

# NASA TRAINERS CONTINUING EDUCATION AND INFORMATION- SHARING RETREAT

ALVIN BOUTTE

NASA WORKMANSHIP STANDARDS PROGRAM

DELEGATED PROGRAM MANAGER

# AGENDA

- History
- Purpose
- Summit Agenda
- Highlights
- Take-Aways
- Future Work

# HISTORY

- The last Level A Trainer Summit sponsored by the NASA Workmanship Standards Program took place September 2014
  - Two-day event
  - Covered the workmanship standards
  - Had training centers present
- Plans for another event had been delayed since 2016 due to scheduling issues
- Closing of multiple training centers across the agency during the Covid-19 pandemic provided an opportunity to bring trainers together for the most recent event
- Previous events did not have as much SMA-Sponsored Level B involvement

# PURPOSE

- Present information on technical and policy changes to workmanship standards to NASA instructors
- Provide continuing education opportunities to NASA instructors
- Provide an avenue for knowledge sharing amongst NASA workmanship training centers

5.6.3 Minimum certification requirements for NASA Level A instructors shall be as follows:

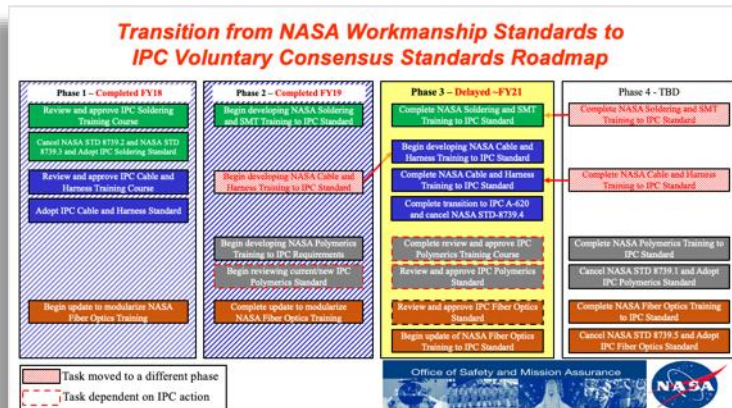
- a. Review and comment on, or concur with, all updates to NASA-STD-8739.1, NASA-STD-8739.4, NASA-STD-8739.5, and NASA-STD-8739.6.
- b. Compliance with the vision requirements of paragraph 5.7.
- c. Participate in and successfully complete biennial continuing education and NASA Level A training center information-sharing programs developed and provided by the NASA Workmanship Standards Program.

# SUMMIT/RETREAT AGENDA

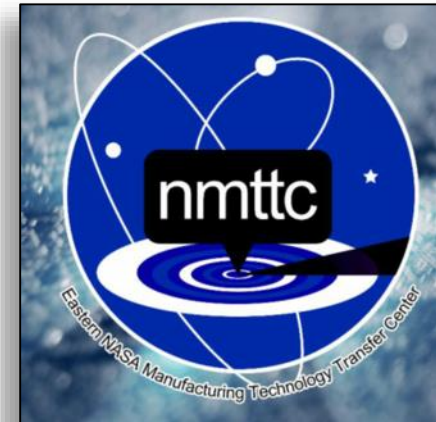
- Day 1
  - Workmanship Program Overview and Discussion
  - State of the Training Center Presentations
  - Guest Speak on Training Program Development for the 21<sup>st</sup> Century
  - Open Discussion
- Day 2
  - Trainer Recorded Demonstrations and Discussion
  - Virtual Tour of JPL Training Facilities
  - Presentation on Unconscious Bias
  - Grading Rubric Development Discussion
- Day 3
  - Day 1 & 2 Recap
  - Unfinished Business Discussions
  - Breakout Sessions

# HIGHLIGHTS

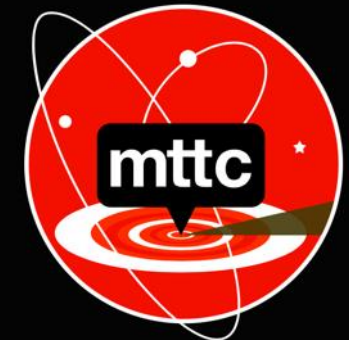
- Day I
  - Workmanship Program Overview and Discussion
  - State of the Training Center Presentations
  - Guest Speak on Training Program Development for the 21<sup>st</sup> Century – Jen Swatton-Chingwe



- 18+ years of comprehensive talent development experience, learning experience design, learning solution design, and instructional design of blended/online/mobile learning in corporate, government, higher education, and manufacturing settings.
- Expert in e-learning project management and Six Sigma/Lean methodologies.
- LMS selection, administration, and learning experience design for corporate universities.
- Mentor and coach team members in instructional design best practices and elearning development tool selection and use.
- Virtual corporate and higher education teaching experience using Canvas, Moodle, Blackboard, and Desire2Learn; extensive platform training experience.



Failure Analysis Laboratory - RITF  
 @ Johnson Space Center



# HIGHLIGHTS

- Day 2
  - Trainer Recorded Demonstrations and Discussion
  - Virtual Tour of JPL Training Facilities
  - Grading Rubric Development Discussions

	Key	Level of Mastery	Rubric Indicator
Competency Attainment	4	Competence with Distinction	The student has consistently and independently demonstrated the ability to analyze and synthesize content specific knowledge and skills in a new task, across content areas, or in an authentic experience.
	3	Competent	The student has consistently and independently demonstrated the ability to
	2	Basic Competence	
Competency Not Met	1	Developing Competence	
	0	Insufficient Evidence	
No Score	N/A	Not Yet Assessed	

Advanced Understanding	Proficient	Approaching	Novice
<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
Student has met	Student has met the	Student is approaching the learning objective.	Student has <b>not</b> met the learning objective.
Student demonstrates	Student demonstrates	Student demonstrates <b>partial mastery</b> of the performance expectation or learning goal.	Student provides <b>little evidence</b> of meeting the performance expectation or learning goal.
Student will be provided	Student will be provided	Student will be provided	Student will be provided

## TRAINING CENTER TOUR: WESTERN MANUFACTURING TECHNOLOGY TRANSFER CENTER (W-MTTC)

- Presenter: Jose Delgado



# HIGHLIGHTS

- Day 3
  - Recap and Close Out
  - Breakout Sessions



The collage features three distinct elements:

- Whiteboard:** A whiteboard with a purple eraser icon on the left and an orange wrench and screwdriver icon on the right. In the center, the word "Designers" is written in purple, a large black question mark is in the middle, and the word "Integrators" is written in orange.
- Course Management System Screenshot:** A screenshot of a course management interface for "Music Theory 337". It shows a sidebar with navigation options like Home, Announcements, Grades, and Assignments. The main area displays a grid of assignments with details such as "Pop Quiz: Pitch" (10 pts), "Introduce Yourself" (15 pts), "Introduction to Music Theory" (20 pts), and "Why Use Different Clefs?" (2 pts).
- Litmos LMS Dashboard:** A screenshot of the Litmos LMS dashboard for user John Snow. It features a top navigation bar, a central dashboard with four key metrics: "25 COURSES TO-DO", "10 OVERDUE COURSES", "10 COMPLETED COURSES", and "16 BADGES EARNED". Below these are sections for "IN PROGRESS" (with a "RESUME" button), "PAST DUE COURSES", "COURSE LIBRARY", "LEADERBOARD" (listing users like Hodar Hador), and "RECENT ACHIEVEMENTS" (listing "You've achieved the Iron Throne Badge" and "You've earned 400 points").



## TAKE-AWAYS

- There is broad support at training centers to continue our transition to IPC standards
- There are areas of improvement that most centers agree on, specifically:
  - Rethinking how we certify and re-certify instructors
  - Desire for a Learning Management System for workmanship standards training
  - Investigation of workmanship roles beyond operator and inspector is needed
  - Use of technology in the delivery of workmanship training
- Instructors at all NASA training centers found this retreat to be helpful
- There is interest in doing this on an annual or biennial basis

# SUMMARY

- This 3-day virtual event brought together for the first time in many years nearly all NASA Level A and SMA-Sponsored Level B instructors for in-depth discussions on the direction of the Workmanship Standards Program and plans to update the Workmanship Training materials and resources. Workmanship trainers representing 4 different NASA centers and JPL were in attendance and participated in the week's events.
- Highlights of the event included information sharing sessions between both the training centers and the Workmanship Program, professional and personal development presentations, review of workmanship video demonstrations recorded by instructors, a virtual tour of the JPL training facility, and finally deep dive discussions on how to update the training materials and resources to better support the transition from NASA standards to adopted Industry Voluntary Consensus Standards.

# FUTURE WORK

- Holding these collaboration events on a more consistent and frequent basis
- Updates to training materials used at our NASA workmanship training centers
- Lean Six Sigma project(s) to investigate and improve processes and requirements for training



# QUESTIONS

