



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

# **Insider Threats and Uncrewed Aerial Vehicles (UAV)**

## **Canadian (Regulator's) Perspective**

**INFCIRC/908 International Practitioner Workshop for Insider Threat Mitigation at Nuclear & Radiological Facilities**

**Paul Blackmore, CD, M.IPIS**  
**Team Lead, Nuclear Security Technical Operations**  
**Nuclear Security Division**  
**Canadian Nuclear Safety Commission**

**September 18-22, 2023**

# Outline

- Scope
- Problem Set
- Policy and Legal Issues
- Technical Issues
- Conclusion
- Questions/Discussion



**For the purpose of this presentation, we will only consider the use of commercial off-the-shelf (COTS) Unmanned Aerial Vehicles (UAV) in the context of an insider threat.**



# Problem Set – What Are The Issues?

**Increased UAV activity over Canadian Nuclear Power Plants (NPP).**

**Insider threats may use UAV to facilitate sabotage or theft.**

**The use of UAV can bypass existing security measures and detection capabilities.**

**Lack of policy, legal authority and technical expertise to counter UAV over Canadian NPP.**



# So What?

**Security needs to shift their focus from solely ground based threats to both ground and airborne threats. This will require new physical protection and technical measures as well as a policy and legal framework to ensure the protection of nuclear facilities.**



# Policy and Legal Issues

**The Canadian Nuclear Safety Commission (CNSC) regulates all aspects of the use of nuclear energy and materials in Canada.**

**Transport Canada regulates Canadian airspace and UAV operations.**

**Public Safety Canada regulates law enforcement and use-of force.**

**No current no-fly-zones around Canadian NPP.**

**No legal authorization to employ use of force against UAV.**

**...but discussions have begun.**



# Technical Issues

**The Canadian Nuclear Safety Commission (CNSC) is currently collaborating with other government departments and agencies to identify lessons learned regarding technologies to detect and mitigate against UAV.**

**Radars?**

**Jammers?**

**Scramblers?**

**Lasers?**

**Swarming technology?**

**Falcons?**





# CONCLUSION





# QUESTIONS/DISCUSSION

