



JOCOTAS

Strategic Alliances: Government & Industry

Amy Soo Lagoon

JOCOTAS Chairman, Shelter Technology

Laura Biszko

Engineer

sheltering warfighters worldwide

Unclassified 3 Nov 09

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 03 NOV 2009		2. REPORT TYPE		3. DATES COVERED 00-00-2009 to 00-00-2009	
4. TITLE AND SUBTITLE Strategic Alliances: Government & Industry				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Joint Committee on Tactical Shelters (JOCOTAS), Shelter Technology Working Group, Natick, MA, 01760				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES 6th Bi-Annual DOD JOCOTAS Meeting with Rigid & Soft Wall Shelter Industry & Indoor & Outdoor Exhibition, 2-4 Nov 2009, Panama City Beach, FL					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 17	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



Overview

- ***JOCOTAS: Technology Vision***
- ***Total Life Cycle Involvement***
- ***Alliances with Industry: Purpose***
- ***Strategic Alliances: What makes a success?***
- ***Working with the Government***
- ***Shelter Systems: Direction & Future***
- ***Questions & Answers***

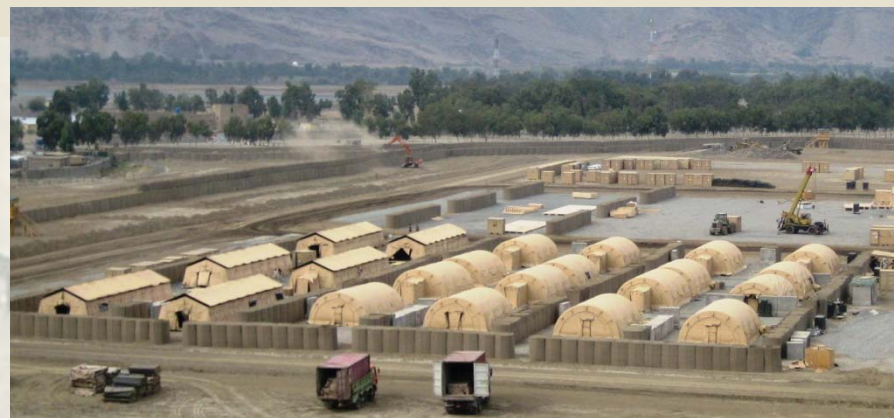
sheltering warfighters worldwide

Unclassified 3 Nov 09



JOCOTAS: *Technology Vision*

- *JOCOTAS Charter, Purpose*
 - Advance the state of the art in shelter design and shelter ancillary equipment
 - Search for common solutions to identified user needs
 - Eliminate duplication of shelter RDT&E
 - Share information and expertise to solve shelter problems
 - Promote evolutionary change



sheltering warfighters worldwide

Unclassified 3 Nov 09



Total Life Cycle Involvement



sheltering warfighters worldwide

Unclassified 3 Nov 09



Alliances with Industry: *Purpose*

- ***RDT&E***
 - Science & Technology
 - Subject Matter Expertise
 - Intellectual Capital
 - Problem Solving
 - Design
 - Modeling & Simulation
 - Test & Validation
 - Optimization
- ***Fielding & Sustainment***
 - Continuous Product Improvement
 - Manufacturing Technologies
 - Reduction in Life Cycle Cost
 - Reliability & Maintainability
 - Availability

sheltering warfighters worldwide

Unclassified 3 Nov 09



Successful Strategic Alliances

- ***Complimentary capabilities***
- ***Mutual benefits***
- ***Legal/contractual means in place***
- ***Fulfill an identified need/capability gap***
- ***Validated technologies in a relevant environment***
- ***Shared/reduced cost***

Example Success Stories

sheltering warfighters worldwide

Unclassified 3 Nov 09



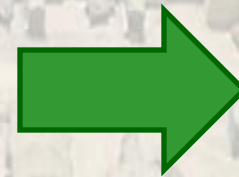
Space Heater Convective



- *Replaces dangerous fuel-fired heaters used inside tents*
- *Leverages thermo-electric generator technology for combustion and air-handling*
 - *First to supply forced hot air without an external engine-driven power supply*
- *Optimized for military use*
 - *60% improvement in combustion efficiency*
 - *Simplicity in design, ruggedized*
 - *Operates on full range of liquid fuels*



Flexible Photovoltaics



- *Renewable Energy: Silent power generation from the sun in a flexible form*
- *Developed through Small Business Innovation Research effort and optimized for the DOD*
- *Joint Service applications*
- *Technology transition to commercial applications*

sheltering warfighters worldwide

Unclassified 3 Nov 09



ULCANS



Ultra-Lightweight Camouflage Net System

- *Provides the Warfighter protection from visual, near infrared and broad band radar protection*
 - *Enhanced operational performance with greatly improved human factors*
- *Developed through an alliance and type-classified*
- *Two validated industry suppliers to meet DOD performance specification*

sheltering warfighters worldwide



Unclassified 3 Nov 09





Utilis USA: Folding Frame

- Patented European Technology Brought to the US
 - Small, Hub Zone Business
- Validated against DOD shelter performance standards
 - Aberdeen Test Center, MD
 - Snow, Wind, Rain, Durability, Extreme Temps
- Joint Expeditionary Collective Protection Family of Shelters
- Technology Transition



sheltering warfighters worldwide

Unclassified 3 Nov 09



Airbeam Technology

- Initiated through Small Business Innovation Research
 - Follow on development and customer-funded efforts
- Load Bearing Pressurized Fabric Structures
- Advances Over Commercial Inflatables
 - Seamless Tubular Fabrication
 - High Pressure → Reduced Diameter & Surface Area
 - Optimized Design through Modeling and Simulation
- Optimized for DOD shelter technical performance demands



sheltering warfighters worldwide

Unclassified 3 Nov 09



Expeditionary Force Provider

***C-17 with Entire 150- Soldier Camp
Heading to Afghanistan***



***Two Air-Supported TEMPER Shelters
on Pallet***



sheltering warfighters worldwide

Unclassified 3 Nov 09



Net Zero + JCTD

- Leverage Energy Savings Technologies
- Provide Various Solutions
- Quantify Added Value
- Transition Plan
 - PM Force Sustainment Systems
 - Joint PM Collective Protection
 - Army Medical Department
 - Commanders



Solar Covers Block 60% of Radiant heat. Modular from 900 sf to 10,000 sf



Aerogel Silica Mesh Insulation



Air Cell Insulation



Electroluminescent Lighting System



Shelter LED Lighting with Ambience



Small Tactical Airbeam Tent Deployed as Force Provider 150 Soldier Base Camp



PowerShade (1 - 3KW) also blocks 90% of radiant heat



BB2950 Battery charger for Comms and Sensors



QUADrant units & Balance of Systems converts DC to AC and stores reserves

sheltering warfighters worldwide

Unclassified 3 Nov 09





Net Zero Plus - Test Site

Strategic Alliance Opportunities

- *Problem Solving*
- *Demonstration & Validation*
- *Technology Optimization*



Sheltering warfighters worldwide

Unclassified 3 Nov 09



Working with the DOD

- Federal Business Opportunities
 - www.fbo.gov
- Natick Soldier RD&E Center Broad Agency Announcement
 - <https://www3.natick.army.mil/ssbaa.htm>.
- Small Business Innovation Research
 - www.sbir.gov
- Cooperative Research and Development Agreement
 - Legal agreement to conduct R&D and Technology Transfer
- Comparative Testing Office
 - <http://www.acq.osd.mil/cot>
- Technology Investment Agreement
- Test Service Agreement

sheltering warfighters worldwide

Unclassified 3 Nov 09



Questions?

sheltering warfighters worldwide

Unclassified 3 Nov 09