

USAF Scientific Advisory Board

Extended Uses of AFSPC Sensors (EUS)

Terms of Reference

Background

Air Force Space Command develops and operates an extensive network of sensors on the ground and in space, intended for a set of critical missions including space situational awareness, weather, and missile warning. As the coverage and capabilities of these sensors have improved over time, extended applications have been discovered. However, architectures and techniques for planning, collection, processing, analysis, and distribution (PCPAD) of the sensor data may not be optimized for, or may not even readily support, these extended applications. An independent assessment of current and planned characteristics of sensors and their PCPAD functions may reveal new opportunities for extended applications that support warfighter needs including intelligence, decision-aiding, targeting, and battlespace awareness. Identifying these opportunities in advance permits planning to meet these needs, and can stimulate science and technology developments that would lead to enhanced ability to use this sensor data.

Charter

This study will:

- Develop a comprehensive list of current and planned sensor capabilities and data products, and their characteristics;
- Identify ways these sensor capabilities and data products could be applied, extended, or combined, including with products from non-AFSPC sensors, to provide new and useful capabilities to meet warfighter needs;
- Assess what modifications or extensions would be needed to current and planned sensor and PCPAD capabilities and architectures in order to enable these extended applications without interfering with the ability to meet primary mission needs; recommend those that appear to be particularly promising;
- Identify science and technology needed to enable or enhance the capability to address the most promising of these extended applications, along with specific science and technology approaches in the near-, mid-, and far-term that can help meet these technology needs.

Study Products

Briefing to SAF/OS & AF/CC in July 2012. Publish report in December 2012.