



(Last updated: June 9, 2014)

#### **Check for new additions (highlighted)**

The 2014 INCOSE International Symposium will be held June 30<sup>th</sup> – July 3<sup>rd</sup> in Henderson, NV at the Green Valley Ranch Resort (GVR). The INCOSE Transportation Working Group (TWG) has a full program of events planned, including an industry roundtable session, panel and paper presentations, a technical tour, and networking events. This document provides focused details on your TWG program.

#### **Anticipated Industry Attendees:**

We are anticipating the following industry attendees for our program:



Mohamad Azman Bin Othman Senior Engineer Systems Assurance & Integration Division Singapore LTA, Singapore



Phil Guzzardi
Deputy Systems Engineering Officer
Capital Program Management
New York City Transit, USA



David Springstead
Senior Director of Engineering
and Development
MARTA, USA



Graham Fletcher
Lead Technologist (Modelling),
Operations - Transport Systems
Catapult
London Underground, UK



Nita Rabadia
Lead Specification and Assurance
Manager
High Speed 2, UK
(seconded from Network Rail)



Kuleep Gharatya
Engineering Director – Transport
Systems Catapult/Head of Railway
Systems
London Underground, UK

### **Anticipated Participating Organizations:**





 ${f ProRail}$ 























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### Some TWG Program Highlights:



photo from nuclearweaponarchive.org

# Keynote Speaker: Thinking differently about systems engineering change programs – dogs, bears and magic numbers

Scott McArthur is an organizational development consultant, leadership trainer, facilitator and coach with 10 years experience in industry followed by 10 years as a business consultant. In this speech, Scott will introduce key developments in the field of behavioral psychology and will explain how to improve industry wide effectiveness.



## Industry Roundtable: Love at first sight? How can we attract more System Engineers into transportation?

This roundtable will explore the shared opportunities and challenges the transportation industry faces in attracting and developing Systems Engineering talent. Perspectives included are universities, a major source of systems engineers, and agencies and suppliers, major sources of demand for trained systems engineers.



#### Panels and Papers

This year we have an exciting range of panels and papers, covering a variety of topics relevant to SE in transportation. Refer to the tables on next page for details.



## TWG Technical Tour: Las Vegas Monorail system - Monday

...presented by Atkins North America. Ride and see behind the scenes of the only privately owned public transportation system in the U.S. running for nearly 4 miles parallel to the famous Las Vegas strip. Bus will transport attendees at 9:30 am from GVR and return by lunchtime. Space is limited. RSVP required to Jennifer.Shaw@atkinsglobal.com by June 23<sup>rd</sup>



#### **Evening Dinner - Tuesday**

The TWG is holding an evening dinner event at Elephant Bar Restaurant directly across the street from GVR (~2 min walk), from 6.30-9.30pm. Each year attendance is higher; we hope you can make it to share a meal and get to know your fellow Systems Engineers. Please RSVP to Jennifer Russell at RussellJe@PBWorld.com by June 23<sup>rd</sup>



#### TWG Working Session - Wednesday

At this year's working session we will be kicking-off a significant initiative to develop a strategic 5-year plan for the TWG – come and be part of the future!















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#### Join the movement...

Look for the distinctive **orange badge sticker** shown below. When you see this it will identify the person as a fellow **Transportation systems engineer** – come and claim yours at the Welcome Reception on Sunday night, the Technical Tour on Monday, or the Transportation Roundtable on Tuesday.



# Detailed TWG Program Highlights include: Sunday, June 29th

When, Where	What	Who (or Description)
8-12:10pm Del Mar I	Presentation Simple Techniques for Applying Systems Engineering Principles When You're New to the Game	John Collins, Douglas Hamelin, Kirt Jamison (Idaho National Laboratory)
8-12:10pm Del Mar II	<b>Presentation</b> Requirements Engineering for Large Systems	Brian Berenbach (Georgia Tech Research Institute)
1 <del>3</del> :30- <del>14</del> 2:55pm Del Mar II	Presentation Systems Engineering Management: Best Practices	Brian Berenbach (Georgia Tech Research Institute)
6-8pm GVR Lobby Lounge	TWG Welcome Reception	Join TWG members for evening drinks and networking at the Lobby Lounge (Green Valley Ranch, Henderson)

### Monday, June 30th

When, Where	What	Who (or Description)
9:30-11:55am	TWG Technical Tour: Las Vegas Monorail	Technical tour and facilitated transportation systems
Assemble: Look	RSVP required to	discussion at the Las Vegas Monorail system
for Posting	Jennifer.Shaw@atkinsglobal.com by June 23rd.	















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### Tuesday, July 1st

When, Where	What	Who (or Description)
8-9:30am Check location during registration	Keynote speaker Thinking differently about systems engineering change programs – dogs, bears and magic numbers	Scott McArthur, Sculpture Consulting Ltd
10:00-12:10pm	Paper Session Perspectives on SE On Motivating People to Implement Systems Engineering Getting from the Necessary to the	Session chair: Nita Rabadia (HS2)  Oliver M. Hoehne (Parsons Brinckerhoff, Transit & Rail Systems)
La Sirena IV	Impossible  What color is your nail polish? How to use Myers-Briggs personality characteristics to identify potential Systems Engineers in your organization	Jennifer L. Russell (Parsons Brinckerhoff)
	Coming in Under Par: What Golf Can Teach Us About Systems Engineering	David D. Walden (Sysnovation, LLC)
3:30-4:55 pm Track 2 La Sirena II	Roundtable Love at first sight? How can we attract and grow more transportation System Engineers? (Roundtable)	Moderator: Simon Smith (IBI Group)  Panelists: London Underground, NYCT, Ansaldo, University of Bristol Systems Centre
6:30-9:30pm Elephant Bar Restaurant 2270 Village Walk Dr	TWG Evening Dinner  Please RSVP to Jennifer Russell at RussellJe@PBWorld.com by June 23 <sup>rd</sup>	Join us for a wonderful evening meal and drinks in sunny Henderson, NV. <a href="http://www.elephantbar.com/">http://www.elephantbar.com/</a>















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### Wednesday, July 2nd

When, Where	What	Who (or Description)
10am-12:10pm	Paper Session	Session chair: Don S. Gelosh (Worcester Polytechnic
	Developing SE Competency	Institute)
	Engineering Cognitive Competency Model	Moti Frank (HIT - Holon Institute of Technology)
	Developing the Next Generation of the INCOSE	Don S. Gelosh (Worcester Polytechnic Institute); Mimi
Track 2	Systems Engineering Competency Framework	Heisey (Lockheed Martin Corporation); James F. Anthony
La Sirena II		Jr. (Senior Systems Engineer); John R. Snoderly (Defense Acquisition University); Ken Nidiffer (Software
		Engineering Institute)
	Early Findings from Interviewing Systems	Nicole Hutchison, Devanandham Henry, Art Pyster,
	Engineers who Support the U.S. Department of	Ricardo Pineda (Stevens Institute of Technology)
	Defense	
1:30-2:55pm	Paper	Duncan Kemp (Ministry of Defence); Jon Elphick (Atkins);
Track 2	To V or not to V - that MUST be the Question	Rhianne Evans (University of Birmingham); Doug Cowper
La Sirena II	Knowing When to Apply the Right Approach	(Cleave Systems Ltd)
3:30-4:55pm	TWG Working Session	Join your TWG colleagues for a working session to
Salon: Look for		advance working group objectives
Posting		
6:45pm Cocktails	INCOSE Banquet	Join your INCOSE colleagues for an evening of fun and
7:30pm Dinner		festivity as the 2014 International Symposium winds
Opium Terrace/		down.
Grand Ballroom		Dress code is business casual.

### Thursday, July3rd

When, Where	What	Who (or Description)
8:00-11:00am Assemble: Look	Plenary session: Future vision of SE in transportation	Kuldeep Gharatya: Engineering Director – Transport Systems Catapult / Head of Railway Systems – London
for Posting	rature vision of SE in transportation	Underground









