Improving the Resilience of National Postal and Related Transportation Critical Infrastructure

Gregory Crabb

U.S. Postal Inspection Service U.S. Postal Service Julia H. Allen, Pamela D. Curtis, Dr. Nader Mehravari

Cyber Risk & Resilience Management Team Software Engineering Institute Carnegie Mellon University



1

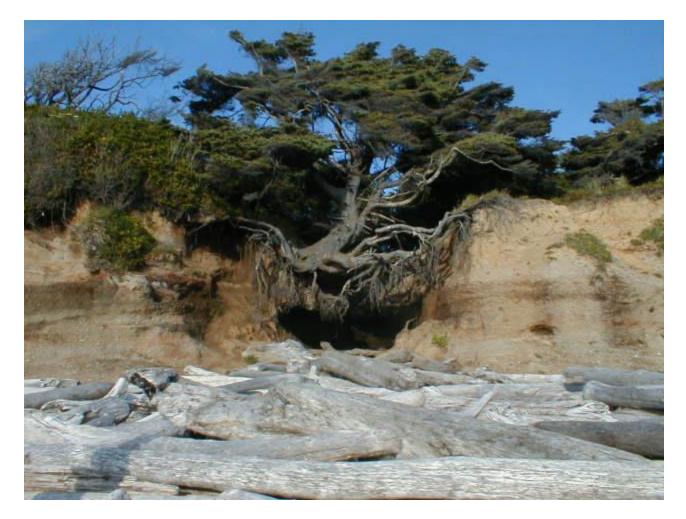




What do you see here?



Look Again!



A tree under operational stress, while achieving its business mission.

Operational Resilience

The *emergent* property of an entity

 that can continue to carry out its mission in the presence of operational stress and disruption that does not exceed its limit



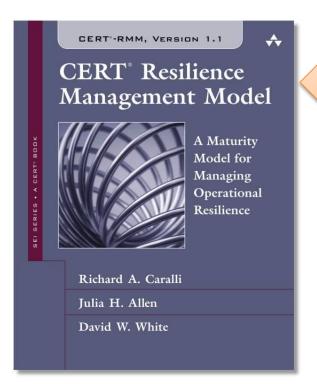
An Analogy: Health

- Is there a place that you can purchase health?
- Is there a place where health is manufactured?
- How do you become healthy?



Health & Resilience: They are both emergent properties.

CERT Resilience Management Model



http://www.cert.org/resilience/

Framework for managing and improving operational resilience

"...an extensive superset of the things an organization could do to be more resilient." —CERT-RMM adopter

Operational Stress on USPS?



Operational Stress – White Powder Incidents



Operational Risk: Safety & Availability of People Assets

Operational Stress – Fraudulent Postage





- Short pay
- Reused
- Photoshopped
- Counterfeit
- Photocopied

Operational Risk: Operational Inefficiencies; Revenue Assurance

Operational Stress – Natural Disasters



Operational Risk: Service Availability; Business Continuity

THE WALL STREET JOURNAL. \equiv business

Yemeni Bombs Target U.S.

Packages Were Bound for Chicago Synagogues; Obama Accuses al Qaed

By EVAN PEREZ and ADAM ENTOUS in Washington and MARGARET COKER in San'a, Yemen

Updated Oct. 29, 2010 12:01 a.m. ET

Operational Stress November 2010

Sign in |

STIEVEL ONLINE INTERNATIONAL

Foiled Parcel Plot: World Scrambles to Tighten Air Cargo Security

As authorities around the world are reviewing ways to improve the security of air cargo, analysts are war that a new system of rigorous checks could seriously hurt world trade. Meanwhile, German officials have admitted that they wouldn't have spotted the parcel bombs, even if they had checked them.



Operational Risk: Safety and Security of Air Transportation

Operational Stress - October 2013

To Move Drugs, Traffickers Are Hacking Shipping Containers

October 21, 2013 // 06:45 PM CET



Operational Risk: Cybersecurity; Information & Technology Assets

Successful Applications of RMM at USPS

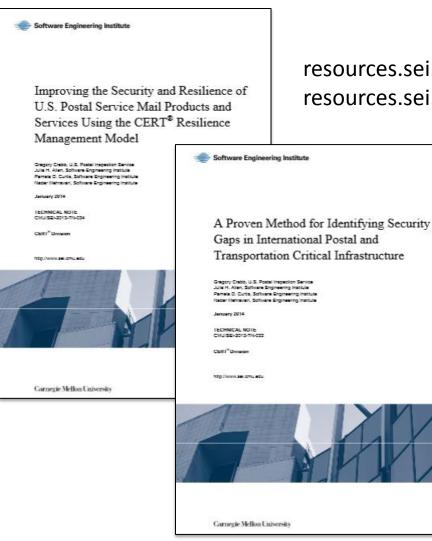


- Export control screening
- New product security
- Measuring and monitoring risks associated with revenue and fraud
- Physical security
- Aviation screening for international mail
- Improved processes for investigative response to network security incidents
- Mail induction, revenue assurance, and international mail transportation

Application of CERT-RMM ...



More Details



resources.sei.cmu.edu/library/asset-view.cfm?assetID=77277 resources.sei.cmu.edu/library/asset-view.cfm?assetID=77265

Point of Contact:

Dr. Nader Mehravari Cyber Risk and Resilience Management Team Software Engineering Institute Carnegie Mellon University nmehravari@sei.cmu.edu 607-379-9556