



Transportable Infrastructures for Development and Emergency Support

Phase I Demonstrations
October-November 2007

What is TIDES?



- A voluntary, information sharing research project
- To encourage development of Communities of Interest about people in stressed environments:
 - Stabilization & Reconstruction (SSTR)
 - Humanitarian Assistance, Disaster Relief (HADR)
 - Building Partnership Capacity (BPC)
- Domestic & foreign, short & long term, military involved, or not
- DoD usually not in lead—FEMA domestically, State/USAID abroad
- Not trying to solve all problems. Focused on 7 infrastructures
 - Shelter, Water, Power, Integrated Cooking, Heating/Lighting/Cooling, Sanitation, ICT
 - Low cost & transitional, vice integrated, deployable, expensive
- Goal is to build broadest possible inclusion
- Participation doesn't imply endorsement by USG

Projects to Date



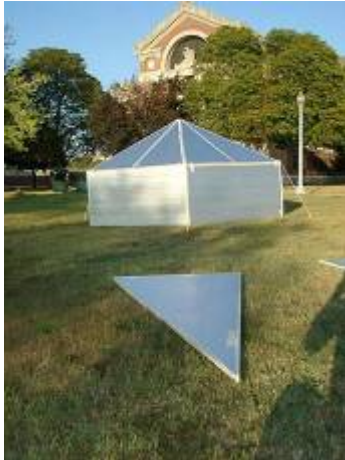
- Demos
 - National Defense University (NDU) (Oct 5-19)
 - Pentagon center court (Nov 19-20)
 - Camp in western Virginia for long-term exposure testing
- Over 600 visitors:
 - GEN Ward (AFRICOM), John Grimes (ASD/NII), Ryan Henry (PDUSDP), DoD and DHS leaders, CoCom reps, AMCROSS, Thomas Jefferson HS, many others
- Follow-on support to SOCAL fires & Bangladesh relief
- Now examining low-cost shelters for FEMA
- Less than \$20K govt funds, over \$800K private sector engagement

Activities



- Began with empty field
- Set up commercial ICT nets, not on power grid
 - Knowledge on demand for capacity building
- Assembled different low-cost shelters
- Integrated cooking, water pasteurization, heating
- Explored energy models
 - Solar charging of AA batteries
 - High density power for SSTR in cities
- Showed high efficiency lighting and cooling
- Prototyped lightweight biometrics

Shelters



Integrated Cooking, Water Pasteurization, Heating

TIDES



Energy, ICT



3 Key Lessons

- Problems of stressed populations need to be addressed through broad coalitions
 - No one has all answers or responsibilities
 - UNCLAS info sharing is key
- Comms, lift and power
 - SA, and comms to share it, are **critical enablers of all else that happens**
 - Need to be in place quickly, independent of the grid
- Cross-infrastructure, “whole systems” thinking is essential
 - Integrated cooking, water pasteurization, heating

Accomplishments

- UNCLAS info sharing with civ-mil mission partners
 - Improved bandwidth use
 - Refined collaboration tools
 - Better imagery support
- Better info visibility thru metadata tagging
- Over 80% reduction in fuel use
- Better operating procedures documented
- Better understanding of power needs
- Low cost ID and credentialing
- Educational opportunities
- Supported real world contingencies

Next Steps

- Institutionalize proposed policy changes
 - Bandwidth
 - UNCLAS imagery sharing
 - Metadata tagging
- Long term exposure trials
- Possible event in Spring
- GOLDEN PHOENIX next summer
- Build communities of interest
 - Links to Agencies, CoComs, NGOs and others
- Incorporate messages into strategic comms

www.star-tides.net