Problems arise when domains, as discussed in Joint and Service doctrine, are used to create joint organizational structures that mandate a component’s exclusivity, primacy, or C2 of a domain. The term “domain” is relevant when organizing the structure of a joint force. Domains are used when joint force commanders (JFCs) establish functional component commands: JFCs normally establish functional component commands when forces from two or more Military Departments operate in the same physical domain. (JP 1, IV-4) JFCs establish operational areas that include parts of the physical domains. (JP 3-0, IV-11) The physical domains are air, land, maritime, and space. (JP 1, x and JP 3-13.1, IV-4) When organizing a joint force, the challenge is not to create structures based upon the perception of “ownership” of a domain that can be mistakenly construed from its definition. Using domains as the sole basis for joint force organization can limit the integration of capabilities across multiple domains. The following are extracts from doctrine and facts about domains that Airmen and joint warfighters should remember when organizing joint forces and establishing operational areas.

Domains

- Domain by itself is not defined in joint doctrine, and there are the ten different definitions of domain found in the Merriam-Webster dictionary.
  - The third listed definition comes closest to what doctrine implies when the talking about a domain: “a region distinctively marked by some physical feature.”
  - JP 1, *Doctrine for the Armed Forces of the United States*, implicitly conveys this when it states that the US military conducts operations in the “physical domains as well as the information environment (which includes cyberspace).”

- Joint doctrine only describes, but does not formally define, the land and space domains.
  - The land domain is referenced in JP 3-31, *Command and Control of Land Operations* definition of land control operations. The land domain is described as “the land area of the Earth’s surface ending at the high-water mark.”
  - The space domain is stated to be similar to the space environment in JP 3-59, *Meteorological and Oceanographic Operations*. “The space domain, where electromagnetic radiation, charged particles, and electric and magnetic fields are the dominant physical influences and
that encompasses the earth’s ionosphere and magnetosphere, interplanetary space, and the solar atmosphere.”

- Joint doctrine formally **defines** only the air, maritime, and cyberspace domains.
  - Air domain — the atmosphere, beginning at the Earth’s surface, extending to the altitude where its effects upon operations become negligible. (JP 1-02)
  - Maritime domain — the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including the littorals. (JP 1-02)
  - Cyberspace is a global domain within the information environment consisting of the interdependent network of information technology infrastructures and resident data, including the Internet, telecommunications networks, computer systems, and embedded processors and controllers. (JP 1-02)

**Establishing Operational Areas**
- JFCs establish operational areas that have “physical dimensions comprised of some combination of air, land, maritime, and space domains.” (JP 3-0, IV-11)
- Operational areas are defined with “geographical boundaries which help commanders and staffs coordinate, integrate, and deconflict joint operations among joint force components and supporting commands.” (JP 3-0, IV-11)
- The operational- and tactical-level operational areas include the joint operations area, joint special operations area, joint security area, amphibious operations area, and area of operations. (JP 3-0, IV-12)
- Joint doctrine allows JFCs to “define AOs for land and maritime forces.” (JP 3-0, IV-13)

**Bottom-Line**
- Domains are useful constructs to aid in “visualizing and characterizing the physical environment in which operations are conducted (the operational area),” but nothing in the definitions of, or the use of the term domain, implies or mandates a component’s exclusivity, primacy, or C2 of a domain. (JP 3-31, I-1)
- Today, Airmen integrate capabilities across air, space, and cyberspace domains to achieve effects across all domains in support of JFC objectives. (AFDD 1, p.12)
- Airmen are already familiar with cross-domain operations as cross-domain integration of air, space, and cyberspace capabilities is fundamental to the employment of airpower. (AFDD 1, p.13)

For more information e-mail LeMayCtr.weworkflow@maxwell.af.mil or DSN 493-9575. (published 1 June 2013)