



# “WRAIR Forward”

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## COMMANDER'S CORNER



This quarter we invited LTC Hoge, Chief, Behavioral Health and Epidemiology Department, WRAIR, and LTC Friedl and CPT Ritzer, Military Operational Medicine, USAMRMC, to help us conceptualize our new Science & Technology Objective or STO, “Interventions to enhance psychological resilience and prevent psychiatric

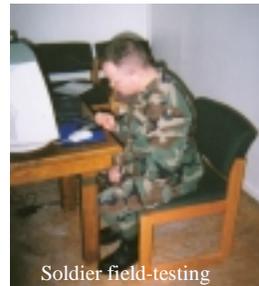
casualties,” in support of soldier research initiatives in USAREUR. Over one fourth of enlisted soldiers fail to complete their first term of enlistment, predominantly due to mental and behavioral problems. Over 7% of the entire force receives outpatient treatment for a mental disorder each year, with one quarter of these soldiers leaving military service within six months (vs. 9% overall). Soldiers need to prepare for, adapt to, and recover from psychological challenges. By enhancing their resilience (“Widerstandsfähigkeit”), soldiers will respond more effectively to operational stressors, including Objective Force missions. In laying the groundwork for the new “STO”, the USAMRU-E is charged with developing medical assets that: (1) enhance the soldier’s resilience or ability to withstand operational stressors; (2) provide real-time assessment of resilience to optimize performance; (3) prevent negative health consequences, including psychiatric casualties and post-deployment symptoms; and (4) reduce the risk of mental/behavioral problems throughout the soldier’s career.

-MAJ James W. Ness

## Bosnia deployment in support of National Guard units

A USAMRU-E team, CPT Thomas and SPC Haig, deployed to Bosnia with Dr. Susan Proctor, Boston University Schools of Public Health and Medicine, from 14-28 January 2002 to execute the deployment phase data collection in support of Dr. Proctor’s research protocol, “Health status of current National Guard members: Deployment health issues.” Dr. Proctor’s research study is supported by a grant from USAMRMC and examines health symptomatology and cognitive functioning of troops throughout the deployment cycle. Specifically, her investigation hopes to shed light on health and functioning found in some soldiers following the Gulf War. The prospective study provides a unique opportunity to examine the relationship between specific job- and mission-related characteristics and cognitive and physical health outcomes before and after deployment with Massachusetts National Guard soldiers taking part in SFOR.

Complete survey and cognitive functioning data were collected on 65 MA ARNG soldiers at Camp Comanche, Bosnia.



Soldier field-testing

For USAMRU-E, this collaborative study allowed for: 1) construct and concurrent validity checks on 3 measures of cognitive functioning-- the Neurological Evaluation System, the Autonomic Assessment Metric, and the ARES, and 2) the field-testing of a Palm-Operating System-based cognitive

functioning and survey metric. Data are currently being analyzed and USAMRU-E plans are underway to make use of the paperless and field-expedient Palm-OS based metric in future USAMRU-E studies.

## Force Health Protection Screening

As part of the Department of the Army’s Force Health Protection/Gulf War Illnesses Research Program, the USAMRU-E continues to collect the psychological screenings administered to USAREUR units on peacekeeping deployments. This effort has been ongoing since 1996. Activities conducted in this quarter:

- MG Martinez-Lopez, CG, USAMRMC, was briefed on the history and current progress of USAMRU-E’s Force Health Protection Research Program.
- Dr. Mastrianni and Dr. Smith, U.S. Air Force Academy, collaborated with USAMRU-E on a project involving psychometric analyses of past screening databases (6-11 January 2002).
- Mr. Kelava, a graduate student from Goethe Universität, Frankfurt, interning six weeks at USAMRU-E, completed analysis of USAMRU-E data examining the effects of deployment history and marital status on post-deployment adjustment.
- Post-deployment screening data from the 1<sup>st</sup> Armored Division collected in November and December 2001 continued to be processed.
- Plans were made to train Division Mental Health staff in the use of a revised, shortened form of the screening instrument to be used in a 1<sup>st</sup> Infantry Division pre-deployment screening next quarter.

Thomas, J. L., Wright, K. M., Adler, A. B., & Ness, J. W. (2002, January 7). **Psychological screening and force health protection.** Brief presented to MG Martinez-Lopez, former CG, CHPPM.

## USAREUR Suicide Prevention TF

The USAMRU-E continued to support the USAREUR Suicide Prevention Task Force commissioned in FY01 by General Meigs, CG, USAREUR/7A.

- A technical report analyzing 2 years of retrospective data and the first 6 months of prospective data was briefed.
- LTC Hoge, Chief, Behavioral Health and Epidemiology Department, WRAIR, consulted on the suicide project.
- MAJ Ness, LTC Hoge, LTC Friedl and CPT Ritzer consulted with LTC Harvey, Chief, Psychology Services, Landstuhl Regional Medical Command (LRMC) on the suicide project on 14 March 2002.
- COL Orman, Psychiatry Consultant to the Surgeon General and Behavioral Health Policy Staff Officer, HQs, MEDCOM, consulted on revisions to the investigation form on 15 March 2002.
- Several additional data collections and records reviews were conducted at LRMC by USAMRU-E staff.

Thomas, J. L., Wright, K. M., & Ness, J. W. (2002). **USAREUR Suicide Prevention Task Force In-Progress Brief 1: Retrospective Analysis and Prospective Summary**. Briefed to BG Ursone, Command Surgeon, and COL Lillis, Deputy Command Surgeon, USAREUR.

## CMTC Site Consult

MAJ Ness, CPT Thomas, and Dr. Bernd Johannes, Freie Universität Berlin, met with staff officers and medical observer controllers from the Combined Maneuver Training Center (CMTC) in Hohenfels on 21 March 2002. Dr. Johannes is a leading expert in the field of voice-stress analysis and has collaborated with USAMRU-E in the past. The purpose of the meeting was to discuss the feasibility of



conducting a voice-stress research study at the CMTC. Staff at CMTC gave valuable input about how the CMTC rotations are conducted, the phases of the rotations, and the best opportunity and means to evaluate voice stress, biobehavioral markers, and survey data. Plans are underway to work with USARIEM to retrofit Land Warrior Vests to contain other important bio-behavioral stress markers, and to include personality and survey climate items using the Palm-OS cognitive and survey metric.

## State of the Art (SOAR)

The SOAR titled, “*Metrics and methods in human performance modeling*,” is a DoD initiative coordinated and edited by MAJ Ness, with support from Human Systems Information Analysis Center (HSIAC). Funded by USAMRMC, this comprehensive overview of performance research has the following objectives:

- Document current research on individual and small unit human performance in order to provide valid representation of soldier behaviors for input to combat simulations.
- Standardize common operational definitions, methods, and metrics of human performance research toward a unified human performance database to further the development of individual and small unit simulation tools.

- Analyze combat models for their strengths and weaknesses with regard to incorporating authoritative individual and unit-level human performance information, recommending changes to data collection and models to accommodate human performance prediction.
- Identify experimental methods and metrics to bridge existing shortfalls in human performance data pursuant to simulating individual and small unit performance.
- Complete a first draft of the SOAR (August 2002).

## Debriefing Protocol Approved

A study of the impact of psychological debriefing (PD) on USAREUR soldiers was approved by the WRAIR on 15 January 2002. The proposed study examines the impact of PD on soldiers deployed on a peacekeeping mission to Kosovo. Pre-deployment data collection begins in April. The long-term objective is to identify interventions and techniques that can be useful for large numbers of relatively healthy individuals affected by potentially traumatic events.

Adler, A.B., Litz, B.T., Castro, C.A., Wright, K.M., & Thomas, J.L. (2002). *The effects of psychological debriefing on soldiers deployed on a peacekeeping mission*. Protocol #862. Washington, DC: Walter Reed Army Institute of Research.

## Presentations & Publications

Adler, A.B., & Castro, C.A. (2001, May). The impact of lost leave on the medical readiness of US soldiers: It's not a European vacation.

**Proceedings of the 37<sup>th</sup> International Applied Military Psychology Symposium** [pp. 105-115]. Prague, Czech Republic: Ministry of Defence, Czech Republic.

Adler, C.A., & Castro, C.A. (2002, 28 January). Deployment Stress: What leaders can do to make a difference for soldiers, & Castro, C.A., & Adler, A.B. (2002, 27 January). Myths of deployment: 10 things leaders may believe and what their soldiers really think. **Invited presentations at the 1st Infantry Senior Leader Deployment Seminar**, Würzburg.

Castro, C.A., & Adler, A.B. (2001). The impact of operations tempo: Issues in measurement. In Truscott, S., & Flemming, S. (Eds.), **Human dimensions of deployments among TTCP nations**. Ottawa, Ontario: National Defense Headquarters. [also published as **Proceedings of the 42<sup>nd</sup> International Military Testing Association**, Edinburgh, UK.].

## Family OPTEMPO Project

The USAMRU-E serves as the platform for providing research support to research teams from the WRAIR, Division of Neuropsychiatry (LTC Castro, CPT Burrell, & Dr. Durand) in conducting the Family OPTEMPO study in the USAREUR theater. Updates for this quarter's activities:

- **Senior Spouse Study**. Completed 26 interviews and collected surveys from spouses of senior officers and senior noncommissioned officers (7-30 January 2001).
- **Family OPTEMPO Study**. Key findings from the first year study were briefed at the general officer, battalion, and company level.

Burrell, L., Castro, C. A., & Durand, D. B. (2001). **The military family living in Europe with a high OPTEMPO environment: Report I**.

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