OBJECTIVES, EFFECTS, AND GUIDANCE

Purpose. This stage starts with guidance from the joint force commander (JFC) to the joint force components. The JFC consults with the component commanders, decides on modifications to their schemes of maneuver, and issues guidance and intent. The overarching purpose of this stage is to integrate (not just synchronize and coordinate) component efforts at the operational, scheme-of-maneuver level.

During this stage, the joint force air component commander (JFACC) also issues further guidance on the specific scheme of maneuver. Other broad guidance that may direct operations include the rules of engagement (ROE) (determined or reviewed as part of strategy creation or mission analysis), standing rules for the use of force (the equivalent of ROE often used in homeland operations), and the special instructions (SPINS) issued with individual tasking and control orders.

This is also the stage during which the JFACC recommends the apportionment of total expected effort that should be devoted to the various airpower operations for a given period of time (often expressed by priority of objectives). Once the JFC approves this recommendation, this apportionment decision is translated to the air operations center (AOC) by means of the air operations directive (AOD).

The JFC should delegate authority to conduct execution planning, coordination, and deconfliction associated with joint air operations to the JFACC and should ensure this process is a joint effort. The commander, Air Force forces (COMAFFOR), normally also the JFACC, should possess a sufficient command and control (C2) infrastructure, adequate facilities, readily available joint planning expertise, and a mechanism for accomplishing targeting, weaponeering, and assessment. The AOC provides the COMAFFOR with these capabilities.

This stage is also where effects and their accompanying assessment measures and indicators are determined during planning. The AOC strategy division (SRD) works closely with the targeting effects team (TET), (formerly known as the guidance, apportionment, and targeting team) and the intelligence, surveillance, and reconnaissance (ISR) division to determine effects that achieve the stated objectives, select appropriate measures, and indicators for assessment, if not already accomplished, and determine ISR requirements to collect against them. Other
components also contribute allocation requests. Results of this effort may be published as lists of tasks or desired effects in the AOD.

Integration of the air component’s scheme of maneuver with those of other components is often done through the efforts of a joint targeting coordination board (JTCB), which is a forum where all components can articulate strategies and priorities for future operations to ensure that they are integrated and synchronized. The JTCB is not part of the tasking cycle per se, but is a concurrent process closely related to the tasking cycle’s opening stages. It begins during the objectives, effects, and guidance phase by reviewing operational-level guidance and assessing progress toward objectives, but may continue through the target development stage, since part of its charter is to review and submit coordinated joint integrated prioritized target list (JIPTL), as well as integrated and prioritized intelligence collection requirements. The JTCB’s operational-level “front-end” functions may be performed by a joint coordination board (JCB), or like body, which handles operational, scheme-of-maneuver-level issues and usually delegates tactical-level targeting decisions to the JTCB. If a JCB is formed, it may take the place of the JTCB in the earlier stages of the tasking cycle and the JTCB will concentrate on reviewing and approving the draft JIPTL. The JTCB or JCB should also work in concert with the joint collection management board to develop and monitor intelligence collection requirements for the joint force and synchronize the collection plan with targeteers and operations personnel during the given tasking cycle’s period of coverage.

Product: The Air Operations Directive. The AOD (along with the space and cyberspace operations directives, where appropriate) is the primary vehicle for communicating desired effects to target developers and others involved in the tasking process. The AOC SRD drafts the AOD for JFACC approval. In a normal battle rhythm, this is done on a daily basis.

TARGET DEVELOPMENT

Purpose. In this stage, the deliberate targeting process is used to relate specific targets to objectives, desired effects, and accompanying actions. Targeteers and other planners take the effects determined during the previous stage and analyze which targets should be affected to create them. The purpose of the target development process is to relate target development to tasking. There are no absolutes in target development or its relation to the tasking cycle. All the stages of the tasking process are interwoven. Target development efforts can frequently force refinement of desired effects or even objectives, especially if weaponeering and allocation efforts indicate that a particular targeting avenue of approach is impractical. Target development efforts also frequently “reach forward” to influence weaponeering and allocation choices, dynamic targeting during execution, and the assessment process. Target development involves five distinct functions:

- **Target analysis** takes the desired effects determined during planning and matches them to specific targets. It determines the necessary type, breadth, and duration of action that should be exerted on each target to create desired effects.

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1 For details on the duties and functions of the JTCB, see Joint Publication (JP) 3-60, Joint Targeting.
Target vetting leverages the expertise of the national intelligence community to verify the accuracy and fidelity of the intelligence and analysis used to develop targets.

Target validation ensures all vetted targets create the effects outlined in commander’s guidance and are coordinated and deconflicted with agencies and activities that might present conflicts with proposed actions. It also determines whether a target remains a viable element of its target system. During the development effort, it may be necessary to further screen the targets based on the sensitive target approval and review process, coordinated through the JFC to national authorities. The validation process also starts the integration and coordination of actions against the target with other operations. This continues even after the air tasking order (ATO) is produced. Many offices and agencies should be coordinated with to prevent fratricide, collateral damage, or propaganda leverage for the enemy.

Target Nomination. Once targets are identified and validated, they are nominated through proper channels for approval. Historically, this has often required detailed consideration by a high-level coordinating body such as a JTCB or joint fires element, but evolving best practice suggests that detailed targeting functions should be delegated to components (as joint doctrine permits), leaving commanders free to concentrate on integrating the joint force scheme of maneuver in the JTCB and like bodies.

Determining collection and exploitation requirements. This stage begins with target analysis and runs parallel to the other stages. Intelligence collection and exploitation requirements should be articulated early in the tasking process to support target development and ultimately assessment. Targeteers should work closely with collection managers to ensure that target development and pre-strike and post-strike requirements are integrated into the collection plan. This stage attempts to answer the question, “how will we know we’ve achieved the desired effects?” by establishing requirements for each nominated target. Targeteers and collection managers should also monitor changes that occur throughout the tasking cycle in order to modify assessment requirements.

Once all of the components, allied, and agency target nominations for a given ATO are received, the TET prioritizes the nominated targets and places them in a target nomination list (TNL) based on the commander’s objectives. The TET then vets the TNLs through the appropriate coordinating bodies representing the joint force components and other required agencies to ensure their requirements are supported, joint force priorities are met, and desired effects are created. The following products are derived from the TNL, once fully vetted.

Products:

The JIPTL is a prioritized list of targets and associated data approved by the JFC or designated representative. An approved JIPTL is the central product of the target development stage.

The joint integrated prioritized collection list (JIPCL) is a prioritized list of intelligence collection and exploitation requirements needed to support indications
and warning, analysis, future target development, and to measure whether desired effects and objectives are being achieved.

The **no-strike list (NSL)** is a list of objects characterized as protected from the effects of military operations under international law or ROE. Attacking these may violate LOAC or ROE, or interfere with friendly relations with indigenous personnel or governments. Striking targets on this list normally requires approval from Secretary of Defense or Presidential level.

The **restricted target list (RTL)** is a list of targets that have specific restrictions imposed upon them. Actions on restricted targets are prohibited until coordinated and approved by the establishing authority. Targets are restricted because certain types of actions against them may have negative political, cultural, or propaganda implications, or may interfere with projected friendly operations. The RTL is nominated by elements of the joint force and approved by the JFC. Targets on this list may only be struck with JFC or higher approval. Actions taken by an opponent may remove a target from the RTL.

**WEAPONEERING AND ALLOCATION**

**Purpose.** Weaponeering is the part of the tasking cycle that estimates the quantity and types of lethal and nonlethal weapons needed to create desired effects against specific targets. Allocation, in the broadest sense, is the distribution of limited resources among competing requirements for employment. This has two aspects that are relevant to the tasking cycle: allocation of targets and allocation of forces. Weaponeering and allocation function together to produce the master air attack plan (MAAP). These efforts commence before the JIPTL is approved and continue past MAAP production into execution planning. They are integral to all of targeting.

**Weaponeering.** Targeteers and other planners quantify the expected results of lethal and nonlethal weapons employment against prioritized targets to create desired effects. This does not predict the outcome of every munitions delivery, but represents statistical averages based on modeling, weapons tests, and real-world experience over many uses. While modern precision and near-precision weapons increase delivery accuracy to historically unprecedented levels, collateral damage and probability of destruction calculations still must be considered due to potential weapons, fusing, or delivery system malfunctions; the effects of weather and terrain; potential enemy jamming, concealment, and deception; as well as the unknowns involved in attacking deeply buried targets.

Commanders and planners take considerable precautions to avoid or minimize civilian casualties and damage to civilian infrastructure. The danger of collateral damage varies with the type of target, terrain, weapons used, weather, and the proximity of civilians and their structures. According to the law of armed conflict (LOAC), incidental damage to civilian objects must not be excessive in relation to the expected military advantage to be gained. If an attack is directed against dual-use objects that might be legitimate military targets, but also serve a legitimate civilian need (e.g., electrical power or telecommunications), then this factor should be carefully balanced against military benefits when making a weapon selection, as should end state considerations, such as reconstruction and stabilization. Established ROE and LOAC also address collateral damage concerns. For example, it may sometimes be necessary to strike a target more precisely than might otherwise be necessary in order to avoid unwanted civilian damage.
(an undesired effect). Certain levels of collateral damage estimation require expertise that lies beyond the JFACC’s—or even JFC’s—control and should be coordinated via federated and reachback relationships. These relationships may also help understand cultural patterns such as daily and weekly peaks and lulls in activity that can affect risks to civilians.

**Allocation.** After the JFC approves the apportionment decision, planners begin to decide upon allocation, which is the distribution for employment of limited resources and forces among competing requirements. There are two types of allocation relevant to the tasking cycle. The first is “allocation of effort” and it starts early in the tasking processes. In line with guidance and apportionment decisions and other components’ allocation requests, the SRD’s strategy plans team manages the broad allocation of effort over time within the AOD process (more than just the master air attack plan’s (MAAP’s) specific allocation of aircraft and weapon systems). The TET should work closely with the SRD and the MAAP team to ensure the prioritized list supports the joint air operations plan (JAOP) and AOD appropriately. The TET then collects target nominations from other sources and works allocation of targets that have been planned against the effects and objectives to build the JIPTL for the ATO’s duration. Approaching JIPTL construction in this way helps avoid an ad hoc target-servicing approach.

The second type of allocation is “force allocation.” Having refined the prioritization and allocation of effort down to the tactical task level within the AOD, the TET decides, based on the AOD’s allocation of effort, which targets will be struck (in accordance with the targeting scheme they have developed) and the MAAP allocates weapon systems to that targeting scheme and decides how to best package and route them. The MAAP allocates airpower by melding available capabilities and resources with the TET’s weaponeering recommendations. The result of both types of allocation, ultimately, is a translation of the total weight of air effort into the total number or sorties or missions required to create desired effects.

Although not complete until the MAAP is produced, force allocation also starts early in the cycle. The MAAP team determines an overall sortie flow for the ATO period and determines how that flow should be divided into “packages”—discrete sets of missions and sorties designed to complement each other or provide required support (for example, tankers and electronic warfare assets “packaged” with the strike assets they are supporting). Packages are arranged in sequence and used to determine a timeline and resource requirements for the ATO period. Each package should be sequenced and deconflicted in time, space, and effect. A vital part of allocation is creation of an assessment plan. ISR assets should be carefully orchestrated to ensure optimal coverage of the operational environment.

**Products**

- **The MAAP** is the JFACC’s time-phased air, space, and (often) cyberspace scheme of maneuver for a given ATO period, synthesizing commander’s guidance, desired effects, supported components’ schemes of maneuver, friendly capabilities, and likely enemy courses of action. It shows allocation of friendly resources against approved targets.

- **The sortie allotment** (**SORTIEALOT**), if produced, is a means by which the JFC can allot sorties to meet requirements of subordinate commanders that are
expressed in their air employment and allocation plans. In many real-world situations, the JFC seldom directly allocates sorties. This responsibility is usually delegated to the JFACC. The SORTIEALOT message is often used as a means for the JFACC to communicate back to other joint force components how their allocation requests were fulfilled and other results of the force allocation process.

ATO PRODUCTION AND DISSEMINATION

Purpose. This stage finalizes the ATO and associated orders, physically produces them, and disseminates them to units. It is based on commanders’ guidance (as detailed in the AOD), the MAAP, and component requirements. *Airspace control and air defense instructions should be provided in sufficient detail to allow components to plan and execute all missions listed in the ATO.* These are usually captured in the *airspace control order* (ACO) and the SPINS. These directions should enable combat operations without undue restrictions, balancing combat effectiveness with the safe, orderly, and expeditious use of airspace. Components may submit critical changes to target requests and asset availability during this stage of the cycle.

Products:

- **The ATO** is the medium by which specific missions are tasked and disseminated to components, subordinate units, and C2 agencies. It normally provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions. The ATO may subsume the ACO and SPINS, or these may be published as separate orders.

- **SPINS** are a set of instructions that provides information not otherwise available in the ATO, but is necessary for its implementation. This may include such information as commanders’ guidance (often including the AOD itself), the C2 battle management plan, combat search and rescue procedures, the communications plan, and general instructions for inter- and intratheater airlift.

- **ROE** are rules issued by higher authority, (e.g., the JFC or the President), establishing “imperatives”—constraints and restraints—that the joint force must observe. They should be published separately, versus being buried in the SPINS or another document.

- **The ACO** provides direction to integrate, coordinate, and deconflict the use of airspace within the operational area.

- **The reconnaissance, surveillance, and target acquisition (RSTA) annex** is produced during this stage by the AOC’s ISR Division. The RSTA annex is the ISR supplement to the ATO. It contains detailed tasking of intelligence collection sensors and processing, exploitation, and dissemination (PED) nodes and provides specific guidance to tasked ISR assets (including ISR platforms, sensors, and PED nodes/architecture), as well as other assets tasked to perform ISR tasks. This product outlines the entire JFACC ISR plan for a given ATO, possibly at multiple classification levels.
EXECUTION PLANNING AND FORCE EXECUTION

Purpose. Execution planning includes the preparation necessary for combat units to accomplish decentralized execution of the ATO. It generally consists of the 12 hours immediately prior to the start of a given day’s ATO execution period. Force execution refers to the 24-hour period in which a particular ATO is executed by units in the field. The AOC aids by preparing input for, supporting, and monitoring execution. The JFC usually delegates the authority to redirect assets using established priorities. The JFACC also coordinates redirection of sorties that were previously allocated to support component operations with the affected component commanders. Under the Air Force doctrine of centralized control and decentralized execution, unit commanders have the freedom and flexibility to plan missions and delivery tactics as long as they fall within timing requirements, ROE, commander’s intent, and create desired effects.

During execution, the AOC is the central agency for revising the tasking of forces. It is also responsible for coordinating and deconflicting any changes with appropriate agencies or components. It may or may not have authority to redirect use of space or cyberspace capabilities supporting theater efforts, depending upon the asset and command relationships.

Due to the dynamics of the operational environment, the JFACC may be required to make changes to planned operations during execution. The AOC should be flexible and responsive to changes required during execution of the ATO. Forces not apportioned for joint or combined operations, but included on the ATO for coordination purposes, can be redirected only with the approval of the commander who has operational control over them. During execution, the JFACC is also responsible for retargeting assets to respond to emerging targets or changing priorities. This is the stage of operations during which dynamic targeting and dynamic intelligence collection take place. The commander may delegate the authority to redirect missions to C2 mission commanders as necessary, but they should still notify the AOC of all redirected missions.

Combat Identification (CID). The rational use of force relies on the capability to identify adversary entities as a precursor to taking action against them, especially if doing so entails the use of force. CID of all battlespace entities is thus a critical enabling capability in any use, or potential use, of military force. Identifying adversary or enemy entities is essential, but so is identifying friendly and neutral entities. “Blue force tracking” (BFT) is a core function of CID. BFT is the employment of techniques to identify and track US, allied, and coalition forces for the purpose of providing commanders with enhanced situational awareness and reducing fratricide.

Results and Products. This is the stage in which targets are actually struck (or otherwise acted upon) and direct effects are created. Other products include physical damage assessments and mission reports used in helping make physical damage and other assessments.

ASSESSMENT

Purpose. Effective planning and execution require continuing evaluation of the effectiveness of friendly and enemy action. Consequently, assessment is much more than traditional “battle damage” or “combat assessment.” Planning for it begins prior to commencement of operations, takes place throughout planning and execution, and
continues after conflict is over. Each level of assessment feeds the levels above it and provides a basis for broader-based evaluation of progress.

**Products.** Products include various tactical and operational assessment products, along with recommendations for future action.