

Transportation Security – PUBP 710 Summer 2007  
George Mason University  
School of Public Policy  
Transportation Policy, Operations and Logistics

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Irvin Varkonyi, CSCP, is president of Supply Chain Operations Preparedness Education (SCOPE), [www.scopedu.com](http://www.scopedu.com), a firm offering training and consulting in organizational preparedness for private and public sector organizations. He has three decades of experience in air transportation and logistics which he utilizes to teach and train undergraduates, graduate students and adult learners. He holds adjunct professor positions at the American Military University in their Homeland Security, Transportation and Logistics department and at George Mason University's School of Public Policy. Mr. Varkonyi was previously Manager of Program Instruction at APICS, the Association for Operations Management; Sales Principal with responsibility for business development in third party logistics and order fulfillment with the DDD Company; Manager, Government Project Development with Emery Worldwide at their Dulles Airport Government Sales Office; Vice President, Cargo Sales, the Americas, for Martinair Holland, a specialized niche air cargo operator based in the Netherlands; and with KLM Royal Dutch Airlines as Assistant Regional Sales Manager for KLM's Eastern Region, based out of JFK Airport.

Mr. Varkonyi holds an MBA from the American Graduate School of International Management (Thunderbird) in Glendale, AZ and a B.A. in International Relations and Economics from Clark University in Worcester, Mass. He is a Certified Supply Chain Professional, awarded by APICS, the leading brand in certifying operations professionals. He is a past president of the National Capital Area Roundtable of the Council of Supply Chain Management Professionals; a past vice-chairman of the Transportation Security Council of ASIS; the current chair of the Emergency Preparedness Committee of the Washington, DC Chapter of the National Defense Transportation Association and VP for Corporate and University Services APICS DC Metro chapter. He resides in Fairfax, VA

Foundation	The course examines the critical issues of security, resilience and preparedness which are challenging the capabilities of the transportation infrastructure in the 21 <sup>st</sup> century. Public policy must incorporate the requirements of public and private sector stakeholders into transparent programs which plan, mitigate, detect, respond and recover from inevitable disruptions. The central role of transportation modes in the supply chain of goods and people will lead us in discussions on the protection of assets to maintain the supply chain flow. Industry practitioners, policy planners and participants engaged and/or dependent on global travel and acquisition of global goods will gain knowledge and develop skill sets on imbedding security in this critical infrastructure.
Learning Objectives	<ol style="list-style-type: none"> <li>1. Acquire an understanding of the roles of the Department of Homeland Security's agencies in transportation security</li> <li>2. Complete case studies which review security in air, surface and maritime modes for passenger and cargo movements</li> <li>3. Learn some of the economic impact on the private and public sector of security practices</li> <li>4. Complete a review of transportation security planning by users in multiple industries</li> <li>5. Understand the role of state and local transportation authorities in security</li> <li>6. Gain knowledge of transportation integration to secure the supply chain.</li> <li>7. Become aware of the impact of safety issues on security</li> <li>8. Gain insight into the overlapping of issues of cargo theft, smuggling and terrorism.</li> <li>9. Assess the basis of resilience in an enterprise</li> <li>10. Incorporate Total Security Management methodology</li> </ol>
Speakers	<ol style="list-style-type: none"> <li>1. Government</li> <li>2. Transporters</li> <li>3. Associations involved with Homeland Security</li> </ol>
Texts	<ol style="list-style-type: none"> <li>1. "The Resilient Enterprise," Dr. Yossi Sheffi, MIT Press, 2005</li> <li>2. "Securing Global Transportation Networks," Ritter, Barrett, Wilson, McGraw Hill, 2007</li> </ol>

Resources:

National Research Council	Making the Nation Safer Transportation
GAO reports	Federal Action to Help Address Security Challenges; TSA, Actions and Plans to Build a Results Oriented Culture; Maritime Security and Planning Requirements for Effective Security; Aviation Security, Vulnerabilities and Potential Improvements for the Air Cargo System; Rail Security, Some Actions Taken to Enhance Passenger and Freight Rail Security; DHS Efforts to Eliminate Redundant Background Check Investigations; Federal Efforts to Secure

	US Bound Air Cargo in the Early Stages
Critical Infrastructure Protection Project, GMU	Federally funded unit of the National Law and Technology Center
Federal Commissions	National Security Strategy of the USA; Gilmore Commission
Homeland Security President Directives	Presidential Decision Directives
Eyefortransport	Cargo Security Reports (multiple years)
Associations	World Shipping Council; International Cargo Security Council; American Society for Industrial Security; American Trucking Association
I-95 Corridor Coalition	Container and Truck Trailer Security Project
Transportation Research Board	Transit Cooperative Research Program – Transportation Security documents; Critical Issues in Transportation
Dept of Transportation	Federal Transit Administration, Public Transportation System Security and Emergency Preparedness Planning Guide
International Cargo Security Council	Cargo Theft and Contraband
American Society for Industrial Security	Certification of Security Professionals
Journal of Homeland Security	Identification of Core Competencies Required of Crisis and Continuity Managers; Satellite Control and the Future of Container Security
Federal Highway Administration (FHWA)	Intermodal Freight Security and Technology Workshop
Council of Supply Chain Management Professionals	“Securing the Supply Chain.” (Helferich/Cook)
Rand Corporation	Evaluating the Security of the Global Containerized Supply Chain
Deloitte Touche	Transportation Security Survey
Unisys	A Secure Commerce Blueprint
Institute for Infrastructure Assurance	Cascading Infrastructure Failures
AT Kearny	Smart Boxes, RFID can improve Efficiency, Visibility and Security in the Global Supply Chain
American International Security	Identifying Vulnerability – Enhancing Organizational Security in the Post 9-11 World
Homeland Defense Journal	Carver Methodology – Target Analysis and Vulnerability Assessment
Society for Risk Analysis	Risk Analysis Methodologies
Federal Transit Administration	Security and Emergency Management and Technical Assistance
FM Global	The New Supply Chain Challenge - Risk Management in a Global Economy
Knowledge storm	Business Process Innovation: Understanding and Managing Supply Chain Risk
Dept of Homeland Security	Pandemic Influenza – Best Practices and Model Protocols

Class meets twice weekly, Tue and Thurs, at 720pm.

Date	Topic	Class Goals	Speaker	Speaker Topic
6/5	1. Introductions 2. Overview of Cargo and Passenger Transportation – Opportunities and Vulnerabilities	Basics of the industry; Cargo at rest is cargo at risk; interface of cargo and passenger conveyances; Review the Team Project	None	
6/7	1. Transportation Security Administration 2. Securing Global Transportation Networks	Government security responsibilities and initiatives; Private sector responsibilities and initiatives	None	
6/12	1. Technology and Transportation Security 2. Securing Global Transportation Networks	Technology applications and opportunities to secure transportation; global trade management; Total Security Management	<b>Dr. Michael Bronzini</b> , GMU, Dewberry Chair Professor and Dept. Chair of the Department of Civil, Environmental, and Infrastructure Engineering	Civil infrastructure security engineering, encompassing transportation systems as well as bridges, dams, water supply systems, energy systems, and buildings
6/14	1. Container security 2. ISO standards 3. Securing Global Transportation Networks	Global container trade; Role of World Customs Organization; Role of International Standards Organization; Total Security Management	<b>Dr. David Santana-Ortiz</b> , Associate Engineer, Rand Corporation	Global container security
6/19	1. Global procurement risks 2. Resilience of the enterprise	Outsourcing and offshoring; global supply chain risks; Total Security Management	None	
6/21	1. Disasters 2. Business Continuity	Planning and preparedness for disasters; Tools of Business Continuity; Difference between disaster recovery and business continuity	<b>Dr. Gregory Shaw</b> , D.Sc., George Washington University, Program Manager of Institute for Crisis, Disaster and Risk Management, Senior Research Scientist	Crisis, Disaster and Risk Management

6/26	1. Transportation Security and the National Infrastructure Plan 2. The resilient enterprise	A review of transportation modalities, their vulnerabilities and preparedness	<b>Andrew Cox</b> , Chief, Strategy Science Branch, TSA, (SPP '06) (see <a href="http://www.tsa.gov/press">http://www.tsa.gov/press</a> )	Transportation Security Modal studies
6/28	1. Maritime Security 2. Port Security 3. Intermodal congestion	Components of maritime security; Government Initiatives; Convergence of security and congestion	<b>Scott Brotemarkle</b> , (SPP '06) Director of Program Development and Technology, American Association of Port Authorities	Convergence of port congestion and security
7/3	1. Critical Infrastructure 2. Modal security 3. The resilient enterprise	What is critical infrastructure? It's role in transportation security	None	
7/5	1. The Department of Homeland Security 2. Government initiatives 3. Modal transportation security	CTPAT and more; The Congress; Aviation security, surface modal security	<b>Dr. James Carafano</b> , Assistant Director, <a href="#">Kathryn and Shelby Cullom Davis Institute for International Studies</a> and Senior Research Fellow, <a href="#">Douglas and Sarah Allison Center for Foreign Policy Studies</a> , the Heritage Foundation	The politics of Homeland Security and its impact on maritime and infrastructure security
7/10	1. The Human Factor in Transportation Security 2. Disaster simulation	Training for preparedness; Cross functional teams	<b>Mr. David H Gilmore</b> , CPP President Colonial Safeguards Inc, ASIS Academic Practitioner Committee	The physical security specialist
7/12	1. Securing Global Transportation Networks	Total Security Management	<b>Luke Ritter</b> , Principal, Ritter and Associates	TSM
7/17	1. Cargo Theft and Contraband 2. The resilient enterprise	Who? What? Where? Why? When? How?	None	
7/19	Team presentations	Teams A/B	None	
7/24	Team presentations	Teams C/D	None	
7/26	1. Final paper 2. Course summary	Presentations on final papers; outlook for transportation professionals in preparedness	None	

Reading Assignments

Date	Name	Section	Discussion
6/5	1. National Research Council	Making the Nation Safer, Transportation Systems, pp. 210-237, <a href="http://books.nap.edu/openbook.php?record_id=10415&amp;page=210">http://books.nap.edu/openbook.php?record_id=10415&amp;page=210</a>	What's the challenge?
	2. Congressional Research Service	Transportation Security: Issues for the 110 <sup>th</sup> Congress; <a href="http://www.ncseonline.org/NLE/CRSreports/06Dec/RL33512.pdf">http://www.ncseonline.org/NLE/CRSreports/06Dec/RL33512.pdf</a>	What can (should) Congress do?
6/7	1. Text, Securing Global Transportation Networks	Chap 1;	What is the context? What are the change agents?
	2. Wisdom Net	Managing Supply Chain Risk, <a href="http://www.wisdomnet.net/documents/whitepapers/SCM_Risk_2006.pdf">http://www.wisdomnet.net/documents/whitepapers/SCM_Risk_2006.pdf</a>	How do you define supply chain risk? How do you mitigate supply chain risk?
6/12	1. Text, Securing Global Transportation Networks	Chap 2,3	What are the five pillars? How does TSM create value?
	2. Michael Wolfe	"Freight Security and Productivity: Strategy, Technology, Costs and Benefits." <a href="http://www.fhwa.dot.gov/download/hep/freightplanning/talkingfreight10_19_05mw.ppt#20">http://www.fhwa.dot.gov/download/hep/freightplanning/talkingfreight10_19_05mw.ppt#20</a>	What is smart technology?
	3. Savi Technology	Savi Transportation Security System, <a href="http://www.savi.com/products/Savi_TSS_DS.pdf">http://www.savi.com/products/Savi_TSS_DS.pdf</a>	How does Savi seek to improve transportation security?
	4. TRB Research Paper 274	Executive Summary, Cybersecurity and Freight Information Systems: <a href="http://onlinepubs.trb.org/onlinepubs/sr/sr274.pdf">http://onlinepubs.trb.org/onlinepubs/sr/sr274.pdf</a>	What are the highlights of the Executive Summary?
6/14	1. David Ortiz and Henry Willis, Rand Corporation	Evaluating the Security of the Global Containerized Supply Chain, <a href="http://www.rand.org/pubs/technical_reports/2004/RAND_TR214.pdf">http://www.rand.org/pubs/technical_reports/2004/RAND_TR214.pdf</a>	How do the three levels of global container activity interact?
6/19	1. Text, Securing Global Transportation Networks	Chap 4,6	What is risk management in TSM? How do you protect assets in transit?

	2. IBM, Stanford University, National Association of Manufacturers	Innovators in Supply Chain Security, <a href="http://www-304.ibm.com/jct03004c/tools/cpeportal/fileserve/download28/60833/InnovatorsSupplyChain.pdf?contentid=60833">http://www-304.ibm.com/jct03004c/tools/cpeportal/fileserve/download28/60833/InnovatorsSupplyChain.pdf?contentid=60833</a>	What are the collateral benefits of supply chain security?
6/21	1. Technology Consulting and Solutions	Business Continuity vs. Disaster Recovery, <a href="http://www.plantemoran.com/Services/Consulting/TechnologyConsultingSolutions/Resources/Articles/Business+Continuity+Planning+Are+You+Prepared.htm">http://www.plantemoran.com/Services/Consulting/TechnologyConsultingSolutions/Resources/Articles/Business+Continuity+Planning+Are+You+Prepared.htm</a>	What is the difference between BC and DR?
	2. TRB	Emergency Transportation Operations: Resource Guide for NCHRP Report 525, Vol. 6, pp. 1-17, <a href="http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_525v6.pdf">http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_525v6.pdf</a>	What are the challenges in activating emergency transportation operations?
	3. Volpe Transportation,	Effects of Catastrophic Events on Transport Systems, Jan 2003; <a href="http://transit-safety.volpe.dot.gov/security/SecurityInitiatives/Top20">http://transit-safety.volpe.dot.gov/security/SecurityInitiatives/Top20</a>	What can happen when the worst comes true?
	4. Text, Securing Global Transportation Networks	<i>Chap 9</i>	How does TSM affect business continuity planning?
6/26	1. Text, The Resilient Enterprise	Section I	How do things go wrong?
6/28	1. Homeland Security Council, The White House;	<i>National Maritime Strategy</i> , <a href="http://www.whitehouse.gov/homeland/maritime-security.html">http://www.whitehouse.gov/homeland/maritime-security.html</a>	How does the Administration view the challenge of the national maritime strategy?
7/3	1. Text, The Resilient Enterprise	Section III	How do you reduce vulnerability?
7/5	1. US Customs and Border Protection	"Supply Chain Security Best Practices Catalog: <a href="http://www.cbp.gov/linkhandler/cgov/import/commercial_enforcement/ctpat/ctpat_best_practices.ctt/ctpat_best_practices.pdf">http://www.cbp.gov/linkhandler/cgov/import/commercial_enforcement/ctpat/ctpat_best_practices.ctt/ctpat_best_practices.pdf</a>	What are the elements of the CTPAT program?
7/10	1. ASIS	Chief Security Officer guidelines, <a href="http://www.asisonline.org/guidelines/guidelineschief.pdf">http://www.asisonline.org/guidelines/guidelineschief.pdf</a>	Who is the CSO?
	2. Journal of Homeland Security and Emergency Management	Identification of the Core Competencies of the Crisis and Continuity Manager, <a href="http://www.bepress.com/jhsem/vol1/iss1/1/">http://www.bepress.com/jhsem/vol1/iss1/1/</a>	What does it take manage continuity and crisis? Are they same?

	3. Text, Securing Global Transportation Networks	Chap 8	What is the value of human capital in TSM?
7/12	Text, Securing Global Transportation Networks	Chap 10	What is the conclusion?
	Security Executive Council	Measures and Metrics In Corporate Security, <a href="https://www.csoexecutivecouncil.com/content/Metrics_Mini_Update_060706.pdf">https://www.csoexecutivecouncil.com/content/Metrics_Mini_Update_060706.pdf</a>	Can you measure security?
7/17	Security Magazine	Cargo theft, <a href="http://www.securitymagazine.com/CDA/Articles/Feature_Article/BNP_GUID_9-5-2006_A_10000000000000094706">http://www.securitymagazine.com/CDA/Articles/Feature_Article/BNP_GUID_9-5-2006_A_10000000000000094706</a>	How do you stop cargo theft?
7/19	Team presentations		
7/24	Team presentations		
7/26	Course summary/final papers		

Additional readings will be assigned as class progresses

Grade composition:

1. Class Participation – 15%
2. First formal paper – 25% - 3-5 pages, Maximum of 1500 words – **Due June 21**
3. Team projects – 30% - **Due July 19 or July 24**
4. Case study of a company, organization, industry or association – 30% - 5-7 pages, Maximum 2000 words – **Due July 26**