Pyrotechnic decoys

Pyrotechnic decoys are used on military aircraft, ships, land vehicles and other assets which must be protected against enemy threats. TNO has unique expertise in the field of IR flare technology, (multi spectral) smoke and other types of pyrotechnic decoys. The know-how of performance, safety, quality -and environmentally aspects of pyrotechnics make TNO a very dedicated partner to support the Ministry of Defense and the Defense Industry.

Technology
One of the most well known pyrotechnic decoys is the IR flare used for the protection of military aircraft. TNO has essential know-how on many types of flares, and flare performance. TNO supports the Dutch Ministry of Defence in this area. TNO is also researching smoke products to protect military assets on land and sea.

TNO continuously participates in international research -and user groups to keep the knowledge on pyrotechnic decoy systems and the application by their users at the highest level.

Services on pyrotechnic decoys
• In general, TNO can give advise on flares; (patented) and smoke compositions;
• Testing of flare infra red emission, flare ejection and ignition;
• Flare life time and health monitoring;
• Support on flare-to-plane contact, outgassing and post fire conductivity;
• Transmission testing of smokes.

Facilities
• Fourier ransform Infrared Spectrometer (FTIR);
• Multi spectral Radiometer Transmissometer (MSRT);
• Pyrotechnic testing tunnel;
• High-speed video equipment;
• Equipment to characterize impulse cartridges (measure pressure/time traces).
Examples of pyrotechnic smoke decoys.