## **STENCE NEWS** of the week

## **Emotional Trauma Haunts Korean POWs**

Televised images of the bruised, drawn faces of U.S. pilots captured in Iraq recall United Nations reports of prolonged, brutal mistreatment of Iranian prisoners of war by the Iraqis during the mid-1980s. If U.S. POWs in Iraq endure similar treatment, they may remain embroiled in a harsh psychological battle with themselves for decades after returning home, according to a follow-up study of former Korean War POWs.

Among U.S. servicemen taken captive during the Korean War, as many as nine out of 10 survivors may suffer from post-traumatic stress disorder (PTSD) and other mental disorders more than 35 years after their release, psychologist Patricia B. Sutker of the New Orleans Veterans Administration Medical Center and her colleagues report in the January American Journal of Psychiatry.

"Our results suggest that intense, prolonged stress may cause remarkably long-lasting psychiatric disorders in almost anyone, regardless of their initial psychological health," Sutker says.

Surviving U.S. POWs released by North Korea in the early 1950s number about 3,200. These prisoners faced severe conditions, including random killings, forced marches, months of solitary confinement, near-starvation and a variety of tortures and interrogations.

Sutker and her co-workers compared the current mental status of 22 POWs and 22 combat veterans of the Korean War. The former POWs had responded to a congressionally mandated invitation from the Veterans Administration to receive a free medical checkup. The researchers recruited the combat veterans at random from VA medical records.

The POWs had spent an average of 28 months in captivity, while the combat veterans reported spending an average of 14 months on the front lines in often-fierce battles.

Two combat veterans and 19 POWs exhibited PTSD, with symptoms including recurring memories and dreams of

wartime traumas, emotional detachment from loved ones, extreme suspicion of others and difficulty concentrating. More than half the former prisoners with PTSD displayed other anxiety disorders such as panic attacks, and six experienced severe depression.

Combat veterans also displayed anxiety, memory problems, distrust of others and depression, but to a much lesser degree than the former POWs.

The new findings complement observations of surviving Vietnam POWs, points out psychiatrist Robert J. Ursano of the Uniformed Services University of the Health Sciences in Bethesda, Md. "POWs are at much greater risk for psychiatric disorders than are combat veterans," Ursano says.

However, scientists lack extensive epidemiologic data on the long-term mental status of former POWs, he asserts. "I have no doubt the rate of PTSD remains high [among POWs], but it's hard to pin down an exact number," Ursano contends.

Moreover, he says, researchers cannot fully explain why some former POWs avoid psychiatric disorders and even experience emotional growth in the years following their ordeal.

Better-educated servicemen with middle-class backgrounds — characteristics more often found among fighter pilots than ground troops — tend to show more resilience after captivity, says Sutker, who has interviewed more than 200 former POWs, including many from Vietnam. Most of the Korean POWs and combat veterans in her recent study did not graduate high school, and Ursano says this factor may partially account for their elevated rates of psychiatric disorders.

As with other trauma victims, recovery among former POWs depends largely on the severity of the trauma and the presence or absence of social support during and after captivity, Ursano says. For example, Vietnam POWs often communicated with each other through a code based on finger taps, which enabled them to exchange information on resistance techniques and learn how other prisoners had been psychologically broken by torture. Since all prisoners comply to some extent under torture, the knowledge that others broke under pressure proved important in easing the guilt of their comrades, Ursano contends.

While the ability to block out trauma may initially help POWs deal with captivity, those who manage to confront that trauma after their release often do best, he adds. The fact that some former POWs accomplish this prodigious feat, he says, "speaks to the resiliency of the human spirit."

— B. Bower

## Computer elevates Venus to new heights

This view of cloud-covered Venus, released last week by NASA, reveals the hills and valleys of the western Ishtar Terra highland in the planet's northern hemisphere. Scientists created the image from selected 8 radar surface scans made by the Magellan spacecraft between Sept. 15 and Oct. 15, and used computer processing to incorporate surfaceelevation measurements made in 1979 by the radar-



equipped Pioneer Venus spacecraft. This provides a three-dimensional view of Venus' terrain.

To help planetary geologists spot elevations and depressions, vertical features have been highlighted through computer coloration, and their dimensions have been visually exaggerated 10-fold compared with horizontal features. Black stripes represent gaps in Magellan's data.

The peak indicated by the arrow rises fewer than 500 meters, with a base measuring about 30 kilometers in diameter. This unnamed hill, possibly an active or extinct volcano, does not show up in straight-down views, says R. Stephen Saunders, Magellan project scientist at NASA's Jet Propulsion Laboratory in Pasadena, Calif.

The high mountain on the horizon rises about 2 kilometers above its surroundings and anchors the near end of a mountain chain called Danu Montes, which extends about 1,000 kilometers beyond the horizon, Saunders says.

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