Focus on CSIR services in

Landward Sciences

Technology becomes the critical armament to shape forces for the future. The Landward Sciences (LS) Competency Area in DPSS, a business unit in the CSIR is proud of its track record in using scientific tools and approaches to find research solutions to transform, support and sharpen the effectiveness of our Defence Force.

RESEARCH AREAS VEHICLE PROTECTION

- Threat analysis
- Detonics, shock and blast characterisation
- Soil and shrapnel ejecta characterisation
- Shock and blast attenuation
- Structural response
- New material development
- Existing material characterisation
- Injury criteria
- National Authority for Vehicle Landmine Protection Validation Testing in accordance with either RSA-MIL- STD-37 or AEP-55 Volume 2

HUMAN VULNERABILITY

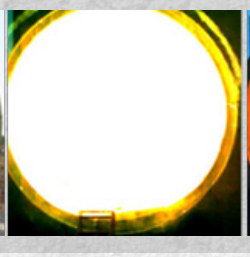
- Blunt trauma
- Explosive events
- Terminal ballistics

BLAST CHARACTERISATION

Established measurement methodology, to compare various explosives and munitions in terms of blast wave characteristics

BLAST ENHANCED EXPLOSIVES RESEARCH

- Single initiated explosive compositions, with time extended pressure and temperature profiles
- Identify, analyse and protect against threats



Explosively Formed Projectile (EFP) and Shaped Charge (SC) Protection Research

- Threat analysis
- Numerical modelling
- EFP and SC characterisation
- Surrogate development
- Protection methods

Warhead Protection Research

- Threat analysis
- Numerical modelling
- Warhead characterisation
- Surrogate development
- Protection methods

CSIR

our future through science

Improvised Explosive Device Protection Research

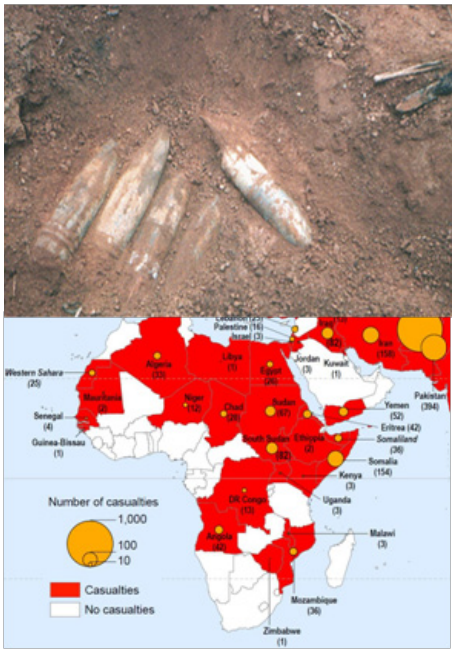
- Threat analysis
- Numerical modelling
- IED characterisation
- Surrogate development
- Protection methods
- Detection

Improvised Explosive Device Disposal (IEDD)

- Research of disruption techniques
- Design and development of disruptors
- Test and evaluation of solutions

Explosive Remnants of War

- Detection
- Clearance
- Disposal



Soldier Systems

- Equipment interface
- Soldier performance enhancement tools
- Equipment weight considerations
- Situational awareness

Vehicle Mobility

- Terrain characterisation
- Vehicle mobility characterisation
- Vehicle mobility enhancement

Specialised Security Technology Research and Support

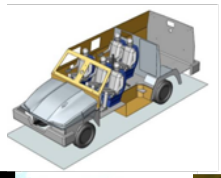
- Border control equipment
- Detection systems

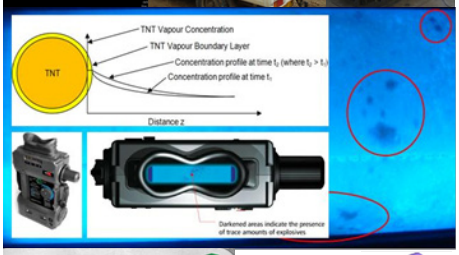
Short Event Computational Modelling

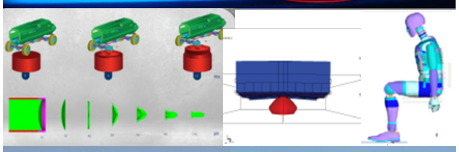
- Supports all the research areas
- Short time duration
- Finite Element Analysis (FEA)
- Modelling of human responses
- Hydrocodes

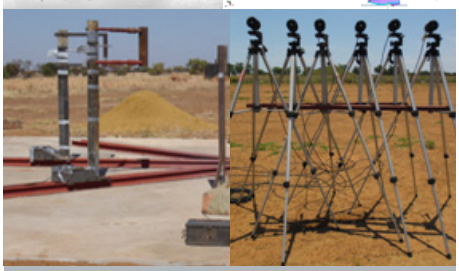
Test, Measurement & Evaluation (TME)

- All the Landwards' research areas are supported by an extensive TME capability.









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