

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

**AIR COMBAT COMMAND
MISSION DIRECTIVE 505**



18 AUGUST 2025

Mission Directive

505TH COMMAND AND CONTROL WING

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This mission directive implements guidance in AFI 38-101, *Manpower and Organization*. Its purpose is to prescribe the mission and responsibilities of the 505th Command and Control Wing (505 CCW). This mission directive applies to Active Duty, Civilians and contract personnel assigned to ACC. It does not apply to Air Force Reserve Command, Air National Guard, or United States Space Force units. Test and Evaluation guidance is derived by DoDI 5000.89_DAFI 99-103, *Capabilities-Based Test and Evaluation*, and ACCI 99-101, *ACC Test and Evaluation*. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFI 33-322, *Records Management and Information Governance Program*, and disposed of IAW the Air Force Records Information Management System Records Disposition Schedule. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. Air Combat Command Director of Operations (ACC/A3) and Air Combat Command Director of Plans, Programs, and Requirements (ACC A5/8/9) are the waiver authorities for their respective compliance items in this publication. Submit requests for waivers through the chain of command to the publication OPR for consideration. This publication may not be supplemented or further implemented/extended.

SUMMARY OF CHANGES

This publication has been substantially revised and needs to be completely reviewed. Major changes include clarifying the operational test and evaluation (OT&E) and tactics development missions and oversight, adding mission under test and exercise support requirements, clarifying

the Wing's Command and Control (C2) Experimentation mission, and updating Wing training requirements to capture evolution to support Great Power Competition mission requirements.

1. Mission. The mission of the 505 CCW is to prepare and enable air component staffs, along with joint and multi-national forces, to execute war-winning Command and Control (C2) of airpower by improving warfighting capabilities to battle manage, execute, counter long range kill chains and conduct joint all-domain command and control (JADC2) across the strategic, operational, and tactical levels. The 505 CCW serves as the higher headquarters for two groups, the 505th Combat Training Group (505 CTG) and the 505th Test and Training Group (505 TTG), and one detachment, 505th Command and Control Wing Detachment 1 (505 CCW Det 1).

2. Command. The 505 CCW is an ACC Wing organized under the USAF Warfare Center (USAFWC).

2.1. ACC/A3 oversees policy for the training and exercises portions of the 505 CCW mission, coordinates with the 505 CCW A-Staff on mission execution, and maintains all Lead Command functions per DAFPD 10-9, *Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapon Systems, Non-Weapon Systems, and Activities*.

2.2. ACC/A589 provides oversight for most of the 505 CCW test and evaluation, tactics development, and experimentation processes.

3. Responsibilities. The 505 CCW Commander shall:

3.1. Be responsible for mission execution, discipline, morale, and welfare of assigned personnel.

3.2. **Training.** Conduct initial to advanced Air Component Headquarters training for Air Force Forces (AFFOR) and Air Operations Center (AOC) staff IAW DAFPD 13-1, *Command and Control (C2) Enterprise*, AFMAN 13-1AOC, Volume 1, *Ground Environment Training - Air Operations Center (AOC)/Operations Center (OC)*, AFMAN 13-1AOC, Volume 2, *Standardization/Evaluation Program - Air Operations Center (AOC)/Operations Center (OC)*, AFMAN 13-1AOC, Volume 3, *Operational Procedures - Air Operations Center (AOC)/Operations Center (OC)*, and AFI 13-103, *Air Component Headquarters AFFOR Staff Operations, Readiness and Structures*.

3.2.1. Provide initial Air Operations Center training.

3.2.1.1. Produce basic qualified AOC crew members by conducting Initial Qualification Training per references in **paragraph 3.2**.

3.2.1.2. Support geographic and functional AOC or Operations Center (OC) in-unit Initial Qualification Training (IQT), Mission Qualification Training, and Continuation Training programs as resources allow.

3.2.2. Provide initial training for wing-level C2 Force Element (C2FE) personnel tasked to provide command echelon capabilities in support of deployed operations.

3.2.3. Provide intermediate level training (E-5 thru O-5) from wing A-staffs to NAF and MAJOM warfighting staffs.

3.2.4. Provide senior level training (O-6/Civ equivalent) for Air Component/Headquarters staff.

3.2.5. Provide onsite training and mentorship for Air Component/Headquarters leadership roles during Air Component and Combatant Command Exercises and planning conferences.

3.2.6. Provide individually tailored, just-in-time training to Air Component Executive Leadership (O- 7 to O-10).

3.2.7. Provide advanced, operational-level planner training for select Air Component, Space Component, and Partner Nation planners. Graduates are expected to provide a “Weapons Officer” capability at the operational level that is deliberately managed through the utilization of either “A” or “M” Air Force Specialty Code (AFSC) prefixes.

3.2.8. Provide advanced training on the integrated planning, execution, and assessment of Joint long-range fires to select Combatant Command and Service Component planners.

3.2.9. Provide Integrated Joint Special Technical Operations training for Joint Staff and Air Component planners.

3.2.10. Provide Joint Air Operations Command and Control Course to joint and coalition personnel assigned to AFFOR staff, AOCs/OCs, or Specialty Teams.

3.2.11. Provide air operations planning, integration, and execution training to O-6s and select O-5s of US Army, US Navy, and US Marine component headquarters and Partner Nation air component headquarters.

3.2.12. Provide training and support in the form of mobile training teams.

3.2.13. Support Air University’s Combined Force Air Component Commanders Course with Air Component Headquarters academics.

3.3. Experimentation. Develop, execute, and assess Combined JADC2 (CJADC2), DAF Battle Network, or other C2 experiments as directed by ACC or requested by another MAJCOM or PEO. Incorporate joint and coalition equities to fully support Great Power Competition operations.

3.3.1. Conduct multi-domain C2 & ISR integration experimentation that advance CJADC2, DAF Battle Network, or other C2 experiments as directed by ACC or requested by another MAJCOM or PEO.

3.3.2. Provide a combat representative experimentation enclave that encompasses live, virtual, and construction connections that also include multi-domain and multi-level classification architectures.

3.4. Exercises. Conduct and support Air Force, Joint, and Coalition C2 Exercises. Develop, execute, control, assess, and/or provide C2 mentoring and Continuation Training opportunities during joint, air component, and ACC exercises.

3.4.1. Plan and execute BAMBOO EAGLE, or other advanced training exercises as directed by USAFWC and/or ACC, with operational level C2 in a high-end, combat-representative environment.

3.4.2. Plan and execute BLUE FLAG/Air Component Training Exercise in accordance with Commander Air Combat Command (COMACC) Exercise Plan (EXPLAN) 72.

3.4.3. Plan and execute VIRTUAL FLAG in accordance with COMACC EXPLAN 88.

3.4.4. Support RED FLAG in accordance with COMACC EXPLAN 80.

3.4.5. Support AGILE FLAG in accordance with ACE TASKORD.

3.4.6. Incorporate Joint-All Domain Command and Control desired learning objectives and Master Scenario Event List inputs into supported exercises and training events. Develop and maintain a master events calendar IAW AFI 10-204, *Air Force Service Exercise Program and Support to Joint and National Exercise Program*, that delineates resource requirements for exercise support and planning events.

3.4.7. Concurrently plan for up to two major operational-level exercises while developing products for a third exercise, consistent with ACC/A3 direction.

3.4.8. Support US Army Warfighter Exercises, Mission Command Training Program, and other exercises within the means and capabilities of assigned forces.

3.4.9. Provide liaison and exercise support to Joint National Training Capability joint staff directed training, joint/coalition service training and other events as directed and funded by the USAF Warfare Center or ACC.

3.4.10. Provide liaison and exercise support to the Combined Arms Center (CAC) on airpower employment with direct support to the Mission Command Training Program in accordance with AFI 10-204.

3.4.11. Provide realistic constructive and virtual replication of operational environments for AF, joint, multi-national partner, and/or coalition training, experimentation, and tactics development.

3.4.12. Develop and enhance integration between the Distributed Mission Operations Center (DMOC), Combined Air Operations Center – Experimental (CAOC-X), 700th Air Support Squadron, 805th Combat Training Squadron, 605th Test and Evaluation Squadron (605 TES), and 505 CCW capabilities in support of tasked Flag exercises, Warfighter Focused Event, experimentation events, and USAF Weapons School events.

3.4.13. Generate an after-action report as a comprehensive review of recent exercises; emphasizing lessons learned that will guide future initiatives, aid in avoidance of shortfalls and capitalize on successful strategies to achieve objectives more effectively. Provide after action report to Parent Wing (HQ USAF Warfare Center) and 505 CCW/IG.

3.4.14. 505 CCW/IG will observe mission execution (MGA-4) exercises, events, courses throughout their UEI cycle.

3.5. Testing and Evaluation. Conduct operational test and evaluation (OT&E), tactics development and evaluation (TD&E), and cybersecurity assessments in coordination with ACC/A589 and the Air Force Operational Test Center (AFOTEC) for all AF C2ISR (Command and Control, Intelligence, Surveillance, and Reconnaissance) systems, software, and associated capabilities in accordance with DoDI 5000.89_DAFI 99-103, *Capabilities-Based Test and Evaluation*, DAFPD 99-1, *Test and Evaluation*, and ACCI 99-101.

3.5.1. Test scope includes: Mission Under Test (MUT) to battle manage, execute, and counter Long Range Kill Chains (LRKCs); DAF Battle Network portfolio, Strategic Command and Control Systems (Airborne and Ground); Operational Command and Control systems, Tactical Command and Control systems (Airborne and Ground), Battle

Control Center (Air Defense Sector/Common Mission Control Center) systems; Distributed Common Ground System (DCGS); and other systems as directed by ACC.

3.5.2. TD&E scope contains systems, software, and associated capabilities within [paragraph 3.5.1](#). 505 CCW will coordinate with ACC/A5T on all test equities to ensure Major Command (MAJCOM) direction and priorities are accounted for.

3.5.3. Lead the planning, execution, and reporting of operational assessments, tests, and evaluations for HHQ and MAJCOM-assigned tests and evaluate the overall effectiveness and suitability of new and fielded weapons systems to meet current and emerging warfighter needs.

3.5.4. Conduct Large Force Test Event planning and activities for: BLACK FLAG, GRAY FLAG, EMERALD FLAG, and NORTHERN EDGE.

3.5.5. Respond to Combatant Commanders' Urgent Operational Need requests. Plan and execute OT&E and develop joint integrated operational testing tactics in response to urgent warfighter needs.

3.5.6. Support Air Force and joint warfighters in the formulation, development, demonstration and assessment of concepts, doctrines, mission needs, and requirements for the fielding of new capabilities, such as Advanced Concept Technology Demonstrations.

3.5.7. Monitor, evaluate, optimize, and integrate mobile and fixed radars in accordance with AFI 13-101, Evaluation of Ground Based Radar Systems and Sensors Supporting Command and Control (C2) Enterprise.

3.5.8. Leverage CAOC-X to reduce shortfalls in AOC Weapons System (WS) testing and evaluation of C2 and ISR integration at the strategic, operational, and tactical levels.

3.5.9. Provide Air Force constructive simulation expertise for Joint Live Virtual Constructive (JLVC) modeling and simulation systems ensuring cross-service capability of high-fidelity ground, air, maritime and other domain simulations, to facilitate joint strategic to operational level training.

3.5.10. Support JLVC testing with joint and other US military service modeling and simulation training events/test, to include Joint Staff J7, Naval Warfare Development Center (NWDC), Marine Air-Ground Task Force (MAGTF) Tactical Warfare Simulation (MTWS) and the U.S. Army's National Simulation Center.

3.6. Tactics, Techniques, and Procedures (TTP) Development. Plan, execute, and develop joint integrated Tactics, Techniques, and Procedures at the operational and tactical level of war to optimize the USAF's combat capabilities, IAW DAFMAN 11-260, *Tactics Development Program*, and in coordination with 561 WPS, ACC/A3TW, and ACC/A5T.

3.7. Provide Additional Support as Directed by ACC.

ADRIAN L. SPAIN
General, USAF
Commander

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

ACCI 99-101, *ACC Test and Evaluation*, 24 August 2020

AFI 10-204, *Air Force Service Exercise Program and Support to Joint and National Exercise Program*, 6 September 2023

AFI 13-101, *Evaluation of Ground Based Radar Systems and Sensors Supporting Command and Control (C2) Enterprise*, 18 February 2025

AFI 13-103, *Air Component Headquarters AFFOR Staff Operations, Readiness, and Structures*, 19 November 2020

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

AFI 38-101, *Manpower and Organization*, 29 August 2019

AFMAN13-1AOCV1, *Ground Environment Training-Air Operations Center (AOC)/Operations Center (OC)*, 15 May 2024

AFMAN 13-1AOCV2, *Standardization/Evaluation Program-Air Operations Center (AOC)/Operations Center (OC)*, 18 February 2020

AFMAN 13-1AOCV3, *Operational Procedures-Air Operations Center (AOC)/Operations Center (OC)*, 25 June 2024

DAFMAN 11-260, *Tactics Development Program*, 17 March 2023

DAFPD 10-9, *Lead Command/Lead Agent Designation and Responsibilities for United States Air Force Weapon Systems, Non-Weapon Systems, and Activities*, 25 May 2021

DAFPD 13-1, *Command and Control (C2) Enterprise*, 21 April 2021

DODI 5000.89_DAFI99-103, *Capabilities-Based Test and Evaluation*, 9 December 2021

Prescribed Forms

None

Adopted Forms

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

505 CCW—505th Command and Control Wing

AFFOR—Air Force Forces

AFOTEC—Air Force Operational Test and Evaluation Center

AFSC—Air Force Specialty Code

AOC—Air Operations Center

C2—Command and Control
C2FE—Command and Control Force Element
CAC—Combined Arms Center
CAOC-X—Combined Air Operations Center - Experimental
CJADC2—Combined Joint All Domain Command and Control
COMACC—Commander, Air Combat Command
DCGS—Distributed Common Ground System
IQT—Initial Qualification Training
ISR—Intelligence, Surveillance, and Reconnaissance
JADC2—Joint All Domain Command and Control
JLVC—Joint Live Virtual Constructive
LRKC—Long Range Kill Chain
MAGTF—Marine Air-Ground Task Force
MGA—Major Grading Area
MUT—Mission Under Test
MTWS—MAGTF Tactical Warfare Simulation
NWDC—Naval Warfare Development Center
OC—Operations Center
OT&E—Operational Test and Evaluation
PEO—Program Executive Officer
TD&E—Tactics Development and Evaluation
TTP—Tactics, Techniques, and Procedures
USAFWC—United States Air Force Warfare Center
WS—Weapons System

Office Symbols

ACC/A3—Air Combat Command, Directorate of Air and Space Operations
ACC/A3C—Air Combat Command C2 & ISR Operations Division
ACC/A5/8/9—Air Combat Command, Directorate of Plans, Programs, and Requirements