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Violent extremism and insider threats – what should nuclear organizations do?

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Coping with Violent Political Extremism and Insider Threats is a Major Challenge

- Recent events demonstrate that the risk of violent extremists at nuclear facilities is very real
- In the United States (and many other countries), people have freedom of ideas, association
- Need to carefully balance:
  - Political freedom
  - Successful operations
  - Mitigating insider threats
  - Safety, other elements of security, other objectives…
- Existing U.S. programs – such as the Human Reliability Program – are critical
  - But not mainly designed to address domestic violent extremists
- U.S. military working to address the issue – private companies, contractors, have fewer tools

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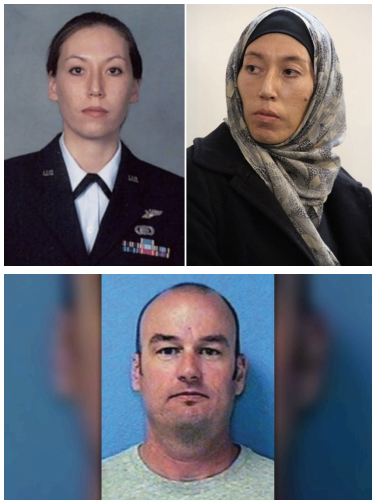
Pre-1/6 U.S. Examples: Insiders Charged with Spying, Preparing to Kill

- February 2019: Monica Witt (Fatemah Zarah), indicted for spying for Iran
  - 10-yr Air Force intelligence veteran (and later contractor)
  - Allegedly helped target U.S. agents, revealed a SIGINT program
  - Defected to Iran in 2013
- February 2019: Lt. Christopher Hasson, arrested, charged with plotting domestic terrorism
  - >20 yrs in Coast Guard
  - Allegedly planned to kill leading left-leaning political, media figures
  - 2017 letter: "dreaming of a way to kill almost every last person"
  - Insider position apparently not used



Monica Witt, Christopher Hasson
Source: U.S. Justice Department

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A Recent Nuclear Example: Insider Sabotage and a Cleared Terrorist at Doel-4

- August 2014: An insider at Doel-4 reactor in Belgium drains lubricant, destroys reactor turbine
  - ~$200 million damage
  - Investigators unable to find culprit
  - Sabotage not intended to cause radiation release
- Long before, Ilyass Boughalab had access to vital area
  - Passed security clearance review in 2009
  - In late 2012, he and another employee left to fight for terrorists in Syria (Boughalab killed there)
  - Later convicted as part of "Sharia4Belgium" terrorist group

Ilyass Boughalab
Source: Kristof Pieters

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Cognitive, Organizational Biases Undermine our Ability to Cope with Insider Threats

- Insiders are trusted, authorized employees
  - Other employees see them as friends, colleagues
- Cognitive dissonance, affect bias, illusion of control lead people to ignore warning signs
  - Even more challenging when signs are legitimate political statements
- Organizational dysfunction adds disincentives to reporting, acting on warning indicators
- Even seemingly obvious "red flags" are sometimes ignored

Doel-4 nuclear power plant – sabotaged by an insider in 2014

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Nuclear Organizations Cannot Rely on Any Single Security Measure Against Insiders

- Insiders are embedded in the organization for months or years, can plan ways to overcome security measures
- Cannot rely <u>only</u> on:
  - Background checks
  - Human reliability, monitoring programs
  - Two-person rule
  - Rules limiting access to certain areas, materials
- Need multiple measures working in concert

Beant Singh and Indira Gandhi

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Insider threats: What should organizations do?

- Build high-performance and high-vigilance culture – everyone understands that security is their job too
- Build a comprehensive, multi-layered approach to reducing insider threats
  - Maximize the scale and complexity of challenges insider adversaries would have to overcome
- Include regular assessment, testing, "red teaming" as a key part of the insider program
- Design approach within the context of the laws, culture of your country and organization
  - Need to balance maintaining vigilance with fostering atmosphere of trust, cooperation needed for high performance

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Insider threats: What should organizations do? (II)

- A comprehensive approach should include:
  - Thorough background checks before access
  - Ongoing monitoring of behavior
  - Requirements, incentives to report both concerning behavior and potential vulnerabilities
  - Effective training – with real stories
  - Minimizing human access to vital areas, materials, information
  - Continuously monitoring, controlling, and accounting for vital areas, materials, information
  - Effective investigations, responses to reports – seen as fair and reasonable by staff

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A Worst Practices Guide to Preventing Leaks, Attacks, Theft, and Sabotage

http://www.belfercenter.org/publication/insider-threats

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