



**American Society for Quality (ASQ)
Baltimore Section 0502
Dinner Meeting**

Tuesday, December 05, 2017

Linear Programming Approach to Multi-Level Maintenance

Aron Brall

Reliability Subject Matter Expert, ARES Technical Services,
NASA Goddard Space Flight Center,
Chief Reliability Consultant, MAB Consultants;
General Chair RAMS 2013

Program (0.3 RUs)	
Overview:	Linear Programming has the capability to optimize multi-level maintenance operations. Although addressed in maintainability documentation and papers for over 50 years, it is still not a commonly used tool. With the advent of Simplex Method Solvers in Excel, solutions to Linear Programming scenarios have become low cost and easily available. By addressing scenarios through identifying the primary goal and the constraints to the operations, Linear Programming is a highly useful tool for maintainability engineering and needs to be used on a more regular basis.
Speaker:	Aron Brall is Reliability Subject Matter Expert at NASA Goddard Space Flight Center for ARES Technical Services and also performs private consulting in Manufacturing and Process Improvement. Previously he was Reliability Service Area Lead at Goddard for ManTech International, and he was Vice President of Quality, during 14 years at Landis Grinding Systems, a UNOVA Company. Prior to that he worked 12 years for Amecom Division of Litton Systems as a Systems Effectiveness Project Engineer. Out of 49 years professional experience, 41 have been in Reliability and Product Assurance. He received a BS in Electrical Engineering from Columbia University School of Engineering and Applied Science, NY, NY, and an MBA from Sellinger School of Business at Loyola University, Baltimore, MD. He has been a member of the RAMS Management Committee from 1999 – 2013, was the General Chair for RAMS 2013, and has been on the RAMS Board of Directors since 2013. He is a senior member of ASQ, a senior life member of IEEE, and a member of the SRE and SAE. Aron is an ASQ Certified Reliability Engineer and a contributing member of the committees that prepared both editions of SAE M-110, Reliability and Maintainability Guideline for Manufacturing Machinery and Equipment.

Tutorial (0.3 RUs)	
Quality Tool of the Month:	Process FMEA: Why, When, and How to Perform
Presented by:	Aron Brall
Overview:	<p>Why does it always seem we have plenty of time to fix our problems, but never enough time to prevent the problems by doing it right the first time?</p> <p>Why do we skimp on analysis early in a program and then spend excessively to resolve problems late in the program?</p> <p>Remember as Ben Franklin wrote: An ounce of prevention is worth a pound of cure.</p> <p>The Process FMEA is a powerful tool that can dramatically resolve problems in any process, whether, manufacturing, test, design, or business.</p>

SCHEDULE

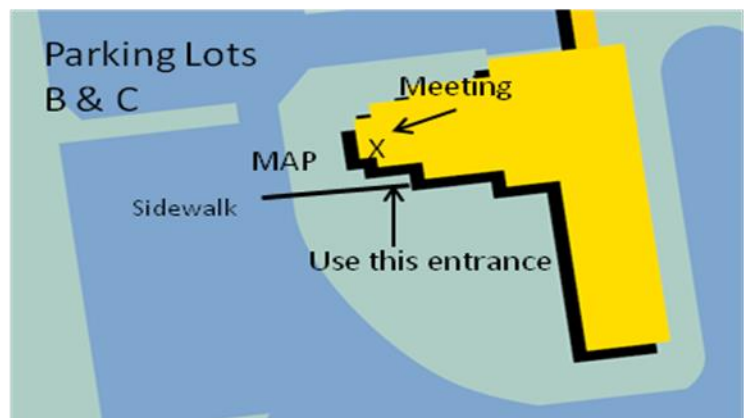
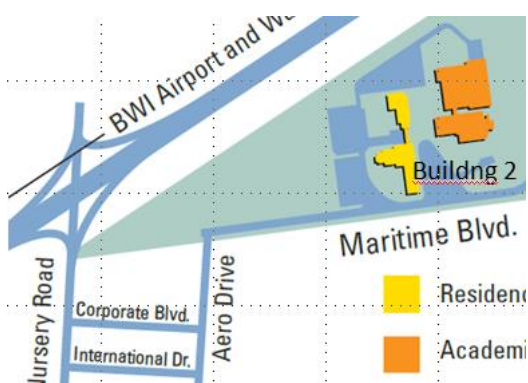
Location:		Conference Center at the Maritime Institute 692 Maritime Boulevard, Linthicum, MD (410-859-5700; www.ccmit.org).
TIME:	5:00 p.m. - on	Registration, networking and dinner
	6:30 - 8:30 p.m.	Tutorial (0.3RUs) and Program (0.3 RUs)

COST and REGISTRATION

Cost:	Advance registration is required. No charge for program only. Cost \$25 (members) / \$30 (non-members) -- Cash or checks written to ASQ Baltimore accepted. No credit/debit cards accepted.
Registration:	Go to ASQBaltimore.org . Click on Event >> Reservations, select the meeting date and complete the form. If you need to CANCEL, please let us know otherwise you may be billed. Go to the reservations page that you used to register and select Cancel a reservation under the meeting date. Please add the meeting date in the comment section. In the event of inclement weather , the website will be updated with the status by 2pm on the day of the meeting.

DIRECTIONS

295 South:	Take West Nursery Road exit. Left onto West Nursery Road.
295 North:	Take West Nursery Road exit. Bear to the right onto West Nursery Road BUT be in the LEFT most Lane that turns right.
ALL:	Turn Left at the light Corporate Blvd and Nursery Road (before Cracker Barrel). Left onto Aero Drive. Two block to entrance through the gate and to your right. Park in Lots B or C are on your left between the two buildings. You will be going into Building 2. There is a Map by the building with a sidewalk to the right. The sidewalk branches to the left, TAKE THE SECOND Left off the main side walk. You will be entering the room on the side of the entrance. Meeting room on your left. If you go to the Front desk, you have gone too far. NOTE: If you arrive after 6 pm, the side door is locked. Turn around and go to the next sidewalk on your right. Go to the door. You will be behind the speaker, but someone will let you in.



Have a question, comment or just want to find out about the Section

Go to our website: <http://asqbaltimore.org>

Dinner and Board Meeting Schedule													
2018													
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Dinner Mtg													
Date			13	13	10	08	12			11	09	13	04
Location			MT	Faz	MT	MT	MT			MT	MT	Faz	MT
Board Mtg													
Date		16	20	20	17	15			21	18	16	20	

Key: MT: Maritime Institute; Faz: Fazzini's (York Road; North of the City Meeting). Dark shading indicates no meeting.

ASQ DINNER MEETINGS	ASQ BOARD MEETINGS
<ul style="list-style-type: none"> • Second Tuesday of the Month • December Mtg: 1st Tuesday of the Month • No meeting: January, July or August • Location subject to change • March/ November Mtg: North of the city 	<ul style="list-style-type: none"> • Third Tuesday of the Month • Earn RUs for volunteering (large and small projects) • Interested contact a Board member or info@asqbaltimore.org

QUALITY TOOLS SPEAKERS
<p>For 2017, our tutorials will be based on Quality Tools. A different tool will be examined at each meeting. As a result we are looking for the following</p> <ul style="list-style-type: none"> • Topics that you want presented • Speakers who are willing to present the Quality Tool. <ul style="list-style-type: none"> • There will be limited amount of prep work on your part. • Earn RU points and a free dinner <p>If you are interested in a topic or presenting, please contact asq502jr-1@yahoo.com.</p>