

# AIR UNIVERSITY



## Joint Operations

*If, as Services, we get too critical among ourselves, hunting for exact limiting lines in the shadow land of responsibility as between [the Services,] we will deserve the very fate we will get in war, which is defeat. We have got to be of one family, and it is more important today than it ever has been.*

—Dwight D. Eisenhower

## Jointness

### **1. The United States Air Force is a team within a team. America's armed forces fight under unified command in joint operations.**

- US military and political leadership have emphasized *jointness* through legislation and education.
- Any discussion of US airpower must reside in the context of unified action—joint war fighting.

### **2. US services organize, train, and equip forces specializing in one of the mediums of warfare (air, land, or sea).**

Our services are charged with the development and maintenance of competence in one of the mediums of warfare.

- Service component commanders provide specialized competence, capabilities, and trained forces for employment under commanders of combatant commands.

- CINCs or joint force commanders carry out the mission and provide integrating perspective and unifying command intent.

## Joint Doctrine Primer

### 1. American military power.

- Defense of the nation is the basis for military services, and joint warfare is indispensable to that defense.
- Deterrence is the first line of our national security. If deterrence fails, our objective is winning the nation's wars.
- In military operations other than war, our purpose is to promote national security and protect national interests.

Each military service provides unique combat capabilities—all of which are necessary to defend our nation.

Jointness is attacking the right target at the right time with the right force.

Our nation has a long history of military support for national goals short of war, ranging from construction projects to military actions.

### 2. The nature of warfare in the modern era is synonymous with joint warfare.

- The US military is faced with the most challenging environment of any military power.
- The rapid evolution of technology has altered warfare.
- Power projection for the US military is a joint undertaking.

The United States is a global power with global interests in a multipolar security environment.

The speed of communications and pace of events in the modern world have accelerated.

Crises may unfold rapidly and critical engagements may occur with little time to prepare.

- Joint forces must be trained and ready prior to conflict.

Friction, chance, and uncertainty still characterize battles and produce “the fog of war.”

### 3. Values in joint warfare.

- Integrity.
- Competence.
- Physical courage.
- Moral courage.
- Teamwork.

Say what we mean and do what we say.

Cements the cohesion between leader and follower.

Remains the inspiration for battle teamwork.

Willingness to stand up for what we believe is right; other aspects involve tenacity and risk taking.

Cooperative effort by members of a group to achieve common goals.

## Joint Warfare of the United States Armed Forces

### 1. Joint doctrine.

- Joint doctrine offers a common perspective from which to plan and operate.
- It guides the joint action of the armed forces.
- Neither policy nor strategy, joint doctrine deals with the fundamental issue of how best to employ national military power to achieve strategic ends.

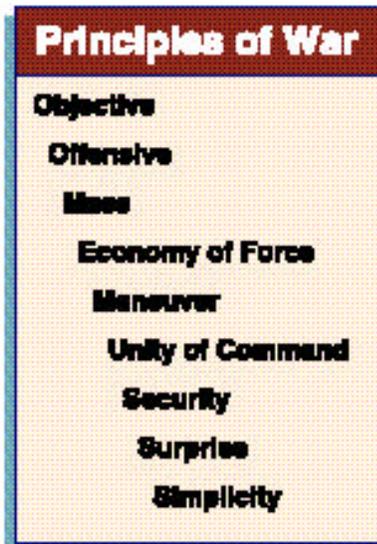
Joint doctrine is authoritative, as such it should be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise.

Joint doctrine provides military guidance for the exercise of authority by combatant commanders and prescribes doctrine for joint operations and training.

- Joint doctrine provides a foundation for employing the strengths of each service to achieve joint objectives.

## 2. Fundamentals of joint warfare.

- The principles of war are those tenets that are universally true and relevant.
- The fundamentals of joint warfare are derived from the principles of war.



The Rolling Thunder bombing campaign (1965–1968) was conducted without regard to any of the principles of war. Intended as a political strategy of graduated pressure to influence North Vietnamese thinking and demonstrated US resolve, the air campaign failed to achieve either its political or military aims. Although Rolling Thunder violated every principle of war, perhaps the most serious violation was that of the principle of the objective. Lack of an obtainable military objective produced a campaign mired in uncertainty and doomed to fail.

The principles are applied *broadly*, avoiding literal or dogmatic construction, and with due *regard* for the unique characteristics of joint warfare.

The principles of war deserve careful study by all who practice the military art, because the insights suggested by their analysis span the entire range of military operations.

**3. Several concepts have been derived from applying the principles of war in the context of joint operations: *unity of effort, concentration, initiative, agility, extended operations, freedom of action, sustaining, clarity, knowledge of friendly capabilities, and knowledge of the enemy.***

- In joint operations, unity of effort must be maintained. Success in war demands that all effort be directed toward the achievement of common aims.
 

Clear articulation of aims and objectives and the strategic focus that results are fundamental prerequisites for unity of effort.
- Concentration remains a fundamental consideration of joint operations.
 

Joint forces must operate to achieve overwhelming effect, based not only on quantity but on quality of planning and skillfulness of employment.
- Joint forces must seize and maintain the initiative. When engaged, joint actions should be offensive in spirit, exploiting the full leverage of versatile, joint forces to defeat the enemy.
 

Retaining the initiative relies on the ability of our military people to think for themselves and execute orders intelligently.
- Agility, the ability to move quickly and easily, should characterize joint operations. Agility is not primarily speed, but timeliness.
 

Operating at a faster tempo than the enemy's can expand our options while denying them to our opponent.
- When militarily advantageous, operations should be extended to fullest breadth and depth feasible, given political, force, and logistical constraints.
 

Requiring the enemy to disperse forces over a broad area can result in reduced effectiveness of those forces and complicate enemy planning.
- Maintaining freedom of action is vital.
 

The substance of flexibility is in logistics.

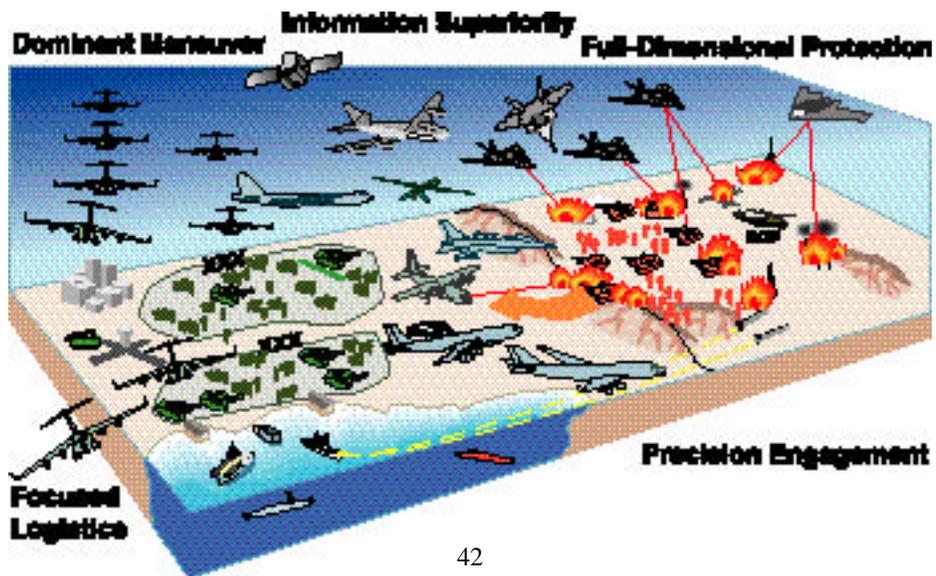
- Sustaining operations at the strategic and operational levels underwrites agility and freedom of action.
- Clarity of expression should predominate. Because modern warfare is inherently complex, plans and operations should be kept as simple as possible.

Making sure we talk the same joint language and keeping that language clear and concise are essential.
- Knowledge of self is required for effective joint operations.

The first priority is to have a full appreciation for the capabilities and limitations of all friendly forces.
- Knowledge of the enemy is a preeminent but difficult responsibility.

Traditionally, emphasis has been on understanding enemy capabilities. Knowledge of enemy intentions can be even more important to the extent that it sheds light on enemy plans and allows us to take timely and effective action to blunt them.

**4. Joint campaigns represent the art of linking battles and engagements in an operational design to accomplish strategic objectives.**



- Joint campaigns encompass the following precepts:
  - Joint campaigns are the unifying focus for the conduct of warfare.
  - They are planned within the context of the theater environment.
  - They support national strategic goals and are influenced by national military strategy.
  - Logistics sets the campaign's operational limits.
  - Campaigns are oriented on the enemy's strategic and operational centers of gravity.
  - A campaign plan is based on the commander's overall concept, which consists of operational, logistical, deployment, and organizational concepts.
  - Joint campaigns achieve sequenced and synchronized employment of all available land, sea, air, special operations, and space forces.

### **Doctrine for Joint Operations**

- 1. The joint force commander receives his guidance from the National Command Authorities (NCA) and then devises the theater objectives and campaign plan to achieve those objectives.**
- 2. JFCs may designate operational areas: joint operations area, joint special operations area, joint rear area, amphibious objective area, area of operations, and area of interest.**
- 3. JFCs not only must integrate the services' forces into a cohesive plan, they must unify the efforts of other US government agencies, nongovernment agencies, multinational forces, and United Nation's forces.**



**4. Theater campaign plans are joint—they must synchronize operations, remain simple, and be focused on clearly defined objectives.**

**5. According to Joint Pub 3-0, *Doctrine for Joint Operations*, the JFC employs *operational art* to devise the theater campaign plan. Operational art is characterized by:**

- Synergy. Integrate operations in a manner that applies force from different dimensions to defeat the opponent. [Employ integrated combat power.](#)
- Simultaneity and depth. Bring force to bear on the opponent's entire structure in a near simultaneous manner to overwhelm the enemy. [Overwhelm the enemy.](#)
- Anticipation. Remain alert for the unexpected and for opportunities to exploit. [Exploit opportunities and avoid being surprised.](#)
- Balance. Maintain an appropriate mix of forces within the joint force, as well as the nature and timing of operations. [Employ forces appropriate to the operations and desired results.](#)
- Leverage. Gain, maintain, and exploit advantages. [Exploit the advantage.](#)
- Timing and tempo. Conduct operations at a tempo and point in time to best exploit friendly capabilities and enemy weaknesses. [Control the timing and tempo of operations.](#)

- Operational reach and approach. Provide for basing to reach the enemy and shield joint forces from enemy action so that joint forces may approach the enemy to deliver symmetric and asymmetric blows with increasing power and ferocity.  
*Gain position to strike the enemy with strength and unpredictability.*
- Forces and functions. Operations can focus on defeating enemy forces or functions, or a combination of both.  
*Attack not only forces but also functions providing combat power.*
- Arranging operations. The best arrangement will often be a combination of simultaneous and sequential operations to achieve the desired end quickly and at least cost in personnel and other resources.  
*Conduct operations to achieve decisive results.*
- Centers of gravity. Mass effects against the enemy's sources of power to destroy or neutralize them.  
*Attack vulnerabilities to produce decisive effects.*
- Direct versus indirect. To the extent possible attack enemy centers of gravity directly. When direct attack means attacking into an opponent's strength, seek an indirect approach.  
*Attack the enemy's weakness.*
- Decisive points (usually geographical). Identify and control decisive points to gain an advantage over the enemy and greatly influence the outcome of an action.  
*Control points that can provide the advantage.*

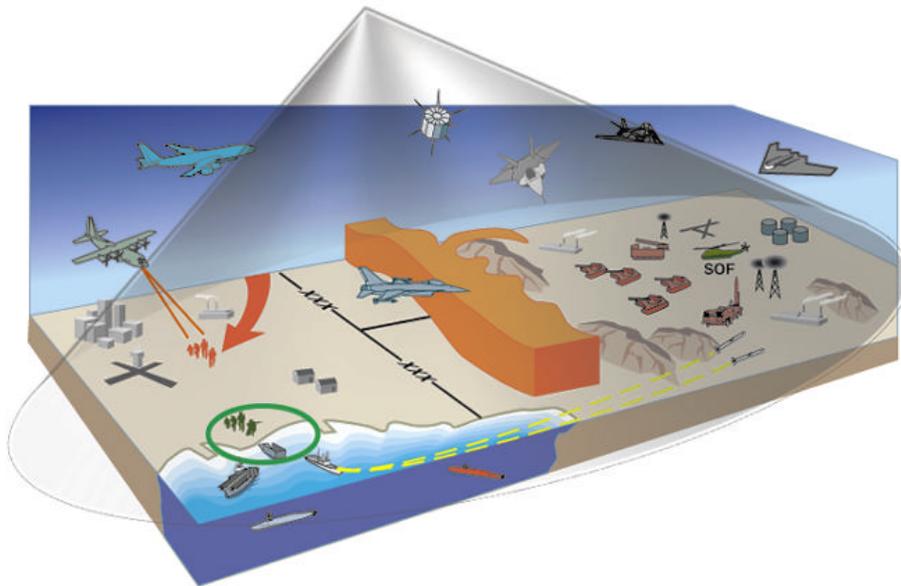
- **Culmination.** Synchronization of logistics with combat operations can forestall culmination and help commanders control the tempo of their operations.
- **Termination.** Before forces are committed, the JFC must know how the NCA intends to terminate the operation and to ensure its outcome endures.

Sustain operations without logistic limitations that work to prevent forces from achieving the desired effects.

Understand the conditions necessary for success.

## Theater Air Operations

- 1. Airpower is a theater asset and includes all air forces operating within the theater.**



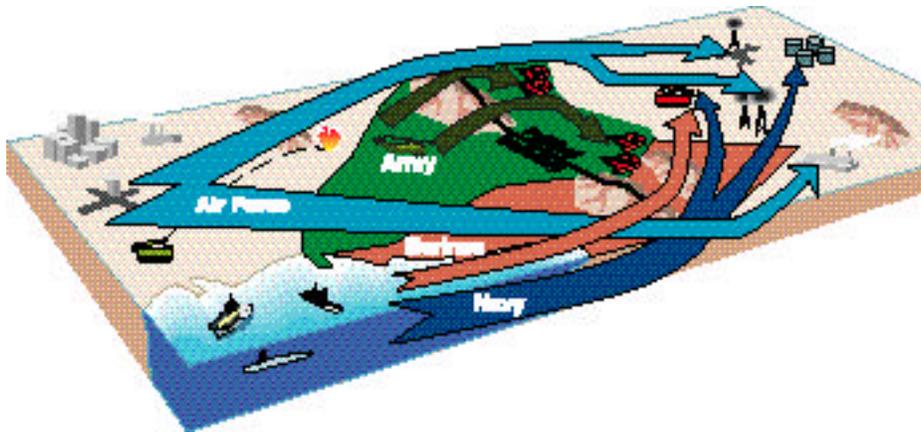
- 2. Airpower gives the joint force commander unprecedented flexibility through stealth, precision, and lethality.**

- Airpower can attack the spectrum of enemy capabilities from the tactical to the strategic within minutes.
- Airpower can shift firepower quickly across the battlefield, theater, and globe.

## Command and Control for Joint Air Operations

### 1. The joint force commander normally will designate a joint force air component commander to control air operations.

- The JFACC normally will be chosen from the service with the preponderance of air assets involved in the operation.
- The JFACC is also normally the airspace control authority and the area air defense commander.
- The complexity of air operations requires that an air commander integrate the joint air effort to achieve the JFC's objectives.



- Integration of the air campaign is essential to avoid erecting artificial seams and boundaries within the theater that reduce airpower's capabilities.

## 2. Planning the air portion of the campaign plan involves five phases:

- Combat environment research (gather information on the theater of war). The result of this research is often termed intelligence preparation of the theater.
- Objective determination (what is to be accomplished). Determine the aims of military operations and how these support the political objectives. Objectives must be clear, concise, and attainable and must directly support national objectives.
- Strategy determination. Campaigns link tactical engagements to achieve operational objectives that support strategic military objectives to fulfill national goals.
- Centers of gravity (COG) determination (identifying a point or points where the enemy may be most vulnerable and where, if attacked, there exists a high probability of decisive results). COGs describe strengths as well as vulnerabilities, and vulnerabilities may not be the enemy's weakest points. COGs may be physical, psychological, or political.

Most effort is focused on gaining information about enemy and friendly capabilities and the environment in which the conflict will take place.

Air objectives are derived from and support higher-level objectives. Conditions for the successful resolution of the conflict define the desired end-state. Restraints and constraints shape objectives and strategies.

Strategy is how military force is used to accomplish theater objectives. Air strategy is how the JFACC plans to use air and space power to achieve air objectives.

This analysis helps identify a point or points against which a level of effort may accomplish more than an equivalent level of effort could accomplish if applied elsewhere.

- Joint air operations plan development. The product of this stage is a completed air campaign plan. The plan describes key elements of the employment of air and space forces, integrates and harmonizes air and space power, identifies targets and describes levels of destruction, provides priorities and levels of effort, identifies phasing, and indicates force requirements.

The goal of the air plan is to achieve the JFC's campaign objectives.

### **3. There are six phases in planning and executing the joint air tasking order.**

- Joint force commander/component coordination. The JFC consults with component commanders to assess the results of the war-fighting effort.
- Target development. Specific objectives identified in phase 1 are used to focus target development. Targeting is done in accordance with the JFC's objectives.
- Weaponing and allocation. Targeting personnel quantify the expected results of lethal and nonlethal weapons employed against prioritized targets. The results include recommended aim points and pertinent target information.
- Joint ATO development. With an approved master attack plan, staffs work to prepare detailed tasking orders, airspace control orders, and special instructions.

Phase 1 - Component commanders provide recommendations and requirements.

Phase 2 - Produces a joint integrated prioritized target list.

Phase 3 - Final prioritized target nominations are included in the master attack plan.

Phase 4 - Detailed preparations continue for the joint ATO, and other orders and instructions are issued.

- Force execution. Forces are employed.
- Combat assessment. Assessment is done at all levels of the joint force to evaluate combat effectiveness in achieving JFC objectives.

Phase 5 - Joint forces carry out the plan.

Phase 6 - Combat assessment evaluates the results of combat operations.

**4. Successful use of joint air forces to support the JFC’s campaign requires unity of effort, centralized planning and command, and decentralized execution.**

### The Value of Airpower

**1. The Air Force is the nation’s air force. We are committed to supporting the joint force commander or other components as directed by the JFC.**

**2. It is the duty of airmen to point out opportunities for air employment that will save American lives.**

Target Characteristics	Airpower Effectiveness		
	LOW	MEDIUM	HIGH
Deep target, independent action			✓
Target under joint fires		✓	
Close air support target	✓		

Airpower is best employed against strategic level objectives to achieve theater-level effects and against operational-level objectives to achieve operational effects.

## *Joint Vision 2010*

**1. The chairman of the Joint Chiefs of Staff (CJCS) blueprint for future war fighting is *Joint Vision (JV) 2010*. *JV 2010* provides a solid vision, one that depends on and highlights the contributions of airpower.**

- *JV 2010* guides all the services into the next century and provides an opportunity for the Air Force to demonstrate the utility of air and space power to the joint force commander.
- Recognizing enhancements in technology and information systems, *JV 2010* sets forth four new operational concepts: *dominant maneuver*, *precision engagement*, *focused logistics*, and *full dimensional protection*.
- Each of these new operational concepts reinforces the others, allowing joint forces to achieve massed effects in warfare from more dispersed forces.
- Air and space forces can directly contribute to achieving each of these joint concepts and the ultimate goal of full spectrum dominance.

Armed with this vision, each service develops its own operational concepts in support of the national military strategy.

Air and space forces offer critical capabilities in achieving new levels of effectiveness in joint war fighting as envisioned in *JV 2010*.

The vision of future war fighting, as embodied in *JV 2010*, encompasses the improved intelligence and command and control available in the information age.

The four new concepts, taken together, will allow joint forces to dominate the full range of military operations from humanitarian assistance, through peace operations, to the highest intensity conflict.

Full spectrum dominance allows joint forces to effectively prevail across the range of our national military strategy from peacetime engagement, to deterrence and conflict prevention, to fighting and winning in combat.

**2. The core competencies of airpower offer critical military capabilities to the joint concepts of dominant maneuver, precision engagement, focused logistics, and full-dimensional protection.**

- The ability of airpower to engage globally at any place in minimum time from centralized or widely dispersed locations describes an important aspect of dominant maneuver.

Air and space superiority, rapid global mobility, global attack, agile combat support, precision engagement, and information superiority are the core competencies of airpower.

Airpower can control the depth, breadth, and height of the battlespace to allow joint forces to gain decisive advantage.



The operational capability of airpower to project combat power rapidly anywhere in the world, without being physically located everywhere in the world, supports dominant maneuver on a global basis.

The freedom of action for joint forces made possible through air and space superiority, coupled with the leverage offered by information superiority, enables all joint forces to gain advantages in achieving dominant maneuver.

- From the earliest attempts at precision bombing during WW II to the deadly accuracy of precision guided munitions in the Gulf War, the precision of aerial munitions has played a significant factor in air warfare.
- Precision is not limited to weapons.

Since the advent of “pickle-barrel” daylight bombing doctrine in the 1930s, precision has been an integral aspect of air strategy.

- The ability to drop cargo and supplies or insert forces from an aircraft to within a few feet of the intended target is also precision employment.
- Precision detection of targets provided by air and space assets has added a vital element to joint warfare: the precise employment of information.



Precise weaponry, precise delivery, and precise information combine to make precision engagement a critical element of joint force employment. As employment concepts have become more focused so too have support concepts.

- Focused logistics requires a combination of information and logistics technologies that ensure required supplies arrive at the right time at the right place every time, no matter the level of conflict.
 

To that end, the Air Force has been developing and refining practices that provide agile combat support.
- Total visibility of the asset pipeline ensures rapid movement of supplies directly from factory to flight line.
 

This process provides a “reach back” sustainment capability that gives our forces a smaller logistical footprint in the theater.
- A lighter logistics “tail” allows the CINC more flexibility in deploying and employing forces rapidly.



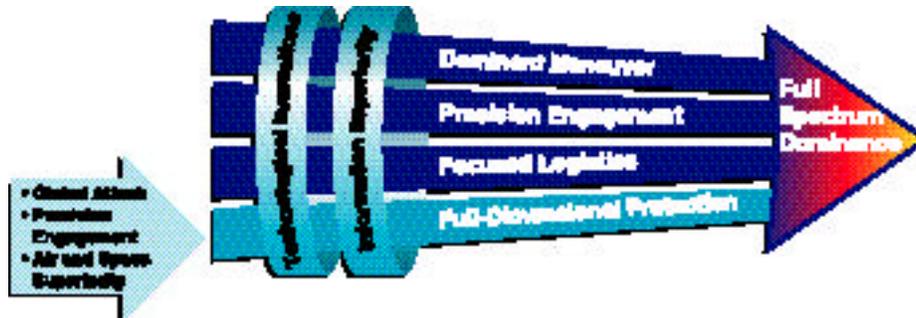
In responding to theater needs, this agile system of support also provides the theater commander significantly improved combat capability. Moving and tracking materiel by commercial carriers and advanced airlift aircraft improves battlefield distribution to users and increases the system’s ability to respond quickly to change.

- Joint air operations (including fixed wing, rotary wing, and missiles) provide a responsive and flexible force capable of attaining air and space superiority, the basis for full dimensional protection.
- The flexibility of air forces provides a means for quickly countering unexpected threats and for exploiting fleeting opportunities.
- Air and space superiority can be gained by many possible combinations of joint force assets. Once this state of control is achieved, all forces enjoy freedom of action—freedom from attack and freedom to attack.
- Air and space superiority remains a critical prerequisite for all subsequent joint force operations.

By integrating the strength of all service forces, joint airpower makes a major contribution to full dimensional protection.

Air and space superiority provides significant freedom of action for all joint forces.

Air and space superiority is a state or condition of the battlespace rather than a mission in the battlespace.



As a result of air and space superiority, all theater forces gain tremendous combat advantage. Rapid global mobility and attack, coupled with precision employment and enabled by information superiority and agile combat support, allow air forces to engage anywhere on the globe.

- Air Force core competencies make significant and multidimensional contributions to joint force operations through dominant maneuver, precision engagement, focused logistics, and full-dimensional protection, enhanced by information superiority and technological innovations to achieve full spectrum dominance.

The full spectrum dominance of integrated air and space power was impressively demonstrated in Operation Desert Storm. Air and space power performed decisively as an integrated team to help achieve the CINC's objectives.



- No one aspect of air and space power should be treated in isolation, since each element is essential and interdependent.

Air Force doctrine reminds us that airpower is indivisible.

- The future value of air and space power lies in its fullest integration—from technology, development, and testing through sustainment, force structure, education and training, exercises, and employment.
- Deterring conflicts and aggression, winning the nation's wars when deterrence fails, and conducting contingency operations will require all the resources the nation's military forces can provide.

The challenge for airmen is to explain convincingly how joint airpower operations contribute to and enhance joint war fighting.

Air Force air and space power offers the nation, and the joint team, critical capabilities through air and space superiority, global attack, agile combat support, rapid global mobility, and precision engagement.

**3. America's joint forces, enabled by information superiority and technology, will exploit the joint concepts of dominant maneuver, precision engagement, focused logistics, and full-dimensional protection to achieve full spectrum dominance across the range of military operations.**