



NEWSLETTER OF THE HUMAN SYSTEMS INTEGRATION PROGRAM  
AT THE NAVAL POSTGRADUATE SCHOOL. VOL 1-1 (JUNE 2011)

## NPS HSI Newsletter is Back

*After a one-year absence, the Naval Postgraduate School HSI Newsletter returns with a new look and with all the latest news about the HSI Program, its students, faculty, and graduates.*

The NPS Human Systems Integration (HSI) Program is pleased to begin publishing its newsletter once again. This time, we've enlisted the help of our colleagues at the Center for Educational Design, Development, and Distribution to create a new format. We hope you like the look of the new format.

Each issue we'll share with you the latest news about the academic program, the ongoing research of our students and faculty, and the activities of our graduates. We'll also try to keep you informed about upcoming events and the latest developments in the world of HSI within the Navy, the Department of Defense,

and the Federal government.

We invite you to participate in this newsletter! If you have an event or an activity that you'd like to share with our readers, please send it to us. If you're a graduate of one of our programs, please let us know what you're doing and how your NPS HSI education has benefitted you. Send your latest news or events you want publicized to Diana Kim, email: [dkkim@nps.edu](mailto:dkkim@nps.edu).

We hope you enjoy this edition of the NPS HSI newsletter!

Larry Shattuck  
Program Director  
Human Systems Integration

## NPS ACADEMIC COUNCIL APPROVES NEW DL HSI DEGREE PROGRAM

NPS is set to become the first institution in the nation to offer a distance learning (DL) master's degree in Human Systems Integration. The new degree program was approved unanimously at the April 29th meeting of the NPS Academic Council. The DL Master of Human Systems Integration (MHSI) program begins in the fall quarter (September 26th, 2011). Students will take sixteen courses over eight academic quarters. In addition to an NPS master's degree, students will earn an NPS Certificate in HSI and DAU equivalencies in acquisition, systems engineering, and test & evaluation. The program is open to active duty military, government civilians, and defense contractors (on a space available basis). Applications are due by August 12th and are being accepted now at: [http://www.nps.edu/DL/Degree\\_Progs/MHSI.asp](http://www.nps.edu/DL/Degree_Progs/MHSI.asp).

## HSI Certificate Program Application Deadline is June 15th

As of June 1st, we have 25 applicants for the next cohort of the HSI Certificate Program. But, there's still room for you and a few of your colleagues! Begin the application process today by visiting the program website: [http://www.nps.edu/DL/Cert\\_Progs/HSI.asp](http://www.nps.edu/DL/Cert_Progs/HSI.asp). The program consists of four asynchronous courses which are offered one per quarter. The first course begins on July 5th.

## Important Dates

- **June 15th** – Deadline for NPS HSI DL Certificate Program applications
- **June 20th-23rd** – 79th MORS Symposium (with new Human Behavior & Performance Group) Monterey, CA
- **July 5th** – NPS HSI DL Certificate Program begins
- **August 12th** – Deadline for NPS DL Master of HSI Program applications
- **September 19th-23rd** – Human Factors and Ergonomics Society Annual Meeting, Las Vegas, NV
- **September 26th** – NPS DL Master of HSI Program begins
- **November 2nd-4th** – Human Systems Integration Symposium, Vienna, VA

# Tvaryanas Wins AsMA's Roscoe Award

*Recent NPS graduate recognized for his outstanding dissertation.*

USAF LtCol Anthony Tvaryanas, M.D., Ph.D. is the 2011 recipient of the Stanley N. Roscoe Award. Each year, the Aerospace Medical Association (AsMA) presents the award for the best doctoral dissertation in a research area related to Aerospace Human Factors.

Tvaryanas graduated from NPS in September 2011 with a Ph.D. from the Modeling, Virtual Environments, and Simulation (MOVES) Institute. The focus of his coursework and dissertation was Human Systems Integration. His dissertation is titled, "A Discourse on Human Systems Integration." In many ways, it is a seminal effort that addresses the history of HSI, demon-



strates the manner in which HSI tradeoffs can occur, reports on a rigorous HSI research effort, and discusses future directions for HSI. His dissertation can be found at:

<http://edocs.nps.edu/npspubs/scholarly/dissert/2010/Sep/10Sep%5FTvaryanas%5FPhD.pdf>

Tvaryanas is now assigned to the Human Performance Integration Directorate at Wright-Patterson AFB, Dayton, OH where he is continuing to be a champion for HSI. We're proud of you, Anthony!



## Congratulations to Dr. Nita Lewis Shattuck

Dr. Shattuck was recently appointed to the Transportation Research Board (TRB) of the National Academies. The TRB is a division of the National Research Council and provides S&T expertise to the government, public, and scientific and engineering communities.

# R&D Effort May Lead to Better LSO Training

*Prof McCauley tapped by ONR to develop a prototype replacement for the Navy's APARTS System.*

Navy Landing Signal Officers (LSOs) rely on the Automated Performance Assessment and Readiness Training System (APARTS) to capture and store a description, grade, and outcome (wire number or bolter) for all carrier approaches, both at sea and in Field Carrier Landing Practice. For nearly 30 years, common practice has been for the LSOs to record the data in a booklet, then enter the data manually into the APARTS

database via a desktop computer. Prof Michael McCauley will lead an interdisciplinary team of faculty members and students to develop a replacement system featuring a handheld computer for use on the LSO platform. The data will support training for pilots and LSOs and will enable higher-level analyses of total carrier landing resources and utilization, Navy-wide.

# NPS Now Offering HSI Workshops

Interested in an HSI Workshop for your organization? Contact HSI Program Director Dr. Larry Shattuck (lgshattu@nps.edu) for details. Larry and Nita Shattuck recently conducted a successful five-day workshop at Wright-Patterson AFB with 60 attendees. They are also scheduled to conduct HSI workshops at NAVSEA and at the next annual meeting of the Human Factors and Ergonomics Society.

# HSI Thesis Garner's High Level Interest

LT Andrea (Andi) Phillips graduated less than three months ago but her thesis is already having an impact on the fleet! Her thesis, titled, "The Scope of Back Pain in Navy Helicopter Pilots," included a survey of 648 Navy helicopter pilots, 88% of whom reported they suffered back pain on 50% or more of their flights. Helicopter seating systems, vibration, and long missions were identified by participants as potentially contributing factors.



LT Phillips was invited to present her thesis results at a special workshop on "Back Injury in Aviation" at the Aerospace Medical Association conference in Anchorage,

Alaska. Her work also received high-level attention at NAVAIR, Patuxent River, and a "kudos" note from the Director of Aviation and Operational Safety, Office of the Deputy Assistant Secretary

Of the Navy. Her thesis coincided with another, DoD-wide survey of helicopter back pain. The combination of these efforts to identify the problem appears likely to result in a program to implement solutions. Interested parties can obtain a copy of LT Phillip's thesis from: <http://edocs.nps.edu/npspubs/scholarly/theses/2011/March/11Mar%5FPhillips.pdf>.