# MDXS, Mother of all Clusters
# Home safe in OH

By Radio Arcala team, Stockholm Jan 2015

Kyynel Summit Team

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# My DX Summit Objectives

**Be back on the top as the most used and desired web portal for the ham community, especially for DXing and contesting.**
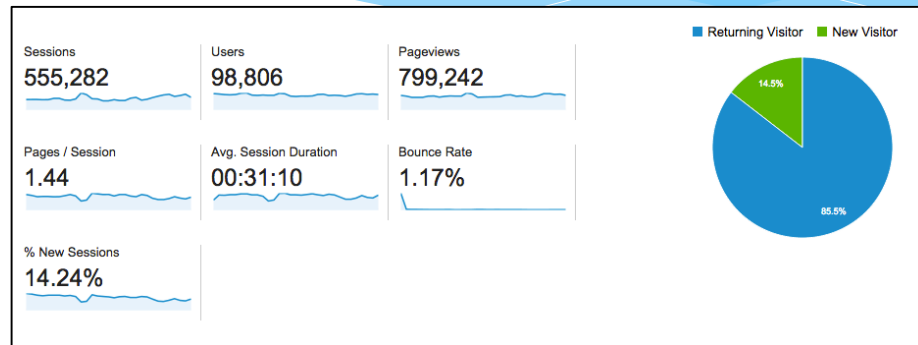
* Build on the heritage and experience of DX Summit since 1998
    * 2010 Yasme Excellence award to OH2AQ team
* Leading user experience - 'My Views'
    * Ease of use and personalisation
    * Mobile and Tablet capable
* Linkage to external services – Propagation, Call Info, Daily DX, more
* Readiness for Big Data analysis and services
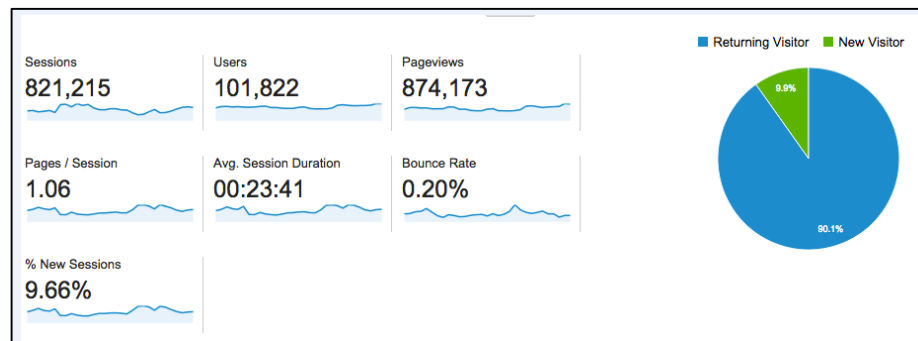* Run as commercial business with commercial quality

# Google Tells it All

- This is quite early info, but looks very promising

- About 100k unique users per month
  - ~5% of ham community ?
  - Top countries: W/K, DK, I, UA, JA, G
- 10-15% growth
- 8 visits per user
- 25 minutes per user
- Mainly looking at the main page

December



| | | | |
|---|---|---|---|
| Sessions 555,282 | Users 98,806 | Pageviews 799,242 | Returning Visitor / New Visitor |
| Pages / Session 1.44 | Avg. Session Duration 00:31:10 | Bounce Rate 1.17% | 14.5% / 85.5% |
| % New Sessions 14.24% | | | |

Last month



| | | | |
|---|---|---|---|
| Sessions 821,215 | Users 101,822 | Pageviews 874,173 | Returning Visitor / New Visitor |
| Pages / Session 1.06 | Avg. Session Duration 00:23:41 | Bounce Rate 0.20% | 9.9% / 90.1% |
| % New Sessions 9.66% | | | |

# Audience Response

KG4W
KG4W@comcast.net
I love your new system. Thank you very much.
Ed
KG4W

GI4EBS
john.mcnerlin@btinternet.com
Like the new layout and the propagation tools, just fantastic, 73.

**"THE NEW DXER'S HANDBOOK" ©**

**SECOND EDITION**

Written by: **BRYCE K. ANDERSON, K7UA**

January 10, 2015

F4FLF
f4flf@neuf.fr
This new version of Dx Summit is wonderful !
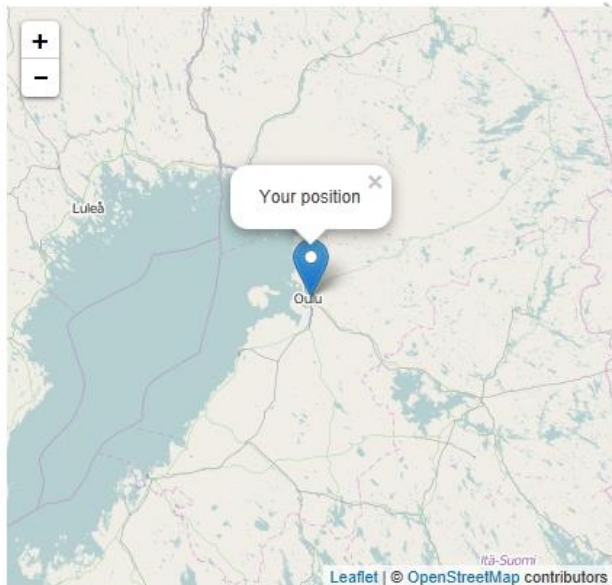Congratulations for the work
73's Olivier - F4FLF

Great. I now am connected and I see spots for stations that I want to contact. It is working.
Here is a more advanced concept. While all of the clusters get sent pretty much the same data there are
reasons to monitor more than one. The mother of all DX clusters is in Finland and operated by Radio
Arcala OH8X. It can be accessed at http://www.dxsummit.fi/ . It is a very sophisticated site and has
several valuable tools available including propagation prediction. More on that in a later chapter.

# My DX Summit
# Key Features

* New user interface based on one page approach
  * All filters and key functions on one page
  * You can select filters very flexibly
    * Bands or band groups, Modes, Country, Zone (CQ/ITU), Call, Spotter
    * There can be multiple selections on, eg. 5W0+3.5MHz+7MHz+CW
    * Also a selection can be negated
* You can bookmark various selections as own pages or run in different browser windows/tabs in parallel
* QSO propagation prediction through VOACAP (OH6BG) and greyline
* Log Search and Band Activity fetures by ClubLog. Call info from QRZ.COM.
* Extended call search function
* API to use DXSummit data externally in log programs and web pages

# Main page

- Single page for spots, announcements, propagation and sharing a spot
  - Include / Exclude
  - You can bookmark with filtering
- Location needed for propagation
  - Can be set using maps





**Bookmark with filters**

dxsummit.fi/#/?include=1.8MHz,3.5MHz&dx_calls=EP6T

# Mobile Summit

- Summit mobile spots are in more condensed format
- Mobile spots can be viewed in full screen mode
  - Even some most advanced smartphones and tablets report quite lowish display capability, thus normal mode is useful
- Filters, etc. operate the same as in normal mode.
- VOACAP is not supported in mobile mode

# Filters



* Filters by mode, bands, flags
  * Include / Exclude
* Call search by
  * DX or DE
  * Prefix, Country
  * ITU/CQ zone

# Propagation Tools

**VOACAP Online**

KP25sa to HH5/KC0W: 8449 km, 5250 mi, 285° (SP, basic)

23UT
80M
100%

**Precise value at cursor**

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
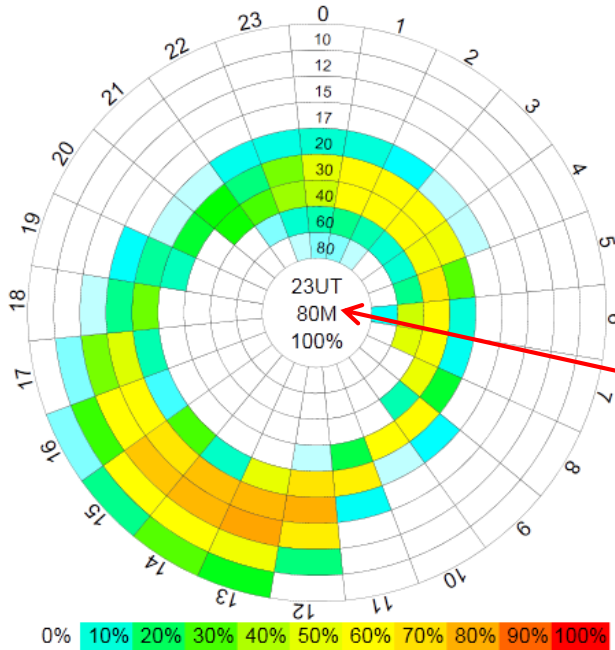
Path: **Short**     Station Setup: **Basic**

Powered by VOACAP online, www.voacap.com

**SP / LP**

**Basic: 100W dipole**
**Super: 1.5kW, GP/5el**

**N0NBH propagation**

**Prop Propagation Now**

**Solar-Terrestrial Data**
26 Jan 2015 1234 GMT
SFI:126   SN:  65
A-Index: 6
K-Index: 4
X-Ray: C1.0
304A: 156.8 @ SEM
**Calculated Conditions**
Band     Day   Night
80m-40m: Poor  Fair
30m-20m: Fair  Fair
17m-15m: Fair  Fair
12m-10m: Fair  Poor
Signal Noise: S3-S4
Click to Install Solar
Data On your Web Site
http://www.n0nbh.com
Copyright Paul L Herrman 2010

**Greyline**

HL2AVK

**Detailed Data + Aurora Ovals**

**Ext  Propagation Now**

| SFi | SSN | Ap | Kp | X-Ray |
|-----|-----|-----|-----|-----|
| 133 | 77 | 14 | 2 | B5.7 |

| SFi90 | | SSNm | |
|-----|-----|-----|-----|
| 152 | | 70.8 | |

| Outlook | Today | +24h | +48h |
|-----|-----|-----|-----|
| SFi | 135 | 145 | 155 |
| Max Hi-lat Kp | 4 | 4 | 2 |
| Max Mid-lat Kp | 3 | 2 | 2 |

**Northern Auroral Map**

2014 December 31 07:57UT

NOAA-SWPC

**Southern Auroral Map**

2014 December 31 07:57UT

NOAA-SWPC
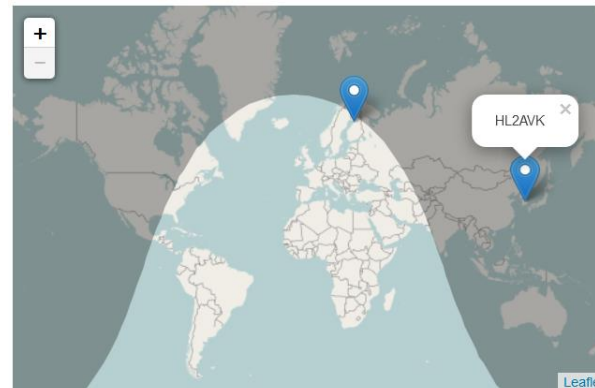
# Search and Export

* Search uses same filtering procedures as spots
* Time filtering can be added
* Spots can be downloaded as CSV file

# Tutorial

* Things should be self explanotary, but some times tutorial is helpful

  * 'Right length'
  * Frequency tables for bands/modes
  * API usage

Spots   Spot Search   Daily DX   News   Radio Arcala   Santa   Ad2
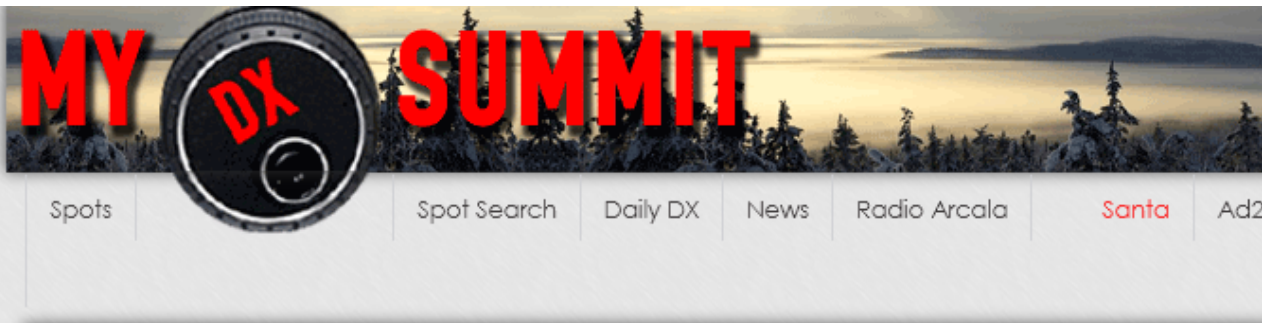
## DXSummit Tutorials

* 1. How to Add New Spots
* 2. How to Add New Announcements
* 3. Where to View Propagation Information
* 4. How to Use Filters
  * 4.1 Using "Filters" Panel
  * 4.2 How to Filter Callsigns, Countries, Prefixes, ITU Zones and CQ Zones?
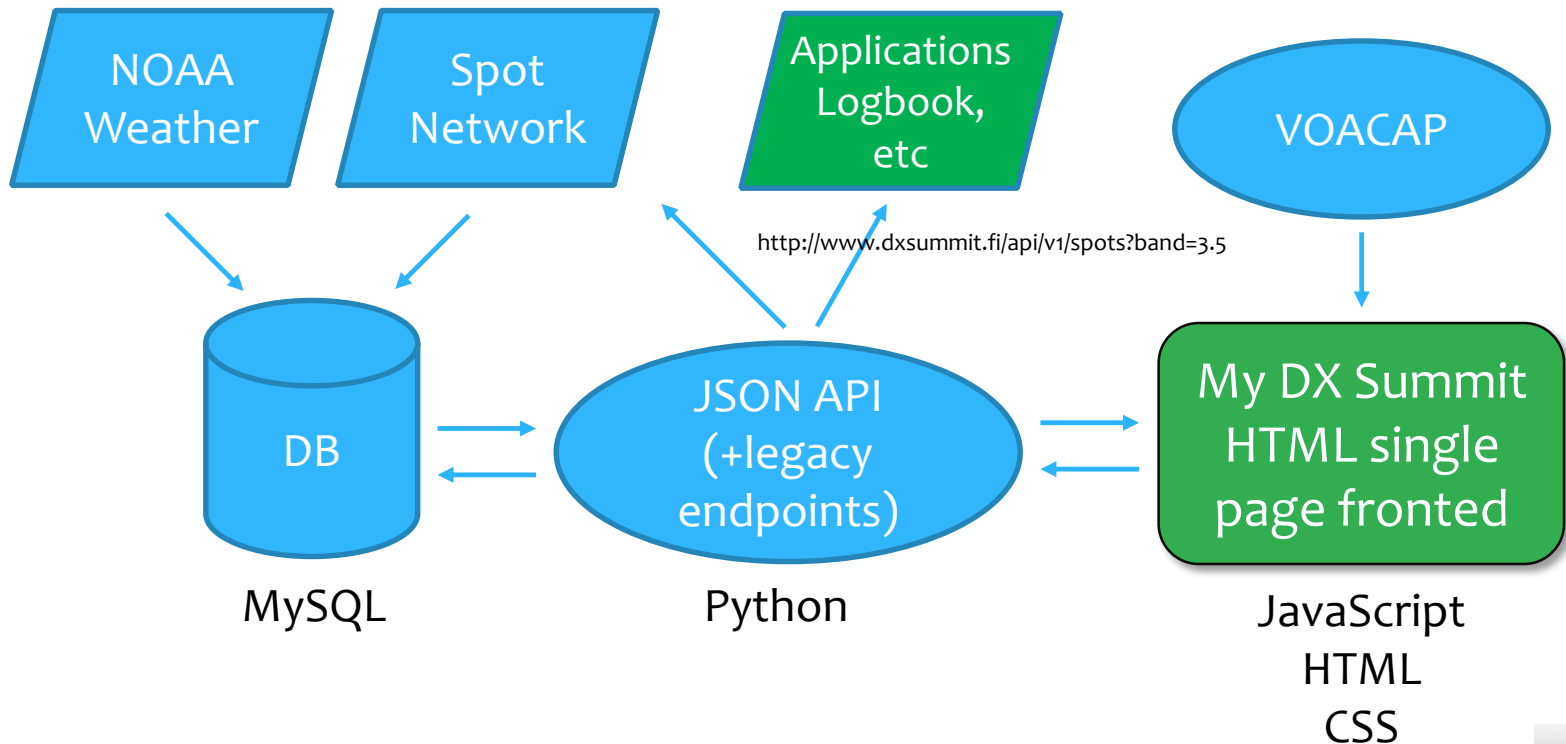  * 4.3 How to Save Filters?
  * 4.4 Examples of Different Filters
    * 4.4.1 Case 1: Show Spots from ZD7, ZD8 and 3C0
    * 4.4.2 Case 2: Hide Spots from Spotter AB3CDE
    * 4.4.3 Case 3: Display Spots of KH6 on CW and SSB on HF Bands Excluding WARC Bands
    * 4.4.4 Case 4: Display Spots from Germany (DL) to CQ Zone 3 on 80M SSB
    * 4.4.5 Case 5: Show Spots from ITU Zone / CQ Zone / Continent
    * 4.4.6 Case 6: Show Spots originating from ITU Zone / CQ Zone / Continent
    * 4.4.7 Case 7: Show Spots of Oceania on 160M CW originating from ITU Zone 18
* 5. How to View VOACAP Predictions from My Location to a Specific DX Location
* 6. Smartphones and Tablets
* 7. Advanced Information
  * 7.1 Specific Frequencies Used in Filters
  * 7.2 Modes
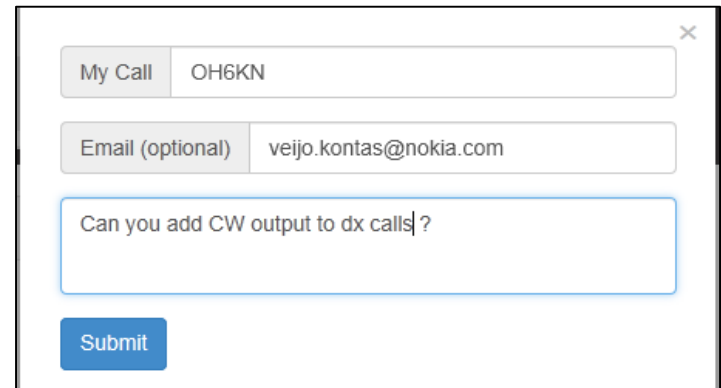  * 7.3 How to Use Filters by Query String?

# Key Technologies

NOAA Weather

Spot Network

Applications Logbook, etc

VOACAP

http://www.dxsummit.fi/api/v1/spots?band=3.5

DB

JSON API (+legacy endpoints)

My DX Summit HTML single page fronted

MySQL

Python

JavaScript
HTML
CSS

# What's Next

* MDXS feedback channel has provided a wealth of excellent ideas and the Arcala innovation reactor is running at full heat

* Closer integration with ClubLog
  * ClubLog statistics utilized more
  * Use ClubLog as your log, which enables needed listings (country/band/mode)
* Registration
  * More personilisation
  * Filters, personal pages
  * Longer downloads
* 'DXers' facebook'
* Linkage to the virtual ham world
  * Get youth attracted
  * Hamsphere

Let your innovation fly !

| My Call | OH6KN |
| Email (optional) | veijo.kontas@nokia.com |

Can you add CW output to dx calls ?

Submit

# Thank You