

Combat Identification Of Fixed Infrastructure

Mitigating against “friendly fire” or fratricide incidents

An effective Combat Identification Marking System programme was required to mark friendly assets with distinctive identifying markings (materials and beacons) that will result in:

- Enhanced public support for current and future operations
- Sustained operational tempo
- Improved moral and greater confidence in the Unit’s leadership
- Reduced damage to civilian and military personnel, property and infrastructure
- Lives saved!

Whilst warfare and military activity will take place across environments, the final resolution of conflict is likely to result from actions on the ground. To succeed, commanders at all levels will need a detailed understanding of the ever more complex environment in which they are operating. Combat Identification (CID) aids understanding through increased Situational Awareness (SA) and Target Identification (TID). CID is defined as ‘the process of combining SA, TID and specific Tactics, Techniques and Procedures (TTPs) to increase operational effectiveness of weapon systems and reduce the incidence of casualties caused by friendly fire.



One man died and a further 10 were injured when Patrol Base ALMAS, in the southern SANGIN green zone was incorrectly identified as an enemy position

Military Forces can continue to expect to conduct operations alongside and integrated with partners (NATO, UN, etc) under various command arrangements. Coalitions will be the norm with their inevitable political and military tensions, there will be an omnipresent media with its often adverse comment and the attendant possibility of litigation whilst

weapon systems are likely to continue to grow in range, sophistication and lethality. Coalitions with their mix of language, equipment, cultures and training levels are currently recognised as being particularly vulnerable to both the causes and consequences of fratricide incidence.

The need for the improved identification of fixed assets such as Patrol Bases was highlighted in 2009 when the ALMAS PB was incorrectly identified as an enemy position.

A summary of the incident is as follows:

- A Patrol Base ALMAS, in the southern SANGIN green zone came under intense enemy fire and there was an explosion causing the supporting building to collapse. This explosion changed the appearance of the Patrol Base considerably
- The User thought they had the camera trained on an enemy compound and could see three men firing small arms and what looked like RPG. This was not the enemy, but PB ALMAS. The grid co-ordinates were passed to an Attack Helicopter
- The Patrol Base was hit by a number of explosions. The Platoon Commander reported this as indirect fire but then quickly changed his mind as a second series of explosions hit the Patrol Base. One man died and a further 10 were injured

Our Approach

QinetiQ has supplied a 24/7 layered Active and Passive capability to that consisted of a number of 1.2m shaped Thermal Identification Panel (NSN 5855-99-308-1372) and Active Beacon System

(NSN 5895-99-989-6422) which has been developed so that an air, aviation or land based observer (e.g. Attack Helicopter, Tornado GR4, UAV, Warrior, Javelin CLU etc.) will see a signal that will inform them that the location is friendly.

The Shaped Thermal Identification Panels or sTIP includes 5 components which reflect the cold sky towards an observer, so that an observer sees a cold shape when viewing the location through a thermal imager. The panels are also coloured orange to ensure that they can be seen by eye or using a visual waveband imager. Our patented Mirage® based solutions offers a factor of 2 improvement in the probability of detection against traditional Thermal Identification Panels.

The Active Beacon System consists of Beacon, Controller, Power Supply and mounting attachments. The System emits a 'flashing signal' that is visible through either a thermal imager or night vision goggles.

Benefits

- Project delivered ahead of schedule and budget enabling more lives to be saved
- System compatible with STANAG 2129 and hence interoperable with coalition partners
- Tailored training solution and User Documentation delivered in 5 languages to enhance adoption by coalition partners



Customer Contact

QinetiQ

Cody Technology Park
Ively Road, Farnborough
Hampshire, GU14 0LX
United Kingdom
Tel: +44 (0)8700 100 942
www.QinetiQ.com

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