (PEX)

11.2.11.7. *Certification of Cyber/Spacecrew Qualification* (PEX)

11.2.12. Waivers for training courses will be documented in the PEX. **(T-2)** These will not serve as a record of certification. **(T-2)**

11.2.13. If applicable, a Historic Course will be added in the “Courses” tab via “Add Historic Course” as a record that a previous form of training has been completed that fulfills the requirement being waived. **(T-2)**!

CHANDLER P. ATWOOD
Brigadier General, USSF
Deputy Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 13-602V2, *Spacecrew Standardization and Evaluation Program*, 11 October 2019

AFI 33-322, *Records Management and Information Governance Program*, 23 March 2020

CFCMAN 13-602DCO-SV2, *Defensive Cyberspace Operations for Space (DCO-S) – Standardization and Evaluation Criteria*, 22 December 2025

CFCMAN 13-602DCO-SV3, *Defensive Cyberspace Operations for Space (DCO-S) – Operating Procedures*, 22 December 2025

DAFGM 2025-13-01V1, *Ready Spacecrew Program Training*, 8 August 2025

DAFH 36-2675, *Information for Designers of Instructional Systems*, 15 April 2022

DAFI 36-2110, *Total Force Assignments*, 9 August 2024

DAFMAN 90-161, *Publishing Processes and Procedures*, 18 October 2023

SB 24-002, *Training During Commit Phase*, 22 February 2024

SPFI 10-201, *Force Readiness Reporting*, 27 April 2023

SpOC/CC Memo, *Delegations and Withholding of Authorities*, 23 October 2024

Prescribed Forms

None

Adopted Forms

AETC Form 281, *Instructor Evaluation*

AF Form 8, *Certificate of Aircrew Qualification*

AF Form 942, *Record of Evaluation*

AF Form 4025, *Aircrew Summary/Close-Out Report*

AF Form 4348, *USAF Aircrew Certifications*

DAF Form 679, *Department of the Air Force Publication Compliance Item Waiver Request/Approval*

DAF Form 847, *Recommendation for Change of Product*

DAF Form 2096, *Classification/On-The-Job-Training Action*

Abbreviations and Acronyms

ACAD—Academic

AETC—Air Education and Training Command

AFI—Air Force Instruction

APOI—Annual Plan of Instruction
ATP—Annual Training Plan
BISC—Basic Instructor Skills Course
BMQ—Basic Mission Qualified
C3—Cyber Combat Course
CC—Commander
CCDR—Combatant Commander
CCMD—Combatant Command
CD—Deputy Commander
CDet—Combat Detachment
CDO—Cyberspace Defense Operator
CFC—Combat Forces Command
CFCMAN—Combat Forces Command Manual
CIF—Crew Information File
CMR—Combat Mission Ready
COA—Course of Action
COMSPACEFOR—Commander of Space Forces
CRV—Crew Readiness Verification
CSpOC—Combined Space Operations Center
CSTO—Combined Space Tasking Order
CSq—Combat Squadron
CT—Combat Training
CTLO—Combat Training Learning Objective
CTM—Combat Training Mission
CTO—Cyber Tasking Order
CW—Cyberspace Warfare
CWO—Cyberspace Warfare Operations
CWOC—Cyberspace Warfare Operations Center
CYS—Cyberspace Squadron
DAF—Department of the Air Force
DAFGM—Department of the Air Force Guidance Memorandum
DAFH—Department of the Air Force Handbook

DAFI—Department of the Air Force Instruction
DAFMAN—Department of the Air Force Manual
DCO-S—Defensive Cyberspace Operations for Space
DCW—Defensive Cyberspace Warfare
DEL—Delta
DEPORD—Deployment Order
Det—Detachment
DO—Director of Operations
DoD—Department of Defense
DoDM—Department of Defense Manual
DRRS-S—Defense Readiness Reporting System - Strategic
DT—Difference Training
ECC—Evaluator Certification Course
EiP—Employed-in-Place
EXORD—Execution Order
EXP—Experienced
FISD—Fundamentals of Instructional System Design
FLDCOM—Field Command
FTF—Formal Training Flight
GM—Guidance Memorandum
HEXP—Highly Experienced
HHQ—Higher Headquarters
HQ—Headquarters
IAW—In Accordance With
INEXP—Inexperienced
IPOI—Initial Plan of Instruction
IQC—Instructor Qualification Course
IR—Incident Responder
IST—Initial Skills Training
ITT—Integrated Test Team
JLLIS—Joint Lessons Learned Information System
LIVE—Live Training

MD—Mission Delta
MET—Mission Essential Task
MFR—Memorandum for Record
MPC—Mission Planning Cell
MRT-C—Mission Relevant Terrain – Cyber
MSC—Mission Support Cell
MTL—Master Task List
N-CMR—Non-Combat Mission Ready
NSDC—National Space Defense Center
NSTCC—National Space Test and Training Complex
OPORD—Operations Order
OPR—Office of Primary Responsibility
OTC—Officer Training Course
OTTI—Operational Test and Training Infrastructure
PBED—Plan, Brief, Execute, Debrief
PEX—Patriot Excalibur
PLANORD—Planning Order
ProVal—Proficiency Validation
QT—Qualification Training
RqT—Requalification Training
RSP—Ready Spacecrew Program
RT—Recurring Training
RTM—RSP Tasking Memorandum
RTRB—Realistic Training Review Board
SB—Staff Bulletin
SBD—Space Base Delta
SIO—Senior Intelligence Officer
SLD—Space Launch Delta
SPAFORGEN—Space Force Generation
SPFGM—Space Force Guidance Memorandum
SPFI—Space Force Instruction
SPINS—Special Instructions

SQ—Squadron

Stan/Eval—Standardization and Evaluation

STARCOM—Space Training and Readiness Command

TACDEV—Tactical Development

TACSOP—Tactical Standard Operating Procedures

TDY—Temporary Duty

TPL—Threat Priority List

TPT—Training Planning Team

TTP—Tactics, Techniques, and Procedures

TTX—Tabletop Exercise

UCT—Undergraduate Cyberspace Training

UPM—Unit Prep Message

USAF—United States Air Force

USAFWS—USAF Weapons School

USSF—United States Space Force

UT—Upgrade Training

VIRT—Virtual Training Environment

WS—Weapon System

Office Symbols

CFC/S35C—Combat Forces Command Cyber Warfare Division

CFC/S73—Combat Forces Command Training and Readiness

CFC/S735T—Combat Forces Command Training Branch

MD 6 S2—Delta 6 Intelligence, Surveillance, and Reconnaissance (ISR) and Cyber Effects Operations

MD 6 S3/7—Delta 6 Operations, Training, and Force Development