

**Department of the Air Force Scientific Advisory Board  
FY 2025 Study**

**Space Domain Battle Management**  
*Draft Terms of Reference*

**Background**

The rapidly changing dynamics of space as a contested warfighting domain places significant operational and technical demands on the Department of the Air Force (DAF) space battle management and command and control systems. These systems must ensure space capabilities are timely and effective across strategic, operational, and tactical levels of warfare. They must also ensure space systems resiliently operate through natural and engineering threats and provide support to the Joint Force end user to, through, and from space. As such, the DAF faces significant acquisition and operational challenges to rapidly deploy effective space domain battle management and command and control systems that allow echelons of command to manage the space warfighting domain while supporting the Joint Force. These challenges are exacerbated by the mix of stove piped, legacy systems designed when the space domain threat was more limited and new capabilities that operate across domains on much shorter tactical timelines.

Given the challenges and opportunities of evolving space domain battle management and command and control systems, the DAF SAB will study their development and deployment, how they interface and interoperate with relevant partners in the National Security enterprise and identify critical risks and opportunities for those capabilities to outpace enemy threats.

**Charter**

The study will:

- Survey relevant US and threat sensors and effectors
- Survey current and developmental US space battle management and command and control systems and operational nodes
- Determine approaches to prioritizing actions considering needs of other domains and stakeholders, including Joint Force operations supported by and supporting space capabilities
- Identify approaches and technical needs for creating effective operational pictures to support multidomain-relevant space battle management
- Identify approaches to providing automation support to action selection across echelons of command and phases of warfare
- Assess needs and approaches to achieving survivability and resilience of SBM systems
- Determine shortfalls in SBM system needs versus current and planned capabilities and provide recommendations to address these shortfalls

**Study Products**

Briefing to SAF/OS in April 2025. Publish report in September 2025.