



Australian Government
Department of Defence
 Science and Technology

Directed Infra-Red Counter-Measures (DIRCM) concepts

The Defence Science and Technology (DST) Group is conducting research into advanced Directed Infra-Red Counter-Measures (DIRCM) concepts to protect aircraft from increasingly sophisticated infra-red (IR) guided missiles.

A deadly threat in air, land, and maritime domains, IR guided missiles contain an electro-optic subsystem, the 'seeker', which detects and locks onto the heat signature of the platform and guides the missile to its intended target. In the air domain, man-portable air-defence systems (MANPADS) are a particular problem because they are relatively inexpensive, easy to use, and have been widely proliferated.

To effectively counter the threat of IR guided missiles, DST researchers have developed the MURLIN laser system, which directs a laser beam from the aircraft to the missile seeker in order to confuse the seeker's ability to track the aircraft, causing the missile to veer harmlessly away.

In collaboration with industry, and to meet exacting ADF requirements, DST's MURLIN family of DIRCM lasers has transitioned from laboratory prototypes to a compact advanced concept demonstrator, resulting in a reduction in the size, weight and number of optical components while retaining optical beam quality.



For further information:

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