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 (“Widerstands-fähigkeit”), 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.

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, USAMRM C, was briefed on the history and current progress of USAMRU-E’s Force Health Protection Research Program.

- Dr. Mastrioanni 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 1st 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 1st Infantry Division pre-deployment screening next quarter.

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.


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:

- 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.


Presentations & Publications


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.


This is an unofficial Army publication, authorized under the provisions of AR 360-1, and published quarterly in the interest of the U.S. Army Medical Research Unit-Europe, CMR 442, APO AE 09042 (DSN: 371-2626). This issue was approved by HQ, WRAIR for release. Editorial views and opinions expressed herein are not necessarily those of the Department of the Army. Visit our homepage: http://www.usamru-e.hqsareur.army.mil/ to view our most recent briefs and reports. For information on our research initiatives, contact: james.ness@hbg.amedd.army.mil.