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Author: Mr. Brian Weeden

Secure World Foundation, United States, bweeden@swfound.org

THE EVOLUTION OF U.S. POLICY FOR ADDRESSING THE THREAT OF SPACE DEBRIS: PAST,
PRESENT, AND POTENTIAL FUTURE

Abstract

Since the late 1980s, U.S. national space policy has increasingly highlighted the importance of dealing with space debris, and directed U.S. federal agencies to take specific actions to address the challenge. However, the implementation of the policy direction has been mixed. This paper provides an overview of the historical evolution in U.S. national policy on space debris, including space debris mitigation, space traffic management, and active debris removal. The paper shows that while there has been significant progress on raising awareness of the threat posed by space debris among U.S. policymakers, and taking action on implementation voluntary debris mitigation guidelines, there has been little progress on remediation of the space environment through removal of large space debris objects, despite strong scientific consensus of its importance to the long-term sustainability of the space environment. The paper discusses the lack of progress on active debris removal in the context of broader public policy models and concepts, and identifies the lack of a U.S. federal agency with clear responsibility and authority to manage the space environment as a key constraint. It recommends that future executive and legislative action on space debris consider giving an existing, or new, federal entity clear authority over on-orbit space activities and responsibility for managing the space environment.