

Passive Radar – from Inception to Maturity

Passive radar may be defined as radar that makes use of existing transmissions – such as broadcast, communications or radionavigation signals – rather than a dedicated radar transmitter. Such systems have a number of advantages, including covertness, low cost, and no need for additional spectrum. The earliest experiments go back to the 1980s, but for many years the concept was not much more than an interesting research topic.

That situation has changed significantly in the past five years or so. There has been a step change in the maturity of the technology, and several commercial companies have built and demonstrated systems with high performance. This is due to a number of factors, including ever-greater spectrum congestion, and the widespread use of digital transmissions. A defence business website estimates that the civil and defence market for passive radar will exceed US\$10bn over the next decade.

The presentation will cover some of the key developments, examples of practical systems and results, and some speculation on the future of the subject.