

Thales Provides More Details About 'DeepFinder Tactical' Radar

By Andrew White

[Thales](#) has disclosed more details about the third and latest variant in its family of UHF radars at the inaugural Thales UK Technology Summit in London on September 14. Designed to support integrated air and missile defense (IAMD) capabilities, "DeepFinder Tactical" comprises an early warning radar, capable of detecting threats at "very long range and across a very wide angular sector," Peter Terpstra, Surface Radars Global Policy Director at Thales confirmed at the event.

Referring to the "current operational context which is imposing new radar requirements" across the IAMD market, Terpstra explained how the "highly mobile solution" could also ensure increased levels in survivability across the contemporary operating environment. "High power transmitters offer high-quality cueing to a fire control radar system and resilience to jamming," he added, promoting the use of UHF radars for early warning.

According to Terpstra, the most important upgrade in UHF radar technology has been the reduction in form factor. Confirming the presence of UHF radars of the past, he warned they had historically been "very big," warning: "They are buildings, and the problem with the building is it's not mobile. So, the DeepFinder Tactical is now the first radar which gives all these advantages with very high mobility. We have in the past decade developed a technology and algorithms to make multiple antennas work as one. It was very difficult, but we managed," he said.

Thales presented several concepts of employment at the Tech Summit, describing how the radar could be air-transportable by 20ft shipping container and operable with rotating or starting antenna.

The radar can be up and running within 30 minutes, Terpstra said, before confirming DeepFinder Tactical's AESA antenna includes a fully digital multi-beam.

Terpstra added the radar features the capability to "aggregate multiple modules to increase overall performance." "Each mission is accomplished by deploying one or more radar modules with a software application dedicated to each mission," he explained. "DeepFinder Tactical is a disruptive solution to the evolution of threats and an effective force multiplier for several missions."

Terpstra said Deepfinder Tactical has a range of a few thousand kilometers, which he said means an air defense system can "launch on remote" before it has a visual on its target. "So, based on [Deepfinder Tactical] data, they can launch the missile. It's already in the air. Then their fire control radar picks up [the target] and does the final guidance. So, the area you protect is much larger, and also the chances of you of hitting it is much larger, and you work much quicker," he continued.

To date, Thales has built a "very large [UHF radar] demonstrator" in the south of France, which Terpstra confirmed has been in operation for "quite a few years." He added that the technology readiness level of DeepFinder Tactical is "so high," he expects the first radar to begin testing by the end of the decade. Terpstra would not comment on potential customers.