**INTRODUCTION**

Operational field commanders have to spend an increasing fraction of their operational capacity on Force Protection. This has a considerable impact on the mission and the realization of its goals. This means that, when determining the desired level of force protection and protective measures, the mission goals have to be taken into account.

Required protective measures for a mission have to be related to the total life cycle of the compound (from the exploratory phase, through construction and operation, to dismantling). During all phases of this compound life cycle, the adequate level of protection has to be achieved in the most quick and efficient way possible. Given the continuously varying threat spectrum, the available protective measures have to be adjustable quickly, efficiently, and flexibly to a change in threat. This involves both an upscale to a higher protection level and a downscale to a lower protection level.

All this implies that the Army Corps of Engineers, who are tasked with Force Protection, have to realize their goals more quickly and that the logistic consequences of an operation increase continuously. This was the incentive for the NL/MoD for the five-year research programme ‘Protection and survivability of the compound as platform’, which is focused on the protection and survivability of compounds. The programme is focused on answering questions that relate to all phases of the compound lifecycle.

**OBJECTIVES**

The central challenge of this programme is the fact that the Netherlands Ministry of Defence (NL/MoD) requires more insight in the protection of the platform compound, in relation to the compound life cycle and a continuously changing threat spectrum. In practice, the NL/MoD needs to be able to exploit compounds in such a manner, that the best balance is obtained between the level of protection that the compound offers and the quality of operations from the compound. This implies that the MoD needs more insight in integral Force Protection of the platform compound.
special attention is given to the integration and interpretation of these different modules into a general method for survivability assessment of compounds. A blueprint of this method will be built directly after the start of the programme, to ensure that the various elements can be built into this method in a uniform and consistent manner.

**STUDIES**

The studies that will be performed in the Programme are:
- Determination of a representative threat library that is valid for present and future (next 5 - 10 years) missions Out-of-Area;
- Methods and means that can be used to achieve flexible protection of personnel, assets and compound infrastructure;
- Translation of a given threat spectrum to a desired level of protection, which in turn can be expressed in terms of required protective measures (active or passive);
- A method for ‘cost’-benefit analyses of protective measures and situational awareness, in relation to the mission goals.

**APPLICATION**

The knowledge and expertise built up in this research programme will be used to support the NL Army Corps of Engineers in the protection and use of the platform compound in all phases of the compound lifecycle.

**PROGRAMME**

**Supervisor**
LCol. E. Leidelmeijer MinDef/DS/CLAS/OTCO/KC
Genie, Head Knowledge Centre

**Manager**
Dr. E.K. Verolme, TNO Defense, Security and Safety, Explosions, Ballistics and Protection

**Title**
Protection and survivability of the compound as platform

**Programme number**
v817

**Time schedule**
4-3-2008 - kick-off
31-12-2012 - completion

**Budget**
3600 kEURO