

**Department of Defense  
Human Factors Engineering  
Technical Advisory Group  
Meeting 52**



**1-4 November 2004**

**Holiday Inn Select - Old Town  
480 King Street  
Alexandria, VA 22314**

## **Meeting Theme**

### **Human Systems Integration**

In order to comply with new Department of Defense acquisition guidance issued on 12 May 2003, (e.g., DODD 5000.1 and DODI 5000.2), service program managers are required to implement Human Systems Integration on major acquisition programs. Enclosure (7) to DODI 5000.2 specifically charges program managers with having a comprehensive plan for HSI in place early in the acquisition process. This plan is to address manpower, personnel, training, human factors engineering, environment/safety/occupational health, personnel survivability and habitability. The 52nd DoD Human Factors Engineering Technical Advisory Group meeting, to be held in the Washington, D.C. area, will focus on what the military services are doing to implement the current DoD Human Systems Integration policy. Specifically, representatives from DDR&E and each of the services will highlight their HSI policies, practices, regulations and initiatives intended to fully implement the intent of this new HSI mandate.

# **PROGRAM SUMMARY**

**Department of Defense  
Human Factors Engineering Technical Advisory Group  
Meeting 52: 1 – 4 November 2004, Alexandria, VA**

## ***Monday, 1 November***

0830 - 1000 Executive Committee meeting  
1000 - 1100 New member orientation  
1100 - 1300 Luncheon Break  
1300 - 1700 Plenary Session  
1800 - 2000 Mixer

## ***Tuesday, 2 November***

0730 - 0830 Technical Society/Industry  
0830 - 1100 Personnel Selection and Classification  
0830 - 1100 Human Factors Standardization  
0830 - 1100 Human Factors in Operational Medicine  
0930 - 1000 Networking, coffee  
1100 - 1230 Luncheon Break  
1230 - 1700 Human Factors in Training Interest Group  
1230 - 1430 Design: Tools and Techniques  
1230 - 1430 Workload and Stress  
1430 - 1500 Networking, coffee  
1500 - 1700 Human Modeling and Simulation  
1500 - 1700 Human Factors Test and Evaluation  
1715 - 1830 Service Caucuses & Technical Society/Industry Meeting

## ***Wednesday, 3 November***

0830 - 1100 System Safety/Health Hazards/Survivability  
0830 - 1100 Controls and Displays  
0930 - 1000 Networking, coffee  
1100 - 1230 Luncheon Break  
1230 - 1430 Human Factors Engineering/Human Systems Integration: Management and Applications  
1230 - 1430 User-Computer Interaction  
1430 - 1500 Networking, coffee  
1500 - 1700 Human Factors in Extreme Environments  
1500 - 1700 Sustained/Continuous Operations  
1800 - 2100 Social  
1700 - 1830 User Utilization Interest Group

## ***Thursday, 4 November***

0830 - 1000 Operating Board  
1000 Meeting Adjournment

# SESSIONS

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## MONDAY, 1 NOVEMBER

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**Executive Committee – 0830– 1000**

**New Member Orientation – 1000 – 1100**

**Plenary – 1300 – 1700 Ballroom**

**1300-1315** Meeting Opening and Introduction of Human Systems Integration Theme, DoD HFE TAG Chair, Ms. Dawn Woods

**1315-1400** HSI VISION: Warfare is a Cognitive Domain - VADM (Ret.) Cebrowski

**1400–1420** MANPRINT and the Army Transformation - Dr. Michael Drillings, Director, MANPRINT, Office of the Deputy Chief of Staff for Personnel

**1420-1440** Air Force HSI - Thomas W. Travis, Brigadier General, Commander 311th Human Systems Wing, Brooks City-Base Texas

**1440-1500** The Navy's HSI Program - Ms. Nancy Dolan

**1500–1530** Networking/Break

**1530-1550** NASA - Theron Bradley, Chief Engineer

**1550-1610** HSI in the FAA's Acquisition Management System – Mr. Alan Poston/Mr. Glen Hewitt, Human Factors, Federal Aviation Administration

**1610-1630** Overview of the Navy's Human Performance Centers - CAPT Matt Peters, Commanding Officer, Human Performance Center

**1630-1650** Training the Future HSI Professional - Dr. Nita Miller, Human Systems Integration Program Director, Operations Research and Systems Engineering Departments, Naval Postgraduate School

**1650-1700** Plenary Closing and Introduction Remainder of Meeting, CHAIR, DoD HFE TAG, Ms. Dawn Woods

**TAG Mixer – 1800 – 2000**

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## TUESDAY, 2 NOVEMBER

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**Technical Society/Industry – 0730 – 0830**

**Personnel Selection and Classification – 0830 – 1100**

## **Human Factors Standardization – 0830 – 1100**

- Introduction of Attendees
- Status Reports
  - MIL-STD-1472 (Human Engineering)
  - MIL-STD-1787 (Aircraft Display Symbology)
  - Joint Service Specification Guide-2010
  - NASA MSIS
  - EIA HEB-1 (Human Engineering Principles and Practices)
  - HFES & ISO TC 159 (Ergonomics)
  - Data Item Descriptions
  - Index of Government Standards
- Weight Lifting Limits & Strength Data
- Human-System Integration Guidance
- Election of Chair Select
- New Business

## **Human Factors in Operational Medicine – 0830 – 1100**

The Human Factors In Operational Medicine SubTAG meeting will focus on the current methods and policies used by the DoD Services to transition medical R & D products into operational use. There is currently no single, standard process used by each service. The intention of this meeting is to open up discussion of the issues surrounding successful transition of medical technologies (6.4 funding, T&E, POM process, commercial versus DoD transition).

## **Design: Tools and Techniques – 1230 – 1430**

## **Workload and Stress – 1230 – 1430**

## **Human Factors in Training Interest Group – 1230 – 1700**

## **Human Modeling and Simulation – 1500 – 1700**

## **Human Factors Test and Evaluation – 1500 – 1700**

## **Technical Society/Industry - 1715 – 1800**

## **Air Force Caucus - 1715 – 1800**

## **Army Caucus - 1715 – 1800**

## **Navy Caucus - 1715 – 1800**

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# **WEDNESDAY, 3 NOVEMBER**

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## **System Safety/Health Hazards/Survivability – 0830– 1100**

- Attendees Introductions
- Old and New Business

- Personnel Survivability - Mr. Richard Zigler, U.S. Army Research Laboratory, Survivability/Lethality Analysis Directorate, Aberdeen Proving Ground, MD. Many past and present Navy, Air Force, and Army issues will be addressed and a number of resolutions (success stories) presented. This is an opportunity to explore examples of military equipment design in the near-past and how survivability concerns have been addressed.
- The US Army Amputee Patient Care Program: *Optimizing Recovery After Traumatic Limb Loss* - Denise V. Gobert, PT, PhD, Director of Research, Military Amputee Research Program, Walter Reed Army Medical Center

### **Controls and Displays – 0830– 1100**

### **Human Factors Engineering/Human Systems Integration: Management and Applications - 1230 – 1430**

### **User- Computer Interaction – 1230 – 1430**

### **Human Factors in Extreme Environments - 1500 – 1700**

#### **Sustained/Continuous Operations - 1500 – 1700**

- High Frequency EEG as Measure of Cognitive Function Capacity - Helen C. Sing, M.S. Biostatistician, Walter Reed Army Institute of Research, Division of Neuropsychiatry, Department of Behavioral Biology, Washington, D.C.
- Update on the Walter Reed Hand-held Psychomotor Vigilance Test - David Thorne, Ph.D., and Dagny E. Johnson, Walter Reed Army Institute of Research, Division of Neuropsychiatry, Department of Behavioral Biology, Washington, D.C.
- Evaluation of Oculomotor Functioning During 40 Hours of Continuous Wakefulness Using the Fitness Impairment Tester - Mary Kautz, Ph.D., Research Psychologist, Henry M. Jackson Foundation Contractor, Division of Neuroscience, Walter Reed Army Institute of Research/ Navy Medical Research Center (WRAIR/NMRC), Silver Spring, MD
- Basic Research on Countermeasures for Jet Lag and Sleep Deprivation: II - Maurice D. Baynard, M.S., Naomi Rogers, Ph.D., Hans P.A. Van Dongen, Ph.D., and David F. Dinges, Ph.D., Predoctoral Researcher in Sleep and Chronobiology , Department Of Psychiatry University of Pennsylvania School of Medicine, Philadelphia, PA
- Temporal Patterns of Single-Vehicle Accidents in Texas Due to Driver Fatigue or Sleep - Gladys Acosta Bruno, M.D., M.P.H., School of Public Health, University of Texas Health Science Center at Houston, Houston, TX

### **User Utilization Interest Group - 1700 – 1830**

#### **Social – 1800 – 2100**

The DC Improv Comedy Club – Flip Orley, Comic Hypnotist

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## **THURSDAY, 4 NOVEMBER**

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### **Operating Board – 0830 – 1000**

## EXECUTIVE COMMITTEE

Chair (Army)	Ms. Dawn Woods	(508) 233-5069 DSN 256 dawn.woods@natick.army.mil
Vice Chair (Navy)	Ms. Maureen Bergondy-Wilhelm	(407) 380-4777 DSN 960 maureen.bergondy@navy.mil
Immediate Past Chair (Air Force)	Dr. James Miller	(210) 536-3596 DSN 240 jcmliller@brooks.af.mil
Army Representative	Mr. Benjamin Gibson	(210) 221-1622/DSN 471 <a href="mailto:ben.gibson@amedd.army.mil">ben.gibson@amedd.army.mil</a>
Navy Representative	LT Henry Phillips	(850) 452-2257x1090 hlphillips@nomi.med.navy.mil
Air Force Representative	Dr. Robert Nullmeyer	(480) 988-6561x283 DSN 474 robert.nullmeyer@mesa.afmc.af.mil
NASA Representative	Ms. Faith Chandler	(202) 358-0411 fchandle@hq.nasa.gov
FAA Representative	Dr. Thomas McCloy	(202) 267-7167 tom.mccloy@faa.gov
TAG Coordinator	Ms. Sheryl Cosing	(703) 925-9791 scosing@comcast.net

## SUBTAG CHAIRS

Controls and Displays	Dr. Henry Williams	(301) 342-9275 DSN 342 henry.williams@navy.mil
Design: Tools and Techniques	Major Joe Menchaca	(937) 255-7777 x3313 DSN 785 joe.menchaca@afit.edu
Human Factors and Operational Medicine	LT William Carr	(619) 553-0479/DSN 553 <a href="mailto:carr@nhrc.navy.mil">carr@nhrc.navy.mil</a>
	CDR Sean Biggerstaff	(301) 757-8135 DSN 757 sean.biggerstaff@navy.mil
Human Factors Engineering / Human Systems Integration: Management and Applications	Mr. Adrian Salinas	(210) 536-4428 DSN 240 <a href="mailto:adrian.salinas@brooks.af.mil">adrian.salinas@brooks.af.mil</a>
	Human Factors in Extreme Environments	Mr. Brad Collie
Human Factors Standardization	Mr. Alan Poston	(202) 493-4519 <a href="mailto:alan.poston@faa.gov">alan.poston@faa.gov</a>

Human Factors Test and Evaluation	Mr. Edward George	(661) 277-0800x2297 DSN 527 edward.george@edwards.af.mil
Human Modeling and Simulation	LT Joseph Cohn	(202) 253-1291 cohn@ait.nrl.navy.mil
Personnel Selection and Classification	LT Henry Phillips	(850) 452-2257x1091 hlphillips@nomi.med.navy.mil
Sustained/Continuous Operations	Dr. Thomas Nesthus LT Walter Carr	(405) 954-6297 tom.nesthus@faa.gov (619) 553-0479 DSN 553 <a href="mailto:carr@nhrc.navy.mil">carr@nhrc.navy.mil</a>
System Safety/Health Hazards/Survivability	Mr. Benjamin Gibson Mr. Stephen Merriman	(210) 221-1622 DSN 471 <a href="mailto:ben.gibson@amedd.army.mil">ben.gibson@amedd.army.mil</a> (214) 316-7071 scmerriman@comcast.net Stephen.c.merriman@boeing.com
Technical Society/Industry	Mr. William Lytle	(303) 971-8972 <a href="mailto:william.b.lytle@lmco.com">william.b.lytle@lmco.com</a>
User-Computer Interaction	LT Phillip Fatolitis	(850) 452-3287x1173 DSN 922 pfatolits@namrl.navy.mil
Workload and Stress	CDR Karl VanOrden	(619) 767-4556 DSN 524 vanordern@nhrc.navy.mil
Human Factors in Training Interest Group	Ms. Melissa Walwanis-Nelson Ms. Danielle Merket	(407) 380-4749 DSN 960 melissa.walwanis@navy.mil (407) 380-4792 DSN 960 Danielle.merket@navy.mil
User Utilization Interest Group	Mr. Fred Oberman	(301) 227-0033 frederick.oberman@navy.mil

## **ABSTRACTS**

If you are presenting at the plenary session, please bring your half page summary for inclusion in the Minutes or send it to the TAG Coordinator in advance. If you are presenting in a subTAG session, please send your summary to the subTAG chair of the session in which you are presenting.

### **GENERAL GUIDELINES**

Font: 11 or 12 point type, Arial (san serif) font. Margins: 1.0 inch left, right, top and bottom.

Submission: Electronic format is preferred: PC-readable disk or e-mail in Word format. If that is not possible, submit hardcopy that meets all the format requirements.

**Do not include classified, acquisition sensitive, or proprietary information.**

You may wish to have your sponsor's approval before briefing at the TAG. The summaries will be included in Minutes published on the TAG website.

### **SESSION ABSTRACTS FORMAT**

**TITLE:** Full presentation title.

**PRESENTER:** Name, title, organization, complete mailing address, phone number, DSN (if applicable), email (optional). Separate with commas on two or three lines to leave as much space for narrative as possible.

**SYNOPSIS:** Narrative. Briefing slides will not be published. Address all important points of your presentation in a succinct manner. Abstracts should be no longer than one-half page (4.25 inches in height or 25 lines maximum). Note general format above.

For presentations discussing results of research and applications:

Concentrate on completed research or interim results which have not been previously reported at the TAG. Include a general statement to orient the reader to the problem under study, the findings, and the recommendations.

For presentations discussing programs in progress:

Acquaint others with on-going work, so we may know what others are doing. Mention participating individuals, phone numbers, organizations, and the portion of work each is addressing so they may be contacted for more information. Mention joint-service participation and dual-use technologies. If the program is producing a product, mention what it will do; and identify the intended user community.

## General Information

### ATTENDANCE POLICIES

Attendance at the **DoD HFE TAG** is open to:

- US Military/Government employees
- Official technical society/industrial association representatives
- Employees of National Laboratories or Federally contracted research centers
- Specifically invited plenary presenters/guests
- Students majoring in human factors and related disciplines

All others must have a written invitation to attend. Contact the TAG Coordinator for additional information.

### ACCOMMODATIONS

A block of rooms has been reserved for the TAG at the Holiday Inn Select - Old Town  
480 King Street Alexandria, VA 22314.

The room rate for this meeting is \$153. The rate is exclusive of tax and can be extended on a pre or post meeting on a space-available basis.

The cut off date for the TAG rates is 1 October 2004. Reservations made after that time will be on a space available basis. You may wish to book your reservation now and cancel if your plans change. Cancellation requires 24-hour notice prior to arrival to avoid penalty.

Cutoff date: ~~1 October 2004~~ CUTOFF EXTENDED 14 OCTOBER 2004  
TAG rates: single \$153 NEW RATE EFFECTIVE 5 OCTOBER 2004

The above rates are exclusive of tax. The current taxes are 10% plus a \$1 occupancy tax/room/night.

Check-in: 1500 hours Check out: 1200 hours

Reservations: (800) 368-5047; (703) 549-6080- reference the DoD HFE TAG. **DO NOT MAKE YOUR RESERVATIONS ONLINE AS YOUR RESERVATION WILL NOT BE ASSOCIATED WITH OUR GROUP.**

**No BOQ** arrangements in the Washington metropolitan area have been made for the TAG.

### TRANSPORTATION

**Transportation:** The Holiday Inn Select is 2 miles North of I-495 (Capital Beltway). Exit on Route 1 North. Turn right, East on Franklin Street. Proceed 5 blocks to Pitt Street. Turn Left. Follow Pitt Street to the hotel (corner of Pitt and King Street). The hotel provides a complimentary shuttle service to and from National Airport and the metro station. Please call the concierge for more information. Parking is \$12/day.

### REGISTRATION

Registration can be done online at the TAG web site: <http://hfetag.dtic.mil/register.html> or by submitting the registration form in this packet.

Please remember that you must be badged before attending any SubTAG/Plenary session.

<b>Registration Desk is open</b>	Monday	1100 – 1430
	Tuesday	0800 – 1430
	Wednesday	0800 – 0830
	Thursday	0800 – 0830

## **PAYMENT**

**Credit card:** *The TAG accepts payment for registration by credit card using PayPal only. The online registration form must be used in order to accept a credit card payment.*

**Checks or money orders:** Are accepted. Purchase orders are not accepted. Please do not mail cash. Enclose payment with the registration form, or send separately if registering online.

**No registrations will be accepted after 22 October 2004.** If you are unsure whether you will be able to attend the meeting and this deadline presents a problem, call the TAG Coordinator.

### **Fees:**

Regular registration	\$100.00
Special student fee (applies to full-time students)	\$ 5.00
Social - per person (optional)	\$40.00

## **FUNCTIONS**

**Social:** A networking, social event will be held on Wednesday evening, 3 November 2004. Join us for an evening at the DC Improv to see the nation's premiere comic hypnotist, Flip Orley. Orley has been amazing audiences across the country with his remarkable performances for over 13 years. The beauty of his shows, is that no two performances are alike, because the volunteers are never the same. He has garnered national attention from his appearances on the "Today Show," "Entertainment Tonight," "Comic Strip Live," the "Maury Povich Show," and many others.

## **MISCELLANEOUS**

**Travel Orders:** All technical meetings will be held at the Holiday Inn Select. For networking purposes and for meeting changes/updates, it is desirable that you stay at the Holiday Inn Select. Have your orders written to Alexandria, VA.

**Clearances:** All briefings are unclassified: no clearances are necessary for U.S. citizens for any of the scheduled meetings.

**Messages:** Non-emergency messages will be kept at the TAG registration desk. Emergency messages will be delivered during the meeting. For incoming calls, use (703) 549-6080, referencing the TAG.

**Military Dress:** Check with your Service Representative.

**Abstracts:** Presenters at any of the sessions should provide a summary of their presentation to their subtag chair prior to the meeting for inclusion in the Minutes of the meeting. An electronic version is preferred. For format and detailed instructions, refer to the Abstracts section of this packet.

**New Members:** If you are new to the TAG, you should plan to attend the new member orientation session on Monday, 1 November 2004 from 1000-1100 hours. New attendees are also encouraged to participate in their specific caucus meetings.

**Caucus Meetings:** If you work for one of the military services (uniform or civilian), you should plan to attend your service caucus meeting. These meetings are intended to provide you with the opportunity to participate in TAG decisions and discussions concerning service-specific issues.

**Materials Storage:** The Holiday Inn Select will accept small packages for storage at no cost. Label the items:

ATTN: DoD HFE TAG/S. COSING  
Holiday Inn Select - Old Town  
480 King Street Alexandria, VA 22314

**DEPARTMENT OF DEFENSE  
HUMAN FACTORS ENGINEERING  
TECHNICAL ADVISORY GROUP (TAG)  
Meeting 52: 1-4 November 2004**

**REGISTRATION**

**Use this form or register online: <http://hfetag.dtic.mil/register.html>**

1. Mailing Information (including military rank or title, ie., Dr., Ms., Mr.):

Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_  
City/State/Zip \_\_\_\_\_  
Telephone \_\_\_\_\_ DSN \_\_\_\_\_ FAX \_\_\_\_\_  
Email \_\_\_\_\_

2. Badge Information:

Name \_\_\_\_\_  
Organization \_\_\_\_\_

3. Status (See "Attendance Policies" for information)

( ) military/government ( ) GOCO ( ) other \_\_\_\_\_  
( ) official (credentialed) TS/I member representing \_\_\_\_\_

4. If called the week prior to the TAG, do you have a 15-30 minute briefing you could present?

( ) plenary session or \_\_\_\_\_ SubTAG session

5. Social event on Wednesday, 3 November (guests are welcome):

\_\_\_yes \_\_\_no \_\_\_\_\_# of total attendees (including yourself)

6. Enclose check/money order made out to the **DoD HFE TAG** for the following:

Regular registration	\$100.00	___
Student registration	\$ 5.00	___
Flip Orley, Comic Hypnotist @ the DC Improv	\$40.00	___

**TOTAL** \_\_\_\_\_

**Return this form and payment by 10/22/04 to:**

Sheryl Cosing  
10822 Crippen Vale Ct.  
Reston, VA 20194  
Phone (703) 925-9791 FAX (703) 925-9694  
scosing@comcast.net  
TAG Web Site <http://hfetag.dtic.mil>