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A TECHNICAL COMPARISON OF THE PUBLIC SSA SERVICES IN THE UNITED STATES AND THE EUROPEAN UNION

Abstract

This technical study, jointly carried out by members of the United States Traffic Coordination System for Space (TraCSS) program and the European Union Space Surveillance and Tracking (EU SST) program, defines and compares the full set of services that each program intends to provide free of charge to end users to ensure a minimum level of safety and sustainability in space. The functional definitions of each proposed service are systematically compared to identify areas of alignment and non-alignment between the two programs, and to highlight any differences in terminology. The study also discusses the rationale behind the provision of each free service, including its alignment with space safety goals. Everything beyond those basic public safety services may belong to the commercial realm.

Both the United States and the European Union recognize the need to provide a free public space situational awareness and space traffic coordination service to support spaceflight safety and sustainability of the space environment. The United States and the European Union also agree on the value of encouraging the continued growth of a robust global commercial space situational awareness market. Clear identification of the services that will be provided free of charge by institutional programs allows current and future spacecraft owners and operators to have confidence that products and services essential to spaceflight safety will continue to be available free of charge, even as space becomes increasingly congested and the global SSA sector continues to evolve. This information is also critical for the global commercial SSA sector, which aims to augment public services with additional commercial SSA products and services to meet the growing demand of spacecraft owners and operators around the world.

The results of this study will provide important insight into two of the largest public space situational awareness programs in the world, bring greater clarity to the broader space community regarding the future of space safety services, and facilitate international discussion regarding the future of space safety and sustainability and commercial space activity.