

Urban 10GHz DXing

Chris Cox, NØUK

Urban 10GHz DXing?

You must be joking!

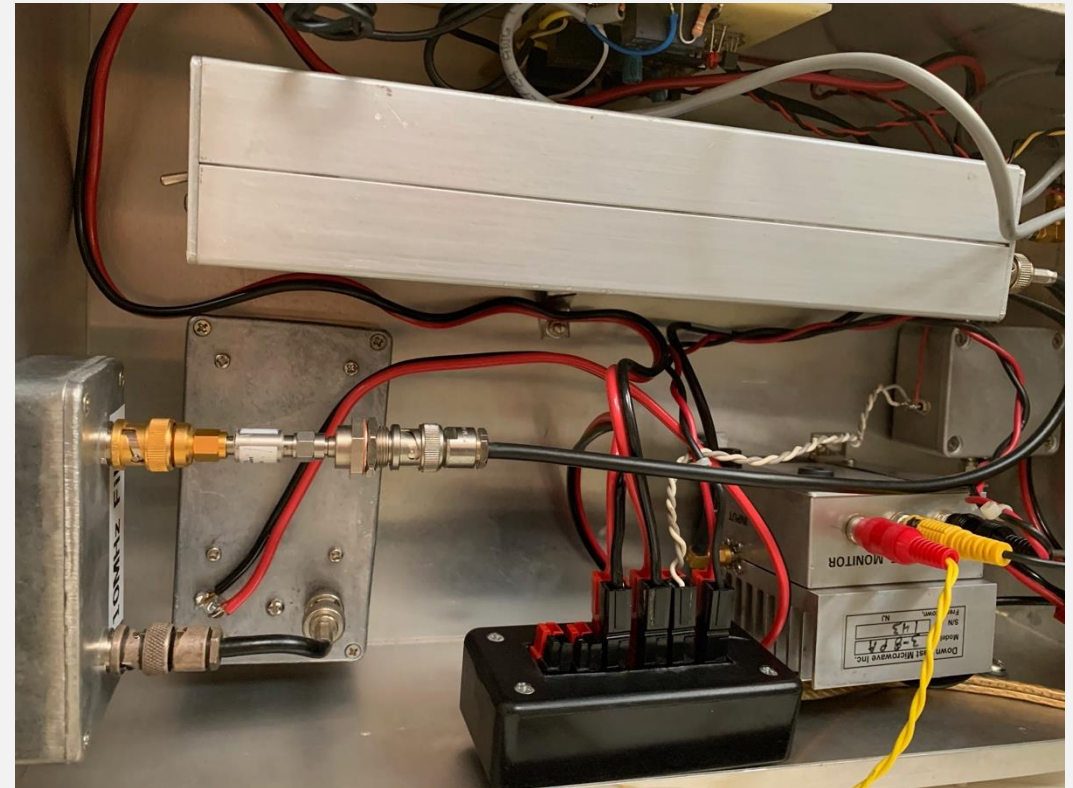
No, not joking!

- What do you need?

EQUIPMENT

- Typical “Rover” station
- VHF multi-mode I/F rig: FT-817, IC-705, KX-3, etc.
- Modern Transverter: Downeast (US), Kuhne (Eu)
- Small dish: Sat TV offset feed or surplus commercial
- Sturdy tripod
- Compass: you need to point accurately

ROVER RIG



No, not joking!

- What do you need?
- Where do you need to be?

No, not joking!

- What do you need?
- Where do you need to be?
 - View from the hood.

East to West Balcony Panoramic view



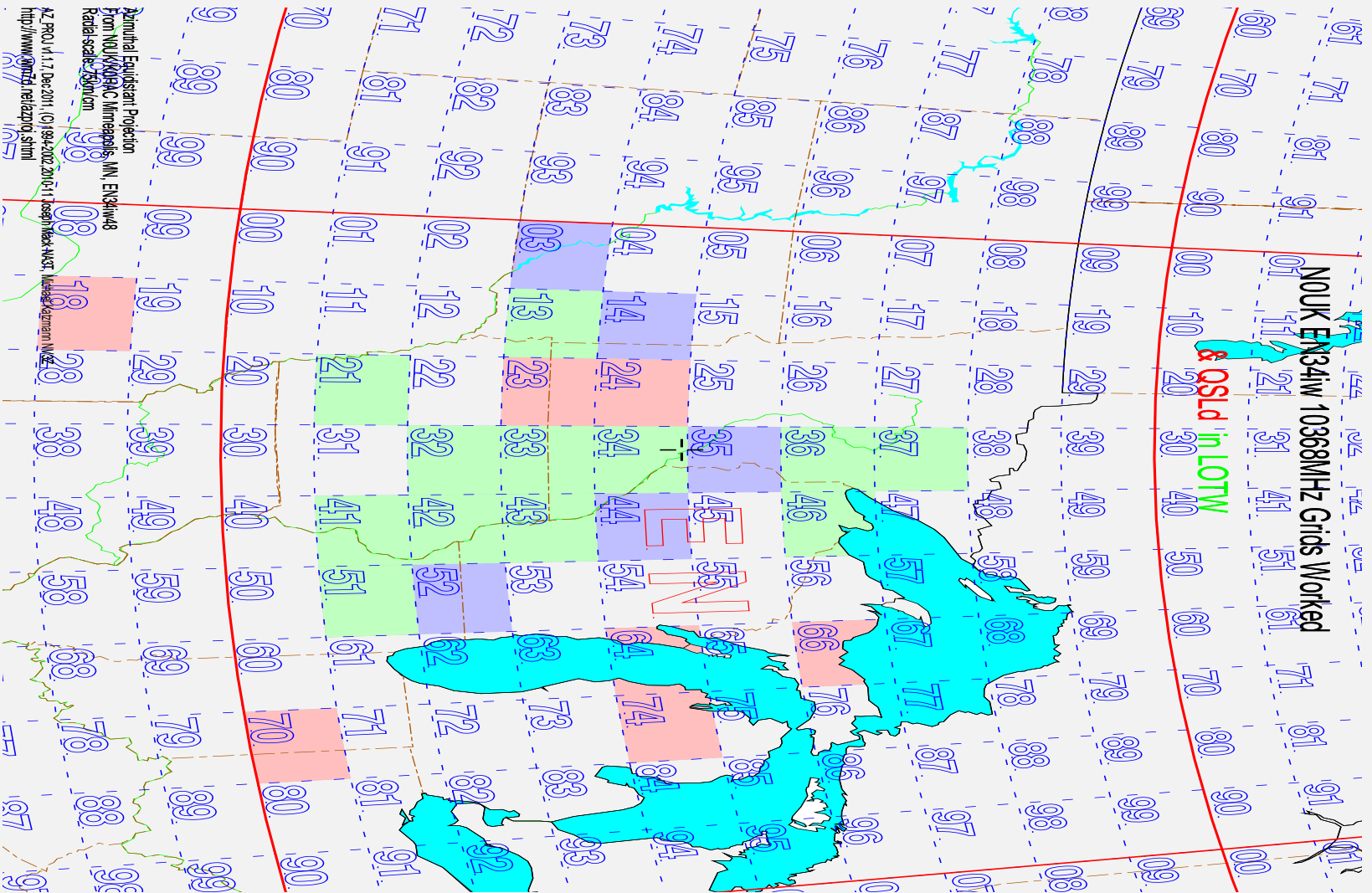
From inside the shack



No, not joking!

- What do you need?
- Where do you need to be?
- What are realistic DX expectations?

GRIDS WORKED SO FAR



PROPAGATION MODES

Line-of-sight

Troposcatter

Rainscatter/Snowscatter

Aircraft scatter

PROPAGATION

The two chief mechanisms for working DX on 10GHz are:

Troposcatter (Tropo). Most of my grids have been worked via tropo. Most prevalent during the warm, Summer months and typically capable of supporting distances of two to three hundred kilometres although varies throughout the day.

Rainscatter. The wavelength at 10GHz is small and water droplets become a significant size relatively causing signals to get scattered at higher elevations and making those signals then readable over extended distances. Weather radar uses this medium to map weather systems.

Each of my longest contacts have been as a result of rainscatter propagation. Notables include:

N8PUM EN66dl 467km

K9JK/R EN51xr 554km

K2YAZ EN74av 578km

N00Y EM18ct 775km

And...

“I love it when a plan comes together” – Hannibal Smith



Partially obstructed view from Uptown Minneapolis looking south-east towards W8BYA in EN70jt at 802km.

The direct path is between the two tower blocks on the horizon at the left.

