



*September 27 - October 01, 2004, Bad Reichenhall, Germany*

## **SHOCK AND BLAST EFFECTS ON STATIONARY AND MOBILE CONTAINERS**

Helmut Meyer

*DREHTAINER GmbH  
Güststrasse 1  
D-19246 Valluhn / MegaPark*

During their missions abroad soldiers are enormously exposed to danger.

Therefore it becomes more and more important to protect them against attacks in their accommodations and when on transports.

On the other hand this protection must be payable.

At the moment soldiers are more exposed and open to perfidious attacks caused by blast traps, mortars or rockets than to open fire.

- Containers with integrated power supply with a relatively large space inside offer protection for more than 20 soldiers when in stationary use
- can be used for evacuation purposes or
- as outposts
- mobile rescue containers are used for advanced life support to wounded persons and to make them ready for transportation.
- Modular combined containers are rapidly deployable and offer immediate protection when used as security buildings, police stations and so on.

For a test program carried out by the German Federal Ministry of Defence in order to test shock and blast influence on occupants in a protected container in field camps the DREHTAINER company placed a hardened 20' container at the disposal of the WTD 52.

- Ballistic protection of STANAG level 3
- Protection against fire of 120 mm mortars
- Lateral blast
- Anti tank mines according to STANAG level 3
- Sound pressure and internal pressure
- effect of a new type of seats and floor system

were tested.

The following two significant results were achieved:

1. Compared with the solid mounted wall system a flexible and one-piece wall structure absorbs blast effects much better.
2. Seats and floor system don't require safety belts for the occupants - neither during anti tank blast nor during lateral blast - because the results obtained show that acceleration and forces acting on occupants (dummies) are far below the permissible values.