The CAOC Primer

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This article discusses the Joint or Combined Air Operations Center (J/CAOC) and is written as a primer for senior military officers (Lieutenant Colonels and Colonels). ***It begins with several short paragraphs from the nearly nine hundred (yes, 900) page AFTTP 3-3.AOC.*** The opening paragraphs serve to level the playing field for all readers, describing the responsibilities of the Combined Force Air Component Commander and then outlining the CAOC organizational responsibilities and laying out the fundamental organizational structure. During your seminar period, you will look at a few scenarios (actual operational events observed by a Deputy CAOC Director) with a focus on providing you with an understanding of the inner workings of the CAOC, the critical links within the organization, as well as the links to organizations outside the CAOC. The article should prepare you for the seminar discussions/case studies that will further enhance your understanding of this key, joint / combined functional air component headquarters.

The CFACC is the component commander with the preponderance of air assets and the command, control and communications (C3) capability to plan and execute integrated air operations. CFACC responsibilities are assigned by the Combined Force Commander (CFC) and normally include, but are not limited to, **planning, coordinating and directing theater air, space and information operations**. The CFACC is the supported commander for counterair operations, strategic attack and the JFC's overall air interdiction (AI) effort. The JFACC may also be a supporting commander for AI inside a surface component's boundary (see JP 3-0, *Doctrine for Joint Operations*). Normally, CFC assigns additional responsibilities associated with air, space and information operations to the CFACC. Other responsibilities assigned to the JFACC frequently include:

- **Area Air Defense Commander**. The AADC is assigned overall responsibility for air defense. Normally, the AADC is the component commander with the preponderance of air defense capability and the command, control and communications (C3) capability to plan and execute integrated air defense operations.

- **Airspace Control Authority**. The ACA is the commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area.

- **Collection Operations Management**. Collections operations management (COM) is the authority to plan, coordinate, allocate and task assigned airborne ISR assets to accomplish and fulfill theater requirements. COM is the inherent responsibility of the CFACC when delegated the responsibility for theater airborne ISR operations.

- **Collection Management Authority**. If the CFC delegates collection management authority (CMA) to establish, prioritize and validate theater collection requirements (CRs), establish sensor tasking guidance and develop theater collection plans, the CFACC becomes responsible for the overall prioritization of theater ISR CRs and must be the honest broker on behalf of all components.

- **Electronic Warfare Coordination Authority.** The CFC may delegate overall electronic warfare coordination authority (EWCA) authority to a component commander to coordinate all electronic warfare (EW) activities within the operations area.

- **Space Coordination Authority**. The space coordination authority (SCA) is the single authority to coordinate theater space operations and integrate space effects. The CFC often designates the CFACC as the SCA due to preponderance of military space capabilities (including reachback), expertise and the capability to command and control. SCA is separate from force assignment and C2 of space forces. The role of the SCA is to facilitate unity of effort within theater and between global and theater space operations. The SCA coordinates with components for space requirements, gathers military space requirements throughout the combined force, provides a recommended military space requirements list to the CFC and implements requirements for the CFC and theater forces as required.

- **Supported Commander for Personnel Recovery**. CFCs may exercise their authority and responsibility for personnel recovery (PR) within their specified operational area through a component commander, normally the CFACC. When the CFACC is designated as the supported commander for PR for the joint force, the CFC should delegate to the CFACC the degree of authority necessary to plan, coordinate and execute joint PR operations and activities.

- **Air Force Component Personnel Recovery**. Unless otherwise directed by the CFC, each component commander has the authority and responsibility to plan and conduct PR in support of their own forces. The Air Force conducts recovery of its isolated personnel using trained Combat Search and Rescue (CSAR) forces coordinated through the Rescue Coordination Cell (RCC) in the CAOC.

The CFACC will normally have a Deputy CFACC. In fact, during the initial stages of OIF there were multiple Deputy CFACCs, with US Navy and RAF flag officers serving in the Deputy role. The CAOC Directors, now called CAOC Commanders, were one star officer's from the USAF, RAF, and RAAF. The Deputy Directors were USAF and USN O-6s. The blend of services and nationalities are important, as the CAOC is not the USAF C2 center if the COMAFFOR is designated as the CFACC...it is in fact a Combined Air Operations Center and requires the proper blend of leadership and staff manning to function as such.

The Air Operations Center (AOC) is the operational-level command and control (C2) center that provides the Commander of Air Force Forces (COMAFFOR) with the capability to direct and supervise the activities of assigned and attached forces and to monitor the actions of both enemy and friendly forces. If the COMAFFOR is also designated the joint force air component commander (JFACC) or the combined force air component commander (CFACC), C2 functions will be performed for all air and space resources, from all sources made available for planning and tasking within the guidance provided by the JFC or the CFC, respectively. In a joint or combined environment, the AOC will be designated as a joint operations center (JAOC) or a combined air and space operations center (CAOC) and manned accordingly.

In order to operate effectively, the CAOC requires connectivity to operations centers of higher headquarters (HHQ), lateral headquarters (HQ) and subordinate headquarters down to the unit level. Connectivity allows for the continuous collection and presentation of battle management information which is used by CAOC personnel in accordance with priorities, effects, objectives and strategy of the CFC and CFACC to conduct detailed direction of all air, space and information operations. The ability to make maximum use of all intelligence, surveillance and reconnaissance (ISR) capabilities, National/other Services/functional as well as those controlled by the CFACC, is key to obtaining required knowledge of the enemy and his intent.

Theater Air Control System (TACS) and when combined with other component as well as coalition C2 systems (Theater Air Ground System - TAGS) provide the CFACC with facilities and trained personnel of a mobile C2 system that can be tailored for operations across the spectrum of conflict. TACS/TAGS elements may be deployed to form a complete system or deployed incrementally to augment an existing theater fixed/mobile system. The CAOC, as the senior element of the TACS/TAGS, provides the CFACC with the capability to supervise and manage the activities of forces assigned, attached or made available for tasking and to monitor the actions of both friendly and enemy forces. TACS/TAGS includes personnel and equipment of all necessary disciplines to ensure the effective conduct of air, space and information operations.

The mission of the CAOC commander/director is to effectively conduct combined air operations based on combined force commander and combined force air component commander guidance. The CAOC Commander will work with the director of mobility forces (DIRMOBFOR) and the director of space forces (DIRSPACEFOR) to ensure seamless support from strategic and theater lift assets, as well as national and theater space assets. The DIRMOBFOR is the CFACC's USAF designated coordinating authority for air mobility with all commands and agencies both internal and external to the CFC. The DIRMOBFOR coordinates with the AOC commander to ensure the success of the overall air mobility effort. The DIRSPACEFOR is the senior advisor to the CFACC for space operations. Responsibilities include providing a senior space perspective for strategy, guidance development and operations; collecting and assisting in the prioritization of military space requirements; coordinating support, executing SCA responsibilities if SCA is delegated to the CFACC or representing the CFACC to the SCA (if SCA is not delegated to the CFACC); recommending appropriate command relationships for space to the CFACC; directing and monitoring space forces and

capabilities assigned or attached to the CFACC including space related special technical operations (STO); and, other duties as assigned by the CFACC.

The CAOC processes involve the planning, coordinating, allocating, tasking, executing and assessing the resultant effects of the combined air effort in support of accomplishing combined force commander objectives and the CAOC commander is responsible for the effective conduct of the CAOC mission. The CAOC commander's staff consists of the five division chiefs, the Air Tasking Order (ATO) Coordination Team, the Command, Control, Communications, Computer and Intelligence / Weapons System Manager, the Information Management, and the Process Improvement Team. The CAOC commander manages the multiple functional groups that support the core functions within the CAOC. Some examples are: Airspace Management, Weather, Legal, Information Operations, Special Technical Operations, and Combat Search and Rescue to name just a few.

The CAOC is composed of divisions responsible for strategy, plans, operations, air mobility and intelligence. The associated division chiefs work for the CAOC commander. The Strategy Division concentrates on long-range (outside 96 hours) and near-term (48 to 96 hours) planning to achieve theater objectives by developing, refining, disseminating and assessing the CFACC air and space strategy. Strategy activities are primarily reflected in the joint or combined air operations plan (JAOP/CAOP), the air operations directive (AOD) and the operational assessment report (OAR). The division is divided into three teams: strategy plans team, strategy guidance team and the operational assessment team.

The Combat Plans Division is responsible for near-term air and space operations planning (within 48 hours prior to Air Tasking Order execution). The division is divided into four teams: 1) targeting effects team (TET), 2) master air attack plan (MAAP), 3) ATO production and 4) C2 plans. The primary products are the ATO and related documents (e.g., airspace control order [ACO], joint/combined integrated prioritized target list [JIPTL], Special Instructions [SPINS], the ISR synchronization matrix, tactical operational data [TACOPDAT] and operational tasking data link [OPTASKLINK] messages).

The combat operations division is responsible for the execution of the current ATO (the 24 hours encompassing the effective period of the ATO). The division is divided into four teams: 1) offensive operations team, 2) defensive operations team, 3) interface control team and 4) senior intelligence duty officer team. Additionally, various specialty/support personnel are embedded in the division.

The intelligence, surveillance and reconnaissance division is responsible for providing the CFACC and CAOC with awareness of adversary activity, developing and maintaining targeting information about the adversary and assisting with ISR operations. In addition, division has integrated teams or assigned personnel in other CAOC divisions. The ISRD is divided into four teams: 1) analysis, correlation and fusion team, 2) targets/tactical assessment team, 3) ISR operations team and 4) processing, exploitation and dissemination (PED) team. ISR personnel assigned in the Strategy Division assist in the development of overall CFACC strategy, JAOP and operational assessment. ISR personnel assigned in the Combat plans Division provide tailored ISR operations

planning, threat analysis and targeting expertise necessary to develop detailed execution plans for air and space operations. ISR personnel assigned to the Combat Operations Division provide current situational awareness, targeting and ISR operations management for execution of the ATO.

The air mobility division plans, coordinates, tasks and executes the air mobility mission in support of the air and space planning and execution process. The division consists of four teams that perform these processes: 1) airlift control team, 2) air refueling control team, 3) air mobility control team, and 4) aeromedical evacuation control team. The airlift control team plans, schedules and tasks the theater airlift portion of the ATO. The air refueling control team plans, schedules tasks and executed AR missions. The air mobility control team manages the execution of the air mobility mission in the ATO and provides support for the overall air mobility effort. The aeromedical evacuation control team plans, schedules and monitors execution of aeromedical evacuation (AE) missions and AE assets to support patient movements. Elements within the Air Mobility Division are matrixed throughout other CAOC divisions. NOTE: The Chief of Air Mobility Division reports to the CAOC Commander, not the DIRMOBFOR. The DIRMOBFOR normally provides guidance to the Air Mobility Division for the COMAFFOR.

The ATO coordination team performs a vital function. Each ATO is assigned a two or three person team to work opposite 12 or 8 hour shifts. ATO coordinator teams facilitate communication of CFC/CFACC intent through the entire ATO cycle from development of the air operations directive to operational assessment of the executed directive. ATO coordinators should be well-experienced in AOC processes and have appropriate program clearances to facilitate coordination required to adequately integrate planning and execution of each ATO and associated activities. ATO coordinators are the **eyes and ears** of the CAOC commander. As the primary focal point for their assigned ATO, ATO coordinators help maintain continuity of effort across the seams between AOC divisions/teams and resolve issues as required. During large scale operations, the position requires 10 to 12 personnel as there are 5 ATO's being worked at any one time (one being executed, 3 in planning and one being assessed).

The Weapons System Manager is responsible to the CAOC commander for CAOC architecture and overall efficiency of systems integrated into the CAOC. The Weapons System Manager (WSM) position is normally filled by a CAOC operator, who has extensive training/experience in CAOC processes, understands the operator’s perspective and use of CAOC systems and possesses a working knowledge of those systems. The WSM directs, performs and coordinates CAOC systems end-to-end validation tests prior to and during exercises or operations and ensures receipt of information and proper data exchange between AOC baseline systems/equipment. The WSM ensures systems integration and version compatibility with joint/sister and Coalition forces and establishes system access and password issue processes. The WSM develops and manages the process to establish and modify CAOC system profiles and permissions to meet division chief requirements while ensuring proper levels of security are maintained (consider multiple security domains which may be in use in the CAOC, to include United States [US]-only, Coalition and sensitive compartmented information [SCI] coordination). The WSM develops, maintains and coordinates system maintenance (MX) and upgrade time lines in addition to establishing and coordinating priorities, as appropriate. The WSM

assists in CAOC and enterprise architecture development for exercises and operations; conducts and publishes minutes of a configuration management meeting for key personnel to include CAOC commander, division chiefs and other systems managers/subject matter experts (SMEs) for CAOC equipment; and develops CAOC floor plan and organization for equipment placement. WSM works with CAOC IM function to ensure data boards/walls and other display capabilities are configured to support CAOC operators. The WSM assists air and space communications squadron (ACOMS) teams with developing procedures and guidance for communications team actions that impact operations or require operator inputs and direction.

The CAOC Information Management Officer (IMO) has responsibility for Information Management operations in the air and space component, including control of processes linking sensor and discovery information to information management tools (IMTs) used to build and provide recommended COAs to decision makers, execute operations, assess operational success and adjust CAOC activities accordingly. The CAOC Information Management structure ensures effective processes are in place to facilitate creation, collection and control, dissemination, storage and retrieval, protection and destruction of information, electronic and paper, classified and unclassified. The IMO and his team work with the CFACC, the CAOC commander and the staff to ensure information needs are met through focused data and IM processes.

The CAOC Process Improvement Team operates under CAOC commander supervision. The team's purpose is to evaluate overall effectiveness of the CAOC weapon system and develop recommendations to improve information flow specifically within the CAOC. Data flow is one of the most challenging areas in the CAOC. There must be an established data management plan (DMP) prior to beginning of a conflict. CAOC PIT will develop the DMP portion of the information management plan (IMP). DMP data flow must be in an approved written plan establishing who collects the data, in what format, and who is responsible for each process.

Several liaison groups are organized within the CAOC to facilitate interaction and coordination between the CFC and/or Service components. Their primary purpose is to represent their component commander when dealing with supported/supporting command relationships. The Army component commander establishes a battlefield coordination detachment (BCD) to serve as the interface between the US Army component commander (or the combined force land component commander if the Army commander is so designated) and the CFACC. The BCD is located in the CAOC and is organized into sections which are incorporated throughout the CAOC (e.g., strategy plans, combat plans, intelligence, combat operations, fusion, air defense artillery [ADA] and Army management and airlift). The BCD processes land force requests for air support, to include immediate requests, monitors and interprets the land battle situation in the CAOC and provides necessary interface for exchange of current operational and intelligence data. The BCD expedites the exchange of information through face-to-face coordination with elements in the CAOC and coordinates air defense and airspace control matters. Immediate and emergency airlift requests are passed to the BCD via the airlift advance notification/coordination net by air mobility liaison officers (AMLOs). Recent actions by the US Army have led to permanent assignment of BCD units to specific CAOC's,

providing for habitual relationships that have led to improved coordination in combat planning and execution.

Another key group within the CAOC comes courtesy of the US Army, the Army Air and Missile Defense Command. The Army Air and Missile Defense Command (AAMDC) is the Army's operational lead for joint/combined theater air and missile defense and ensures Army's/land force's contribution to counterair operations is properly planned, coordinated, integrated and synchronized. The AAMDC employs four operational elements: active air defense, passive air defense, attack operations and C2 communications system ISR to accomplish its mission. The AAMDC is normally co-located within the CAOC and in direct support of the CFACC if the CFACC has been designated as the Area Air Defense Commander. The AAMDC organization within the CAOC is normally commanded by an Army Brigadier General and that officer serves as the Deputy Area Air Defense Commander.

Naval and Amphibious Liaison Element. Naval and Amphibious Liaison Element (NALE) personnel from United States Navy (USN) and USMC (when Marine forces are embarked) integrate naval air, naval fires and amphibious operations into theater CAOC operations as well as coordinate air support requirements for naval components. This element varies in size depending on the level of conflict, but is normally led by Navy Captains and numbers 12 to 24 officers. In current operations, the Navy fills many of the CAOC duty positions in the five CAOC divisions and it is not uncommon to have more than 50 Navy personnel working in the CAOC, not all of them will be members of the NALE.

The Marine Liaison Officer (MARLO)/Marine Liaison Element (MARLE) are representatives of the Commander, Marine Corps Forces (COMMARFOR) and his associated Aviation Combat Element Commander. The MARLOs will support the CFACC in integrating MAGTF fires, maneuver and Marine air into the theater campaign and supporting Air Operations Plan. Marine aviation is a key part of the Marine Combined Combat Arms Team but they may enter a fight with excess capability (excess sorties). If that is the case, the Marine Corps component commander may provide excess sorties to the CFC, and those sorties are often made available for tasking by the CFACC. In a major joint/combined fight. The Marine Corps is normally a net consumer of assets made available through the CFACC (examples include but are not limited to: KC-10 aerial refueling, U-2 support, SEAD, etc.). This team, well versed in the MAGTF commander's guidance, intentions, schemes of maneuver and direct support aviation plan, work with the CAOC to meld Marine requirements and all other component actions into a seamless theater-wide air effort.

Special operations forces (SOF) often operate throughout the entire operations area. Therefore, SOF operations must be closely coordinated with combined air, space and information operations whether SOF are operating autonomously or supporting conventional forces. The special operations component commander (often the JFSOCC) or special operations task force (JSOTF) provide the CFACC a special operations liaison element (SOLE) to coordinate, integrate and deconflict SOF air, surface and subsurface operations with combined air, space and information operations. The SOLE Director serves as JFSOCC's personal liaison to the CFACC. SOLE personnel are integrated into

CAOC divisions to support planning, operations, intelligence, airfield/airspace control and communications. Additionally, SOLE ensures coordination, integration and/or deconfliction of SOF operations within the ATO and ACO.

Sometimes overlooked when studying the CAOC, are the organizations that work for, but outside the confines of the CAOC: the ground and airborne elements of the Theater Air Control System (TACS). Ground theater air control system (GTACS) elements include the Control and Reporting Centers (CRC), the Air Support Operations Center (ASOC), and the Tactical Air Control Party (TACP). The CRC is subordinate to the CAOC and may be designated as the primary theater command, control, and air surveillance facility within the theater, or may share that responsibility with other TACS elements such as AWACS or other component elements. Responsibility as the region/sector air defense commander is also normally decentralized to the CRC, which acts as the primary integration point for air defense artillery (ADA) fire control. The CRC may deploy mobile radars and associated communications equipment to expand radar coverage and communications range within its assigned operating area. These remote radars are capable of providing early warning, surveillance, weapons control, and identification functions. The ASOC, which reports to the CAOC, receives, coordinates, and processes requests for immediate air support from subordinate TACPs, which are transmitted through the joint air request net (JARN). ASOCs commit allocated sorties to satisfy requests for immediate air support and integrate those missions with the supported units' fires and maneuver. An ASOC is normally tasked to support an Army unit but can also support units from other organizations (e.g., special operations, coalition forces). It may also augment other missions requiring C2 of air assets (e.g., humanitarian efforts). TACPs are aligned with Army maneuver elements and are primarily responsible for decentralized execution of CAS operations. TACPs request, coordinate, and control CAS and theater airlift missions as required.

Airborne elements of the theater air control system (AETACS) elements include the Airborne Warning and Control System (AWACS), the Joint Surveillance Target Attack Radar System (JSTARS), and the forward air controller (airborne) (FAC [A]). AWACS is subordinate to the CAOC and conducts air surveillance and supports strategic attack, counterair, counterland, air refueling operations, and other air and space power functions/missions as directed. JSTARS provides dedicated support to ground commanders and attack support functions to friendly offensive air elements. The FAC(A) is an airborne extension of the TACP and has the authority to direct aircraft delivering ordnance to a specific target cleared by the ground commander. The FAC(A) provides additional flexibility in the operational environment by enabling rapid coordination and execution of air operations.

The CFACC may send liaison groups to supported/supporting commander headquarters to facilitate interaction and coordination. The LNOs primary purpose is to represent the CFACC when dealing with supported/supporting commands. The CFACC may establish and deploy an air component coordination element (ACCE) to a geographically separated land, maritime and/or special operations component commanders' HQ to better integrate air and space operations with surface operations. The CFACC may also establish and deploy an ACCE to the joint force and/or joint task force commander's HQ to better integrate air and space operations within the overall joint or combined force. The ACCE

facilitates interaction and communication between respective staffs. The ACCE Director acts as the CFACC's personal liaison and primary representative to the respective commander.

CFACC LNOs sent to CFC and other HQ/agencies represent CFACC and play a critical role in allowing different staffs to work together effectively. LNOs must be extremely flexible, anticipating changing requirements and altering duty patterns to match the needs of the moment. LNOs act as ambassadors, advocates and subject matter experts (SMEs), passing information and points of view back and forth between other staffs and the CAOC. However, LNOs are not a substitute for transmitting critical information through normal C2 channels or a replacement for proper staff-to-staff coordination.

The previous paragraphs have attempted to provide the "Readers Digest" version of over 1000 pages of doctrine, tactics, techniques, and procedures. The remainder of this article will highlight workings of the CAOC by addressing issues that a newly assigned CAOC commander would need to deal with upon assuming his/her post.

When you read the TTPs for the CAOC, it is easy to think that the CAOC processes begin in the Strategy Division. While the Strategy Division does have a major role in the steps that enable the CFACC to command, control and communicate (C3), to plan and execute integrated air operations, it is inside and outside connectivity that must be established first. As the communications personnel at Al Udeid constantly stated as the CAOC was being built: "no comm., no bomb." As a potential CAOC commander, the critical first step would be carrying out your responsibility to ensure communications, command and control connectivity, with all higher headquarters, lateral, and subordinate units. You should also insist on back-up plans that enable command and control when the primary nodes fail, as they will. Initial operations in Afghanistan posed serious problems as aircraft ranged well outside the communications network available during the early days of that conflict. Connectivity with deployed subordinate units and forward ground units that require air support can not be taken for granted. CAOC planning must start with a sound communications plan to ensure the ability to command and control forces. You must work with your weapons system manager, information management officer, configuration control manager, the theater A6 and the other theater components to ensure a reliable, redundant, and flexible C3 architecture is in place. If you have the connectivity, and if everyone involved understands the command relationships and doctrinal processes, the CAOC actually works very effectively, a truth often not understood by those that have never lived and worked within the beast that is the CAOC.

The CAOC commander's duties include: directing all CAOC operations, including CFACC update briefings, crew changeover briefings, training and orientation. He attends most of the meetings and VTC's attended by the CFACC. He also interacts daily with the leadership of each division, functional area and liaison element in the CAOC. As such; the CAOC Commander has an unparalleled view of the entire operation. Through interaction with the division chiefs he will understand the current flow of planning, execution and assessment efforts across the CAOC. He knows what is important to the CFC, the CFACC and the other component commanders as a result of inclusion in the daily commander VTCs. Given this unparalleled view of the operation, his task is to minimize the seams in the processes, processes within the CAOC, and processes that

serve to connect the CAOC with organizations outside the CAOC. He must also make sure to establish and maintain an executable battle rhythm, one that allows leadership and all process owners to stay in tune with the entire operation and the daily workings of the CAOC.

While all divisions inside the CAOC have connectivity and require a habitual relationship with higher headquarters elements, other component command staffs and outside agencies, it is the Strategy Division that has responsibility to lead the thinking and planning efforts that focus outside the 72 to 96 hour CAOC planning and execution cycle. Within the Strategy Division, the Strategy Plans Team has the lead, along with support from key members of Combat Plans, Combat Operations, Intelligence Surveillance Reconnaissance Division, Air Mobility Division, AFFOR staff and LNOs serving in the CAOC, for current operations planning, future operations planning and long range planning efforts. The Strategy Plans team has the air component lead for joint/combined planning with the CFC and the other components when a CFACC is designated. The Strategy Plans Team will be the focal point for development of the Joint Air Operations Plan which supports the CFC Campaign Plan. Strategy Plans also develops the Joint Air Apportionment Plan, a plan that supports the CFCs campaign plan and outlines apportionment of air assets by campaign phase.

The Strategy Division Director serves the CAOC Commander very well when he/she is able to stay ahead of the operation and provide viable alternatives to the CFACC, the other components and the CFC. The Strategy Guidance Team starts the ATO planning cycle with the publishing of the daily Air Operations Directive. The AOD starts the planning effort for an ATO that will be flown 72-96 hours after the AOD is published. The AOD is the CFACCs daily guidance for planning and is based on the campaign plan, the air operations plan, and daily CFC guidance to the CFACC and CFACC interaction/collaboration with the other component commanders. The Strategy Guidance Team also suggests a recommended apportionment for CFC approval. They work with the Targeting Effects Team to close the loop between guidance, apportionment and targeting. It is the Operational Assessment Team (OAT) inside the Strategy Division that examines the outcomes of the never ending planning, execution, assessment loop inside the CAOC. With clear ties to the CFC Campaign Assessment Team, the other components, and all teams inside the CAOC, the OAT provides operational level feedback, assisting the CFACC decision making process (CCIRs, branches and squeals). Several CAOC commanders have their ATO coordinators work out of the Strategy Division. Given the responsibilities of the Strategy Division and ATO coordinators, this works very well and affords the coordinators the visibility of not just the current ATO cycle to include the operational assessment, but also future operations and plans. One of the key assignments the CAOC Commander and Strategy Division Chief must make is selection of the Strategy Plans Team Chief. The position is filled by one of the CAOCs School of Advanced Air and Space Studies (SAASS) graduates, but there are other important qualities needed to succeed in this position. The Chief of the Strategy Plans Team works with key members of every team inside the CAOC as well as the planners at higher headquarters and the component headquarters. This dynamic and wide ranging assortment of working relationships requires a Strategy Plans Chief with a healthy portfolio of interpersonal skills.

The Combat Plans Division is responsible for near-term air and space operations planning within 48 hours prior to ATO execution. The Strategy Guidance Team works closely with the Targeting Effects Team as they align objective accomplishment (expected effects) with targets from the joint/combined integrated prioritized target list. The Master Air Attack Planning Team then matches allocated resources against the prioritized targets in order to achieve the prioritized objectives. After the Master Air Attack Plan is approved, the ATO Production team creates and publishes the ATO, along with the Airspace Control Order, the Target List, Special Instructions, the ISR Synchronization Matrix, and the operational tasking data link. The workings of the Combat Plans Division READs like a very deliberate, inflexible process. The living of the process, vice the reading of the process reveals a very different truth. The process is indeed so flexible that it is a clear understanding of the well crafted steps in the process that often prevents total chaos.

One very common critique (normally made by members of the CFC or other component staff that have never worked inside a CAOC), is that the ATO is too inflexible; the ATO planning cycle is too long. People offer that the CAOC can't adjust and get inside the enemies decision cycle or take advantage of late breaking intelligence or changing events. With an understanding of how Combat Plans and Combat Operations processes enable coherent accomplishment of CFC and CFACC objectives and still maintain operational and tactical flexibility, the CAOC commander will be able to explain the flexibility inherent in the process and create understanding and trust between himself and his cohorts at CFC and other component headquarters. A planning process is nothing more than a planning process and the planning process must start somewhere. After receiving guidance from the CFC, the publishing of the AOD some 96 hours prior to ATO execution is probably not a bad place to start. More important than when you start the planning cycle is the understanding that planning never stops, nor does the ability to add or delete things from the plan. The process is in fact very flexible.

On a standard major combat operations day, about four hours after the ADO for Monday July 5th (92 hours from now) is published, the CAOC commander will be informed of the first change to the AOD. If we are winning on a grand scale, or losing on a grand scale, the AOD will probably change a dozen more times before the plan is complete and the ATO is published. Once the ATO is published (about 12 hours prior to execution), the and there will be many more as the ATO is executed by the combat operations floor. The CAOC Commander is involved in a few of the decisions that are made resulting in changes to the AOD and ATO, but most (those not on the CCIR list) are made by the division chiefs and team leads in the CAOC. In a major fight, one person can't make all the decisions and allow for the pace and flexibility required to be successful. The CAOC Commander can however, before the fight begins, ensure that higher headquarters and other component staffs understand how to influence changes in the AOD and ATO to make sure the CFC campaign plan is executed in a synchronous, integrated, interdependent manner. The best method to ensure timely, seamless integration is to empower the CAOC Team Chiefs, fully utilize the component LNOs and habitual links with members of the CAOC Divisions, but in extremis, they should know to go direct to you or one of your division chiefs. The planning process is not a problem, but not knowing how and with whom you must work to effect changes in the plan or current operation can be a real problem.

As a warm-up for your classroom session, let's look at some common planning and execution problems that occur during the ATO planning and execution cycles. 48 hours prior to ATO execution, component representatives submit allocation requests and coordinate specific requirements with the force allocation cell. Approximately 40 hours prior to ATO execution, the force allocation cell completes the draft aircraft flows for the Master Air Attack Planning Team. The MAAP team must have this information so it can match sorties to targets during the upcoming MAAP session where they produce the plan, which once approved by the CFACC, will become the next ATO. 20 hours prior to execution, sortie flows and mission notes are sent to theater units and key planning cells. This information is critical to the executing units; it allows them to plan and prepare to execute the following day's air missions. Unfortunately, on this day, there are some mobile target requirements that need to be added 18 hours prior execution. First, you must determine what priority these new requirements have? The priorities are established by the CFC, as agreed upon by the components, and serve to give priority weight of effort to certain effects and/or supported efforts during specific periods of time (phases, days, weeks, etc.). In this example, let's say the new requirements have a Bravo priority (Alpha being the highest and Echo being the lowest). In this example, the new requirements were passed from a ground unit through the BCD into Combat Plans. The ATO is being produced by the time the request reaches Combat Plans. The BCD, component LNO and the Combat Plans Division all agree (based on the assigned high priority) that the request needs to be met and they start looking at alternatives to the current plan. Members of several teams must be brought together to represent the equities that will be effected by the change in the current plan. The most important player in this scenario is the Killbox Interdiction/ Close Air Support (KI/CAS) Team Chief from the MAAP cell. Knowing what KI/CAS has been planned, what, if any, remains available and who are the most likely candidates for assignment to the new mission, the chief can make the decision timeline very short indeed.

The KI/CAS Team Chief is responsible for the overall process of allocating assets to support CAS and mobile target nominations in a coherent air battle plan. In addition, the chief must properly ensure adequate Electronic Warfare, Suppression of Enemy Air Defenses, and Offensive Counter Air is available to support allocated assets. The KI/CAS cell must thoroughly understand JFC and JFACC guidance and friendly force sortie generation capabilities. The cell chief must maintain clear, two-way communication and liaison with other CPD teams, AOC staff, other components and Coalition representatives. The KI/CAS cell chief must be continuously aware of the status of each ATO in production and must be able to direct immediate changes to ATO development in response to short-notice taskings from higher authorities. To meet all changes or redirection of guidance, the cell chief must maintain close coordination with the MAAP chief. The MAAP Chief in turn maintains close contact with the Division Chief and the other key players inside the CAOC to enable a change to be made at any point in the process. The long pole in the tent is not 'can the CAOC make the change'? Rather, the critical consideration is: can the executing unit properly plan, configure and launch sorties in support of a short notice request? Even in recent conflicts when we enjoyed extreme numerical advantages over the enemy, there is still a finite amount of air support available in the theater. We do not enjoy the luxury of having aircraft setting around waiting for a tasking.

Like Combat Plans, Combat Operations Division (COD) is composed of several different teams. Depending on the scenario, the COD is composed of offensive operations and defensive operations teams, the intelligence, surveillance and reconnaissance (ISR) operations team, interface control team, airspace management, weather (WX), the rescue coordination cell (RCC) and various support/specialty functions and experts from other weapons systems. Depending upon the operation/contingency, typical liaison teams include the battlefield coordination detachment (BCD), Army Air and Missile Defense Command (AAMDC), naval and amphibious liaison element (NALE), special operations liaison element (SOLE), Marine liaison element (MARLE), Coalition liaisons and other governmental agency (OGA) liaisons. The combat operations division is charged with effective execution of the current air tasking order (ATO). COD accomplishes this through constant monitoring of the battlespace, subordinate Theater Air Control System (TACS) elements and other assigned/attached assets. COD adjusts the ATO as necessary to respond to battlefield dynamics. The COD publishes changes to the ATO and airspace control order (ACO) as necessary. Timely coordination between the COD and tasked installation control centers, air support operations centers (ASOCs), control and reporting centers (CRCs), Airborne Warning and Control System (AWACS) and other TACS elements is essential to conduct effective and efficient air, space and information operations. It also allows for maximum flexibility in supporting the CFC and the other component commanders.

An example is required. After the CFC determines the daily apportionment, the CAS allocation has been made, the MAAP approved, the ATO published and execution begun, a ground commander decides he needs more CAS than he has requested. This calls for the use of the immediate request process. If on-call CAS is unavailable, the ASOC either diverts corps preplanned CAS missions or forwards the request to the CAOC. During the execution phase of the joint ATO, the CFACC may need to redirect other joint air missions (not CAS) to cover immediate requests for high priority CAS if the CAS missions are higher on the CFC priority list. In some instances, the CFACC may also seek additional support from another component to cover the immediate request. But always remember, diverting aircraft from preplanned scheduled CAS missions is a zero-sum game: preplanned requesters lose the same amount of firepower gained by the immediate requester (this assumes no diversion from other missions such as air interdiction). Immediate requests are forwarded to the appropriate command post by the most rapid means available. Requests are broadcast directly from the TACP to the ASOC/DASC using the applicable component communications nets. The TACP at each intermediate headquarters monitors the request and advises the ground commander. After considering whether organic assets are available, appropriate, or sufficient to fulfill the request, the ground commander approves or denies the request.

The ISRD provides the combined force air component commander (CFACC), CAOC and subordinate units with predictive and actionable intelligence; intelligence, surveillance and reconnaissance (ISR) operations; and targeting in a manner that supports the CFC campaign plan and guidance. Support is provided via various ISRD products as well as by enabling PBA through the integration of intelligence preparation of the battlespace (IPB), target development, ISR strategy, planning, employment and assessment activities. A common threat and targeting picture is critical to planning and

executing theater-wide air and space operations to accomplish CFC and CFACC objectives. ISR personnel conduct planning, monitor execution of airborne ISR operations, dynamically adjust ISR plans as required and direct the CAOC's distributed and reach-back ISR processes. Beyond these specific ISRD duties, intelligence personnel are imbedded across all CAOC divisions. The CAOC Commanders working relationship and trust in your Chief of ISRD must be operating at a high level. The dispersion of INTEL personnel allows for great efficiencies and effectiveness, but it create many seams that require constant cross-talk and integration to ensure maintenance of the CFC guidance and support to the CFACC and other components.

The ISRD is organized into three or four core teams which include; analysis, correlation and fusion (ACF); targets/tactical assessment (targets/TA); ISR operations; and processing, exploitation and dissemination (PED) management. Each team is further divided into cells responsible for key ISR functional areas. Within this construct, the Chief of ISR may task organize in the most effective manner to accomplish assigned responsibilities and support the mission. ISRD personnel assignments to other divisions should be coordinated with respective division chiefs in order to ensure the most effective use of personnel and to enhance overall CAOC operations. ACF strategists, targeting strategists and ISR operations strategists will provide subject matter expertise and advice to all cells within the SD. Specific roles and number of personnel required will be determined by the CISR and chief, SD. Combat Plans Division. Intelligence analyst planners, targeting planners and ISR operations planners will provide subject matter expertise and advice to all cells within the CPD. Specific roles and number of personnel required will be determined by the CISR and chief, CPD. Within the Combat Operations Divisions, the senior intelligence duty officer (SIDO) team will have ISRD personnel filling, at a minimum, the following positions: intelligence duty officer (IDO)/intelligence duty technician (IDT), target duty officer/target duty technician (TDT) and intelligence, surveillance and reconnaissance operations duty officer (ISRODO)/intelligence, surveillance and reconnaissance operations duty technician (ISRODT) positions. In addition to SIDO positions typically manned on the operations floor, there may be some element of the SIDO team working COD issues from a sensitive compartmented information facility (SCIF). It is this embedded crew of intelligence experts that give the operations floor the flexibility to re-role, re-target and/or prosecute time sensitive or dynamic targets.

The AMD requires intelligence tailored to the requirements of mobility mission planning and execution (e.g., airfield threat assessments). The Chief of ISR must coordinate with the chief, AMD or his intelligence augmentee to ensure intelligence requirements are met. The CISR may also work with the AMC Intelligence Squadron (Air Forces Transportation [AFTRANS] AOC/ISRD) to coordinate additional mobility-focused intelligence. The AMD plans, coordinates, tasks and executes intra-theater airlift, aeromedical evacuation (AE) and air refueling (AR) missions. The AMD provides for integration and support of all air mobility missions. The AMD coordinates movement requirements with the joint force commander (JFC) movement requirements and control authority, the joint deployment distribution operations center (JDDOC), if established (represents the Theater Movement Validation Authority) and 18th Air Force Tanker Airlift Control Center (18 AF TACC). The AMD integrates and directs execution of theater- and United States Transportation Command (USTRANSCOM)-assigned

mobility forces operating in the AOR/joint operations area (JOA) in support of the CFC's requirements/objectives. The AMD, if conditions require, plans and directs air mobility missions into chemical, biological, radiological, nuclear and high-yield explosives (CBRNE)-threatened airfields. The AMD maintains maximum (aircraft) on ground (MOG) management/deconfliction of theater and AMC assigned air mobility assets in support of CFC objectives. Other duties include: planning and executing air mobility support for user requirements identified and validated by the CFC requirements and movement authority; participation in CAOC air and space planning and execution processes and coordinating with the CAOC Commander to ensure the air tasking order (ATO)/airspace control order (ACO) incorporates air mobility missions; coordinate with the chief of the intelligence, surveillance and reconnaissance division to ensure all mobility intelligence requirements are fulfilled; ensure air mobility missions are visible in mobility air forces (MAF) command and control (C2) systems and reflected in the ATO/ACO; integrate planning and execution of combat support AR operating in the AOR/JOA in support of CFACC requirements/objectives; provide theater information to support in-transit visibility (ITV), total asset visibility (TAV) and global transportation network (GTN); and identify information operations (IO) and public affairs (PA) requirements to support the air mobility mission and integrate/deconflict IO and PA with respective specialty teams.

The CAOC Commander must also ensure seamless integration of the CAOC specialty teams into the overall, coherent, integrated CAOC operation. He must ensure inclusion of the non-lethal effects as teams develop and execute operations to achieve CFC and CFACC objectives. One of the specialty teams, the IO team, establishes a core team and provides embedded personnel to other divisions to ensure synchronization and synergy of operations. This symmetry ensures consistency of function and general alignment of responsibilities. Within the CAOC, the IO team provides three capabilities: electronic warfare operations (EWO), network warfare operations (NWO) and influence operations (IFO). The purpose of these elements is to fully integrate IO effects in support of national and theater objectives to produce effects throughout the spectrum of conflict. A recent trend in CAOCs is to have an IO ATO coordination folder. The folder is a continuity book/folder created by the IO plans team that provides an overall synopsis of IO-related activities occurring during a specific ATO period. It flows with the IO team representatives throughout the ATO cycle. The IO ATO coordination folder's main purpose is to provide a single IO source for critical information to be passed from one division to another, and inform decision makers when they are coordinating/collaborating with agencies outside the CAOC.

There are many other special teams within the CAOC that you will need to be aware of as you work your way through some of the classroom case studies. A very brief discussion of a few of these teams will finish off this primer.

Judge advocate generals (JAGs) serve as the primary advisors to the CFACC and all CAOC personnel on all operational legal matters in the CAOC. This requires JAGs to be embedded in the SD, CPD and COD. Although not embedded within the ISR or AMD, the JAG must be available to support these divisions as issues arise. Additionally, the JAG will work with other specialties such as space and IO to ensure that all legal issues are addressed. A CAOC JAG must be conversant in both the law and in CAOC

processes and procedures. Contrary to recent news stories, JAGs do not create ROE and they do not make operational decisions, they advise on legal matters.

The weather specialty team (WST) is an enabling function that tailors and reports environmental impacts to meet the short-, medium- and long-range mission needs of the CFACC staff and each of the divisions and specialty/support functions within the CAOC. They evaluate the impact of meteorological and oceanographic (METOC) phenomena on weapons, weapon systems and operations of both friendly and enemy forces across the spectrum of mission profiles. These impacts are integrated into all aspects of the decision-making cycle, enabling CAOC warfighters to exploit favorable METOC windows of opportunity.

Component commanders establish personnel recovery coordination cells (PRCC) to coordinate all component PR activities, including coordination with the joint personnel recovery center (JPRC) and other component PRCCs. The rescue coordination cell (RCC) is the Air Force's functional equivalent of a component PRCC. The RCC is the planning and operations core responsible to the Chief of Combat Operations for the conduct and execution of all CSAR operations. The AFFOR RCC will be collocated and integrated into the CAOC when the COMAFFOR is the CFACC, as a specialty team to facilitate coordination and deconfliction of all CSAR operations activities with other air and space component operations.

CAOC Commanders have responsibility for the care, feeding and integration of the Airspace Plans Team, Public Affairs Team, Information Management Team, The Communications Support Team, and the Special Technical Operations Team.

The CAOC commander can do a great deal of good by establishing a solid working relationship with the **AOC Liaisons.** Several groups are organized within the CAOC construct to facilitate CAOC interaction and coordination with the joint force commander (JFC) staff, functional and or Service components. AOC liaisons' primary purpose is to represent their component commander(s) when dealing with supported/supporting command relationships. CAOC Commanders must work relationships with the BCD, AAMDC, NALE, MARLO, SOLE and coalition liaison elements. He should also be mindful to work relationships with the CAOC liaison teams that are stationed with the other components (Air Component Coordination Elements).

Having finished this "Readers Digest" version of the CAOC commander upgrade program, you should be ready to enter the seminar and talk through some tough, real world scenarios. There are no school solutions, the outcomes from the real event will be revealed, but in no way does that mean the outcomes were good, or that they were arrived at in the correct manner. Bring your "A" game to the seminar and have fun working through the scenarios.

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