



THE NATIONAL CENTER
FOR SIMULATION

***EDUCATION AND WORKFORCE DEVELOPMENT COMMITTEE
MEETING MINUTES
23 October 2019***

ATTENDEES

Stephen (Trey) Atwood (OTC MFC), Ron Burton (Troops to Teachers), George Cheros (NCS), Jonathan Curras (OTC-MFC), Dr. Dennis Duke (FIT), Jill Fierle (SCPS), Dr. Neal Finkelstein (ARL), Laura Frank (Lockheed Martin), Jon Frankos (Timber Creek HS), Dr. Bill Gaught (SSC), Steve Gordon (GaTech), Mark Gorrell (SDOC), Paula Hagan (SCPS), Brandon Hanshaw (Crooms AOIT), Jonah Hardy (Hagerty HS), Dr. Cap Jadonath (OCPS), Jessica Johnson (ODU/VMASC), Deepika Kannan (SCPS-Coder Chicks), Dan Ketchen (TAP), Dr. Mike Macedonia (UCF), Hank Okraski (NCS), Emily Sherkow (NAWCTSD), Abdul Siddiqui (PEO-STRI), Andy Smith (Halldale Publications), Lindsey Spalding (NCS), Lynn Vander-Zyl (Osceola CPS), Dr. Fuzzy Wells (UCF-IST).

Note: Laura Frank (Lockheed-Martin) and Jessica Johnson (ODU/VMASC) were on teleconference.

Agenda is provided as Attachment A.

Meeting minutes and presentations will be posted on the “new” NCS website:

www.simulationinformation.com

ACTIVITIES AND DISCUSSIONS:

A. Welcoming

Hank Okraski, Committee Chairman, welcomed the committee members to the meeting held in the Central Florida Research Park, Partnership III Bldg. (Courtesy of PEO-STRI) A round of introductions followed. Dr. Neal Finkelstein, new NCS COO and Chief Scientist, was introduced to committee members.

B. Status of Ed&WD Committee Activities-

Hank Okraski reported on the most recent activities of the committee. They are summarized as follows:

- VMASC/ODU representative and Landstown HS (Virginia) teacher planned to participate in Ed &WD Committee Meeting. WELCOME!!

- Number of Certified Students continues to grow. (393 in Florida and 19 in Virginia).
- In Ohio, established contact with M&S teacher at Dayton Regional STEM School. Awaiting Ohio Board of Ed credential approval. (very slow process). In Alabama, two M&S teachers contacted. (No feedback). AM&SC to look into. Contact with CTE lead at Leavenworth HS, Kansas shows promise.
- Florida requires renewal of Career & Professional Education (CAPE) funding authorization. NCS and NAWCTSD supported Orange, Seminole, Osceola, Hillsborough and St. Lucie counties with justifications. CAPE pays for certification exams and provides funds to the schools for M&S improvements.
- Lindsey Spalding, NCS STEM PM, working with Seminole HS and Hungerford ES (Eatonville) in larger task of developing a process for schools using SMEs, guest lecturers, etc.
- Seminole State College created two IT computer programming degrees (AS & BS) with simulation tracks. Pathway for M&S high schools created.
- Lockheed-Martin hired OCPS M&S Teacher (Jon Frankos) for summer externship. Optimistic about L-M hiring student interns.
- Team Orlando Student Day planned for 19 February 2020. Need awards from our industry. Expect a larger number of proposals and visitors.
- NAWCTSD/NCS/Lockheed Martin/TEQ Games providing support to Hungerford ES (Eatonville) in establishing an *aviation program*. Andy Smith, Halldale Publications, assisting with general/commercial airline focus.
- I/ITSEC STEM Planning continues. NCS Booth to have Hagerty HS student demonstration of first place Student Day project.
- NCS and members provided support to teen-age girls “Coder Chicks.”
- NCS offering 12 Scholarships-see website (www.simulationinformation.com)

Future plans include the following:

- Continue to encourage members to hire M&S-certified Interns and provide teacher externships.
- Continue to move forward with M&S certifications in Virginia, Ohio, Alabama, Kansas and Arizona. (Others welcome!)
- Examine providing incremental certifications for high school students. Lindsey Spalding has the action for the M&S Certification Board)
- Work with NDIA/NTSA in developing a professional M&S continuum.
- Seek funding sources to expand NCS activities. Initiatives exceed resources.

C. High School M&S in the State of Virginia

For this initial meeting involving Virginia, Jessica Johnson (ODU/VMASC) outlined Virginia’s broad range of activities and initiatives:

- *Landstown HS, Va Beach= 19 students certified
- *2 more schools interested in offering M&S certification/test
- *VDOE re-vamping state curriculum in M&S

*NEW Game Design/Development CTE course- piloted with 2 school divisions in Hampton Roads region
*2019-2020 school year= 14% increase in Ss taking Mod/Sim CTE courses within region
*ODU offers Game Studies & Design program (B.S.), Fall 2019 (electives in Modeling/Simulation offered)

D. Orange County M&S Program Status

Dr. Cap Jadonath (OCPS) briefed on the realignment of Orange Technical College. Vision 2024 involves a total redistribution of Career & Technical Education (CTE) resources and expertise to more closely align with potential “customers”. For example and of interest to the MS&T community, M&S will be moved to the East side of Orlando, adjacent to University High School and in proximity to the Central Florida Research Park. See Attachment B.

E. High School Teacher Externship Experience

Jon Frankos, Lead M&S Teacher at Hagerty High School, reported on his rewarding and exciting job at Lockheed Martin this past summer as follows:

“The Lockheed IDE experience was eye opening. I was able to not only experience types of simulators, but also be able to go behind the scene of them, work with the hardware, create and demonstrate simulation stations. Also, what is involved with creating the models in software along with their immersed flight simulation program was an experience on its own.

The concept of working with different types of people in their respective positions, with dynamic teams and personalities was informative with regard to the “personable” side of the industry.

The usefulness of the material for promoting simulation on the increase of safety and the decrease of cost is something that is going to be stressed for my current students and many students to come.

The experience could not have more enjoyable and productive, it’s something that I will be able to use in my Modeling & Simulation classroom for students to get an increased perspective of the simulation industry. An industry that is forever changing for the better.”

Jon Frankos, MBA

NOTES: 1) NCS Member companies should be planning at this time to hire M&S teachers and high school students who have been M&S-Certified by NCS. Contact Hank Okraski (Henry.Okraski@gmail.com) for more information.

2) Laura Frank, Lockheed Martin and M&S Certification Board Chair, is pursuing student and teacher opportunities at Lockheed Martin.

F. Seminole County M&S Program

Paula Hagan and Jill Fierle (both from SCPS) briefed the status of M&S in Seminole County schools as follows:

- Introductions (Jill & Paula) – clarify district support for M&S, ePathways mission (Video found here: <https://www.scps.k12.fl.us/district/departments/epathways/>)
- Thank you – Dr. Neal Finkelstein (Chief Scientist U.S. Army Futures Command Combat Capabilities Development Command – Soldier Center Simulation and Training Technology Center (STTC) for the amazing opportunity to run camps (GEMS STEM Camp) this summer. It was a privilege hosting these camps and watching the students grow from the experience. Because of this partnership we have upgraded a number of items for HHS that directly affect our HS students. I will let Jonah explain what was purchased and how the camps went well when he presents later in the agenda.
- Thank you – Jonah and Samuel for keeping the program moving forward after a fantastic base set by Lindsey.
- Looking to the Future – we are striving for a 100% pass rate for the M&S cert! Jonah and Sam have committed to really making this happen. Thanks!!
- Really excited about – the M&S competition coming up (*Team Orlando Student Day*) and getting ready with amazing projects from HHS and Crooms AOIT... but we will keep them a secret!
- Thank you – Hank for what a great job he is doing... we are so impressed with and thankful for the support he is providing SCPS!
- Internship Expo – If you are interested in hiring high school students from SCPS as interns, please join us at the next Internship Expo on Thursday, November 14th! Learn more here: <https://www.scps.k12.fl.us/district/departments/epathways/workplace-learning/I-am-an-employer.shtml>

G. Teen Programming Program Recognition

Deepika Kannan, a student at Seminole High School, is the founder of “Coder Chicks”, a 501c(3) non-profit with a goal to empower girls to pursue careers in the STEM field. Deepka, accompanied with her father, was recognized by George Cheros, NCS President and CEO, for her outstanding work in teaching girls how to code computers. She has taught over 130 girls over this past year and recognized by Project CSGIRLS, Broadcom MASTERS and NCWIT. She outlined future plans for her organization. NCS and member companies have supported her initiatives.

H. Hagerty High School M&S Curriculum Status

Jonah Hardy, Lead M&S Teacher at Hagerty High School, summarized the M&S Program at that school as follows:

Currently we have 327 Total Students in the program
135 Freshman
95 Sophomores
59 Juniors
38 Seniors

Essentially what I talked about is incorporating in all aspects of modeling and simulation into your curriculum. You have to let the kids find the discipline that they want to specialize in. Modeling and simulation is such a broad and diverse subject area that you can find something for just about anyone. On top of finding their own specialization you need to make them understand that it takes all kinds to get this work done(programmers, speakers, modelers, artist, animators, riggers etc). You need to make them value one another as a team member so they can be a productive unit. Having the students try every aspect of the industry early allows them to gain that appreciation for the amount of work required by all team members.

I. I/ITSEC STEM Events

Emily Sherkow, NAWCTSD, and Dr. Neal Finkelstein, NCS, provided the following summary of I/ITSEC STEM events:

Monday - Florida High Tech Corridor Teacher Program (60 -70 teachers). Contact Vicki Morelli

Tuesday – STEMConnect live broadcast to classrooms while they walk around I/ITSEC exhibits. Contact Amanda Allen

Wednesday – Middle School Robotic Event & NAWC-TSD Teacher Training (~60 Teachers). Contact Bob Seltzer or Carol Ann Dykes Logue

Thursday – ROTC students and School Tours (500+ students). Contact Roto Reuter

J. Amanda Allen, stemCONNECT, provided the following information regarding the virtual tour opportunities at I/ITSEC as follows:

stemCONNECT will be live at I/ITSEC giving a virtual tour for classrooms to join remotely! On Tuesday, December 3, 2019, we will be live streaming for 2-hours from 10-12, showcasing a wide array of companies and skills. This opportunity gives a unique insight to the Modeling and Simulation Industry and all the various components, skills, and backgrounds are needed to successfully make it in the industry. Classrooms are able to ask questions in live time by sending them in through the question function, a moderator will ensure the question is asked to the companies and experts presenting. This opportunity is free and available to anyone who wishes to join the session. If you would like more information please email amanda.allen@floridahightech.com or register with this link: <https://attendee.gotowebinar.com/register/5455221843216991491>.

Meeting was adjourned at 5:15pm