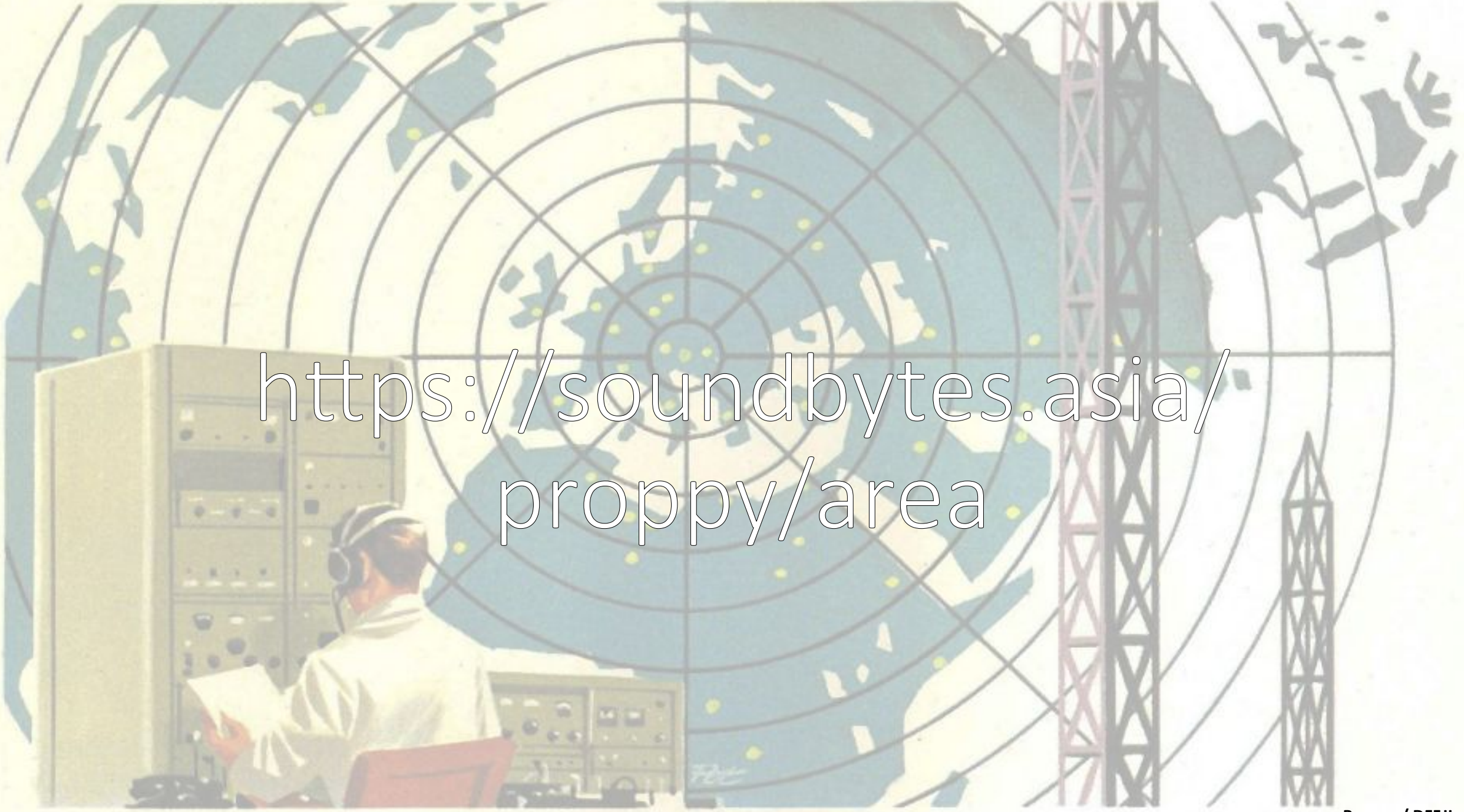
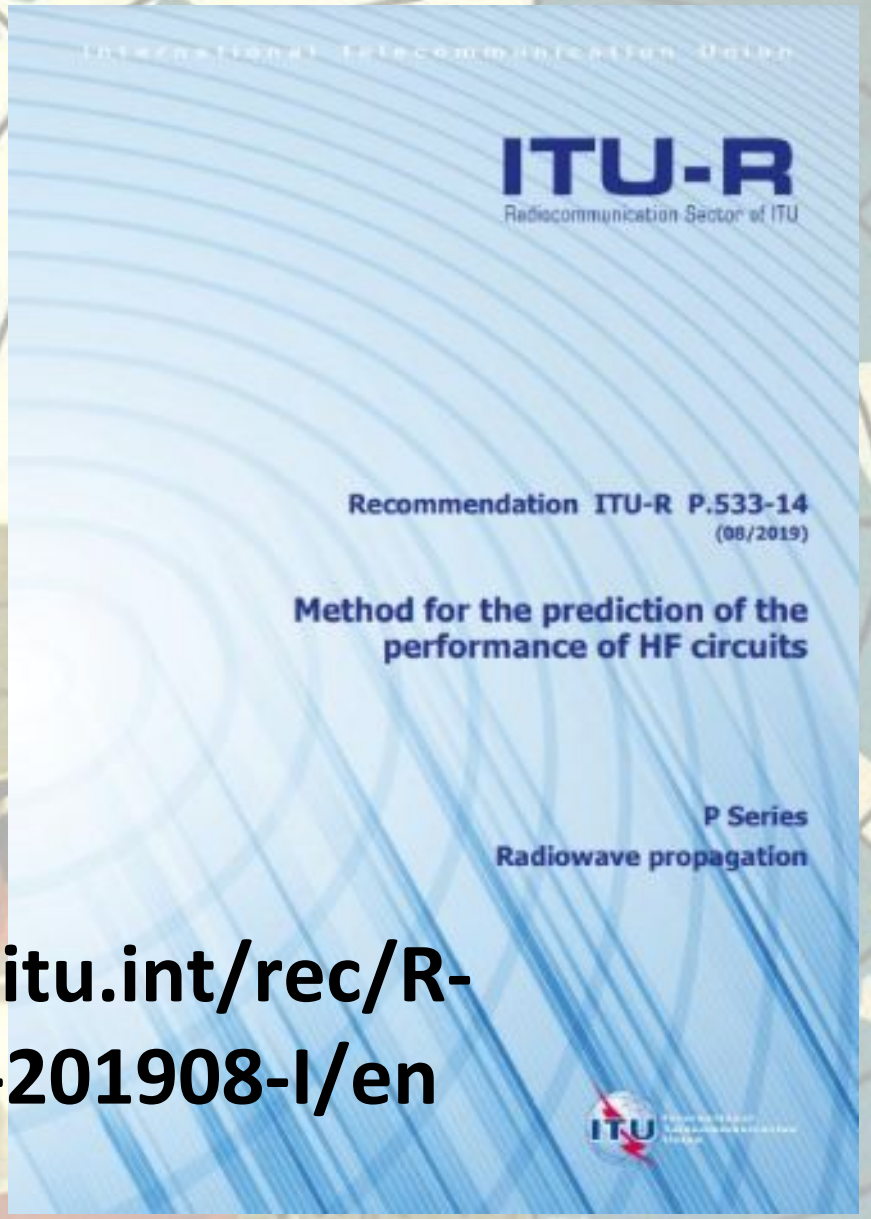
# Proppy

**…eine kleine Einführung**
**in ein vielseitiges Programm**
**zur Ausbreitungsvorhersage**

**von Tom DF5JL**



https://soundbytes.asia/proppy/area




https://www.itu.int/rec/R-REC-P.533-14-201908-I/en



$L_A$: factor to allow for auroral and other signal losses, given in Table 2. Each value is evaluated in terms of the geomagnetic latitude $G_N$ (N or S of equator) and local time $t$ for an Earth-centred dipole with pole at 78.5° N, 68.2° W: mean values for the control points of Table 1d) are taken.

In the Northern Hemisphere, winter is taken as December-February, equinox as March-May and September-November and summer as June-August. In the Southern Hemisphere, the months for winter and summer are interchanged.

For $G_n < 42.5°$, $L_A = 0$ dB

$L_C$: term containing those effects in sky-wave propagation not otherwise included in this method. The present recommended value is 8.72 dB given in § 5.2.

NOTE 1 – It should be noted that the value of $Lz$ is dependent on the elements of the prediction method, so that any changes in those elements should be accompanied by revision of the $Lz$ value. The value of $Lz$ is the excess loss determined from the difference between the predicted field strength (for path lengths less than 7 000 km) and the D1 databank.

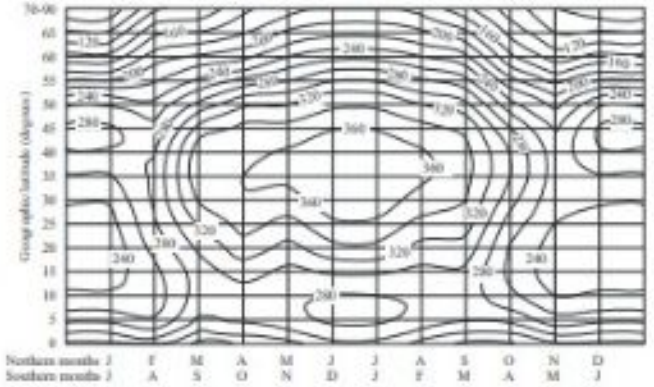
Discounting modes screened by the E layer, the overall resultant equivalent median sky-wave field strength, $E_s$, is taken as the root-sum-squared field strength for $N$ modes where $N$ is chosen to encompass the F2 and E modes for which predictions have been made, i.e.:

$$E_s = 10 \log_{10} \sum_{n=1}^{N} 10^{E_n/10} \quad \text{dB}(1\ \mu\text{V/m}) \qquad (28)$$

For the prediction of the performance of digitally modulated systems, the equivalent median sky-wave field strength for each mode is taken into account, see § 10.2.

FIGURE 1

**The absorption factor, $AF_{max}$**




Proppy / DF5JL

# Was kann Proppy?

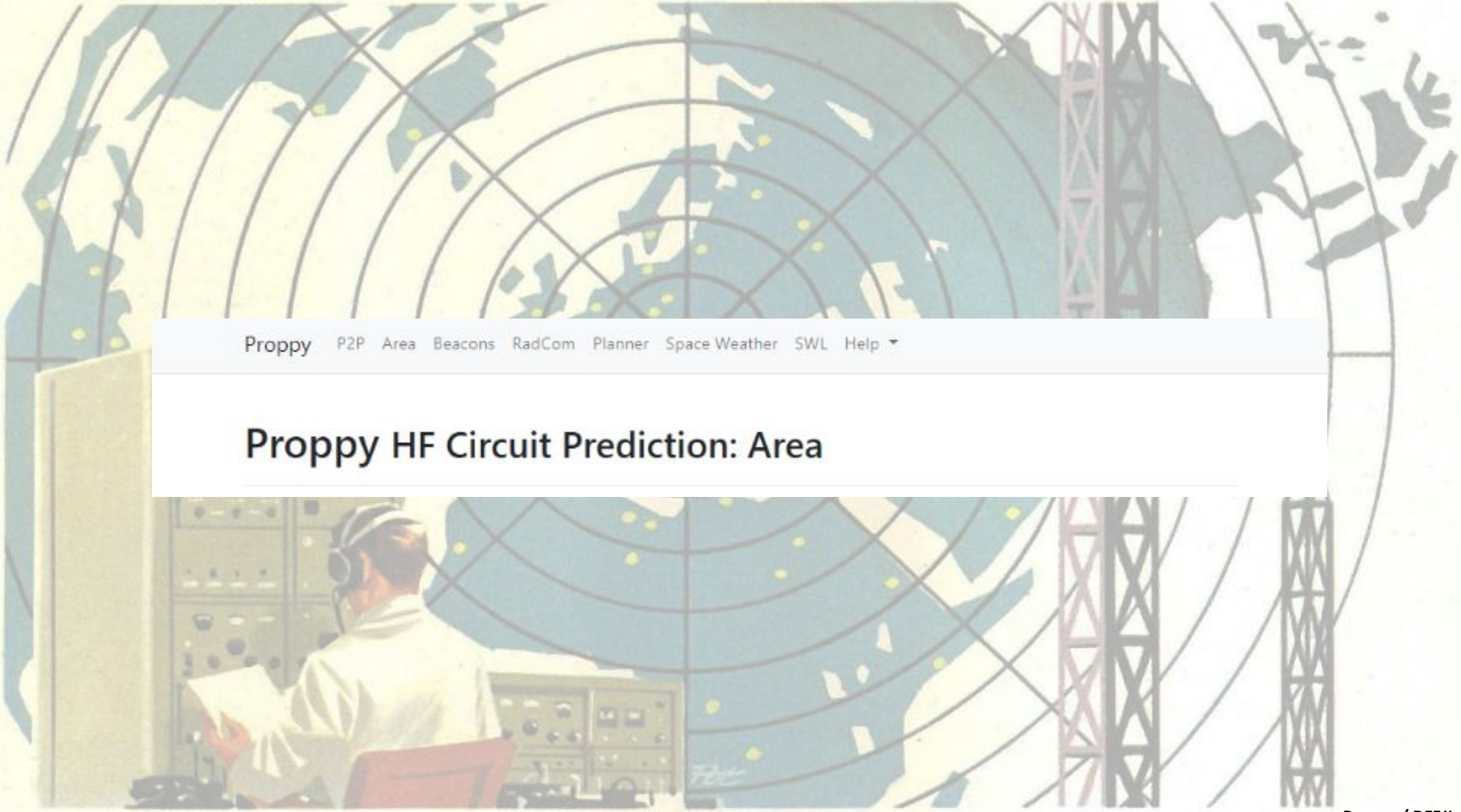
Vorhersage von Frequenzen, Signalpegel und entsprechende Zuverlässigkeiten von HF-Verbindungen (HF) für benutzerdefinierte Pfade und Zeiten

Es werden drei Vorhersagemodi unterstützt:

Area/Bereich: Vorhersage der geografischen Abdeckung für einen bestimmten Standort zu einem bestimmten Zeitpunkt und mit einer bestimmten Frequenz

Point-to-Point/Punkt-zu-Punkt: Prognostiziert die Verbindungsqualität für einen bestimmten Pfad über einen Zeitraum von 24 Stunden in einem bestimmten Monat.

Planer: Dient zur Erstellung von Ausbreitungsdiagrammen, die den bekannten Diagrammen in Magazinen ähneln; bis zu 12 Punkt-zu-Punkt-Vorhersagen werden auf einem einzigen Blatt dargestellt, das ausgedruckt werden kann.


Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help
Proppy HF Circuit Prediction: Area


Colour Portland

BCR SNR PR

Day / Night

Download

Run Prediction

## Plot

Resolution Low

Source Text OFF

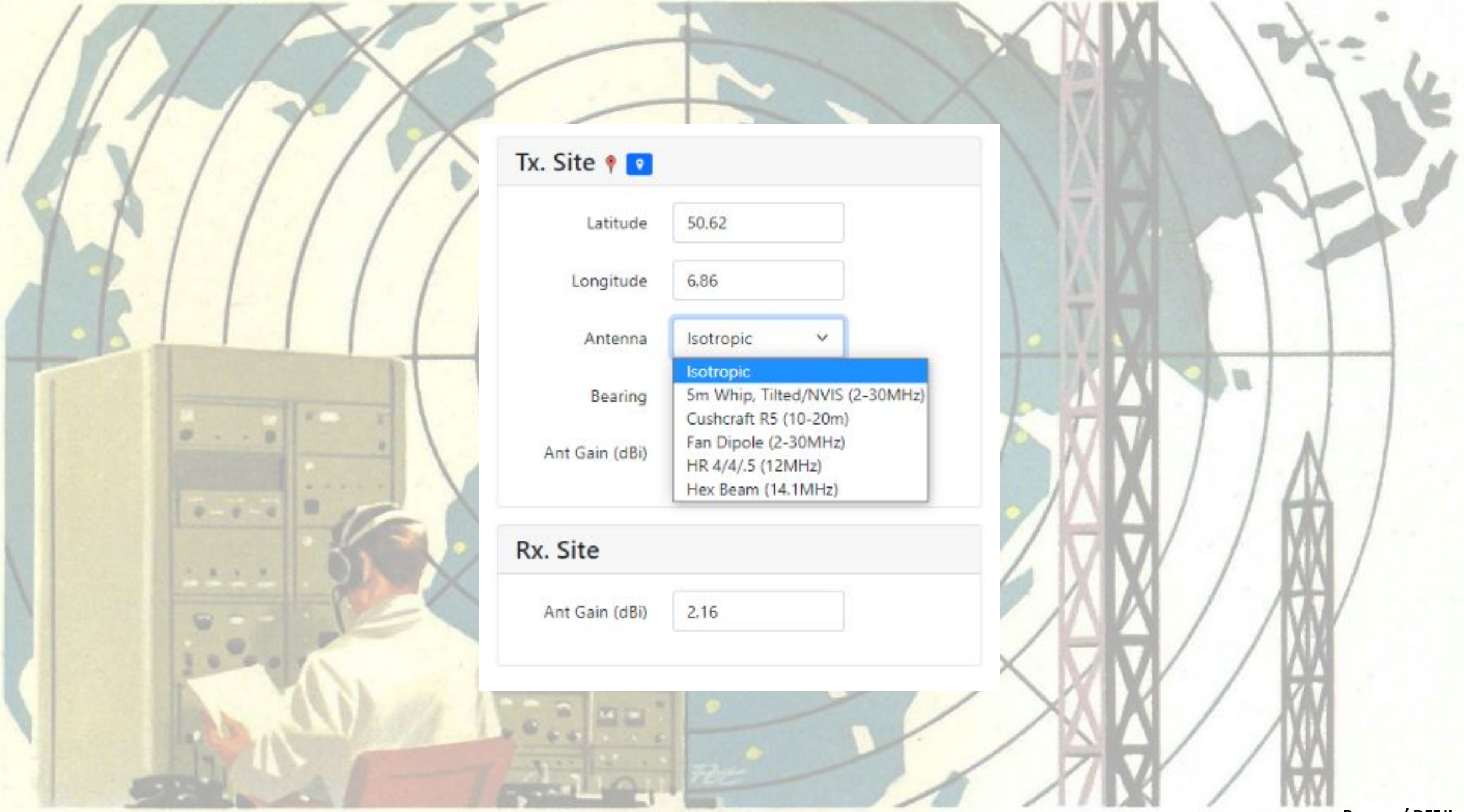
## System

Date / Time

## Tx. Site

Latitude 50.62

Longitude 6,86

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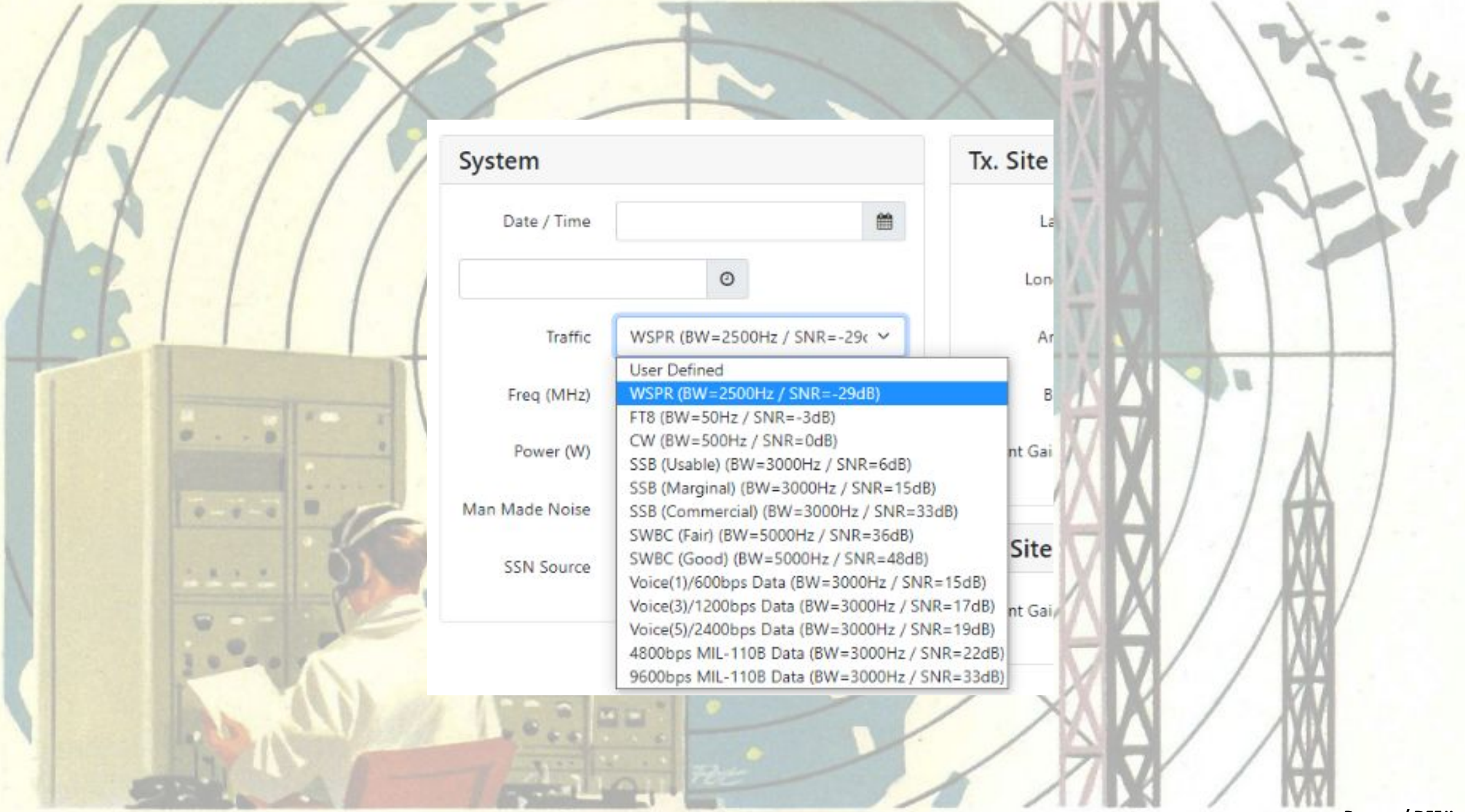
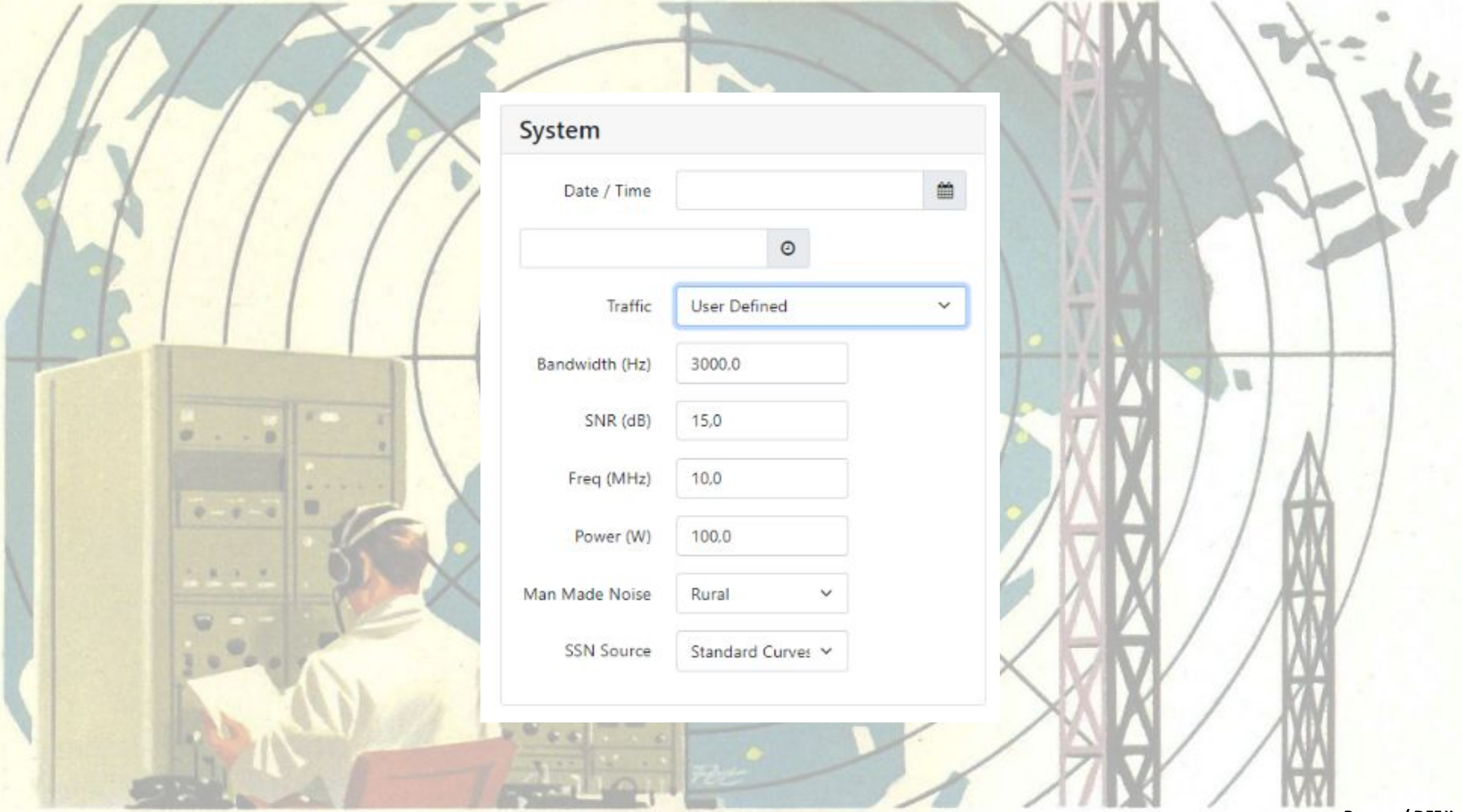
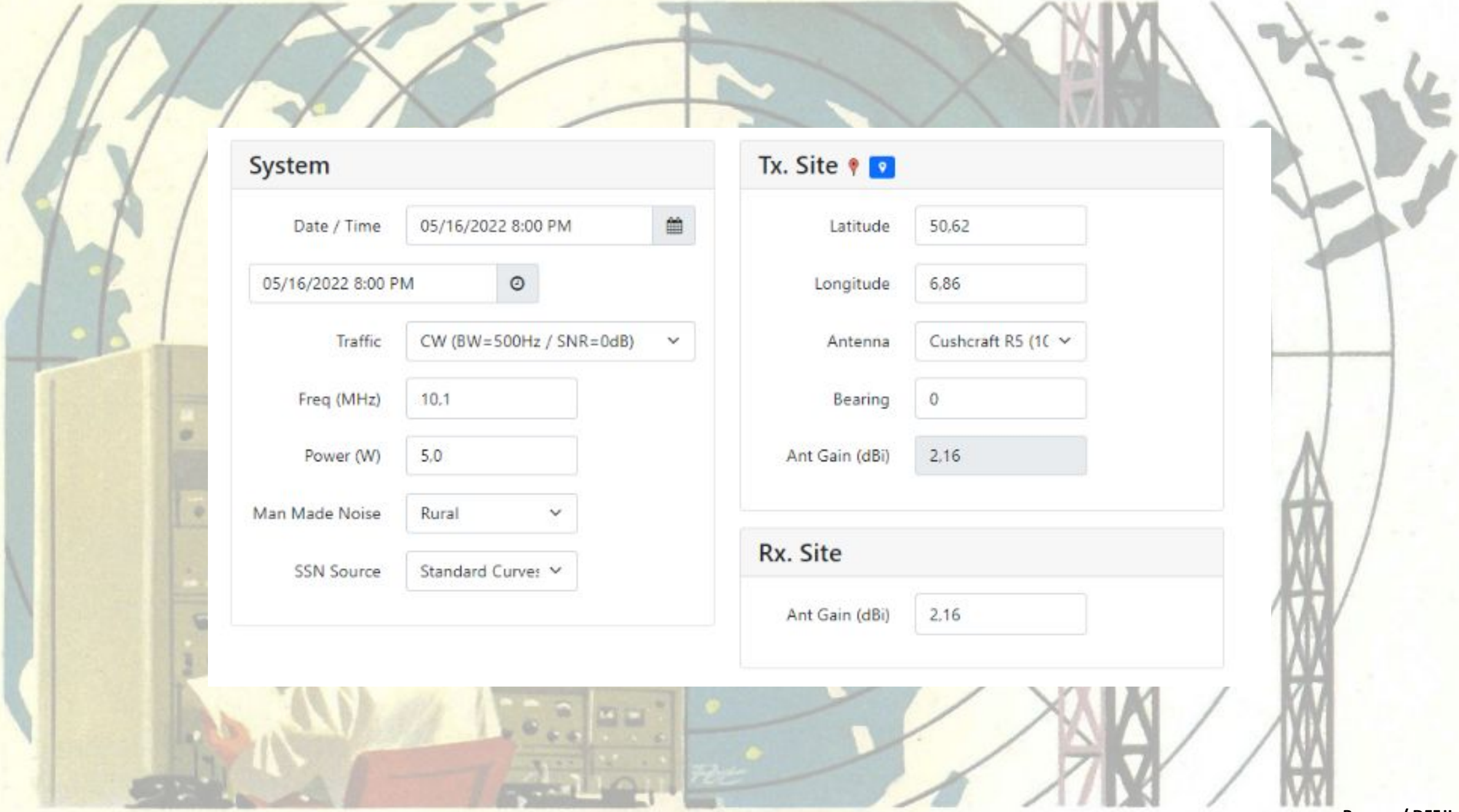



Proppy / DF5JL




Proppy / DF5JL




Proppy / DF5JL

Proppy P2P Area Beacons RadCom Signal Strength 18:00UTC May 2022 $R_{12}$: 94
10.100MHz Pwr: 5.00W Traffic: 500.0Hz / 0.0dB

# Proppy HF Circuit Prediction: Area


Colour Portland | BCR SNR PR | Day / Night | Download | Run Prediction

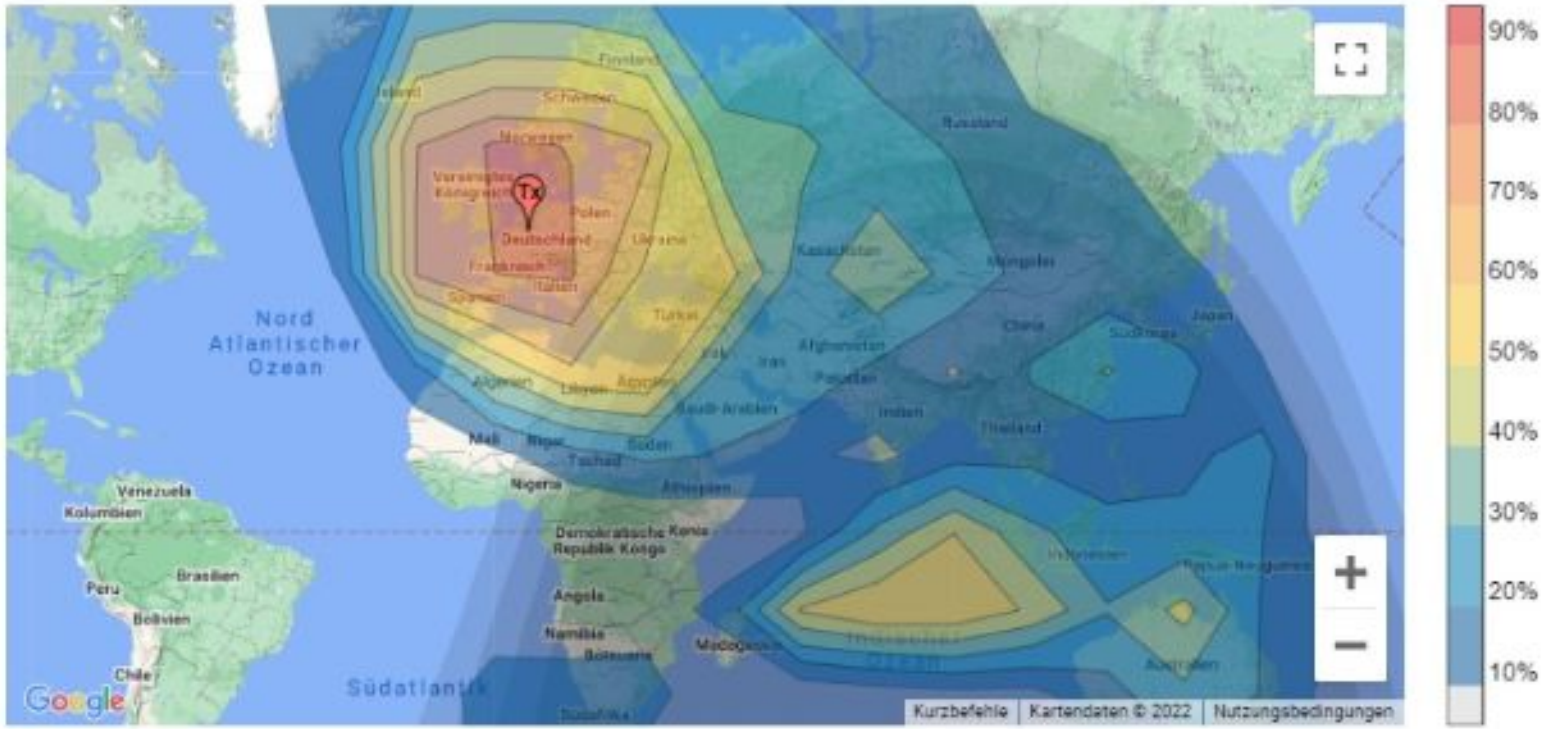
## Plot

Proppy / DF5JL

Proppy P2P Area Beacons RadCor Basic Circuit Reliability 18:00UTC May 2022 $R_{12}$: 94

10.100MHz Pwr: 5.00W Traffic: 500.0Hz / 0.0dB

# Proppy HF Circuit Prediction: Area



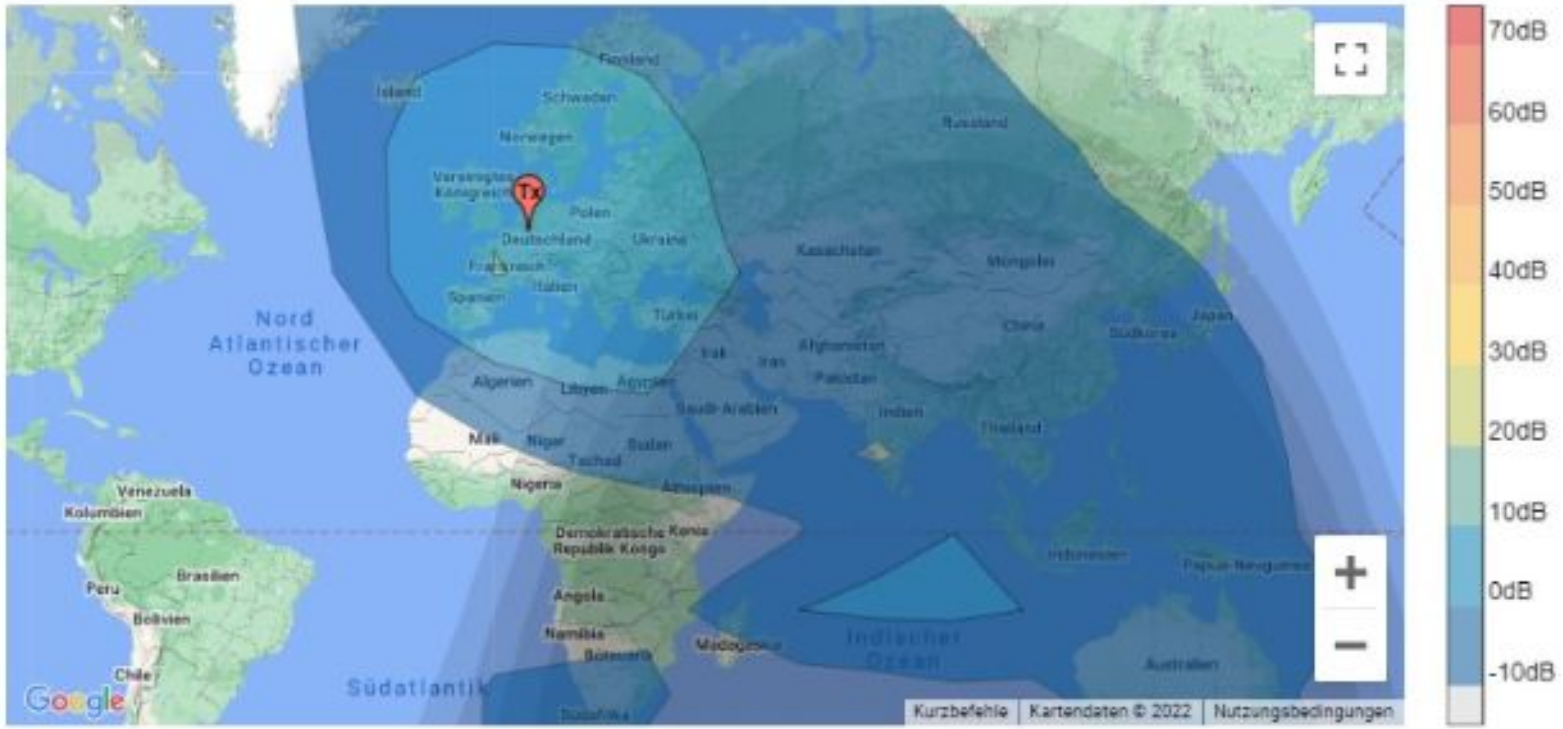

Colour Portland | BCR SNR PR | Day / Night | Download | Run Prediction

## Plot

Proppy / DF5JL

Proppy P2P Area Beacons RadCom Signal/Noise 18:00UTC May 2022 $R_{12}$: 94
10.100MHz Pwr: 5.00W Traffic: 500.0Hz / 0.0dB

# Proppy HF Circuit Prediction: Area







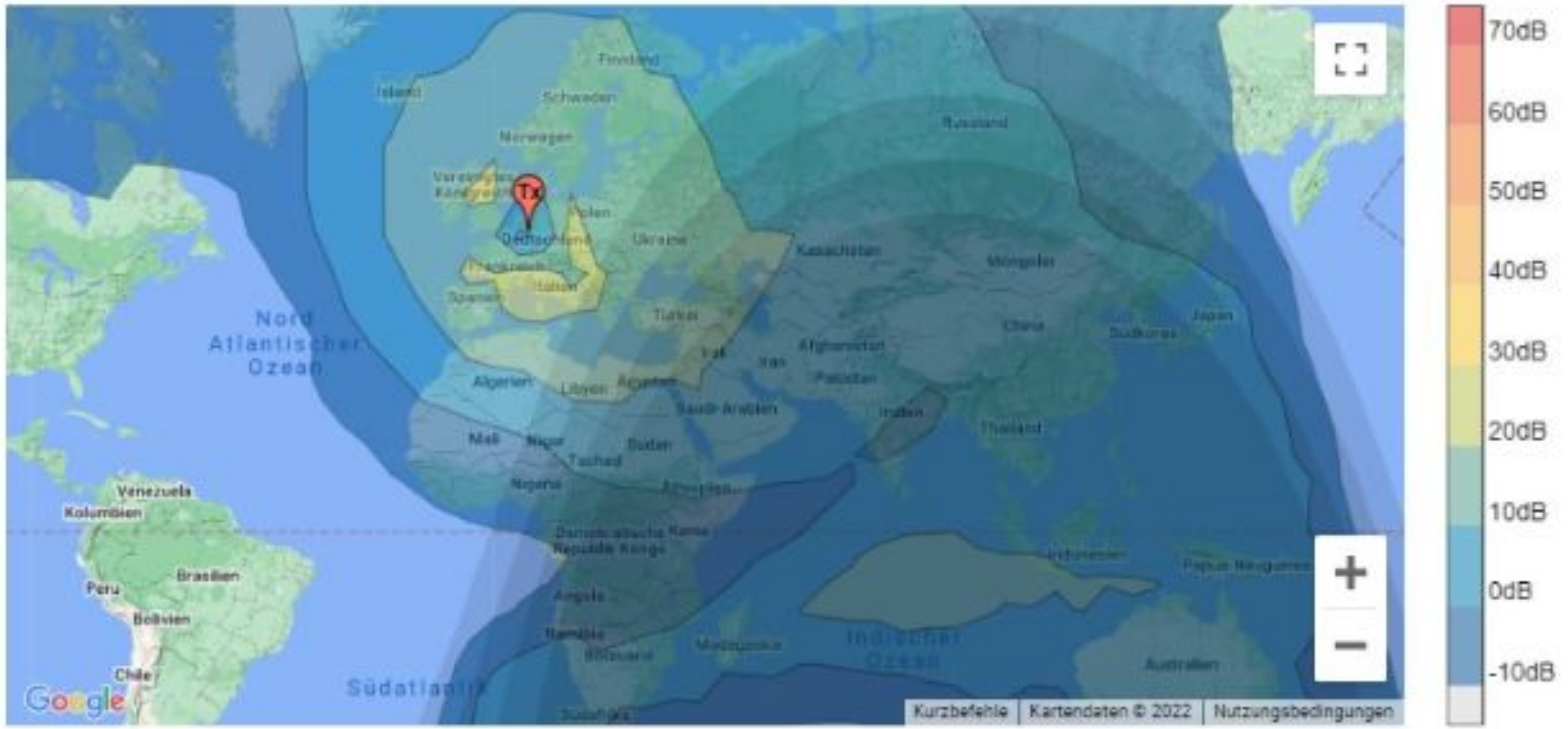
Colour Portland | BCR SNR PR | Day / Night | Download | Run Prediction

## Plot

Proppy / DF5JL

Proppy P2P Area Beacons RadCom Signal/Noise 18:00UTC May 2022 $R_{12}$: 94
10.100MHz Pwr: 50.00W Traffic: 500.0Hz / 0.0dB

# Proppy HF Circuit Prediction: Area







Colour Portland | BCR SNR PR | Day / Night | Download | Run Prediction

## Plot

Proppy / DF5JL

Proppy P2P Area Beacons RadCom Basic Circuit Reliability 09:00UTC May 2022 $R_{12}$: 94

6.070MHz Pwr: 100000.00W Traffic: 5000.0Hz / 36.0dB

# Proppy HF Circuit Prediction: Area


Colour Portland | BCR SNR PR | Day / Night | Download | Run Prediction

## Plot

Proppy / DF5JL

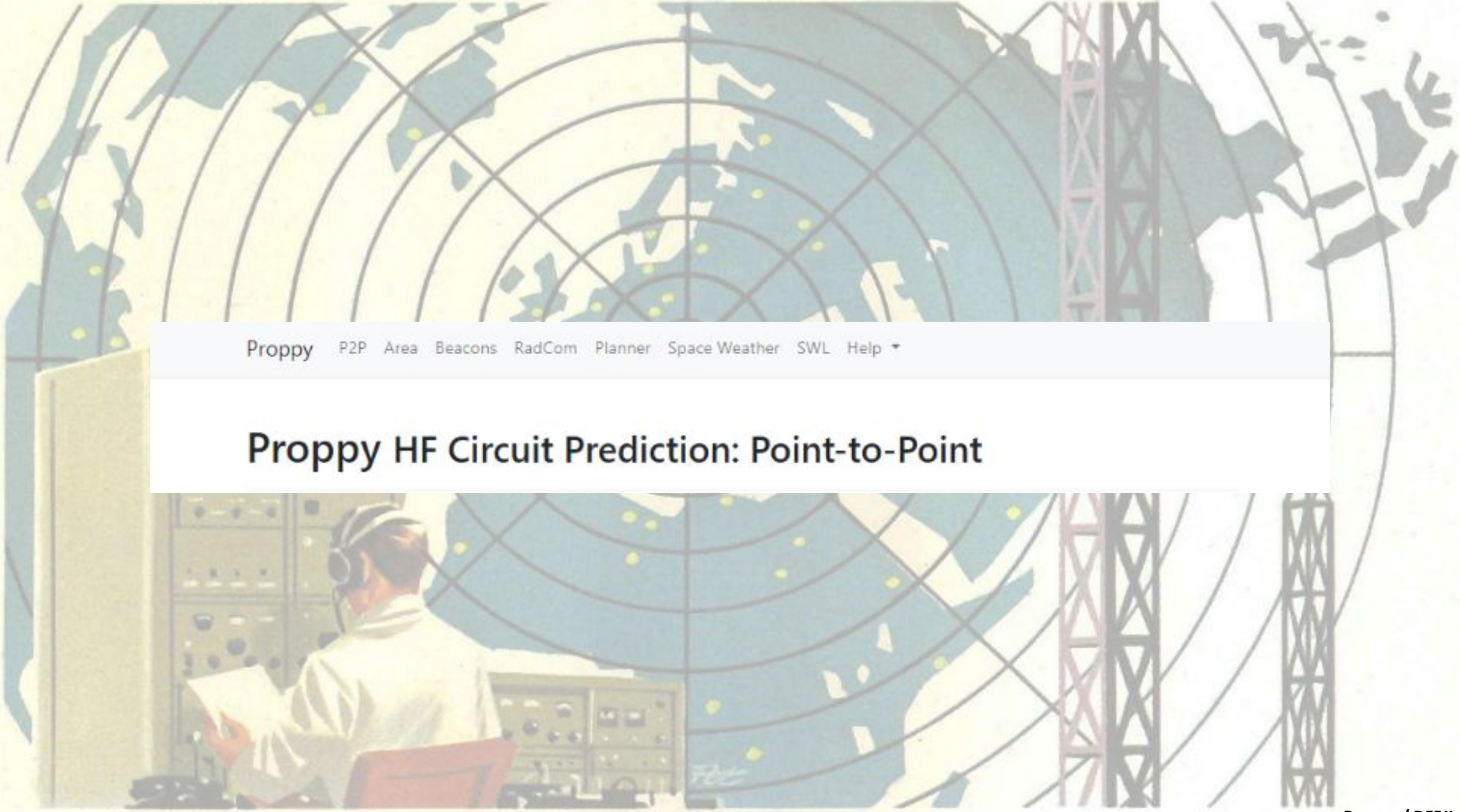
Proppy P2P Area Beacons RadCo Basic Circuit Reliability 10:00UTC May 2022 $R_{12}$: 94
6.070MHz Pwr: 100000.00W Traffic: 5000.0Hz / 36.0dB

# Proppy HF Circuit Prediction: Area


Colour Portland | BCR SNR PR | Day / Night | Download | Run Prediction

## Plot

Proppy / DF5JL


Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help
Proppy HF Circuit Prediction: Point-to-Point

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

# Proppy HF Circuit Prediction: Point-to-Point


Run Prediction

## Plot

Source Text OFF

## Plot

Source Text OFF

## System

Date

Traffic

SSN Source

Power (W) 100.0

Man Made Noise Residential

Path Short Path

## Tx. Site

Latitude

Longitude

Antenna Cushcraft I

- 3 El. Yagi @10m
- 3 El. Yagi @15m
- 3 El. Yagi @20m
- 3 El. Yagi @25m
- 3 El. Yagi @30m
- 3 El. Yagi @40m
- 3 El. Yagi @60m
- 5 El. Yagi @10m
- 5 El. Yagi @15m
- 5 El. Yagi @25m
- 5 El. Yagi @30m
- 5 El. Yagi @40m
- 5 El. Yagi @60m
- 8 El. Yagi @10m
- 8 El. Yagi @15m
- 8 El. Yagi @25m
- 8 El. Yagi @30m
- 8 El. Yagi @40m
- 8 El. Yagi @60m
- Cushcraft R5 @8m

## Rx. Site

Latitude 40,6473

Longitude -73,9746

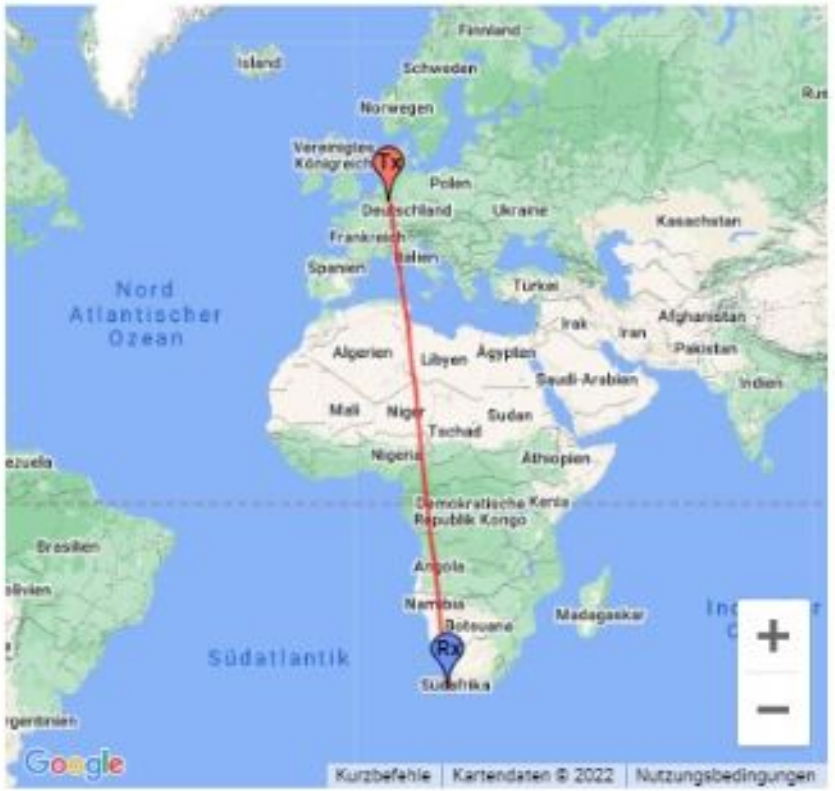
Antenna Isotropic

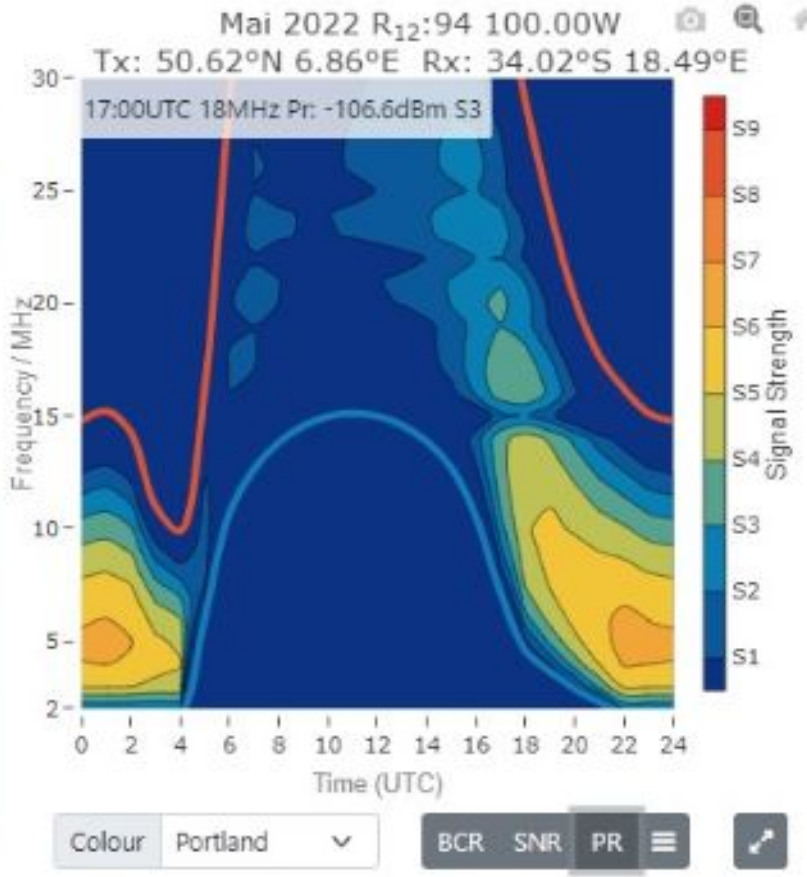
Ant Gain (dBi) 2,16

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

# Proppy HF Circuit Prediction: Point-to-Point

Ant.: Cushcraft R5 @ 8 m Höhe



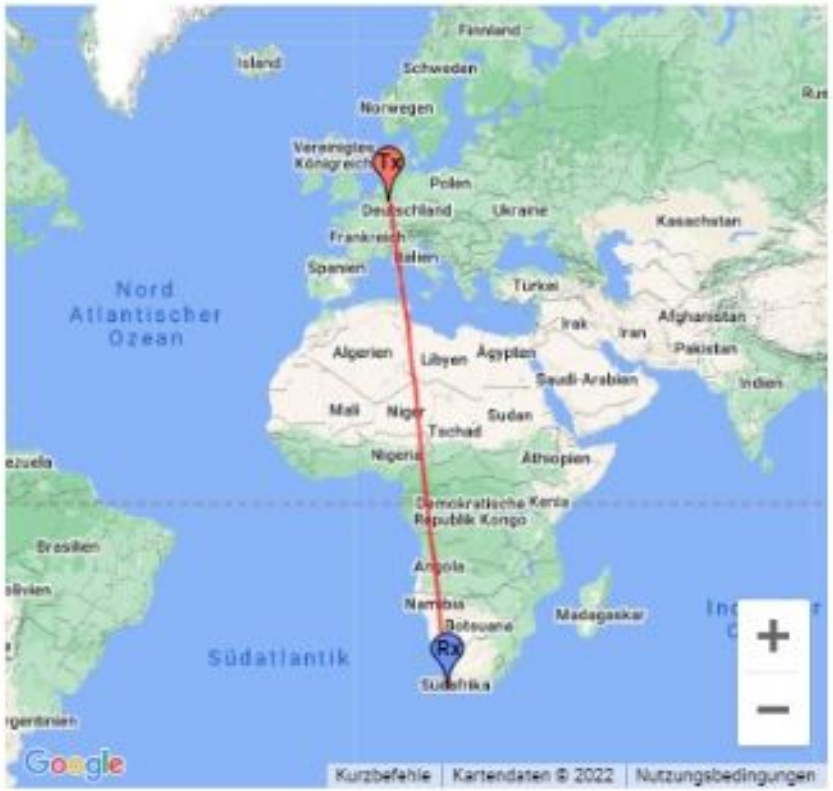

Run Prediction

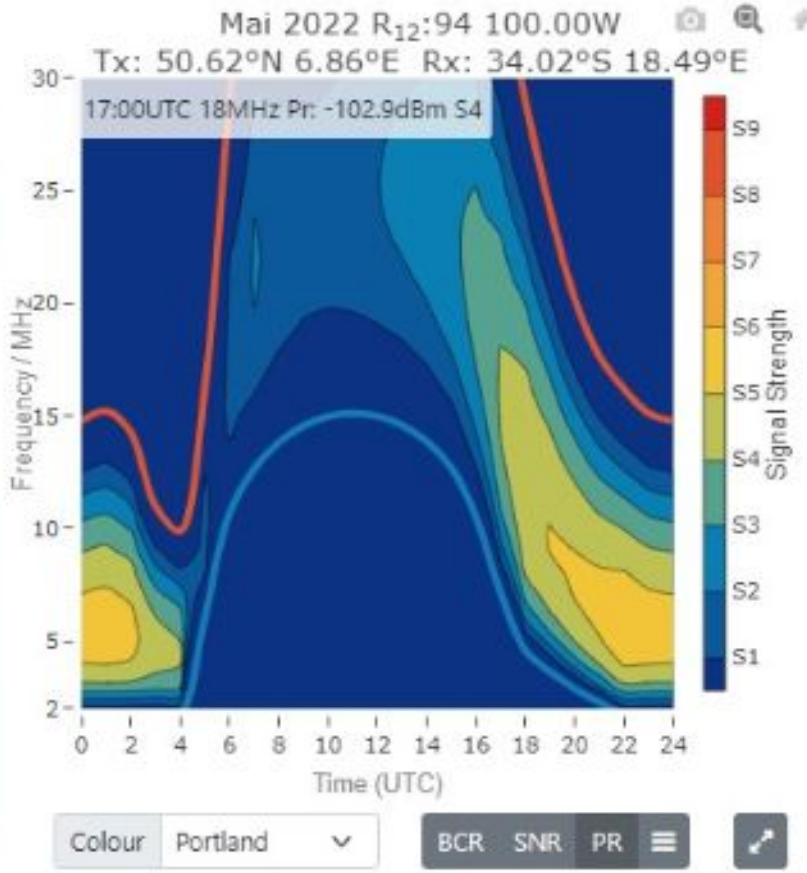
Proppy / DF5JL

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

# Proppy HF Circuit Prediction: Point-to-Point

Ant.: Dipol @ 10 m Höhe




Run Prediction

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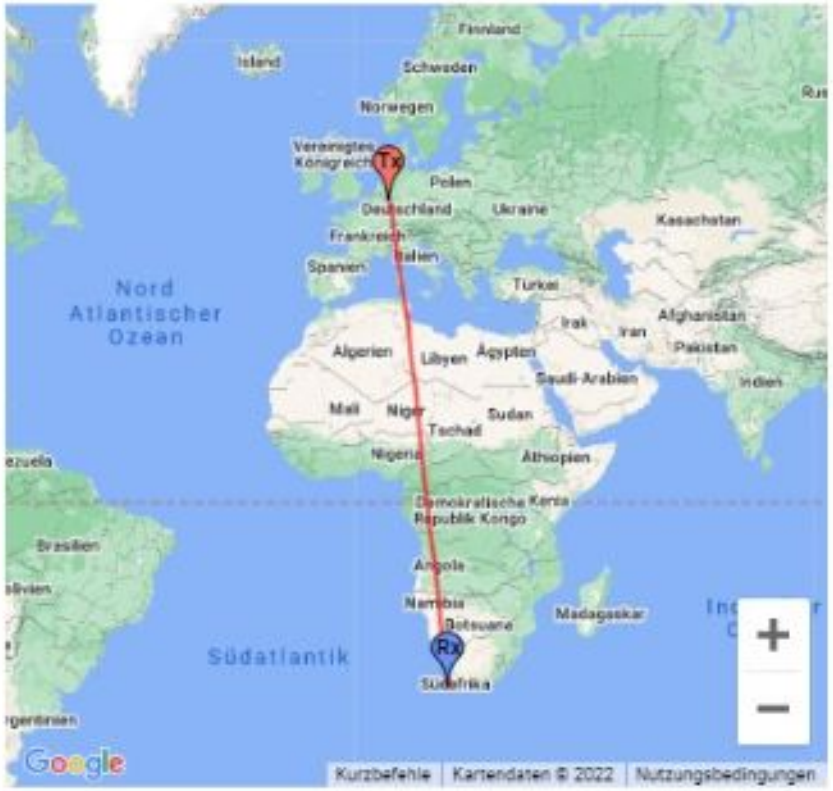
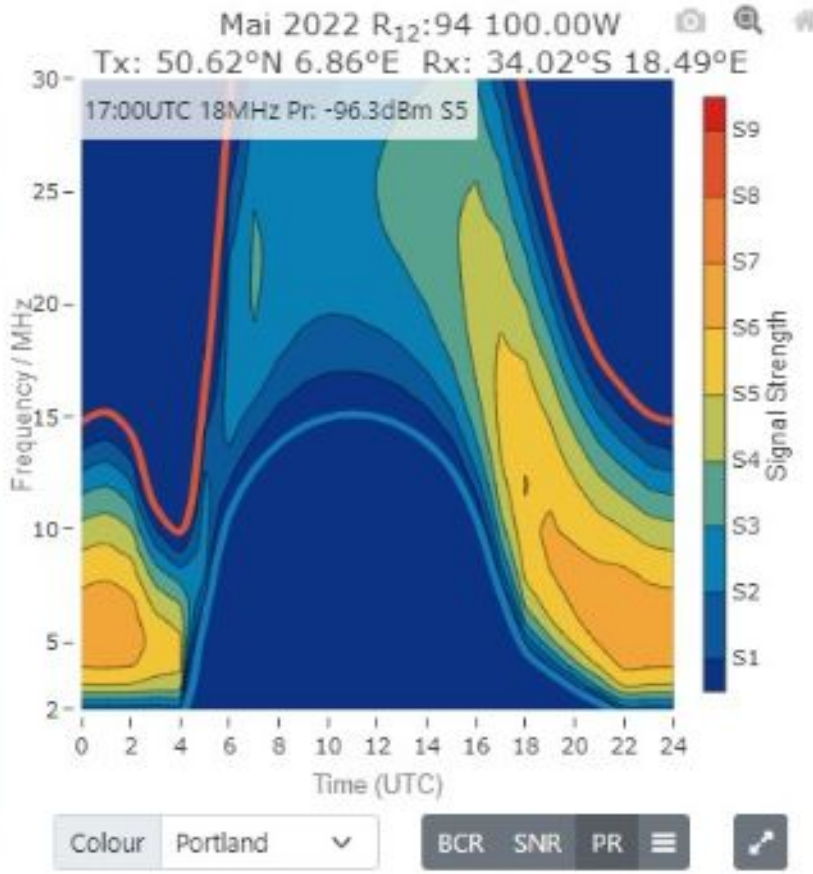
# Proppy HF Circuit Prediction: Point-to-Point

Ant.: 3-El.-Yagi @ 15 m Höhe



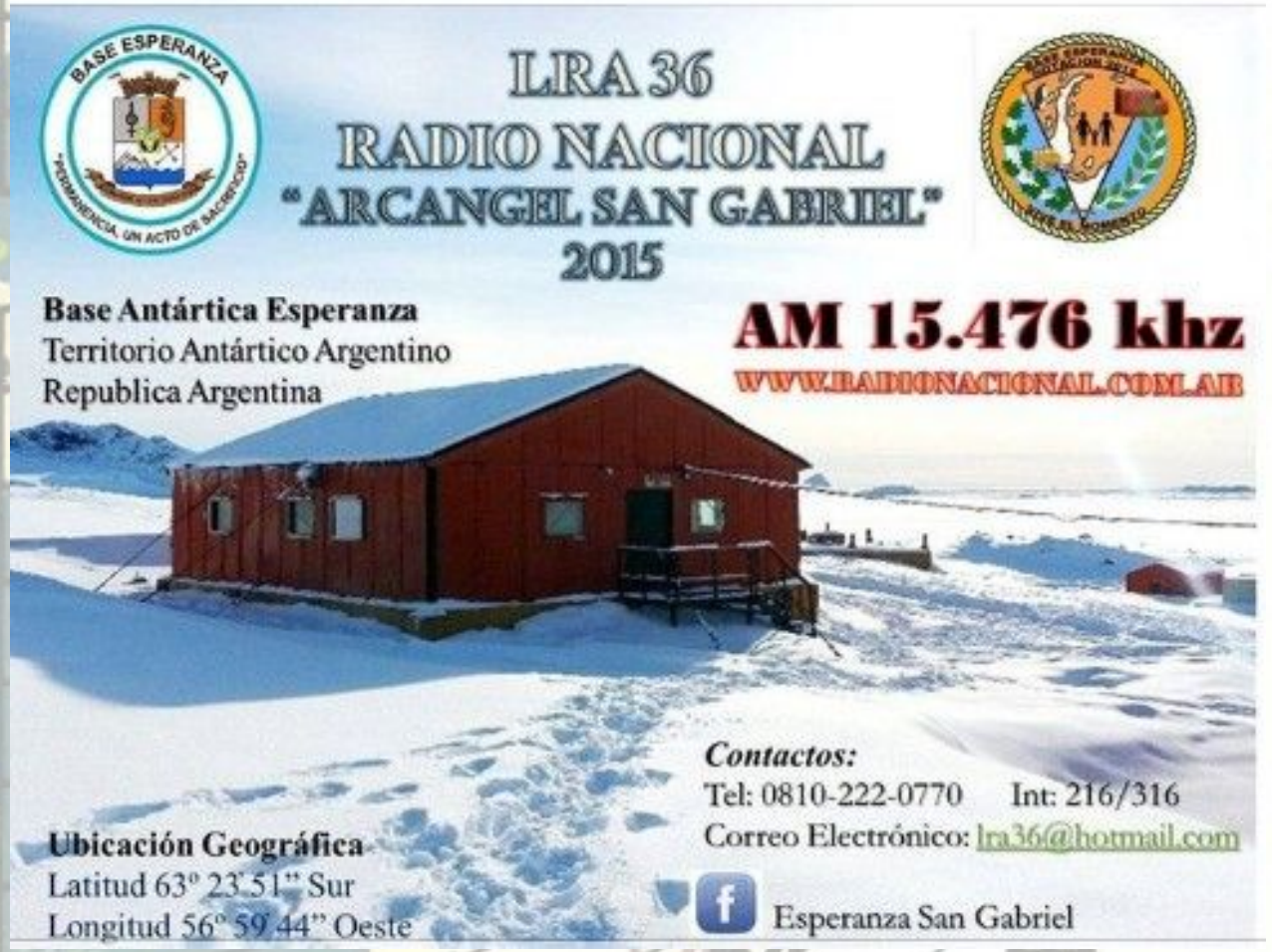




Run Prediction

Proppy / DF5JL

Ant.: 3-El.-Yagi @ 15 m Höhe

Laut einer Meldung von Manuel Méndez (Lugo, Spanien) in der "World of Radio"-Liste wird LRA 36 / Radio Nacional Arcángel San Gabriel am morgigen Mittwoch um 1500 UTC auf Sendung gehen und das Programm vom letzten Samstag wiederholen - auf 15476 kHz in USB (oberes Seitenband)!

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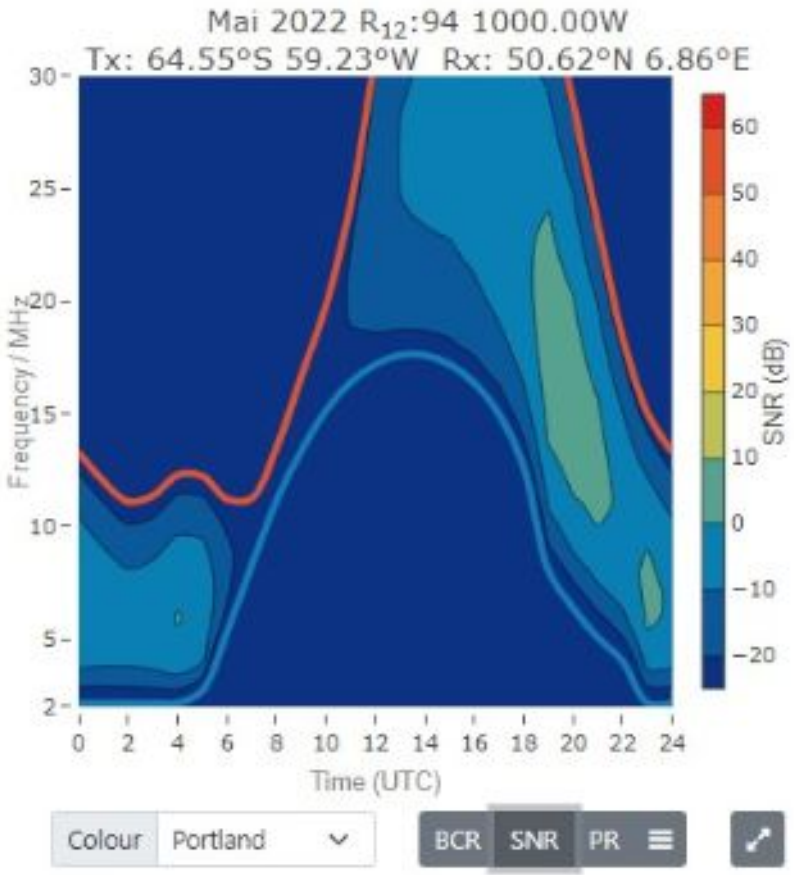
# Proppy HF Circuit Prediction: Point-to-Point

Short Path

3 el. Yagi @ 15 m Höhe

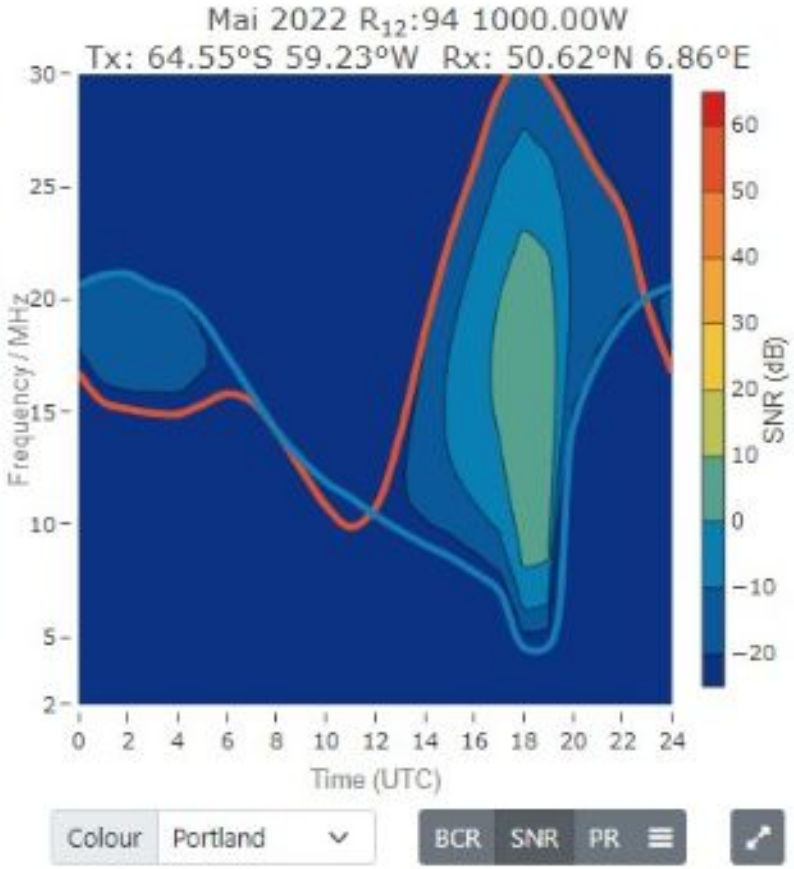



Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

# Proppy HF Circuit Prediction: Point-to-Point

Long Path

Log Path: Yagi @ 15 m Höhe

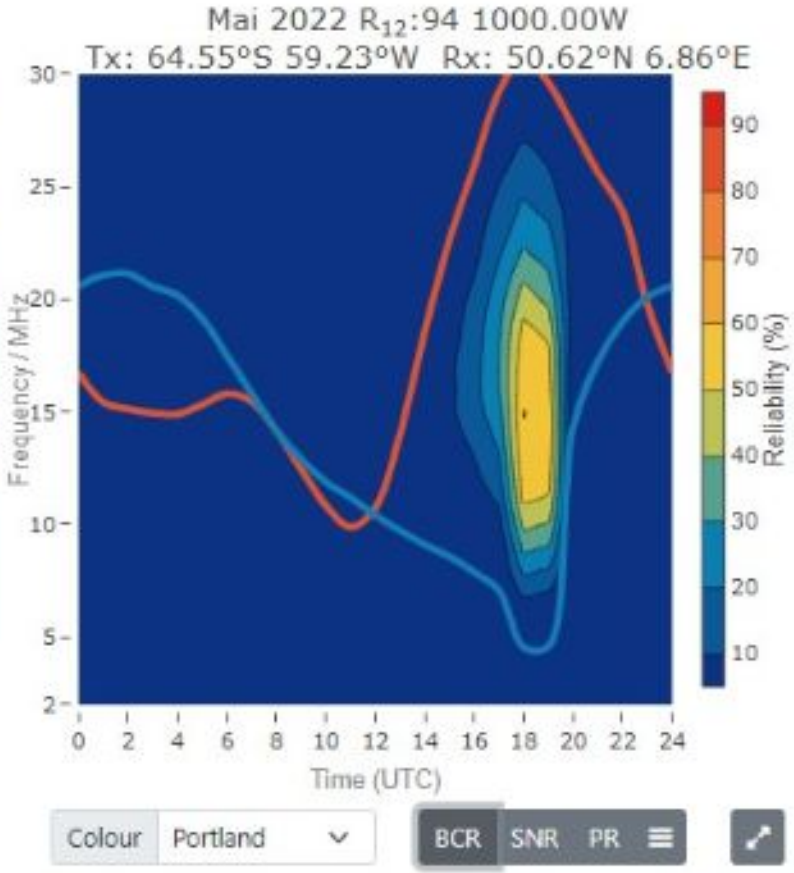




Run Prediction

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

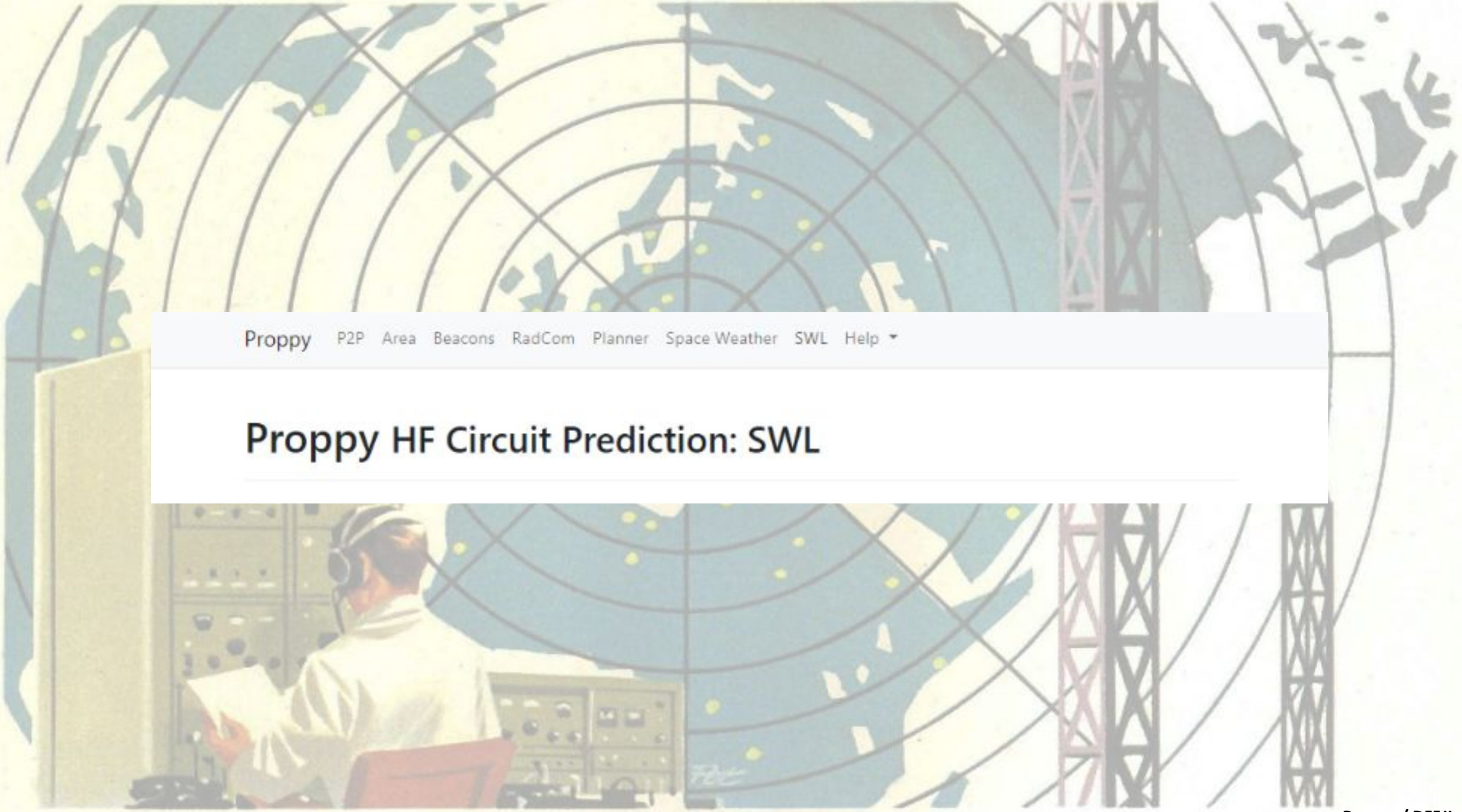
# Proppy HF Circuit Prediction: Point-to-Point

Long Path


Run Prediction

Proppy / DF5JL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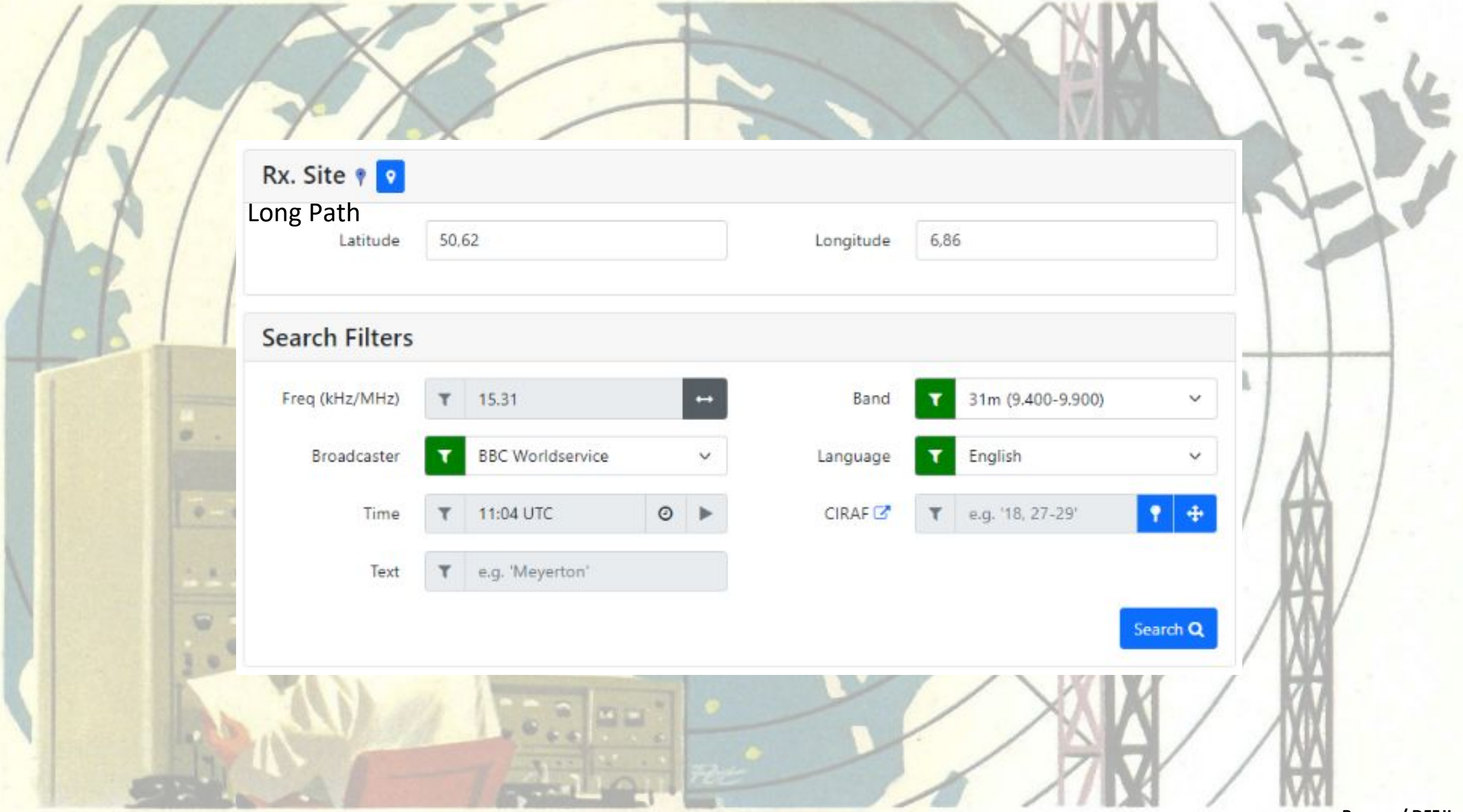
P2P
Area
Beacons
RadCom
Planner
Space Weather
SWL
Help
Proppy HF Circuit Prediction: SWL

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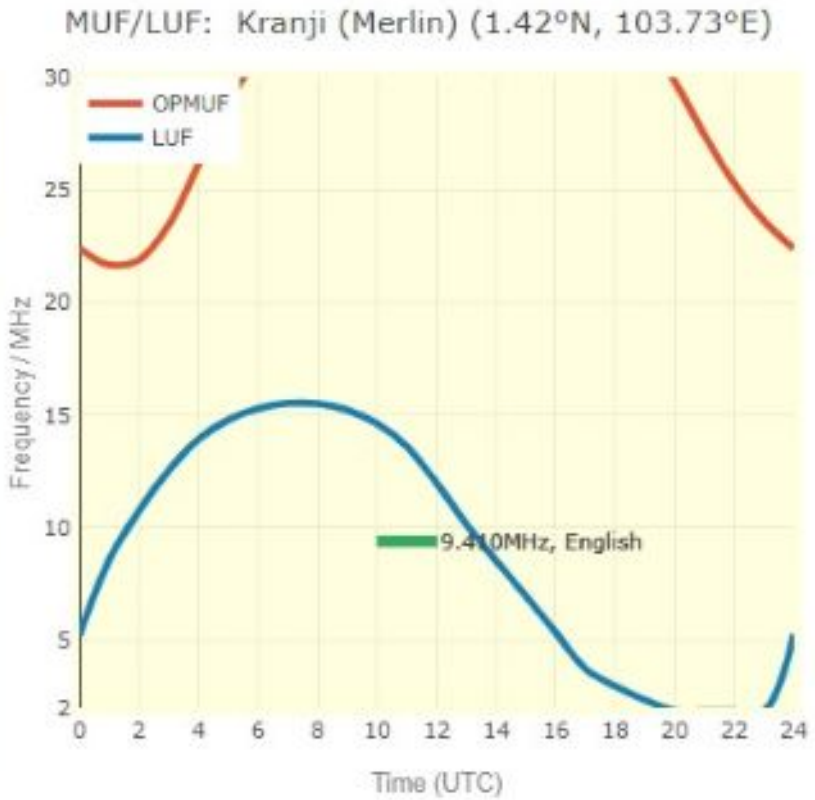
Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

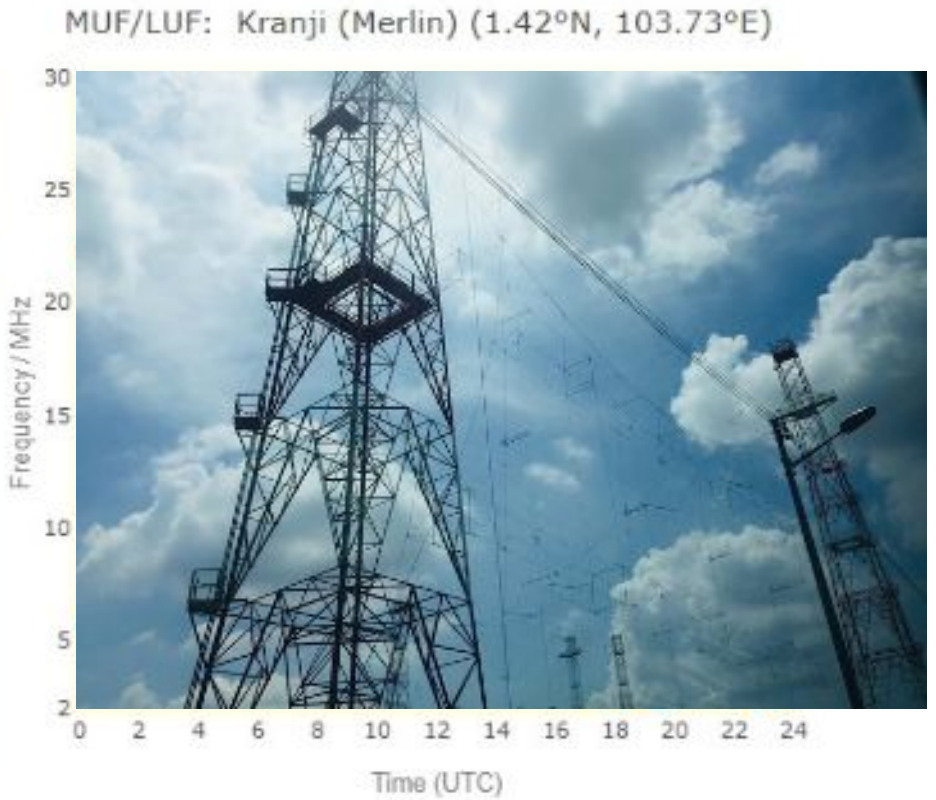
# Proppy HF Circuit Prediction: SWL


Proppy / DF5JL

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

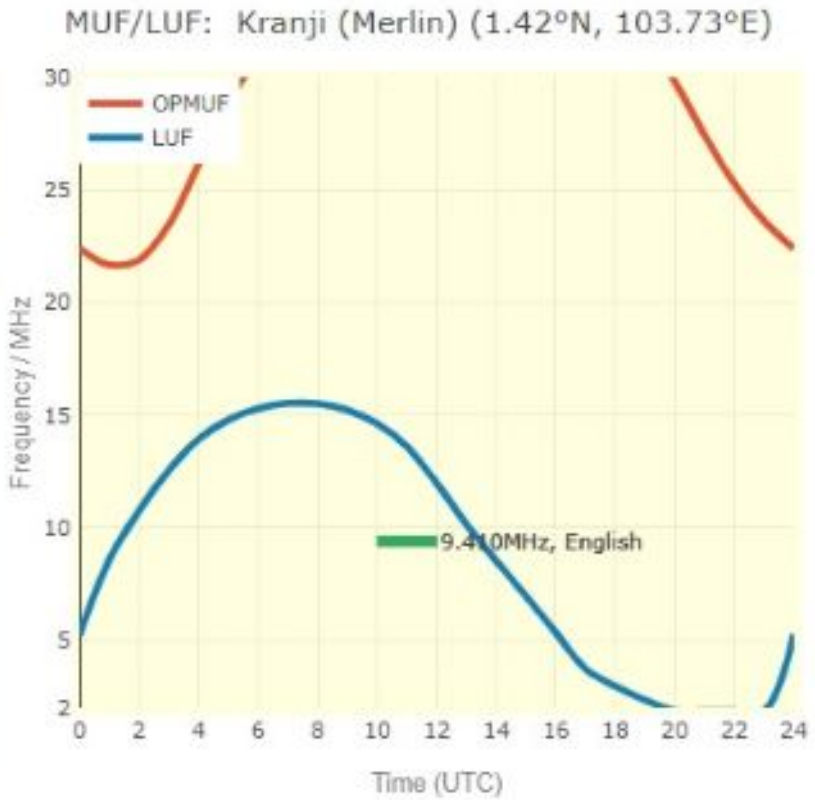
# Proppy HF Circuit Prediction: SWL


Proppy / DF5JL

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

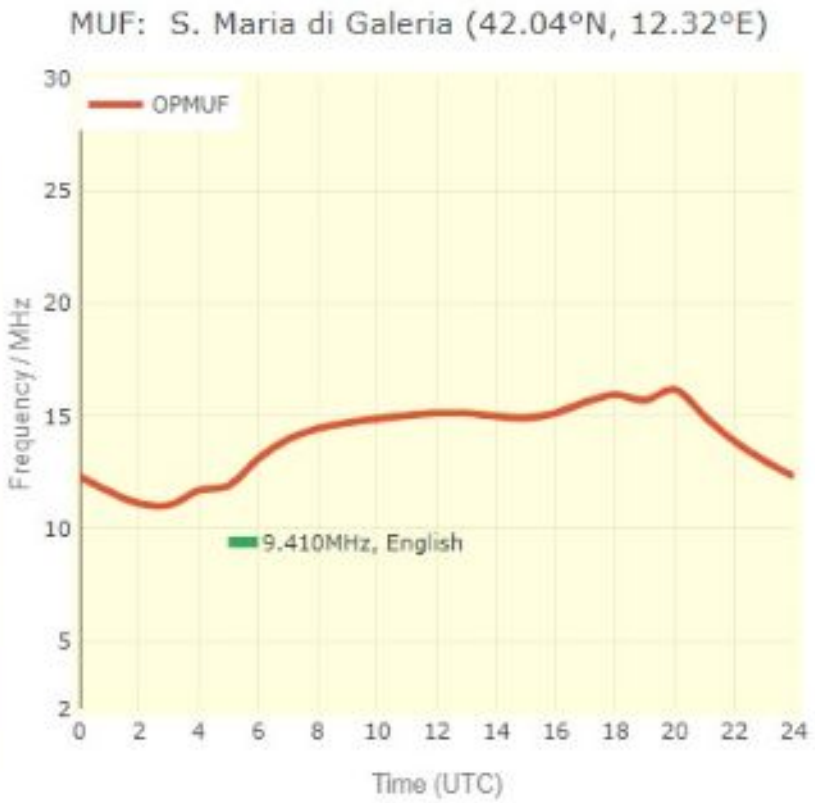
# Proppy HF Circuit Prediction: SWL


Proppy / DF5JL

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

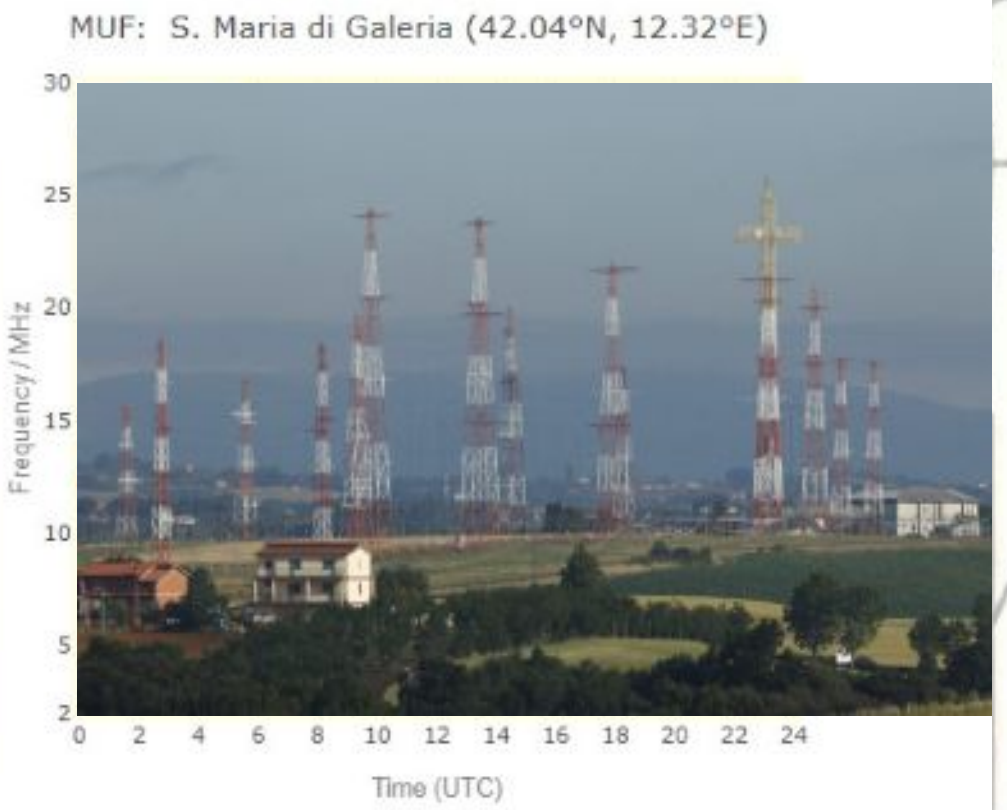
# Proppy HF Circuit Prediction: SWL


Proppy / DF5JL

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

# Proppy HF Circuit Prediction: SWL


Proppy / DF5JL

Broadcaster: BBC Worldservice

Language: English

Time: 11:04 UTC

CIRAF: e.g. '18, 27-29'

Text: e.g. 'Meyerton'

Search

Show 25 entries

Search:

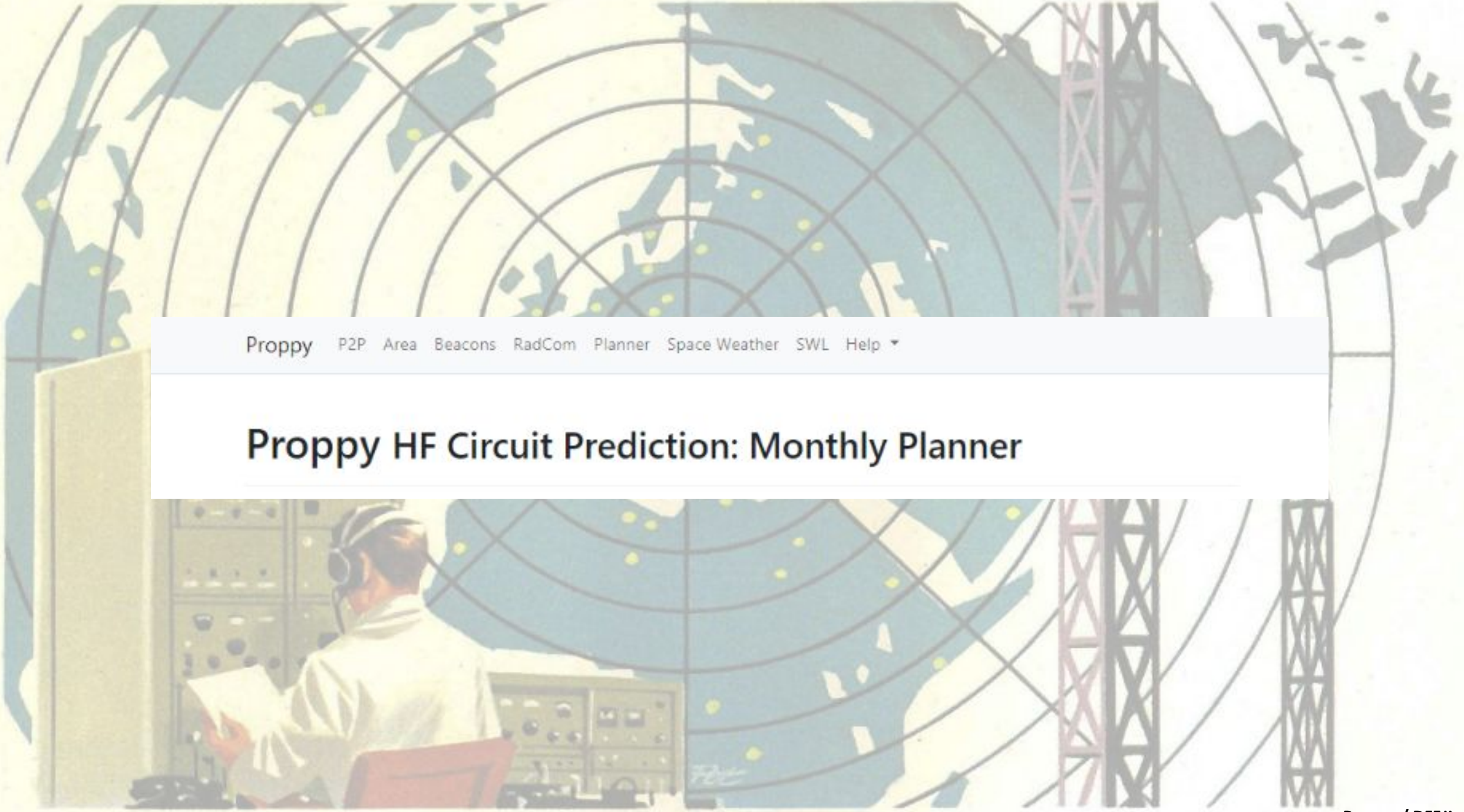
| Freq. | Broadcaster | UTC | Language | Site |
|---|---|---|---|---|
| 9410 | BBC Worldservice | 05:00-06:00 | English | S. Maria di Galeria |
| 9410 | BBC Worldservice | 06:00-07:00 | English | Ascension |
| 9410 | BBC Worldservice | 10:00-12:00 | English | Kranji (Merlin) |
| 9410 | BBC Worldservice | 10:00-12:00 | English | Kranji (Merlin) |
| 9410 | BBC Worldservice | 15:00-16:00 | English | A'Seela |
| 9410 | BBC Worldservice | 18:00-19:00 | English | Dhabayya |
| 9580 | BBC Worldservice | 22:00-23:00 | English | A'Seela |
| 9740 | BBC Worldservice | 03:00-04:00 | English | A'Seela |

Showing 1 to 8 of 8 entries

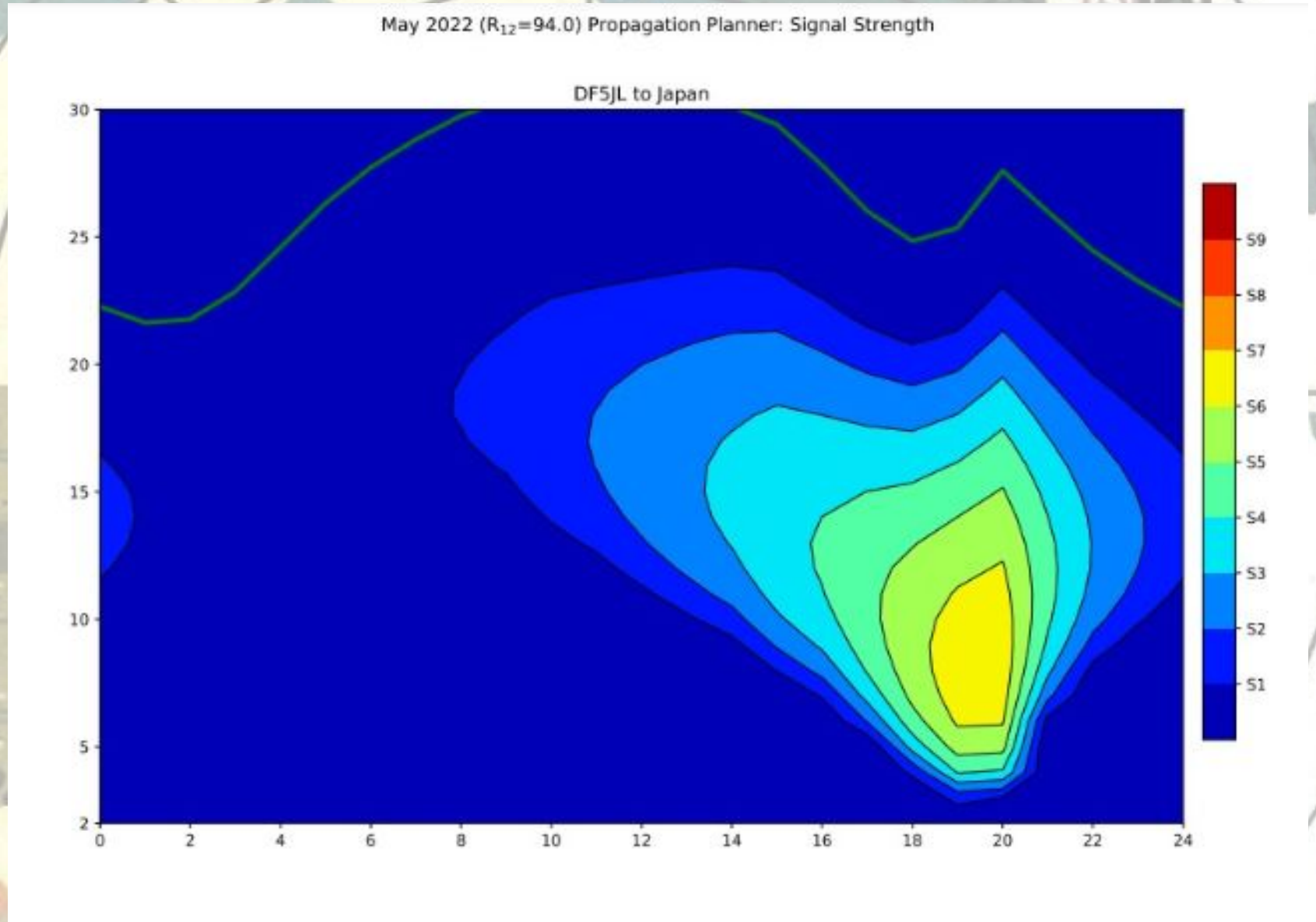
Previous 1 Next

Data source: A22all00.TXT (Last updated: Fri May 13 19:24:48 2022)

Save Table CSV




Proppy / DF5JL

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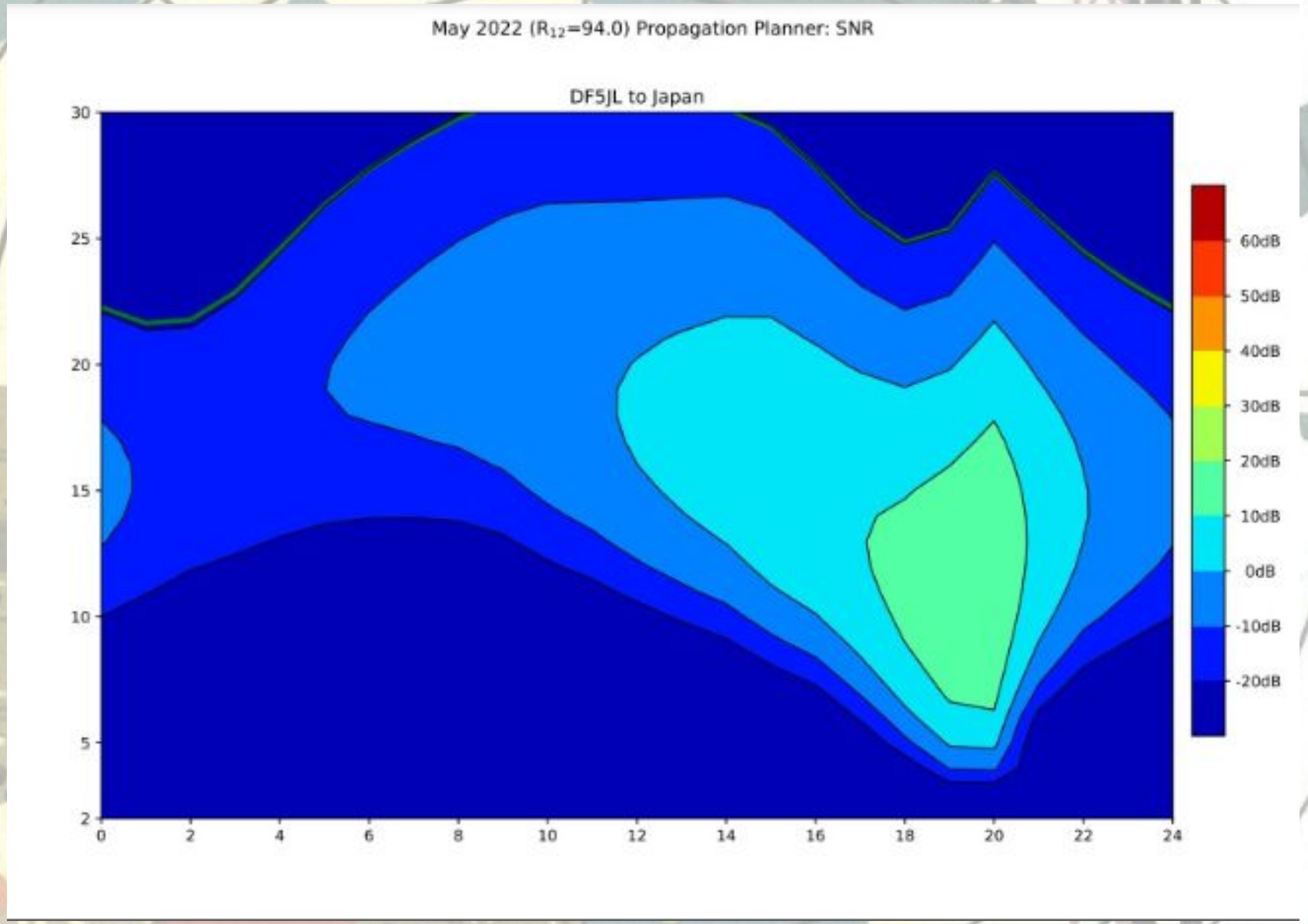
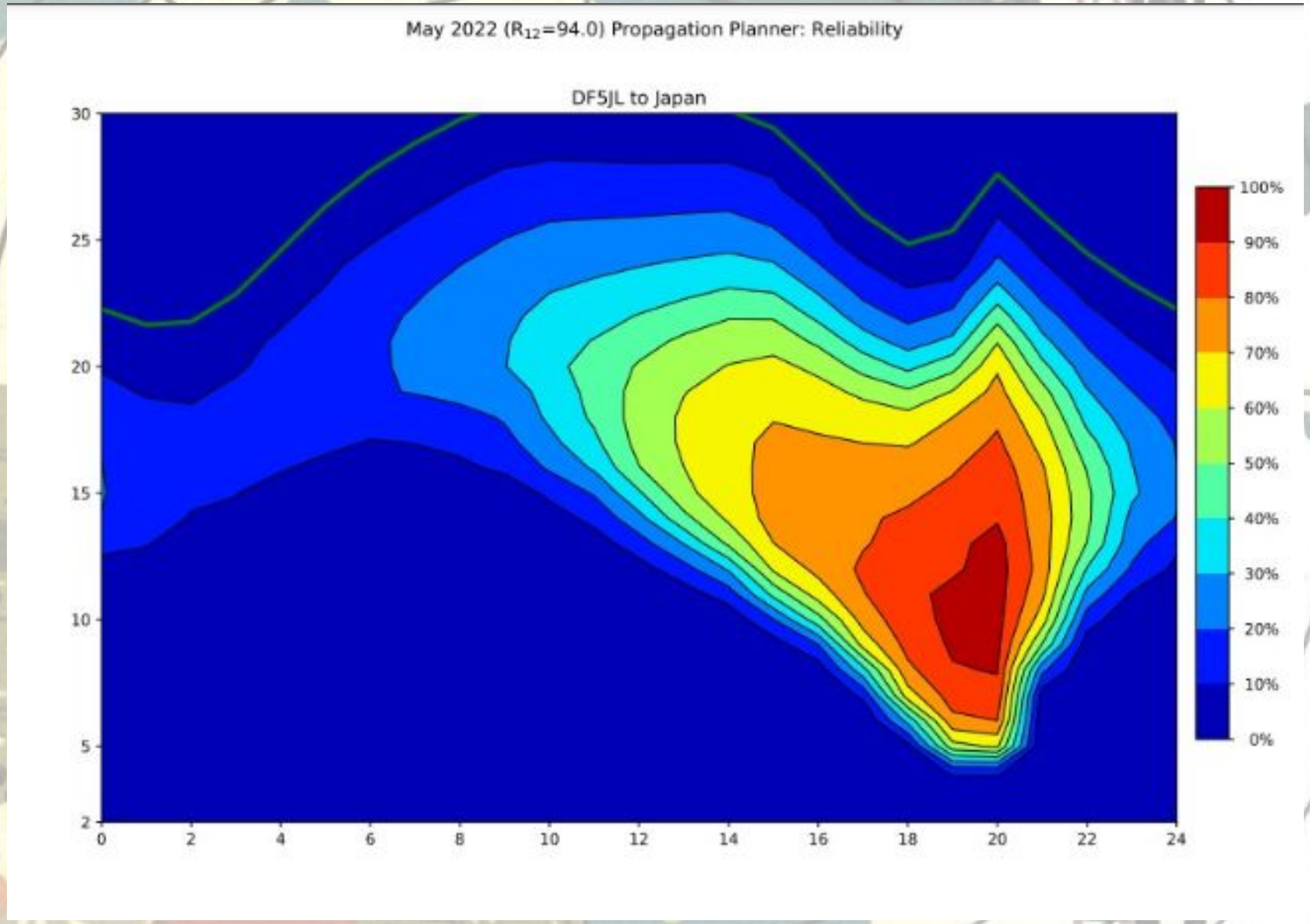



Proppy / DF5JL




Proppy / DF5JL

Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

# Proppy HF Circuit Prediction: Radcom Predictions

This page has been produced in collaboration with the RSGB's Propagation Studies Committee (PSC) and allows users to create versions of RadCom's monthly propagation predictions, tailored to their preferred modes and equipment.

Predictions are performed between the user's position, expressed as a Maidenhead Locator (or the default value of IO92 if not specified, and 28 remote sites. In some cases, performance for both Long and Short paths is evaluated. Results are presented in tables, with colours used to represent the Basic Circuit Reliability (BCR), and numeric values to indicate the predicted median receive power (expressed in S Levels). For clarity, power levels below -121dBm (S1) are not shown.

Further details of the predictions and a sample input file may be found in the proppy manual.

Run Predictions

## System

| | | | |
|---|---|---|---|
| Date | 05/16/2022 12:00 AM | Power (W) | 100,0 |
| Traffic | CW (BW=500Hz / SNR=0dB) | Man Made Noise | Rural (-150dBW/Hz @ 3 MHz) |

## Tx. Site

| | |
|---|---|
| Locator | JO30 |
| Antenna | Isotropic |
| Ant Gain (dBi) | 2,16 |

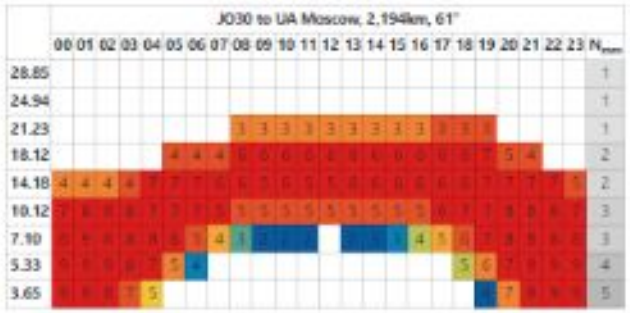
## Rx. Sites

| | |
|---|---|
| Antenna | Isotropic |
| Ant Gain (dBi) | 2,16 |

Proppy / DF5JL

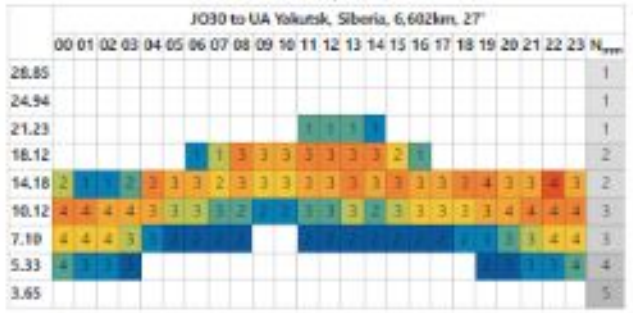

BCR: Basic Circuit Reliability (%)

UA Moscow



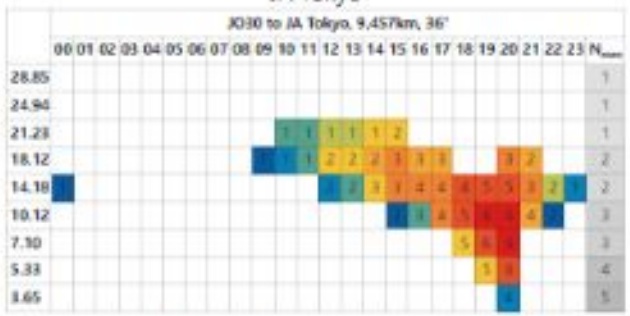

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

UA Yakutsk, Siberia



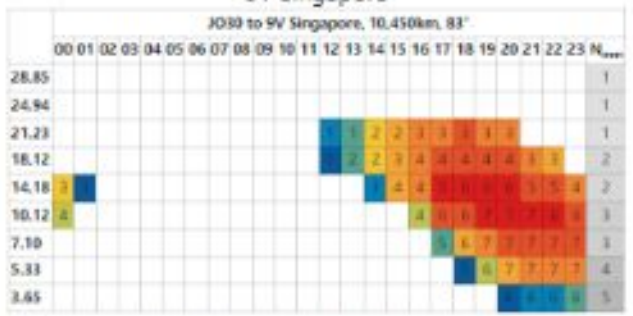

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

JA Tokyo



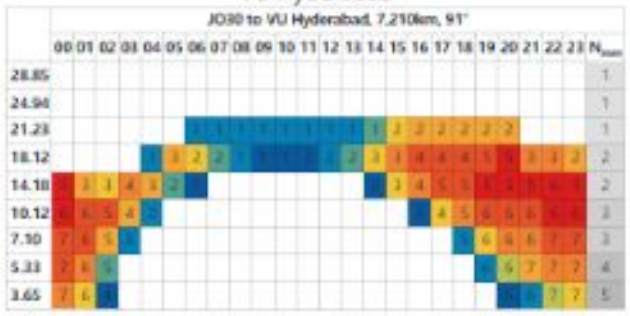

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

9V Singapore



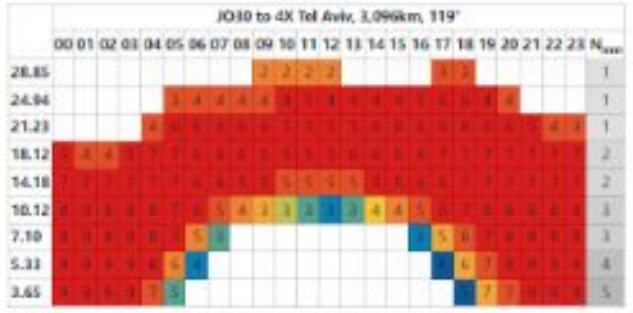

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

VU Hyderabad




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

4X Tel Aviv




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

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ZL Wellington (SP)


May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

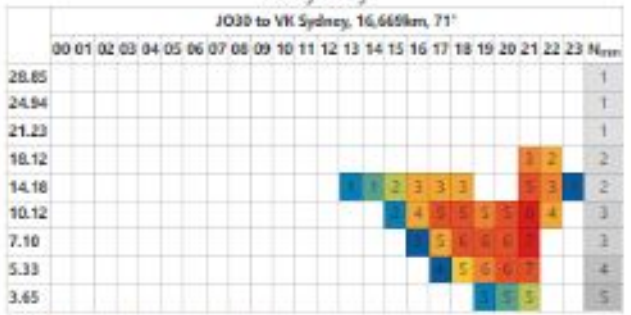
ZL Wellington (LP)


May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

VK Perth


May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

VK Sydney

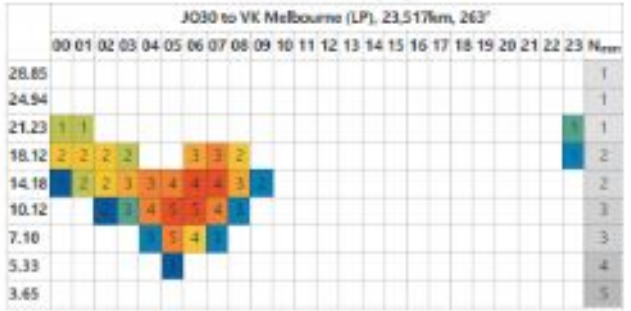



May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

VK Melbourne (SP)


May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

VK Melbourne (LP)




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

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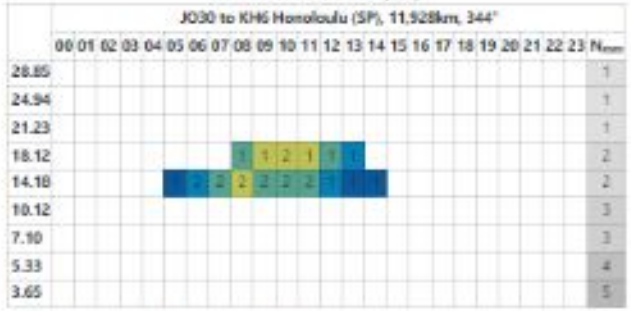
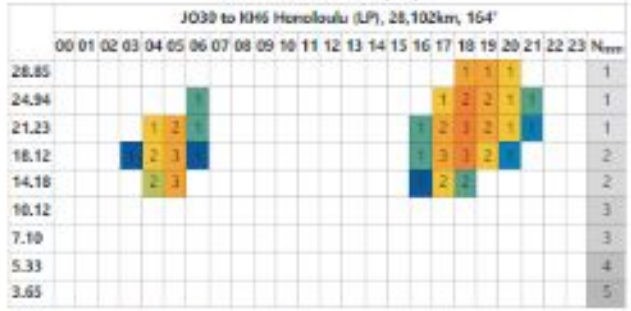
KH6 Honoloulu (SP)



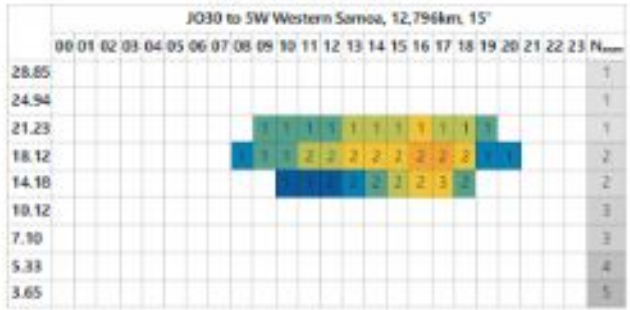

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

KH6 Honoloulu (LP)



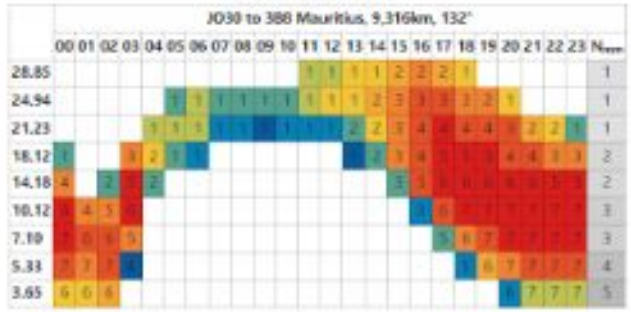

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

5W Western Samoa




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

3B8 Mauritius

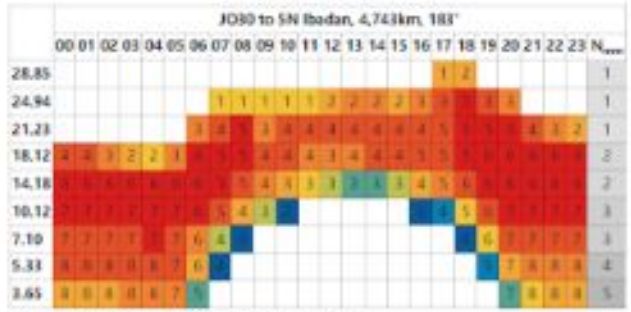



May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

ZS Johannesburg


May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

5N Ibadan




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

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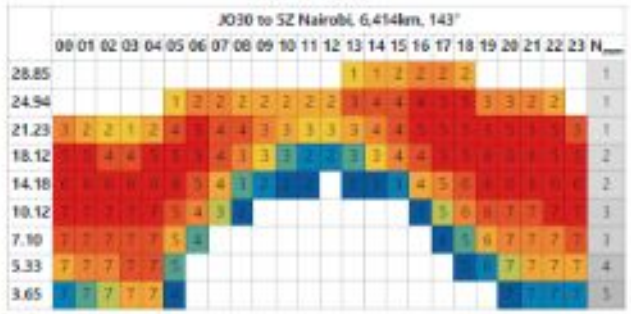
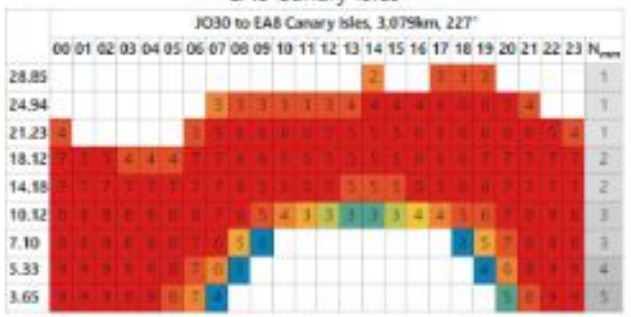
5Z Nairobi




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

EA8 Canary Isles

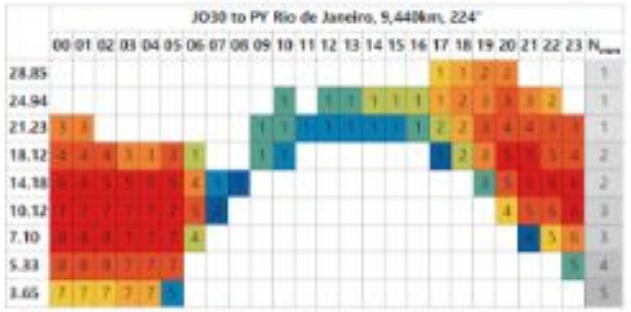



May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

LU Buenos Aires

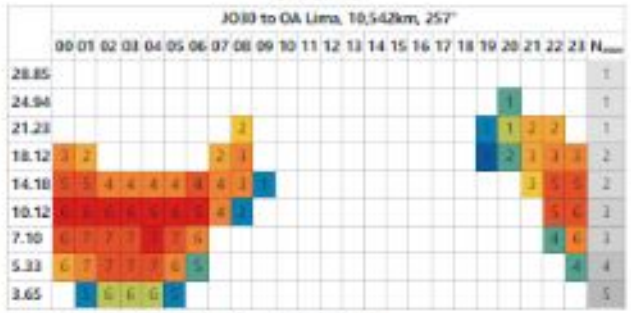

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

PY Rio de Janeiro



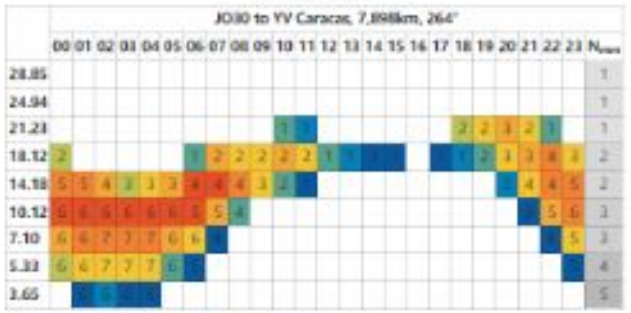

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

OA Lima




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

YV Caracas




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

40

41

42

43

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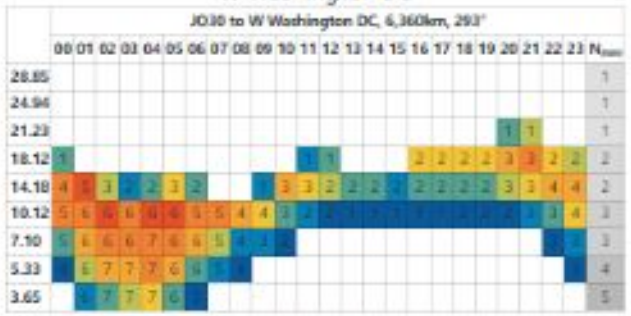
TG Guatamala


May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

W New Orleans

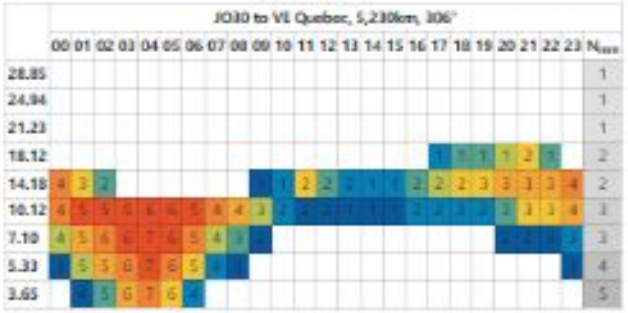

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

W Washington DC



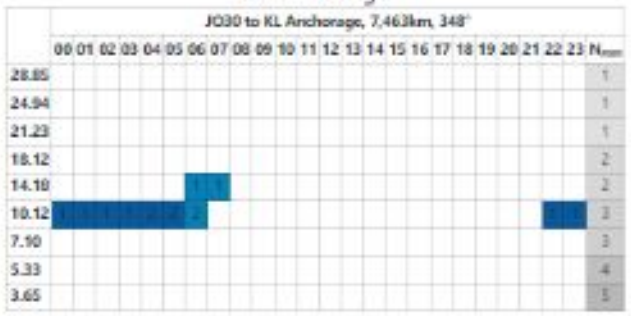

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

VE Quebec



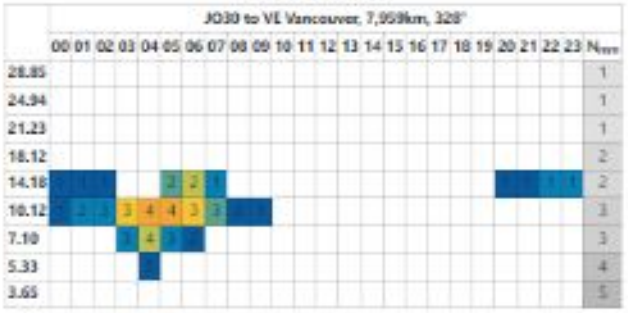

May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

KL Anchorage




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

VE Vancouver




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

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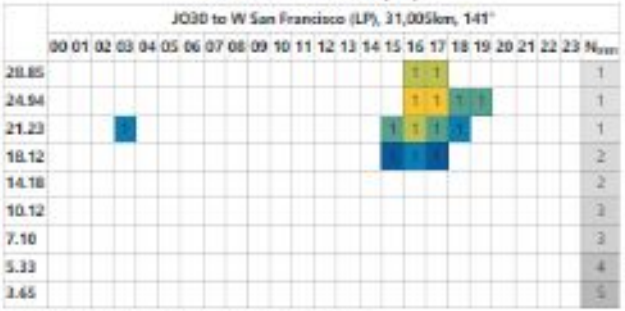
W San Francisco (SP)


May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

W San Francisco (LP)




May 2022, SSN: 94, SNRr: 0dB, B/W: 500Hz

Save Predictions

Language: العربية Deutsch English Español Français Italiano Suomi



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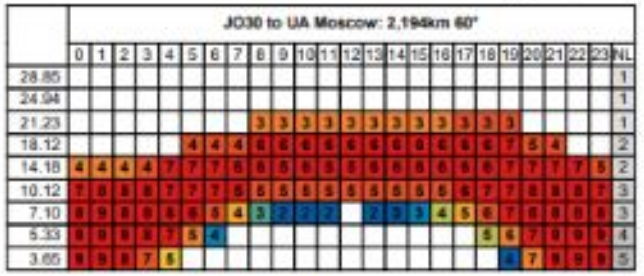
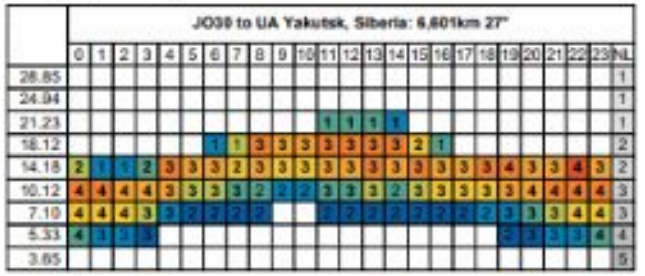
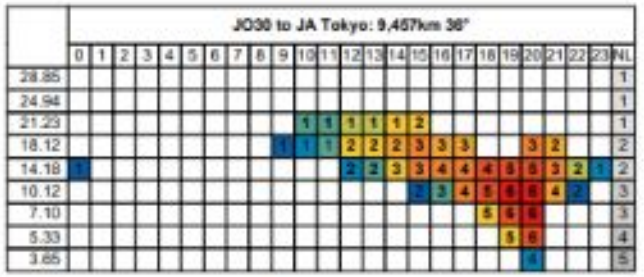
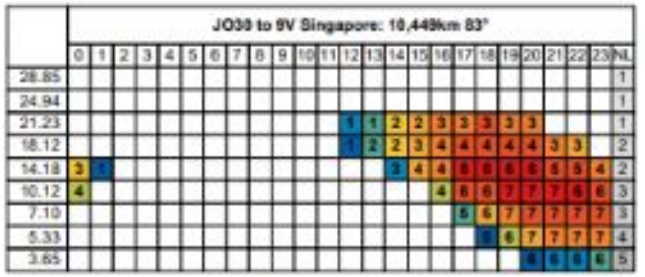
# RadCom Predictions

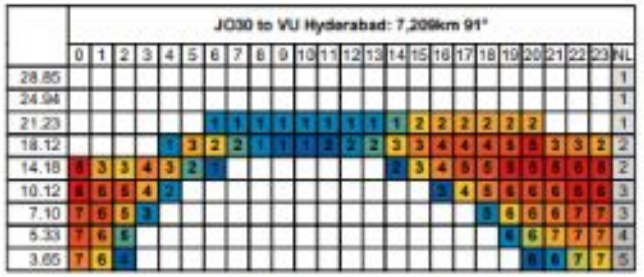
## May 2022 SSN: 94 (CW)

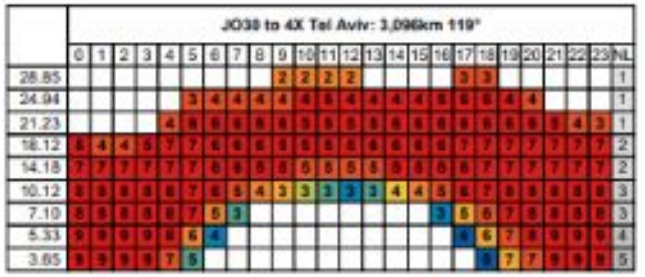


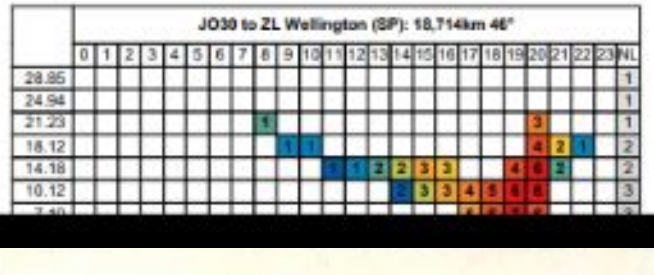



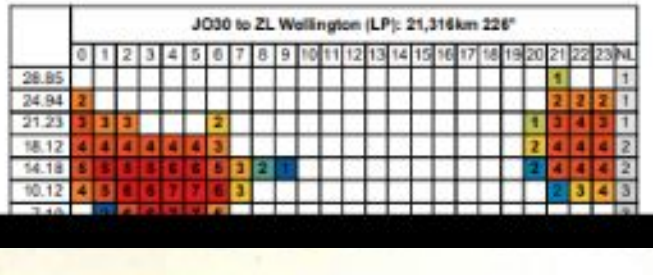

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Proppy P2P Area Beacons RadCom Planner Space Weather SWL Help

# Proppy HF Circuit Prediction: Space Weather

## WWV Report: 16.05.2022, 09:05:00


## Previous 24 Hours

No space weather storms were observed for the past 24 hours.

## Next 24 Hours

No space weather storms are predicted for the next 24 hours.

*Data Source: noaa.gov*

## Space Weather Resources

- Scales (NOAA): An explanation of the scales used in the gauges above.
- Impacts of Space Weather (NOAA): A brief summary of the impacts of space weather on radio communication.
- Understanding Solar Indices (ARRL): Ian Poole's excellent introduction to space weather and the various indices by which it's characterised.

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# Proppy

**…eine kleine Einführung**
**in ein beliebtes Programm**
**zur Ausbreitungsvorhersage**

**von Tom DF5JL**

df5jl@darc.de