

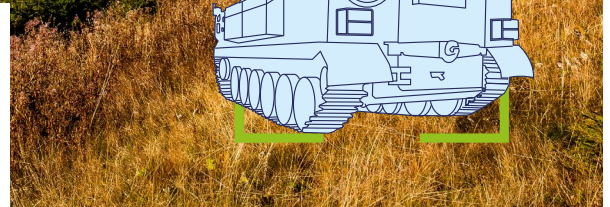
Plextek MISPEC

What is MISPEC?

The MISPEC (Merit of Individual System Performance Characteristics) software enables IFF (Identification Friend or Foe) system performance modelling at the early stages of the development cycle.

Plextek's MISPEC software has been designed to evaluate the performance of a proposed IFF installation on a platform (air, land, sea) against various interrogators through a defined operating envelope and clearly show if the proposed IFF installation would result in an acceptable rate of positive identification of the platform by the interrogator. The MISPEC analysis tool predicts the uplink and downlink outage probabilities and link margins for an interrogator and transponder platform pair in a defined environment.

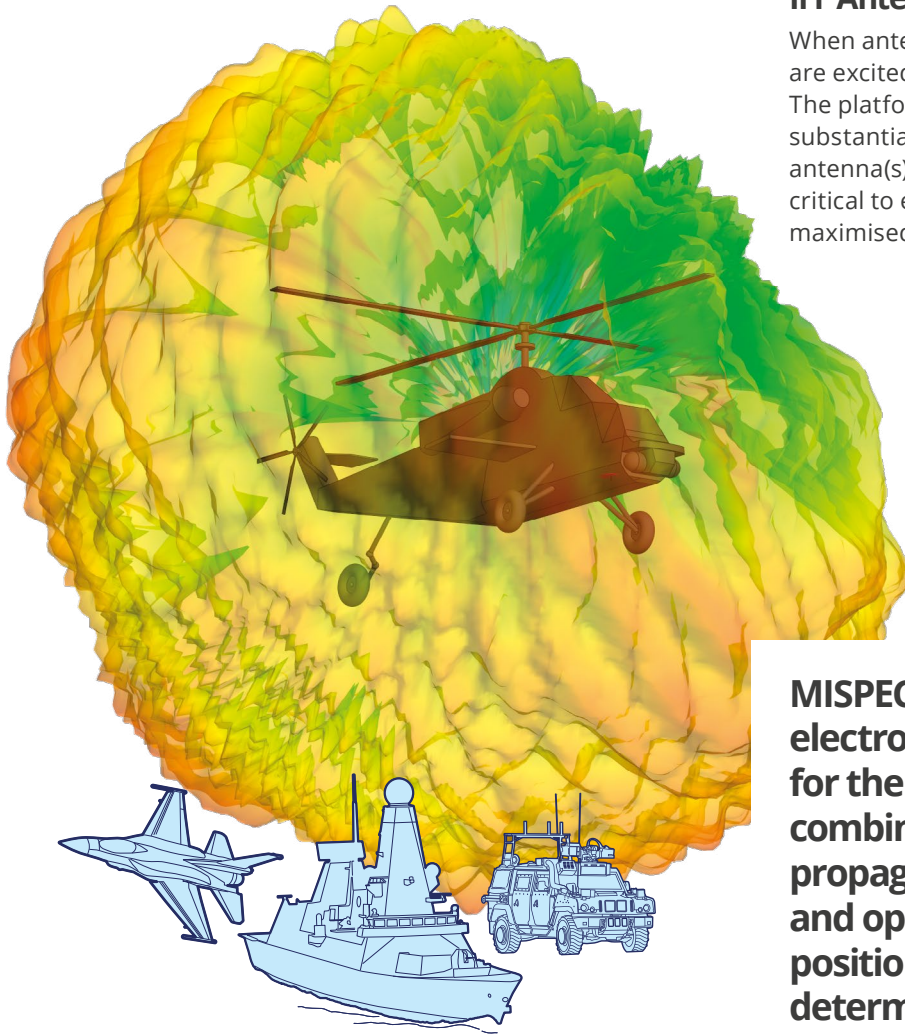
If the proposed IFF installation is found not to meet the requirements, Plextek is able to offer support in further understanding why it does not perform as expected and to help determine more appropriate placement of IFF transponder antenna(s) to improve overall system performance.



Why MISPEC?

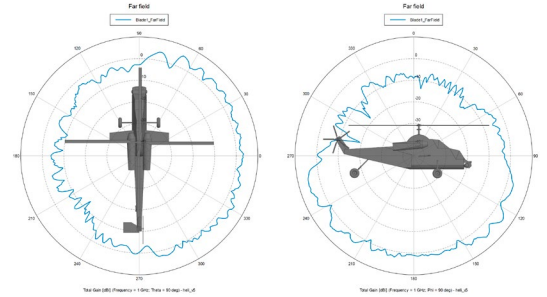
All NATO nations are mandated to switch to the Mode-5 standard IFF, which uses advanced cryptographic techniques to secure the systems against electronic deception by adversaries.

The use of Mode-5 standard IFF is vital when forces are operating together to ensure that air, land and naval crews can reliably recognise their allies.



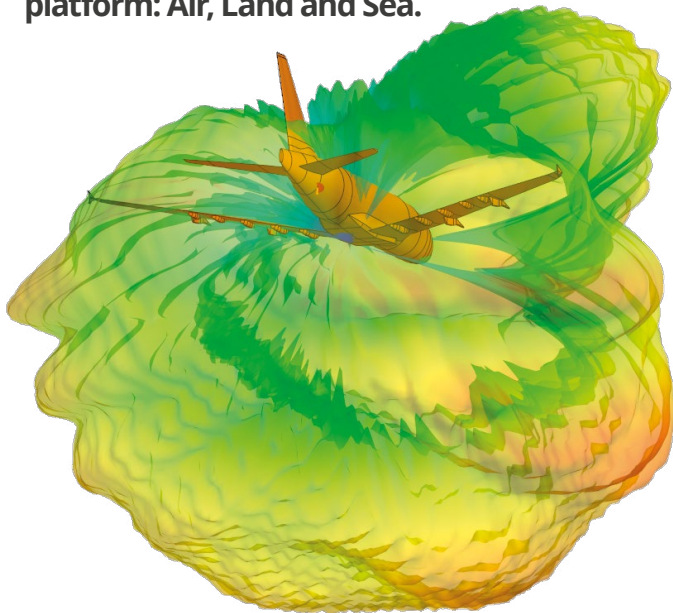
IFF Antenna placement is critical.

When antennas are used on platforms, RF currents are excited on both the antenna and platform itself. The platform acts as an extension of the antenna, and substantially affect the antenna performance. The IFF antenna(s) orientation and location on the platform is critical to ensure that the installed IFF performance is maximised.



MISPEC software reads in electromagnetic simulation data for the antenna and platform, and combines it with parameters including propagation losses, transponder data, and operating envelope (platform position, altitude, pitch, yaw, etc.) to determine IFF performance for given missions and scenarios.

Plextek's MISPEC software has been designed to evaluate the performance of a proposed IFF installation on any platform: Air, Land and Sea.



The invisible nature of electromagnetic waves makes the task of identifying correct IFF node placement impractical without using simulation for insight. Plextek's MISPEC Software can help significantly speed up testing and measurement and ensure that your IFF installation is optimal and working as expected throughout all stages of your mission.

