

Kestrel TSCM[®] Professional Software

Counter-Espionage | Pro-Active Due Diligence

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Technical Research and Standards Group (TRSG)

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Understanding the real-world numbers behind Probability of Detection (POD) that are oftentimes misrepresented by manufacturers and technical operators alike, when only applied to equipment resources, or within the definition of a limited Scope of Work (SOW) deployment is a new reality.

It is essential to look at Probability of Detection (POD) somewhat differently in a modern threat environment perspective.

As noted in the October 2016 newsletter.

"In our experience and review of available information, up to 95% of technical operators continue to conduct RF spectrum analysis, as "snap-shot" style, spot checks, to reveal potentially hostile signals within the target area. Periodic RF sweeps that might be conducted for a few hours a couple of times a year or even quarterly, simply no-longer meet an acceptable level of due-diligence and fail to meet more stringent real-time threat detection requirements for the type of periodic digital signals present in today's ambient RF spectrum environment. Outdated and obsolete detection strategies and practices can no longer mitigate the threat of economic espionage and other potential technical compromises".

In a modern threat environment, Probability of Detection (POD) is at an all time industry low, given the periodic nature of extremely complex modulation schemes in an everything wireless spectrum environment.

This complexity demands a new and aggressive approach, supplemented by an increased time-on-target protocol that can only be achieved by Remote Spectrum Surveillance and Monitoring (RSSM)[™].

Firewall | Anti-Virus Analogy

A strong analogy for comparative purposes might be the fact that no organization would ever consider turning-off their network firewall or anti-virus software at the end of the business day, or only operate them for a few hours several times a year, for Cyber security mitigation.

However, the vast majority of private and public sector organizations do just that with their only real line of defense against potentially devastating incidents of economic-espionage and information theft, by only conducting periodic sweeps for a few hours, several times a year.

The vast majority of organizations fail to conduct any measure of Technical Surveillance Countermeasures (TSCM) at all, leaving them vulnerable to an undetected technical attack.

RSSM[™] requires that the technical operator and ultimately the end-user understand that global economic-espionage has taken a dramatic turn during the past decade, as significant changes in how corporations and governments do business, both at home and internationally, have opened the flood gates of opportunity, driven by aggressive state sponsored espionage players.

Individual private offices have all but been replaced with trendy Ad Hoc shared work spaces, significantly increasing the potential for inadvertent disclosure of proprietary information, both from an insider threat and through traditional espionage activities, with virtually no controlled access to common work areas, within the modern workplace.

Executives are integrating themselves into these common work areas under a so-called open door policy, placing the organization at an even greater risk of compromise of competitive-intelligence and economic-espionage.

Key Considerations

You cannot detect, identify, or locate a threat of which you are unaware of, or have no technical data to support a position on either side, as to whether a compromise exists, existed, or will exist in the time-frame of an unknown future event.

It is essential to understand that Probability of Detection (POD) is more than any single applied application.

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Probability of Detection (POD) | By the Numbers Understanding the Modern Threat Environment

Professional Development TSCM Group Inc.

Technical Security Branch (TSB)

Approximately 95% of the TSCM operators surveyed are still conducting ineffective < snap-shot > style periodic electronic sweeps, believing the Probability of Detection (POD) is reasonably close to 100% (a concept often proposed by equipment manufacturers, referring to the sweep speed and other hardware factors), and in-turn have convinced the client or end-user this is the case, when in-fact it is not possible without 24 / 7 capture.

What operators often fail to understand, is that even a highly experienced and competent RF spectrum analysis conducted with the right equipment resources and the correct approach, for a period of 8 hours a month x 12 months = 1% POD over the course of a year, when not supplemented by the Kestrel[®] Remote Spectrum Surveillance and Monitoring (RSSM)[™] methodology.

The average “time-on-target” among surveyed operators is approximately 10 hours (or less) quarterly, or 40 hours (or less) annually, yet most surveyed operators insist that this meets an acceptable level of due-diligence requirements for most of their clients.

How do operators know, what they don't know?

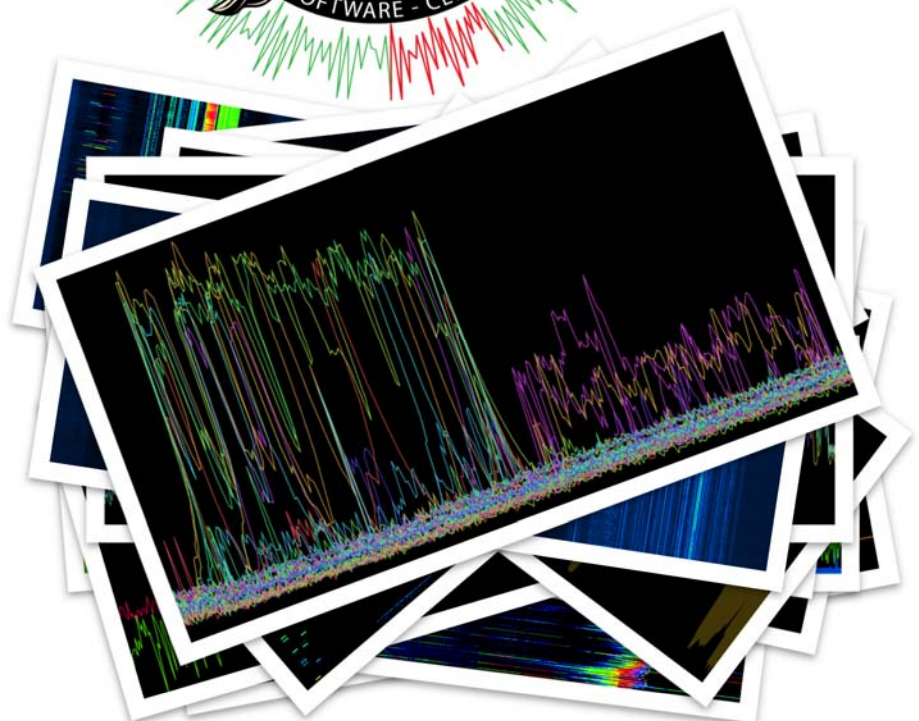
When any equipment resource is deployed for say, one (1) hour, and the equipment resource is in-fact capable of 100% Probability of Detection (POD), and the operator has the experience to identify a hostile event from the many thousands of friendly ambient RF signals, I guess one could argue that the POD is 100%, but this is only true for the actual deployment time, in this example, one (1) hour, and this is where most equipment manufacturers and operators miss the point completely regarding Probability of Detection (POD).

Time-on-Target is a critical factor in determining the Probability of Detection (POD) from a field deployment perspective, and the operator needs to look at the big picture, and clearly is, or should be, an incentive to change the way TSCM services are delivered.

To learn about our professional TSCM services and training, or Kestrel[®] Remote Spectrum Surveillance and Monitoring (RSSM)[™], please contact [Paul D Turner](mailto:Paul.D.Turner@pdgt.ca), TSS TSI at Professional Development TSCM Group Inc.

| www.pdgt.ca | www.kestreлтscm.com | www.ctsc-canada.com |

Innovation is Simply the Beginning



Kestrel TSCM[®] Professional Software is innovative industry leading, disruptive technology, now sold in 25 countries worldwide.