

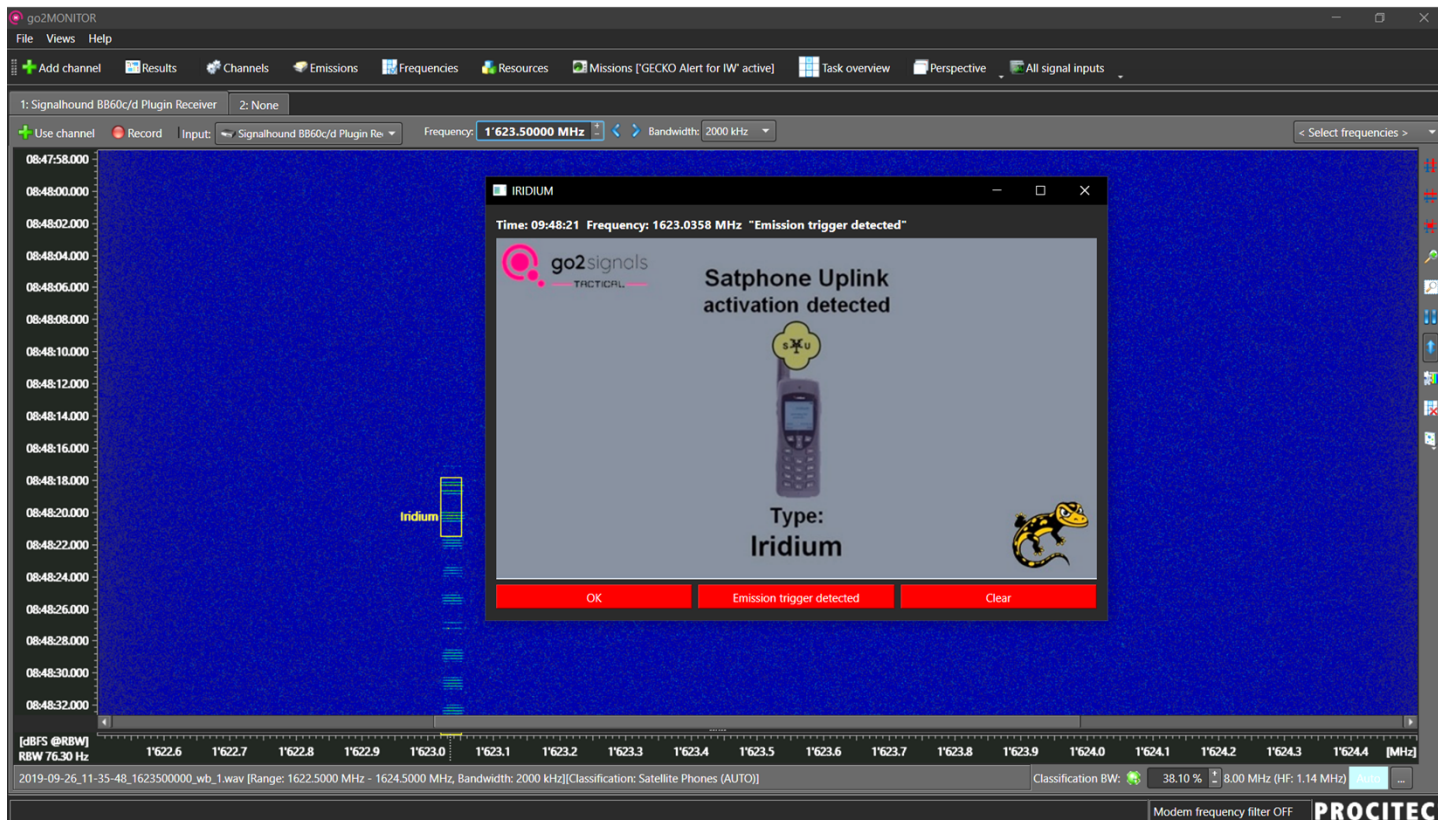
CASE STUDY 3001 v1.0

GECKO Alerts for Indications & Warnings



INTRODUCTION

This Case Study explores the techniques & procedures by which deployed CEMA Teams running **go2MONITOR** on a tablet or mobile-workstation PC can employ user-defined rulesets to deliver automatic audio-visual alerts upon detection of signal activations, including (but not limited to) Satphone Uplinks, Digital Push-To-Talk activations & other short-duration emission-protocols.



GECKO auto-alerting upon detection of a close-proximity IRIDIUM Satphone Uplink activation (go2MONITOR in dark-mode)

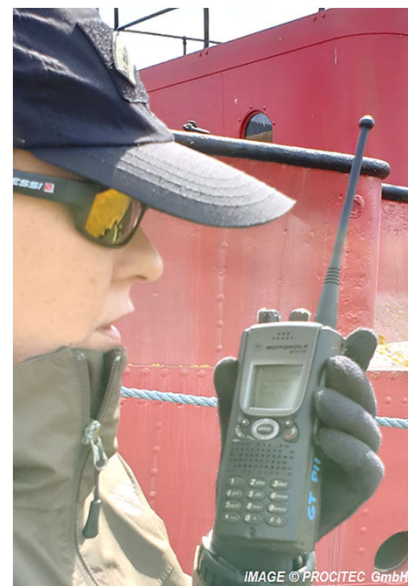


Satphone User (desert region)

THE NEED

Adversarial & criminal use of commercially-available Satphones & Digital Push-To-Talk (D-PTT [i.e. PMR/LMR]) Handheld Transceivers (HTs) & Mobile Units (MUs) is increasing in the land & littoral space around the globe.

Deployed CEMA Teams can enhance their Situational Awareness by using their embedded GECKO capability to deliver CEMA-derived Indications & Warnings of these Satphone, D-PTT & other signaling activations in real-time.



Tetra User (sub-arctic region)

FORCE-MULTIPLIER

Running from utility Wideband V/UHF Receivers or Direction-Finding Sensor-systems, the operational intent of the GECKO automatic proximity-detection & threat-warning capability is to deliver fully-automated audio-visual alerts to the local CEMA Team & to inform, in simple-terms, untrained & non-CEMA personnel of these close-proximity activations when, for example GECKO is running in 'unattended' configuration or in the absence of CEMA Operators.



AUDIO-VISUAL 'SPLASH' ALERTS

Protocol-specific AV 'splash' alerts can be easily created & modified by the CEMA &/or Analysis Teams to suit theatre-specific operational needs. The graphic below illustrates examples of user-defined visual 'splash' alerts (for use in go2MONITOR dark-mode, in this example).



AUTO-ALERT & CROSS-CUE

During variable-tempo operations, the CEMA Teams may wish to run modified 'factory-example' plugin Python scripts to deliver user-defined automatic audio/visual 'splash' alerts of signal activations & auto cross-cue (XQ) to 3rd-party assets such as local Electro-Optic or other ISR capabilities.

Additionally, the example GECKO Python script can be modified/updated to auto-report detection & alerting of these protocol-specific signal activations to CEMA-Ops recipients via email or text-messaging when online:

- XQ to a 3rd-party SMS API to send auto text-messages
- Send an email via SMTP or email API
- Report GECKO-derived product via an email-to-SMS gateway



GECKO MISSION-PLANNING

The GECKO Mission Plan contains the user-derived list of Signals-Of-Interest for a given operation, created & updated by a suitably-skilled & trained CEMA Operative. The Mission Plan runs 'blind' during live operations, requiring only very minimal interaction with the User (therefore requiring only a very low training overhead).

A generic, ops-agnostic Mission Plan is supplied with the GECKO python script. This Mission Plan includes recognizers for satellite telephone & digital speech protocols & auto-classifiers for other protocols-of-interest.

Alternate Mission Plans can be created & edited offline by local or remote communications surveillance specialists, then distributed wirelessly to the deployed CEMA Teams' to suite their revised operational objectives.



RESULTS DATABASE

The results database archives all detected signals' classification results and optionally displays those metrics in the ResultViewer application for 'post facto' offline Traffic & Network Analysis by local or real-echelon analysis cells.

REFERENCES

- I. Go2signals case-study 1005: Detection of Satphone Uplink activations for Situational Awareness

ONLINE OPERATIONS WORKSHOPS

Remote (online) Ops Workshops & Training Modules are available for those **go2signals** user-groups who may wish to further explore the 'GECKO Alerts for I&W' related CONOPS. Please contact us for further information & scheduling.

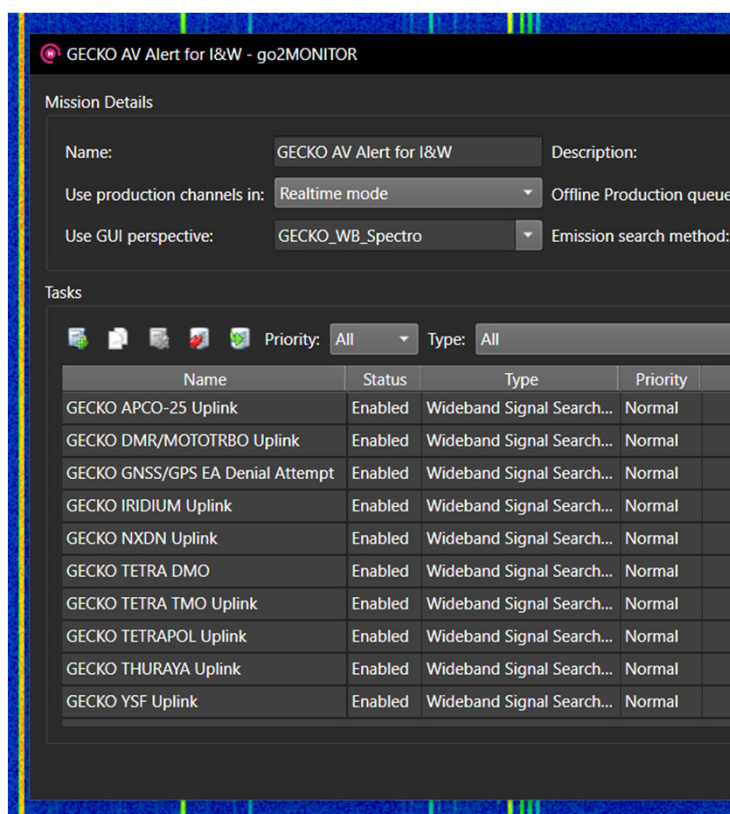


FURTHER INFORMATION

For further information relating to GECKO Alerts for I&W, please contact sales@procitec.com

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Example GECKO Mission Plan (go2MONITOR in dark-mode)