Kestrel TSCM ® Professional Software

Kestrel ® Spectral Learning Mode | Intelligent ◌ Artificial Intelligence
"Managed Artificial Spectrum Intelligence and Parallel Human Intellect"

March 2021 | Issue 69　　　　　　　　　　　**Technical Research and Standards Group**

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Kestrel | Artificial Intelligence (AI)　**NEW**

The Kestrel TSCM ® Professional Software continues to evolve with each new official software release by introducing entirely new industry disruptive TSCM defensive technology. Our latest Spectral Learning Mode (KLM) 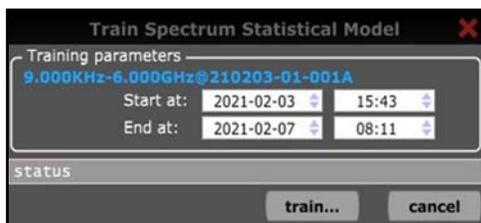is an excellent example of a new TSCM defensive countermeasures capability, developed by our in-house team of experienced Technical Security Specialists (TSS) ™ under the operational umbrella of our Technical Research and Standards Group (TRSG) ™. The recent release of our dimensional geo-location heat mapping feature has now come full circle. Our Remote Spectrum Surveillance and Monitoring (RSSM) ™ is now significantly enhanced with a measure of advanced artificial intelligence based technology, providing the technical operator with managed artificial spectrum intelligence and parallel human intellect, embedded across the application. Our ability to expertly integrate powerful components such as geo-location heat mapping and autonomous alert focus; in combination with a powerful new learning mode, brings to reality an entirely unique defensive detection strategy.

### Trained Spectrum Statistical Modelling | Burst Detection

The unique ability to independently train on single and multiple spectrum bands, sub-bands, or any operator defined Range of Interest (ROI) bandwidth, significantly enhances the Probability of Detection (POD). The instruction of a new Burst Detection capability adds another powerful new capability to statistical learning model. The trained spectrum range is derived from the captured (automatically processed), unique Kestrel Super Trace (KST) ™ sub-set and as defined by the technical operator, by date and time and start and stop training parameters. Kestrel ® is the choice of the modern spectrum warrior!

The training range is spectrum band independent, allowing focused-optimization across multiple bands, sub-bands, and custom operator defined spectrum ranges. Unique algorithmic logic, permits optimization across independent Resolution Bandwidth (RBW) settings at the band level.
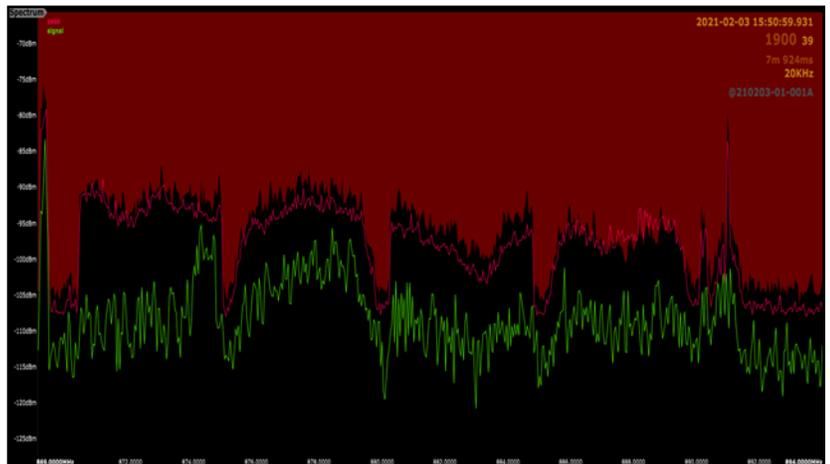
The above example illustrates the new trained MAX + MARGIN option, with an operator defined margin of (5 dB). The margin is controlled by the technical operator via a Margin Slider Control located on the new Spectrum Modelling TAB.
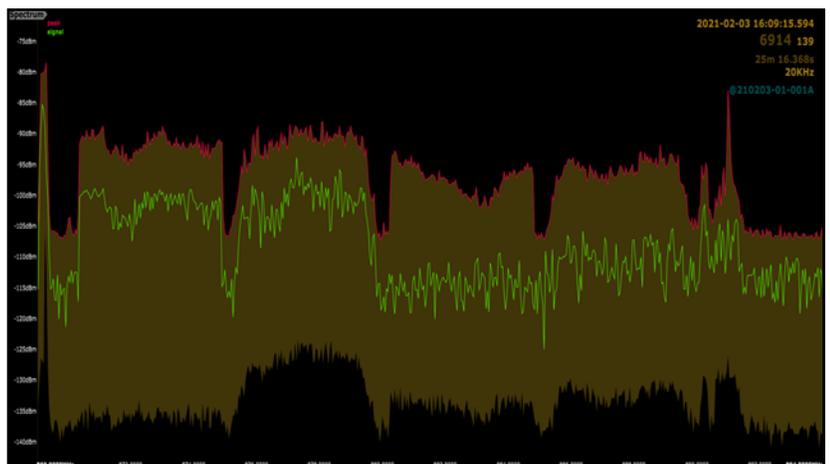
The above example illustrates a second spectrum training mode incorporated into the feature. The Accumulated MIN-MAX statistical model is based on the MIN-MAX signal level over time. This powerful new feature is scheduled to be released in March 2021. Official supplemental documentation will be provided within the Technical Support Group (TSG) ™ website.

Kestrel TSCM ® Professional Software

The Next Generation of the Advanced Signals Intelligence Database (ASID) ™ | Operator Frequency Database (OFD) ™ has Arrived!
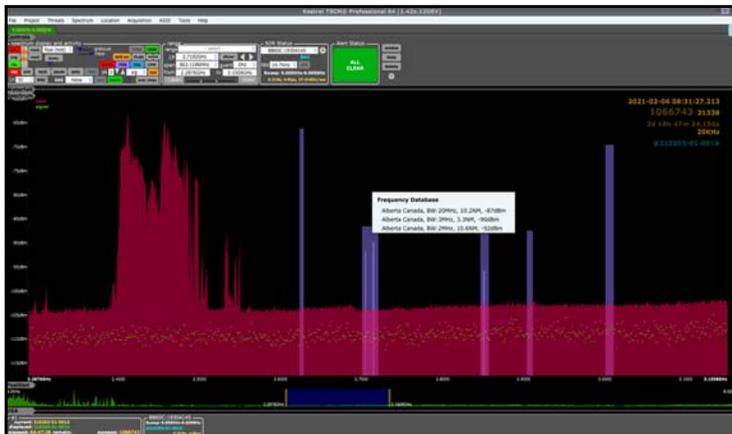
Professional Development TSCM Group Inc.　　　　**Technical Security Branch (TSB)**
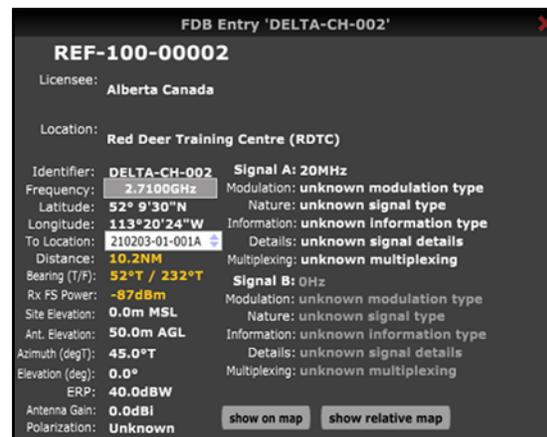
Operator Frequency Database (OFD) ™　*NEW*

Our **Kestrel-net** ™ business model is firmly founded on a threat technology-based generational product development process that includes next-level innovation. A new feature introduced is never considered complete and must under-go a never ending lab and field qualification process. It is during this extensive review that generational enhancements and deployment improvements are discovered and implemented. The ASID ™ technology supports the Australian, Canadian, and United States of America official licensing databases as a record-based overlay on the RF spectrum display. The Frequency Database (FDB) ™ files from one or more databases can be invoked providing access to official records, google map / satellite and street view reference, with a (Tx | Rx) location on a static reference map.

The OFD ™ feature provides the technical operator with a CSV formatted template that is fully integrated with the ASID ™ sub-system, spectrum overlay. The OFD ™ template can be used to populate a custom user-database containing non-restricted, proprietary, and restricted frequency database reference information.

The following FDB ™ record is an example of the OFD ™ output rendering.

The Kestrel TSCM ® Professional Software is the only standards-based Software Defined Radio (SDR) application that is based on the TSB 2000 (Technical) Standard ™. Kestrel ® has become the leading professional Technical Surveillance Countermeasures (TSCM) and Remote Spectrum Surveillance and Monitoring (RSSM) ™ software.

The Kestrel TSCM ® Professional Software is a Unique Standards-Based Software Defined Radio (SDR) Platform that is Expertly Engineered by a Dedicated Group of TSCM Professionals for use by the Modern Spectrum Warrior.

Innovation is Simply the Beginning!

Visionary Software Beyond the Technology Limitations...

| **www.pdtg.ca** | **www.kestreltscm.com** | **www.ctsc-canada.com** |

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The above example illustrates the advanced capability of the OFD ™ feature spectrum overlay. The database contains a total of eight (8) unique records that renders the expected free-space power and distance to the transmitter site. When the operator selects an entry from the spectrum overlay, the database record is invoked. Additional information such as the Center-Frequency, Estimated Radiated Power (ERP), bearing to and from the station and provides triangulate across multiple locations.

*Kestrel TSCM ® Professional Software is innovative industry leading, disruptive technology, sold in **52** countries worldwide!*