SOOTHSAYER™

Tactical radio planning

TAK ready

Supports ATAK 4.3+ and WinTAK *without a plugin*. Server based, the service operates as a bot and is ready when you are.

Secure

Developed to the CIS L1 Linux security standard. The server has AES-256 disk encryption, role based accounts, TLS transport encryption and certificate based authentication on a private TAK server.

Cross platform

As well as TAK you can use the service from any web browser on your network. The system can also be driven directly from our interactive **Google Earth™** layer.

BYO & DIY data

Add local LiDAR data to enhance accuracy.

The server can model obstacles at **2 metre resolution** with adjustable clutter profiles for accurate urban operations.

Draw or import your own obstacles as KML or GeoJSON polygons.

Good route selection needs more than map reading.

The ability to communicate is critical to a mission's success, yet too often a planned route is incompatible with reliable radio communications.

This issue is compounded with UHF radios in complex environments where signals are attenuated significantly by obstacles, and the vendor's radio-map can only show you what you already know.

SOOTHSAYER™ is a scalable, vendor agnostic, tactical radio planning server for closed networks. Designed for radio operators, not scientists, this unique edge capability empowers radio users to make **better decisions, faster** and **avoid communications failure.**

Interfaces

- ATAK, WinTAK chatbot
- Cross-platform 3D web interface
- Google Earth™ interface
- OpenAPI 3.0 specification REST API for C2 integration

Inputs

- 2MHz to 100GHz
- RF power: 1mW to 1MW
- Feeder loss options
- Co-ordinates: DD,DMS,MGRS
- Height ceiling: 60,000 ft
- Antenna templates
- Antenna azimuth, tilt, gain
- Custom antenna patterns
- Tx & Rx gains in dBi
- Terrain and climate contexts

Outputs

- dB (PL), dB (S/N), dBm, dBµV
- Bit Error Rate & Modulation
- Receiver threshold
- Min resolution: 2m/6ft
- Custom colour schemas
- Max range: 300km / 180Mi
- Profile & Fresnel zone
- Area efficiency & %

Models

General purpose

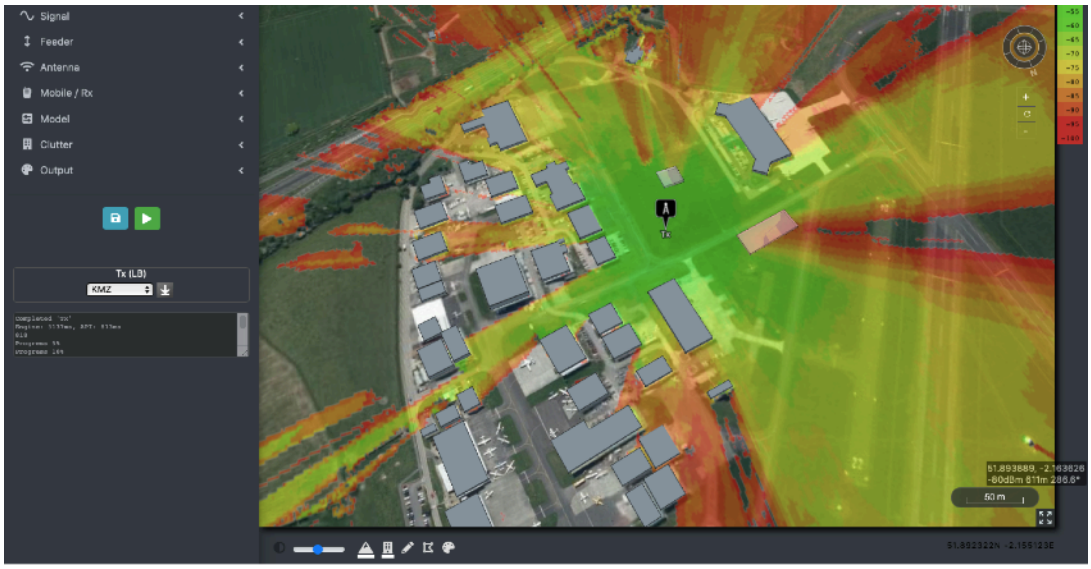
- ITM / Longley Rice
- ITU-R P.525
- ITU-R P.529
- Line-of-sight
- Plane Earth Loss

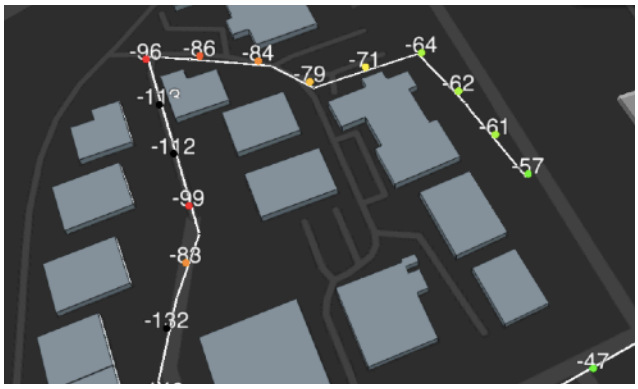
Cellular

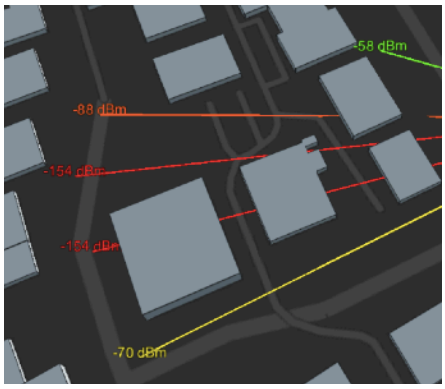
- Okumura-Hata
- COST231-Hata
- Egli VHF/UHF

Microwave

- Stanford Interim (SUI)







DSM/LiDAR & Clutter

- BYO DSM system and interface drawing tools supporting KML & GeoJSON
- 10m Global Landcover, 9 DIY clutter classes with custom profiles

Security

- AES-256 disk encryption, Role based accounts, TLS 1.2 transport encryption, RSA certificates for TAK server, E-purge.

Standards

- HTML5, KML, KMZ, CoT, JSON, GeoJSON, GeoTIFF, SHP, PNG, HTTP, WMS, ISO-8601, EPSG 4326, EPSG 3857, CoT, OAS3

Host requirements

- VMware / Azure / Proxmox / Virtualbox.
- 4 x 2GHz CPU, 4GB Memory, 20GB disk space, SMB data share

Options

- WMS OSM tile server, Global LiDAR & buildings, Radio templates
- Self hosted or hosted (EU) server with subscription

Cloud-RF, Corinium House, Barnwood, Gloucester, UK, GL4 3HX, +44.1452 886256

Copyright 2022 Farrant Consulting Ltd

E & OE

https://cloudrf.com