



# NATO'S DETERRENCE DILEMMA

LILLA DOUCHA

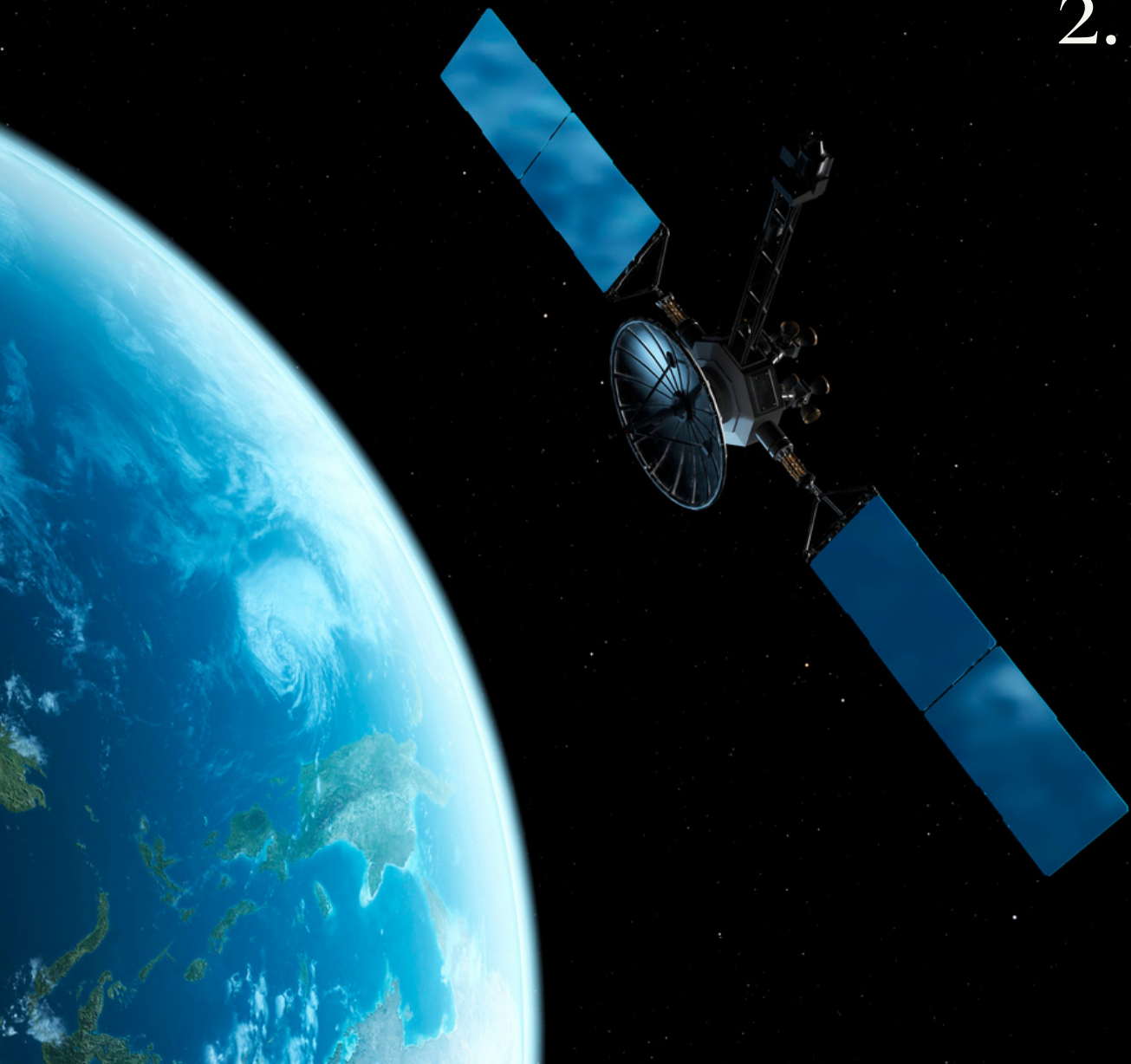
SET-SCI-297 SPECIALISTS' MEETING ON SPACE SENSORS  
AND SPACE SITUATIONAL AWARENESS

10-11. OCTOBER, 2022

# RESEARCH QUESTIONS AND HYPOTHESES

1. CAN IMPROVED SPACE SITUATIONAL AWARENESS (SSA) BROADEN THE SCOPE OF SPACE DETERRENCE'S CREDIBLE APPLICABILITY?
2. CAN NATO IMPLEMENT DETERRENCE IN SPACE?

- 
- A. DETERRENCE BY PUNISHMENT CAN BE CREDIBLY APPLIED IN THE OUTER SPACE UNDER CERTAIN CONDITIONS.
  - B. DETERRENCE BY DENIAL CAN BE CREDIBLY APPLIED IN THE OUTER SPACE UNDER CERTAIN CONDITIONS.





# OVERVIEW

RELEVANCE OF SPACE DETERRENCE

---

REQUIREMENTS OF CREDIBLE DETERRENCE

---

THREATS AND ASSETS

---

ENABLERS OF DETERRENCE BY PUNISHMENT IN  
SPACE

---

THE POTENTIAL FOR SSA

---

DETERRENCE BY PUNISHMENT AND DENIAL

---

CONCLUSION

# RELEVANCE OF SPACE DETERRENCE

---

INCREASED  
RELIANCE

MILITARIZATION

LACK OF  
ALTERNATIVES

---

# REQUIREMENTS OF CREDIBLE DETERRENCE

SUCCESSFUL ALTERATIONS THE ENEMY'S ANTICIPATED  
COST-BENEFIT ANALYSIS.

---

BALANCED  
COMMUNICATION AND  
SIGNALING

RELIABLE  
ATTRIBUTION

TECHNOLOGICAL  
SUPERIORITY /  
RESILIENT  
CAPABILITY



# ESCALATION LADDER & ASSET VULNERABILITY

1. REVERSIBLE ACTIONS

2. IRREVERSIBLE ACTIONS  
WITHOUT ENVIRONMENTAL  
DEGRADATION

3. IRREVERSIBLE ACTIONS WITH  
ENVIRONMENTAL DEGRADATION

TERRESTRIAL BASES

WEATHER & SCIENTIFIC SATELLITES

SEWS

PNT

SATCOM

MILSATCOM

ISR

ASAT

# ENABLERS OF DETERRENCE BY PUNISHMENT

## VARIABLES

Category	Strategic value	Replaceability	Resilience		Density
			Reversible	Non-reversible	
MILSATCOM	H	L	H	L	L
ISR	H	L	L	L	L
ASAT	H	L	L	L	L

## CONDITIONS

BRIDGING THE  
VULNERABILITY GAP

CREDIBILITY AGAINST  
ASYMMETRY

ADDRESSING  
WEAK SSA

# THE POTENTIAL FOR SSA



DETERRENCE BY  
PUNISHMENT

1. DEEPENING
2. BROADENING

---

DETERRENCE BY  
DENIAL

BROADENING



# DETERRENCE BY PUNISHMENT AND DENIAL

DETERRENCE BY  
PUNISHMENT

DEEPENING



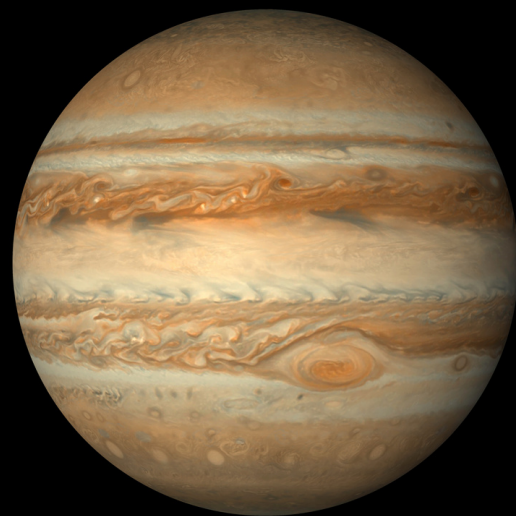
BROADENING

X

DETERRENCE BY  
DENIAL

?

FURTHER ACADEMIC  
AND EMPIRICAL  
INQUIRY IS REQUIRED  
IN CASE OF PNTs



# CONCLUSION

CAN NATO IMPLEMENT DETERRENCE IN SPACE?

DETERRENCE BY PUNISHMENT UNDER CERTAIN CONDITIONS

---

CAN IMPROVED SPACE SITUATIONAL AWARENESS (SSA) BROADEN THE SCOPE OF SPACE DETERRENCE'S CREDIBLE APPLICABILITY?

PARTIALLY, AS IT DEEPENS THE SCOPE OF DETERRENCE BY PUNISHMENT AND PROVIDES A CHANCE FOR DETERRENCE BY DENIAL



THANK YOU FOR THE ATTENTION!

LILLA DOUCHA

[DOUCHA.LILLA@UNI-NKE.HU](mailto:DOUCHA.LILLA@UNI-NKE.HU)

JUNIOR RESEARCHER

INSTITUTE FOR AMERICAN STUDIES

UNIVERSITY OF PUBLIC SERVICE