

National Aeronautics and  
Space Administration



# EXPLORE SCIENCE

**Cybersecurity/Encryption**

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NASA Science Mission Directorate

A vibrant space-themed background featuring a large blue and white nebula, a bright yellow sun, and several celestial bodies including Saturn, Mars, and the Moon. The scene is framed by a large, curved, light blue shape that overlaps the text area.

# A little about me

Ph.D. in Information Security

LCDR in the US Navy Reserve / Information Warfare

DoD/Intel

Semi-retired Professor

New to NASA

The background of the slide is a vibrant space scene. It features a large, dark blue planet in the foreground, a bright yellow sun in the lower left, and various other celestial bodies including a ringed planet and a reddish planet. The background is filled with stars and a blue nebula. The slide is framed by a dark blue circular border on the left and bottom.

# Information Security at SMD

Guiding Principle: “We are in the business of science”

Major Areas of Effort for Small Sat Projects:

- Project Protection Plan (PPP)
- Authorization To Operate (ATO)
- Common Mission Infrastructure

A vibrant space-themed background featuring a large blue circle on the left containing a detailed view of the Earth's horizon. To the right, a smaller blue circle contains a view of the Moon. The background is filled with various celestial bodies, including Saturn with its rings, Mars, and a bright yellow sun, set against a starry sky with a blue nebula.

# Small Satellite Cybersecurity

Do we need cybersecurity on small satellites?

If so, what kind of cybersecurity?  
Encryption?

[https://youtu.be/qwC7Kgj87T0?  
si=rVS-M-43FJwC39AZ](https://youtu.be/qwC7Kgj87T0?si=rVS-M-43FJwC39AZ)

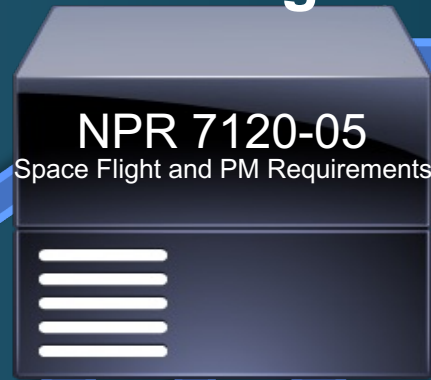
A vibrant space-themed background featuring a large blue sphere (resembling the Moon) in the center, a bright yellow sun in the lower left, and various other celestial bodies like Saturn and Mars. The scene is set against a backdrop of colorful nebulae and stars. The right side of the image is partially obscured by a dark blue circular graphic element.

# Small Satellite Cybersecurity

## Compliance vs Risk Paradigm

# SMD Information Se Listing

**NPR 7120-05**  
Space Flight and PM Requirements



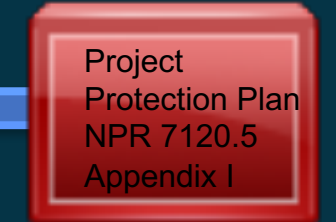
Science Data  
Management Plan



Information  
Technology  
Management Plan



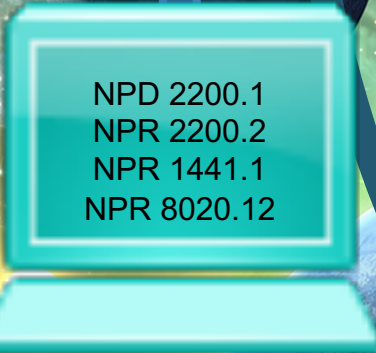
Project  
Protection Plan  
NPR 7120.5  
Appendix I



STD  
1006



NPD 2200.1  
NPR 2200.2  
NPR 1441.1  
NPR 8020.12



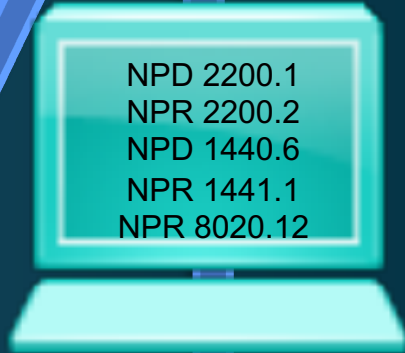
Risk  
Management  
Plan  
NPR 8000.4



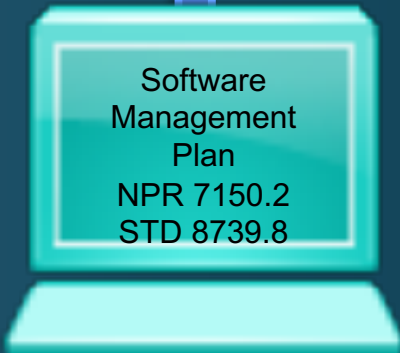
Security Plans  
NPR 1600.1  
NPR 1600.2  
NPR 2810.1  
NPR 1040.1



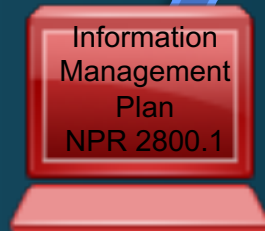
NPD 2200.1  
NPR 2200.2  
NPD 1440.6  
NPR 1441.1  
NPR 8020.12



Software  
Management  
Plan  
NPR 7150.2  
STD 8739.8



Information  
Management  
Plan  
NPR 2800.1



IT Security  
NPR  
2810.1



The background of the slide is a vibrant space scene. It features a large, detailed Earth in the lower-left corner, showing blue oceans and white clouds. Above it, a bright yellow sun glows. In the center, a large, dark blue moon is visible. To the left, Saturn with its rings and Mars are depicted. The background is filled with a colorful nebula in shades of blue and green, and numerous bright stars of varying sizes. The entire scene is framed by a dark blue circular border.

# Small Satellite Cybersecurity Way Forward

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EXPLORE  
together