



## ANNEX 3-14 SPACE OPERATIONS

### PLANNING (SPACE)

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Space capabilities provide the US military asymmetric advantages needed when projecting power worldwide across the range of military operations. Consequently, space assets must be considered during all phases of campaign planning for major joint operations. Space operations should be integrated into the joint force commander's (JFC) deliberate and crisis action planning (CAP) to magnify joint force effectiveness. USSTRATCOM planning should be consistent with operation plans (OPLAN) and operation orders (OPORD) developed by the JFC. Moreover, space assets must be integrated throughout the plans developed and executed by all combatant commanders.

Multiple annexes in operation planning products contain space contributions to the overall effort. Development of these annexes is the supported commander's responsibility but requires coordinated effort between the JFC, USSTRATCOM, and component level staffs.<sup>1</sup>

#### **Deliberate Planning**

As a member of the joint planning and execution community,<sup>2</sup> the commander, Air Force forces (COMAFFOR) supports the combatant commander's campaign planning process through integrated theater operation planning, beginning with the deliberate planning phase. This effort should be conducted as a total process rather than separate processes. Theater planners normally incorporate space planning into theater OPLAN annexes. However, space requirements should be considered as part of the overall OPLAN, not simply limited to a single OPLAN space annex or phase of the OPLAN. Space planning must be embedded throughout the planning process so that space assets and capabilities are appropriately integrated into each phase of the combatant commander's operation plan. The primary annex for space operations is Annex N. However, space can also be found in multiple annexes (i.e., B, C, H, K, S and others). Planners integrating space operations should coordinate with other annex planners to ensure space is thoroughly integrated throughout the OPLAN.

Since USSTRATCOM controls much of the theater space forces, it needs to be consulted when developing and integrating plans. Reachback support may be requested to provide space-specific expertise or information to augment theater

<sup>1</sup> JP 5-0, Joint Operation Planning provides a list of joint operation planning products.

<sup>2</sup> The joint planning and execution community consists of those headquarters, commands, and agencies involved in the training, preparation, mobilization, deployment, employment, support, sustainment, redeployment, and demobilization of military forces assigned or committed to a joint operation (JP 5-0).

planning. Through this cooperation, theater-developed OPLANs should designate, organize, and task theater space forces and also provide realistic external support requirements for global space assets. In addition, space requirements and considerations should be included in other functional combatant commander's plans supporting theater operations. Planners should also ensure deployable space forces are included in the time phased force and deployment data.

### **Crisis Action Planning**

Deliberate planning is essential to crisis action planning by anticipating potential crises and facilitating development of joint operation plans, in turn, to facilitate the rapid development and selection of a course of action (COA). Crisis action planning deals with emerging events and is conducted in time-sensitive situations with only actual circumstances that exist at the time on which to base their plans. Because of the time-sensitive nature of crisis action planning, it may be challenging to address space requirements if not previously identified. Certain space operations may need lead time for substantial coordination up to the Secretary of Defense level due to their political sensitivity or because they are controlled by other organizations such as USSTRATCOM, national agencies, civil organizations, or commercial enterprises. The end result of CAP produces OPORDs and fragmentary orders that can be executed to satisfy SecDef direction.

Space operations should be fully integrated into the development of all COAs. During COA development, planners should identify tasks for space assets in support of theater objectives and examine the role and contributions of space assets in the various phases of the OPLAN. During COA selection, the combatant commander should review space forces, along with [cyberspace](#), [air](#), [intelligence, surveillance and reconnaissance](#) (ISR), [land](#), [special operations](#), and [maritime forces](#). Knowledge of [global](#) and [theater](#) space capabilities will enable the commander to make an informed decision.

### **Plan Development**

Theater planning for space operations is also a crucial aspect to planning in order to integrate space capabilities and effects throughout the JFC's OPLAN. It is normally accomplished by the COMAFFOR/JFACC through an air estimate process that combines the mission activities and desired effects of air, space, and cyberspace platforms into a coherent plan to support the JFC's overall plan. The result is the joint air operations plan (JAOP). The JAOP should include the integration of all allocated and assigned theater space forces and all requests for theater support from global space assets. Planned space operations that enable theater operations and produce effects in theater are captured in the JAOP. Theater space capabilities and effects derived from deployed and organic theater space forces under the JFACC's operational control (OPCON)/tactical control (TACON) should be integrated through the air tasking order (ATO). The majority of JAOP development occurs within the [air operation center](#) (AOC); consequently, space expertise should be embedded throughout the AOC, to include ISR, combat plans, combat operations, and strategy divisions.

### **Joint Space Operations Plan Development**

In concert with theater planning efforts, CDR JFCC SPACE plans internally for space support to the theater and to meet global space requirements. Joint space planning in support of the geographic or functional supported JFC's requirements occurs through the [Joint Space Operations Center](#) (JSpOC).

The joint space operations plan (JSOP) is the space equivalent to the JAOP. The JSOP details how joint space operations will support both global missions and theater requirements. The JSOP prioritizes space operations across all AORs and functions based on geographic and functional combatant commanders' requests and CDRUSSTRATCOM priorities. Each plan should contain a sustainability assessment and delineate specific procedures for allocating and exercising command and control (C2) of global space assets. In doing so, the JSOP allows for optimum integration of global assets supporting theater operations. The JSpOC will use the JSOP to guide the development of the JSTO.

### **Planning Factors**

In an ideal world, every theater commander would be given OPCON of space resources allocated to their theater with the ability to plan, command, and control all aspects of operations. However, this paradigm may not always be possible due to fiscal constraints and space system limitations. Space assets are strategic in nature due to their complexity, cost, global access and sometimes multi-mission capability, yet provide tactical effects and capabilities. Additionally, because they operate in the space environment, satellites are subject to fixed [orbital dynamics](#) and may not always be available for use. As such, USSTRATCOM and certain national agencies typically exercise OPCON over them.

Just as weather impacts [air operations](#), [space and terrestrial weather](#) can impact both the satellites and their communications links. Many organizations use data carried over satellites and are by design primary users of space capabilities. Due to the long-haul nature of communications with satellites, vulnerabilities are inherent in the system such as ground-based communication facilities and the uplink and downlink with the satellite.

The space operator might not be responsible for the operational planning of the provided space capability. For instance, the A2 community plans and employs space-based ISR capabilities, and the A6 is responsible for planning theater satellite communications. The A6, in particular, is responsible for planning the integration of network and mission architecture improvements to help ensure availability, continuity, and resilience of satellite communications.

### **Phasing**

[Phasing](#) provides an orderly schedule of military decisions and indicates pre-planned shifts in priorities and intent. Phasing may be used to modify the prioritization of limited space capabilities to theater operations. Space operations often occur simultaneously and can be continuous throughout the OPLAN, sometimes leading to a sense that phasing is less relevant to space operations. Phasing remains a useful tool to communicate the JFC's concept of operations and the shifting of emphasis between ongoing space operations. For instance, space control operations may be emphasized

early in an operation and be de-emphasized once [space superiority](#) is firmly established. Some level of regional or temporal space superiority is likely to be a prerequisite to effective pursuit of other objectives.

### **Integration**

Integration of theater space requirements must consider both a global and theater perspective. Global integration is the responsibility of CDRUSSTRATCOM. Theater integration is the responsibility of the GCC and the COMAFFOR/JFACC. The GCC and CDRUSSTRATCOM normally authorize DIRLAUTH between component commanders and formalize a support relationship as the situation dictates. The COMAFFOR/JFACC and CDR JFCC SPACE ensure space integration occurs throughout the process. DIRLAUTH is normally more applicable for planning purposes and does not allow for tasking. It carries with it the requirement to keep the commander granting DIRLAUTH informed. For additional discussion on support and DIRLAUTH, see Chapter Four, section A of JP 1, [Doctrine for the Armed Forces of the United States](#).

### **Joint Intelligence Preparation of the Operational Environment**

[Joint intelligence preparation of the operational environment](#) (IPOE) is a process requiring detailed research, analysis, and knowledge of the adversary regarding topics such as force disposition, force sustainment, deployment of forces, weapon system capabilities and employment doctrine, environmental conditions, and courses of action. Thorough and detailed IPOE provides commanders at all levels with intelligence decision aids to effectively conduct space operations.

For space operations, IPOE guides and shapes planning, and enables the commander's multidimensional understanding of the operational environment. This knowledge of the operational environment, in concert with C2, permits commanders to anticipate future conditions, assess changing conditions, establish priorities, and exploit emerging opportunities.

### **Legal Considerations**

The Air Force carefully examines US policy, domestic law, and international obligations when planning space operations. Lawyers participate in all stages of space operations planning and [execution](#) to address applicable legal considerations. The topic [Legal Considerations for Space Operations](#) identifies the legal framework associated with military uses of space. The United States is committed to the exploration and use of outer space by all nations for peaceful purposes and for the benefit of all humanity. Consistent with this principle, "peaceful purposes" allow US defense and intelligence-related activities in pursuit of national interests.

### **Civil, Commercial, and Foreign Space Assets**

Many [civil, commercial, and foreign organizations](#) contribute space capabilities to military operations. As a part of a larger networked team, the Air Force should plan and execute in concert with those organizations, not just other Services and national agencies. Civil, commercial, and foreign space assets may be specialized and require unique procedures and equipment. Moreover, they may not have sufficient flexibility for

dynamic re-tasking and, therefore, may not meet the critical requirements for military operations. They can be leveraged through pre-established agreements but often must be requested on an unplanned basis. There may be instances where competing requirements must be balanced.

Foreign space assets provide alternatives to meet the military's operational needs. However, these space assets, even those provided by our allies, may not be easily integrated into military operations. In addition to tasking procedures, connectivity and interoperability are concerns, particularly when the US and partner nation forces function in mutual support during combat operations. Multinational operations are the norm for the US military, which makes information sharing and intelligence disclosure with partner nations a necessary concern. Processes should be developed to handle these concerns using pre-established agreements and existing policy.

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