

PROJECT BOOSTS COMMUNICATION DURING CALAMITIES

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When disaster-relief teams assembled in Iraq a year ago following the ouster of Saddam Hussein, they encountered expected and unexpected obstacles in the complex and often confusing post-invasion environment.

Communications was one such area. Aid specialists, working to feed the hungry, care for the sick and wounded, and begin the rebuilding process, were sometimes stymied by insufficient or untimely information -- an all-too-natural outgrowth of war.

Two months from now, a remarkable and perhaps path-breaking experiment in technology and human cooperation will attempt to address the communications problems following calamities. On a remote piece of land in Hawaii, a civilian-military team will install and test a communications system that could make a huge difference in future conflicts and other disasters, human-made or natural.

Using off-the-shelf hardware and software, including some technology developed in Silicon Valley, the team will install the system under deliberately harsh circumstances. It will be designed to help get crucial information where it's needed, securely and reliably, but not in a way where it's subject to central control.

Leading the Hawaii project, which has been dubbed Strong Angel II, is a Navy doctor named Eric Rasmussen. The Sacramento native and Stanford University graduate holds down a full-time job in internal medicine, and is currently stationed in San Diego with the rank of Commander.

Evenings and weekends, the 47-year-old Rasmussen, who deployed to Iraq last year as a member of the post-invasion assistance team, devotes himself to humanitarian goals. Projects like Strong Angel are one result.

On Tuesday, the seemingly tireless Rasmussen spoke to a software industry association meeting in San Francisco, where he described Strong Angel's genesis and goals. "Ambitious" barely begins to describe what he and his colleagues are trying to do, as I've learned in several interviews with him and members of his team in recent days.

The first Strong Angel exercise took place in 2000. That one, also a civilian-military effort, was designed to help manage refugees from civil disasters or wars.

The upcoming Strong Angel will be conducted under the auspices of the civilian Office of the Secretary of Defense, with funding from the Defense Advanced Research Projects Agency (DARPA).

One of Rasmussen's principal assistants in the new Strong Angel project is John Graham. He now lives in suburban San Diego, but has considerable history in technology, including the founding of BroadWare, a Cupertino company that does networked-video applications.

For the Strong Angel in Hawaii, Graham has been pulling together dozens of components. It's not all high-tech: Part of the operation is to use sustainable-living gear such as tents that can be brought in and set up by regular people, as opposed what to the Army Corps of Engineers might build. The low-tech but nonetheless essential gear comes under what Graham calls "the technology of living."

The higher-technology component is diverse. One essential component of the communications system is a software product called Groove, from a Massachusetts company of the same name. Groove lets people inside different networks share files, exchange messages and otherwise communicate in an absolutely secure fashion.

Silicon Valley, as you'd expect, is contributing. Among many other valley pieces of the puzzle: Cisco Systems is providing some networking and Internet-telephone gear, and some Hewlett-Packard handheld computers will be part of the mix.

The Strong Angel test aims to be extremely comprehensive. One major demonstration will use computers to translate, in close to real time, between English and Arabic. Another is showing how collaborative tools can help in assessing the on-the-ground situation so that relief groups can act fast on good data. You can see more on the Strong Angel site (<http://StrongAngel.telascience.org>).

A major longer-term goal of Strong Angel is to create a software platform on a laptop computer that contains all open-source -- free for download and modification -- software. This is obviously needed if the experiment works well enough for deployment in many parts of the planet where proprietary software is too costly.

From the standpoint of tomorrow's communications, Strong Angel has enormous potential. If it's possible to create what amounts to a cheap,

ad-hoc, reliable and secure information network under difficult circumstances, human freedom itself could get a boost. Such a system could help bring a freer flow of information to places where dictatorships or lack of a standard infrastructure have kept information in the hands of a few.

This is an exciting project. Wish it success.

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