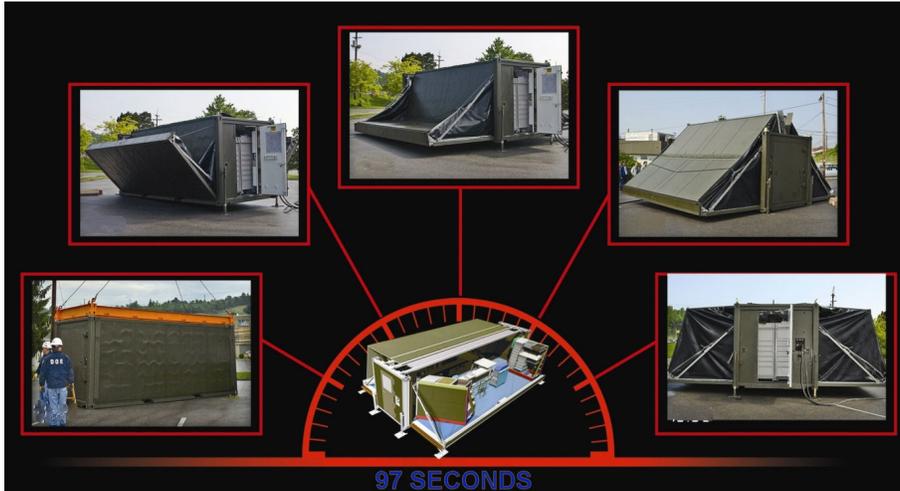


RDSS — Rapid Deployment Shelter System



The RDSS is an expandable, mobile, hard-wall shelter which, by the push of a button, can more than double in square footage in less than 2 minutes.

The Rapid Deployment Shelter System (RDSS), previously named the Future Medical Shelter System, was originally designed for the military as a portable surgical shelter. In the role of a surgical shelter, the RDSS is designed to provide a completely sterile environment; to be fully equipped for emergency surgeries typical of injuries sustained in military operations; and to be fully protected from nuclear, biological and chemical threats.

SECURITY

The RDSS in its folded position is a standard ISO (International Standards Organization) container that can be stacked nine high and can be transported easily with standard means.

In the extended position, RDSS has an approximate floor area of 400 ft². As a medical shelter, RDSS is a hard-walled, highly mobile, fully furnished, two-table operating room. It can be set up virtually anywhere in a matter of minutes with the push of a button and be ready to perform trauma surgery.

- Is a true NBC (Nuclear, Biological, Chemical) protected shelter. Because of the RDSS design, the interior is always sealed. The walls and floors are always attached and sealed, even during the extension and retraction.
- Provisions for optional small fire arm protection have been considered in the RDSS design, and bullet-resistant materials can be incorporated in all paneling.

Features

- Designed for fast deployment, ease of assembly, minimum need of human support, and ease of transportation with standard means.
- Can be fabricated in various sizes. RDSS as a 20-ft ISO container can be extended from 160 ft² to 400 ft² faster than any 20-ft hard-walled shelter in the world and ~40 times faster than the Army's current DEPMED shelter.
- Can be extended and/or retracted using a 24 VDC battery (Army's ubiquitous HUMVEE vehicle has a 24 VDC battery) by one person pushing a button for 1 minute and 37 seconds.
- Has been designed to be rigid enough to not require jacks on the extension wings after extension. This feature allows the RDSS to be extended quickly and from any location, such as the back of a flatbed truck.

Benefits

- Deploys in less than 2 minutes in any environment or platform using a 24 VDC battery
- Multipurpose design

Applications

- Command and control center
- Logistics center
- Operations center
- Temporary housing
- Office
- Classroom
- Supply storage

RDSS — Rapid Deployment Shelter System



- Temporary portable medical shelter
- Quarantine or isolation building
- Temporary morgue
- Decontamination building
- Portable laboratory for conducting scientific research in remote locations, disaster response sites or where waste remediation operations are ongoing
- Portable manufacturing facility or shop for remote repairs at a military base or other remote sites
- Portable power station using a conventional power generator in the box and solar collectors on the surfaces that are exposed following deployment (this arrangement would protect the solar collectors during shipment)

Patents & Awards

- U.S. Patent No. 7,117,645
- 2007 R&D 100 Award

Inventors

Lee Bzorgi

Technology Readiness Level (1–9)



Actual application of the technology in its final form and in Y-12 production use.

Partnering Opportunities

Y-12 is seeking an industry partner to fully commercialize this technology.

If you would like more information, please contact the Office of Technology Commercialization and Partnerships:
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(865) 241-5981
<http://www.y12.doe.gov/technologies>