



# WINLINK RADIO EMAIL

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ALBEMARLE AMATEUR RADIO CLUB

14 NOVEMBER 2017

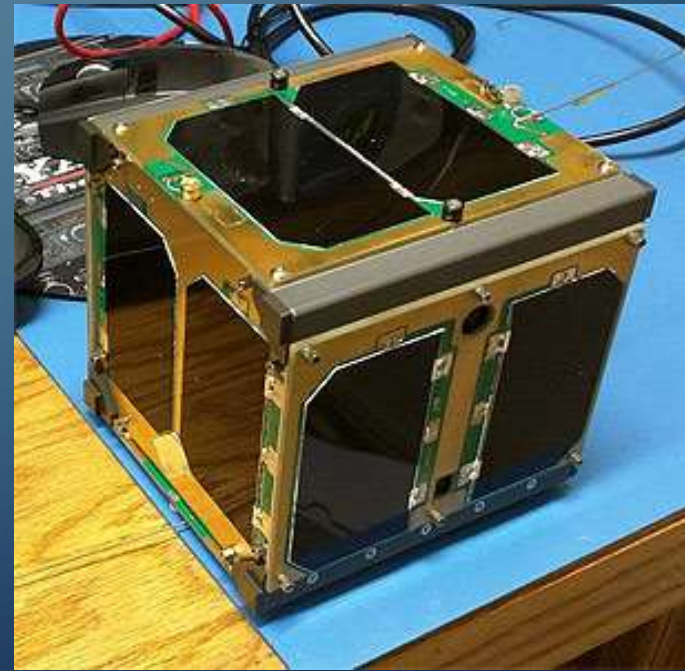
# UVA CUBESAT UPDATE

- UVa assigned to ELaNa-25!  
(11 cubesat mission)
  - Deliver satellites to NanoRacks in July 2018
  - Launch on ISS resupply vehicle 2018 Q3/Q4
  - Deployment from ISS 2018Q4/2019Q1



# AMSAT FOX-1B LAUNCH TOMORROW

- Rescheduled for 15 Nov, 0947 UTC (4:47am EST)
  - Live stream at <https://www.amsat.org/radfxsat-fox-1b-launch-live-blog/>
- FM U/V repeater with sub-audible telemetry
- <https://www.amsat.org/getting-ready-for-radfxsat-fox-1b/>

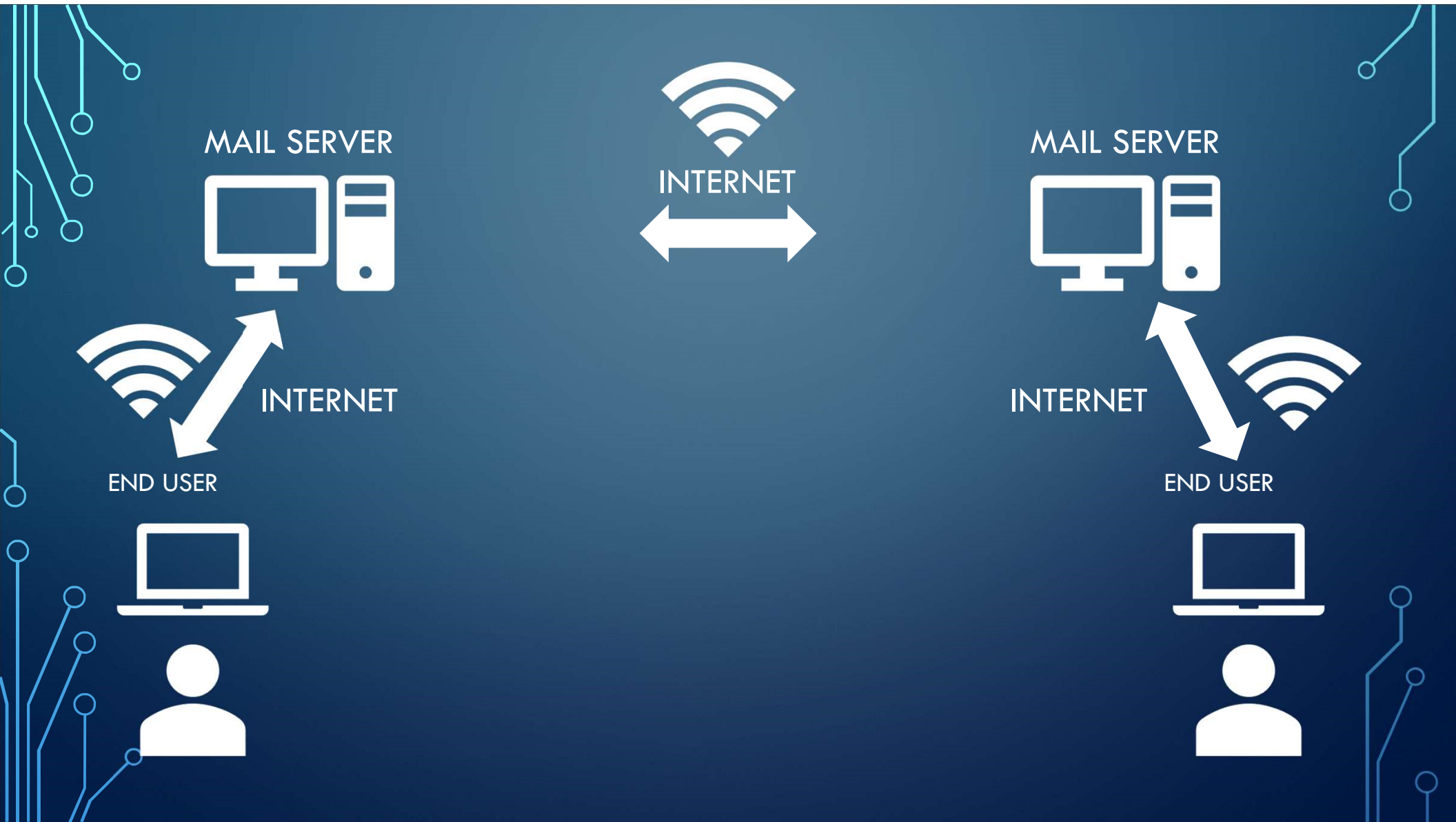


# WHAT IS WINLINK?

Winlink is email, but...

Instead of using the Internet as the primary transport...

**Winlink adds amateur radio as the primary transport!**





# WINLINK ADVANTAGES

- Worldwide redundant infrastructure
- Full error detection and correction, so 100% accurate every time
- Looks and works like standard email, including attachments
- Interconnected with Internet email for bidirectional interoperability

# WINLINK DISADVANTAGES

- More complex than CW or phone
- Requires additional hardware (although not much, as you'll see later)
- Requires some new skills (but easier than learning CW, for example)

# WINLINK SPEED

| Traffic                               | Packet 1200 | Packet 9600 | Pactor 3 | Pactor 4 | Winmor 500 | Winmor 1600 |
|---------------------------------------|-------------|-------------|----------|----------|------------|-------------|
| Radiogram<br>(Check 17)<br>or ICS-213 | 30 sec      | 15 sec      | 7 sec    | 4 sec    | 150 sec    | 45 sec      |
| County<br>SITREP to<br>VDEM           | 77 sec      | 38 sec      | 19 sec   | 10 sec   | 386 sec    | 116 sec     |
| VA Winlink<br>Net Checkin             | 7 sec       | 4 sec       | 2 sec    | 1 sec    | 38 sec     | 11 sec      |

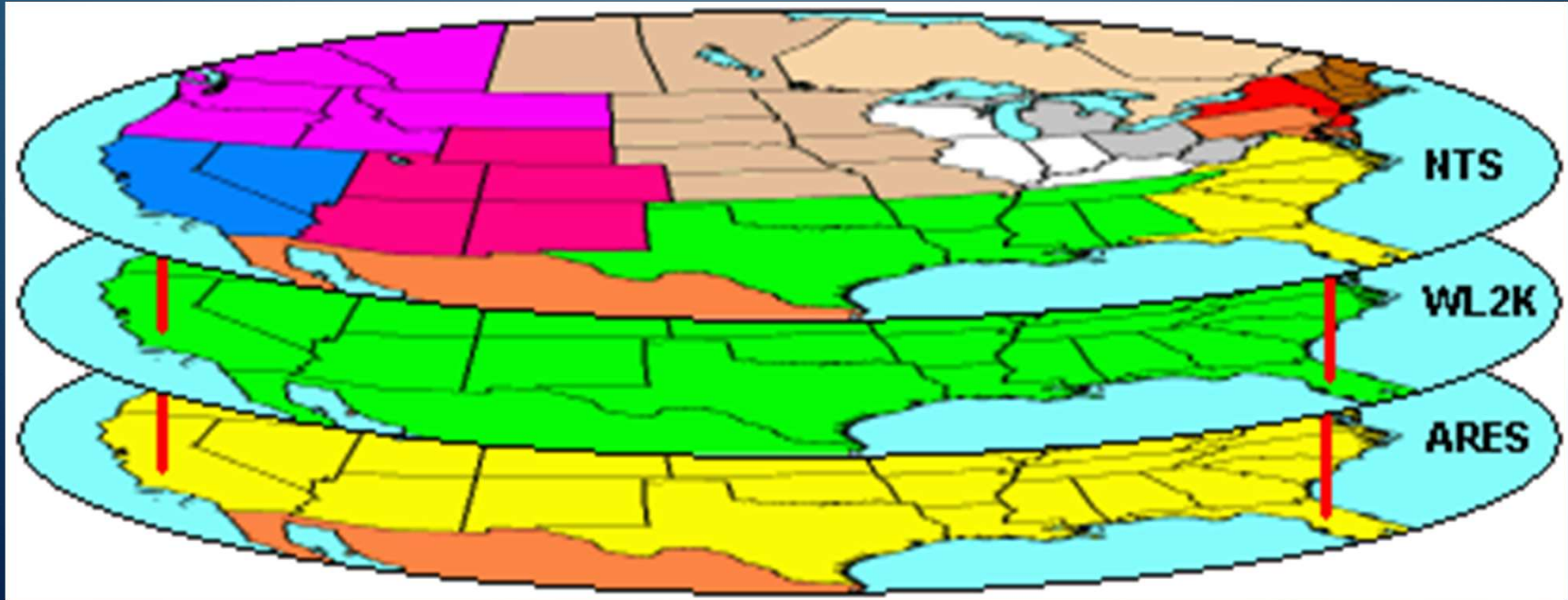
Ideal conditions, based on Winlink FAQ

For interesting discussion, see

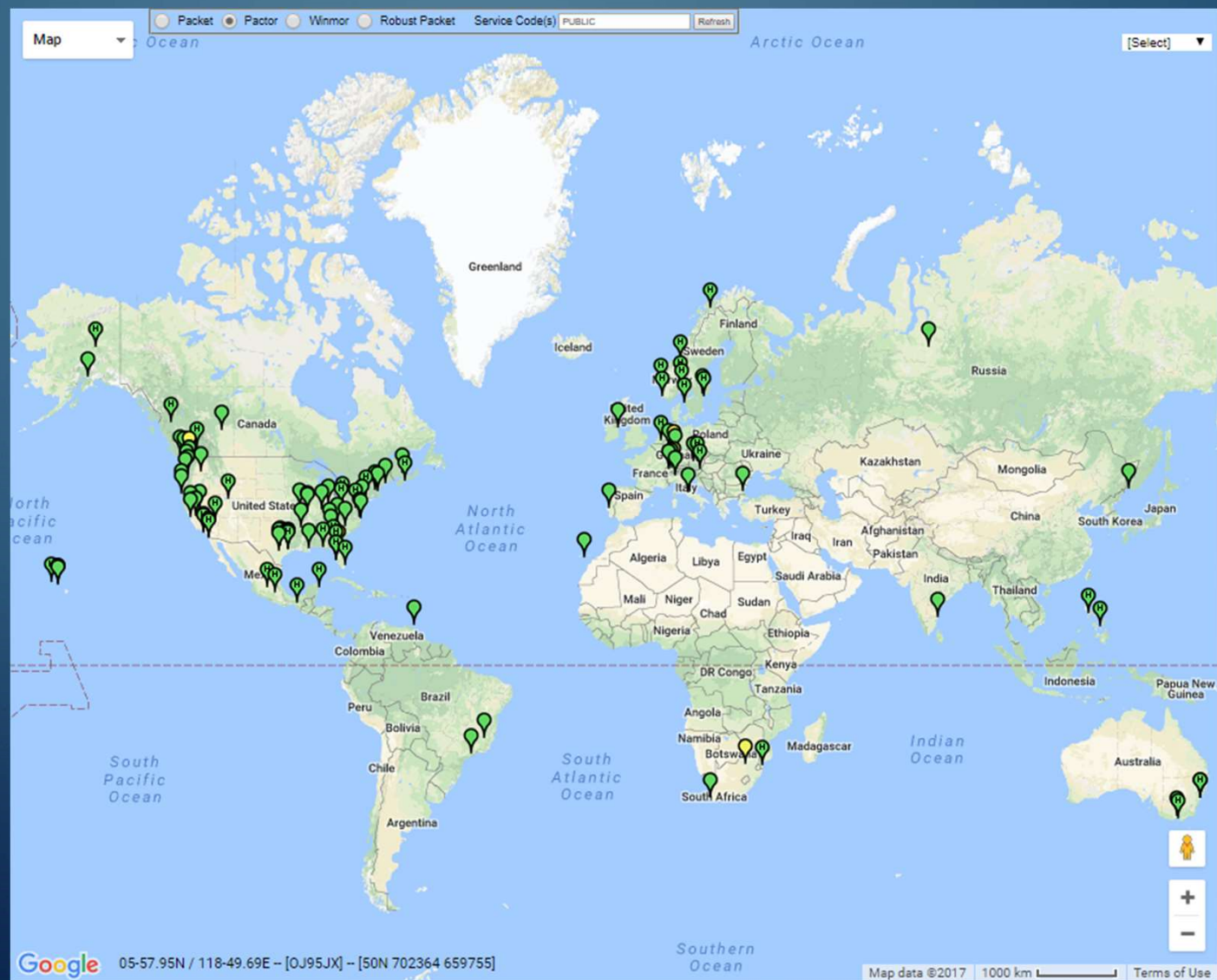
<http://www.qsl.net/nf4rc/DigitalThroghputVersusVoice.pdf>



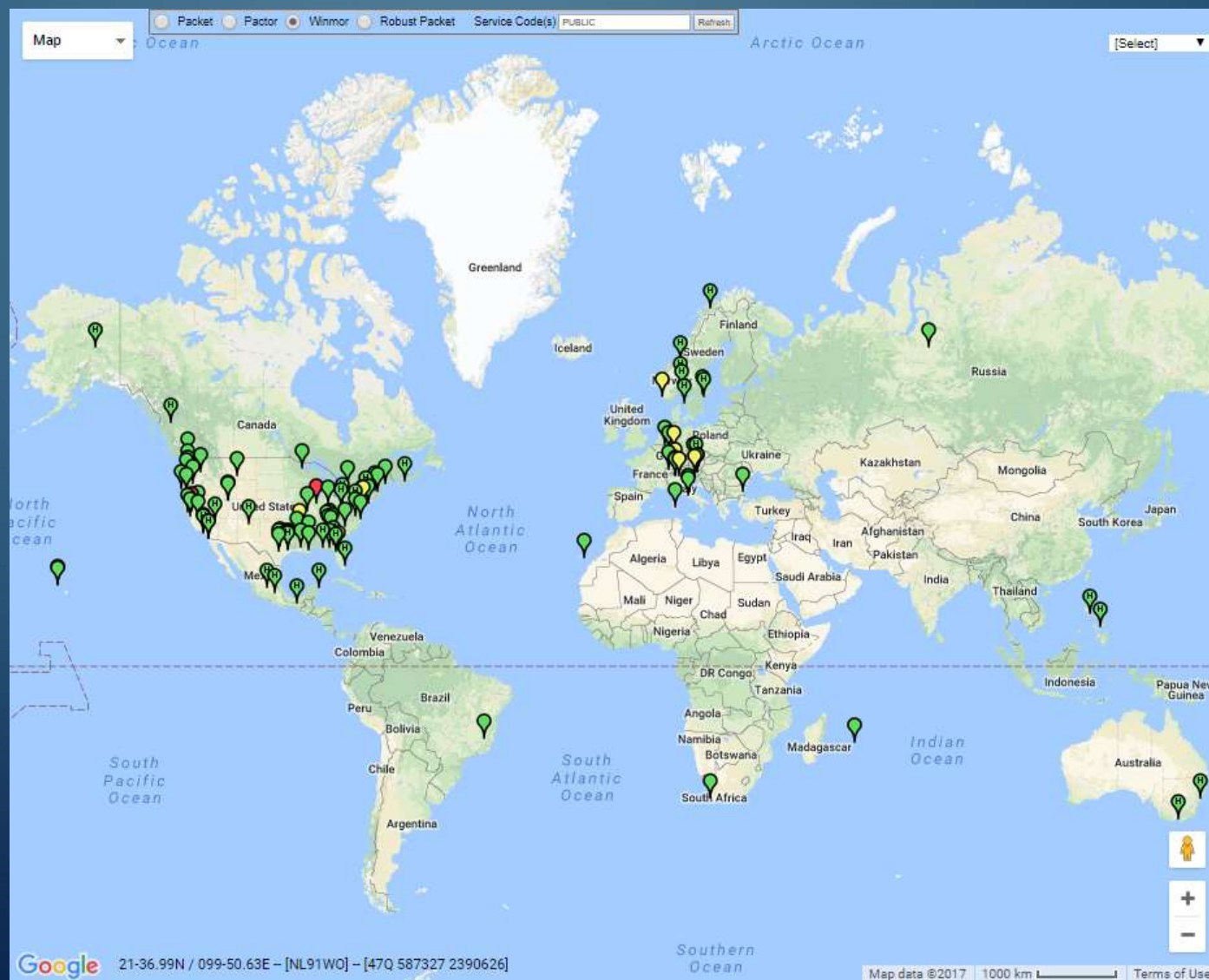
# WHERE DOES WINLINK FIT?



# HF PACTOR

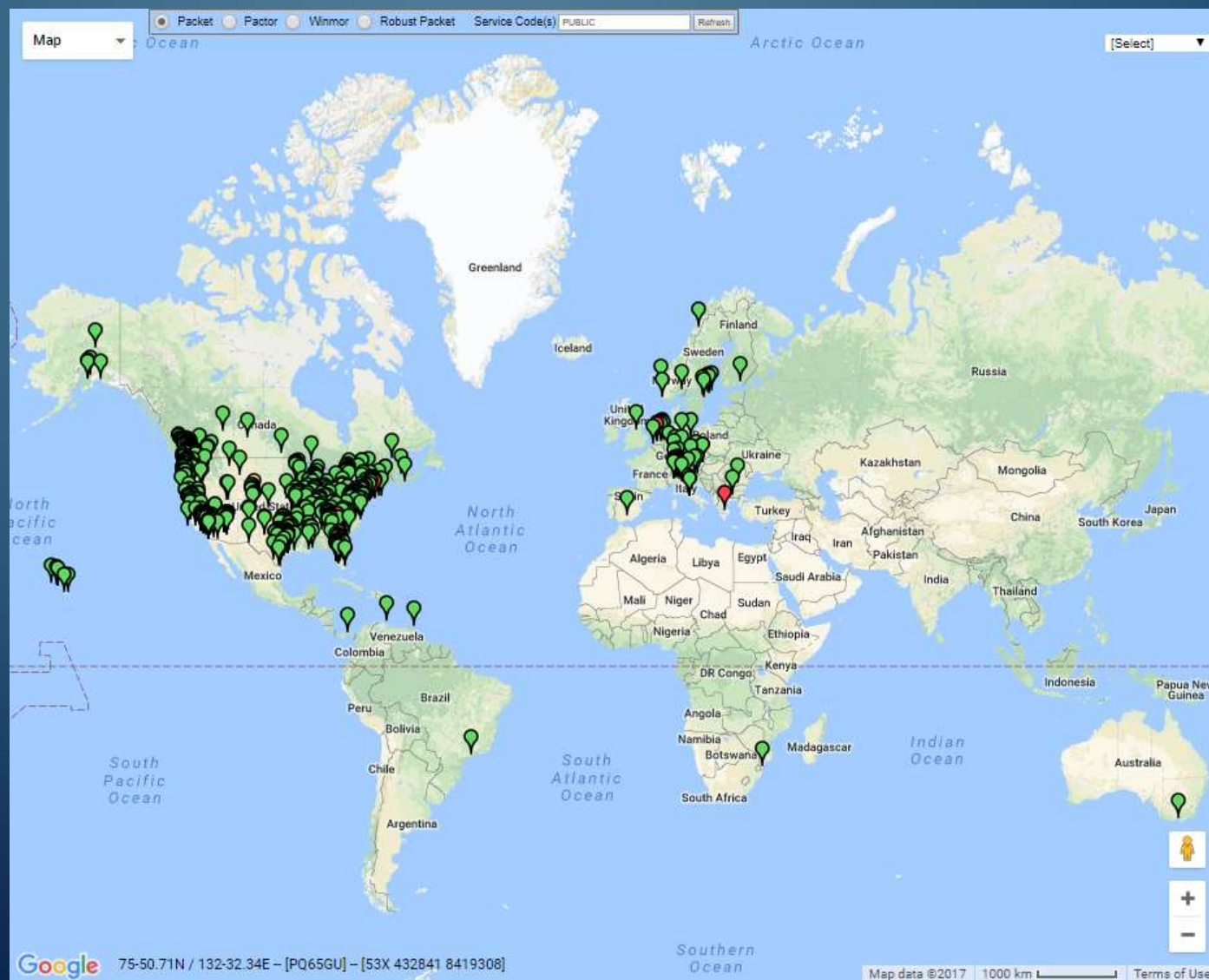


HF  
WINMOR

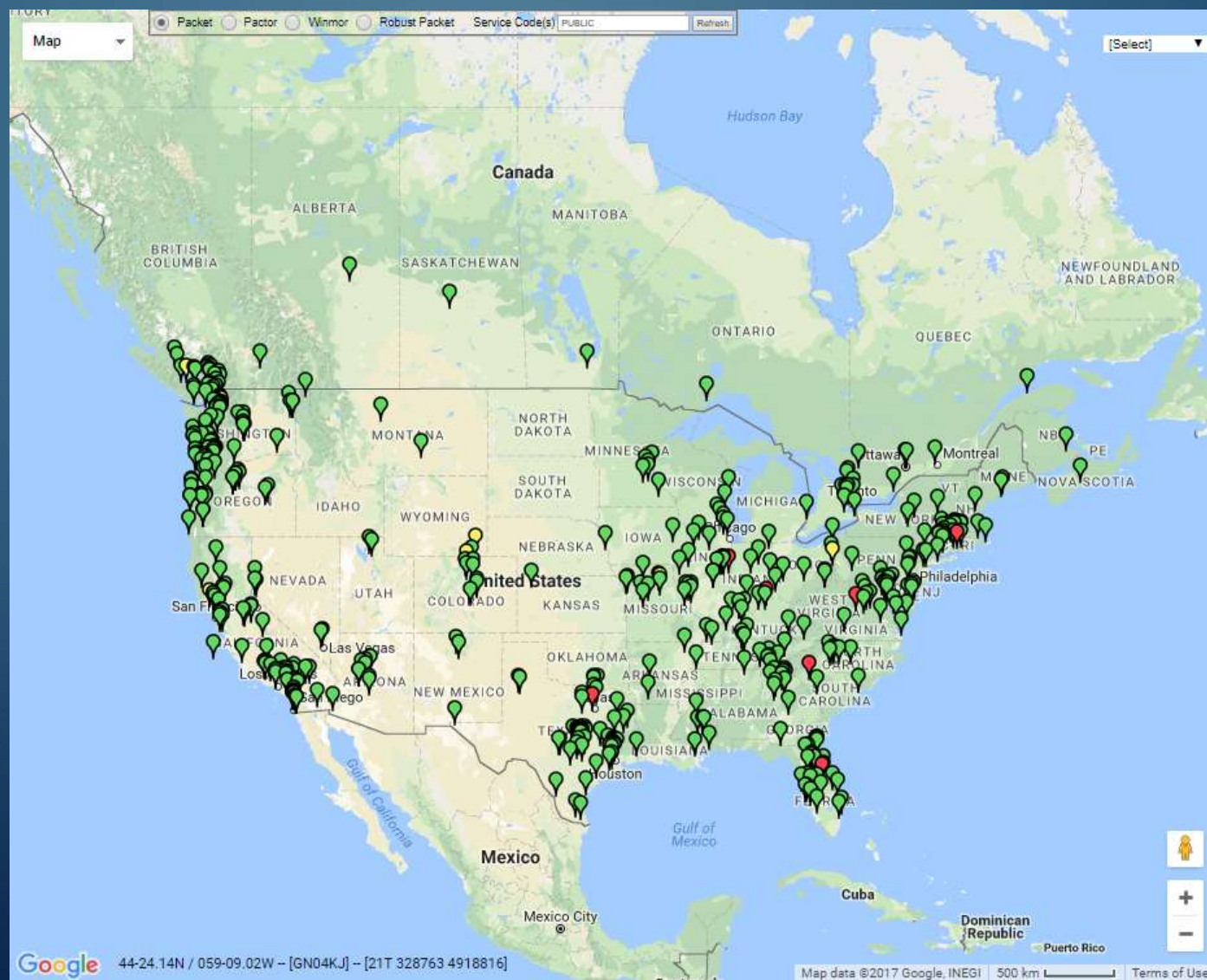




# VHF/UHF PACKET

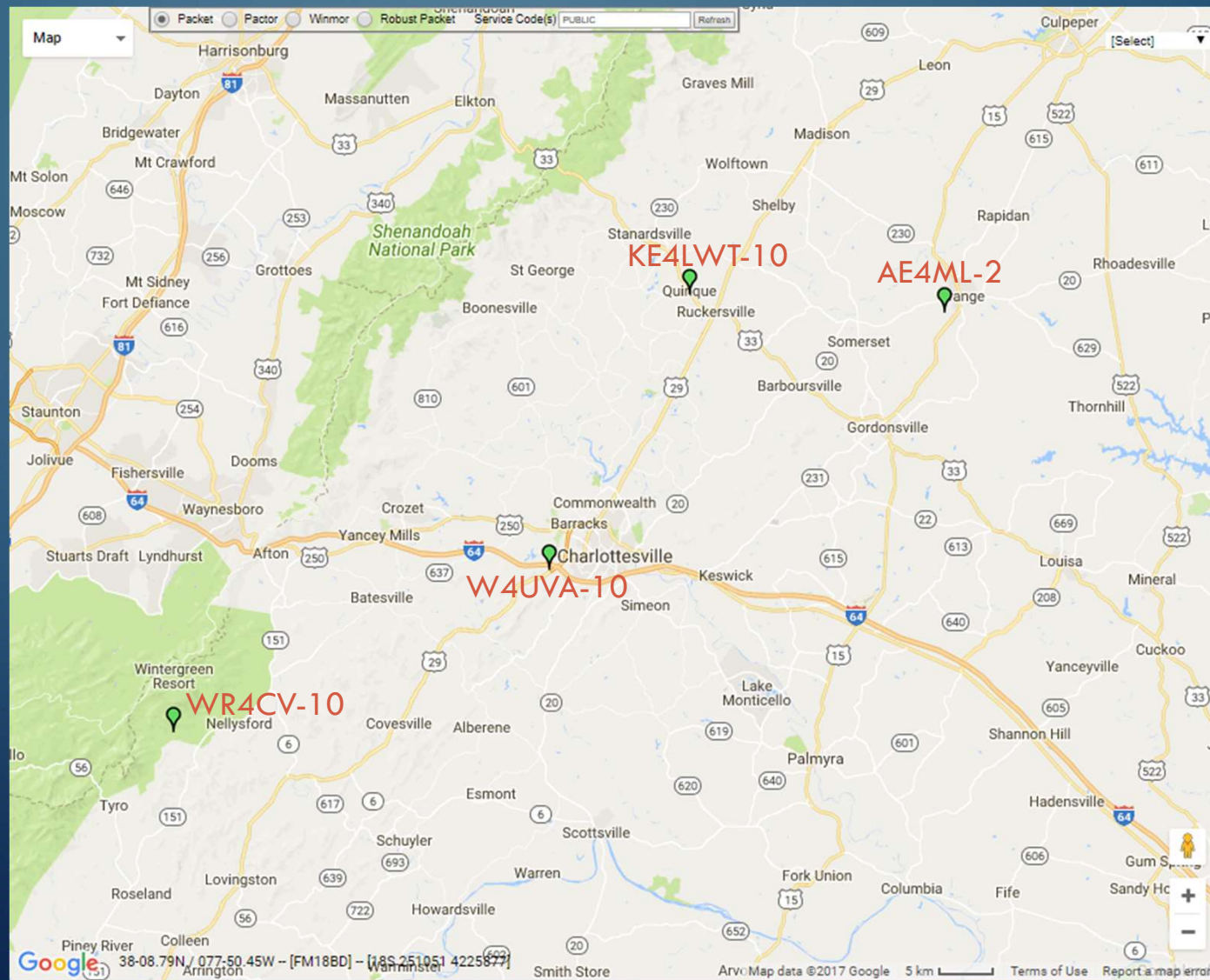


# VHF/UHF PACKET





# VHF/UHF PACKET





# CAN I DO THIS? ABSOLUTELY!

VHF/UHF – Hardware or software  
TNC

HF – soundcard interface

Mesh – AREDN/CVADN node  
([www.cvadn.net](http://www.cvadn.net))

Software – free download from  
[winlink.org](http://winlink.org)





Built-in TNC





DEMO

A decorative background featuring a circuit board pattern with blue lines and circles on a dark blue gradient. The pattern is most dense on the left side and tapers off towards the right.

# THANKS FOR YOUR ATTENTION!

## HANG AROUND FOR HANDS-ON AFTER THE MEETING.

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