

Transcending Societal Issues for Space Exploration (12)  
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## SPACE CYBERSECURITY CONSIDERATIONS FOR INTERNATIONAL COLLABORATION

### **Abstract**

As nations look to expand international partnerships and collaboration with industry, the global space sector will need to increase consideration of cybersecurity for space systems. Ensuring that space systems are designed, developed, and operated in a manner that protects cybersecurity will be a key aspect of international space partnerships. Collaboration between governments and industry will need to integrate cybersecurity principles into their agreements so that critical space systems are protected against cyber-attack. Nations that wish to collaborate on space projects will increasingly need to share best practices and mitigation tactics to prevent cyberattacks on jointly built and operated space systems. Cybersecurity considerations will shape best practices and by creating global standards, industry and governments will be able to best operate and mitigate attacks from adversaries. This paper will offer a framework for cybersecurity considerations for governments and space industry looking to collaborate internationally in space. By determining appropriate cybersecurity measures and legal frameworks for space systems development globally, nations can mitigate cyber risks in all phases of system design and operation. Space collaboration can play a large role in the 2030 UN agenda for sustainable development. However, in order for those collaborations to take place, nations need to be able to mitigate space cybersecurity risks and collaborate using shared cybersecurity principles. By establishing these principles for cybersecurity risk sharing and mitigation, nations can strengthen international partnerships and collaborate better with the global space industry.