# AMATEUR RADIO, QRP & THE GREAT OUTDOORS

An Introduction to Summits On The Air (SOTA)

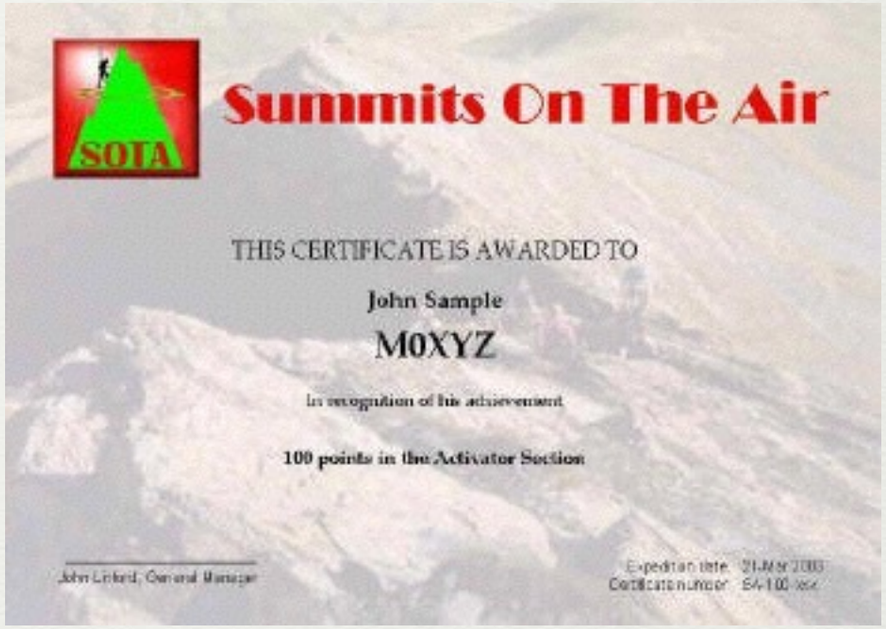
by James Stevens (M0JCQ)

# What is SOTA?

- "Summits on the Air (SOTA) is an award scheme for radio amateurs and shortwave listeners that encourages portable operation in mountainous areas."
- **Activators** aka "Mountain Goats"
- **Chasers** aka "Shack Sloths"
- **Summits** range from hills to mountains, points awarded based on altitude (1-10 Points)

# The Awards

- Certificates for Activators & Chasers for 100, 250, 500, 1000 points
- Mountain Goat Award (1000 Points)
- Shack Sloth Award (1000 Points)
- S2S Award
- Special Awards (12m activity)
- http://www.sota.org.uk/Awards



# Why Do I Bother?

- Love of the Outdoors
- QRP on steroids
- No Restrictions
- Exercise
- Adventure
- Because I can

# My SOTA Activations

| Date | Summit | ASL | QSOs | Points |
|---|---|---|---|---|
| 13-Sep-14 | G/CE-005 (Wendover Woods) | 267m | 26 | 1 |
| 27-Sep-14 | CT/AL-001 (Serra de Foia) | 902m | 25 | 6 |
| 17-Oct-14 | G/CE-005 (Wendover Woods) | 267m | 24 | 0 |
| 25-Oct-14 | G/SE-006 (Ditchling Beacon) | 248m | 13 | 1 |
| 31-Oct-14 | G/SE-002 (Leith Hill) | 295m | 26 | 1 |
| 14-Nov-14 | G/CE-005 (Wendover Woods) | 267m | 23 | 0 |
| 21-Nov-14 | G/CE-005 (Wendover Woods) | 267m | 33 | 0 |
| 28-Nov-14 | G/DC-001 (High Willhays) | 621m | 6 | 4 |

Clansman RT320 - G0POT

G/SE-002 Leith Hill at Sunset

G/CE-005

G/SE-006 Vertical with a View

G/CE-005 Trigpoint at Sunset

CT/AL-001 - 25 QSO's back to UK, US & Canada on 5w SSB

Ever operated right next to a military installation?

Me after a successful SOTA activation - all HF equipment is on my back

# My Portable Equipment

- Elecraft KX3
- 4.2aH LiFePo4 Battery
- Linked Dipole & Fishing Pole Support
- Vertical Antenna (80m-2m in theory)
- iPad for Logging & PSK31
- Flask of Tea

My entire HF station sitting on the civilian trig point - note radar in background

# Nice Activation - Wendover Woods

# My Favourite Bands for SOTA

- 60m (5.3985 MHz - FE channel - unofficial SOTA spot)
- 40m (7.090 MHz)
- 15m (21.285 MHz)
- 10m (28.360 MHz)

| 2495 QSOs on these bands: | | |
|---|---|---|
| | 2 | <1% |
| 160m | 7 | <1% |
| 80m | 236 | 9% |
| 60m | 393 | 16% |
| 40m | 1239 | 50% |
| 30m | 77 | 3% |
| 20m | 162 | 6% |
| 17m | 10 | <1% |
| 15m | 6 | <1% |
| 12m | 41 | 2% |
| 10m | 4 | <1% |
| 6m | 7 | <1% |
| 4m | 4 | <1% |
| 2m | 288 | 12% |
| 1.25 | 15 | 1% |
| 70cm | 4 | <1% |

**Summit Activity**

**Total Activations:** 139
**Latest By:**
M0JCQ/P on 21 Nov 2014
M0JCQ/P on 14 Nov 2014
M0JCQ/P on 17 Oct 2014
M0TTE/P on 11 Oct 2014
2E0RGE/P on 11 Oct 2014
**First Activated by:**
M0COP on 04 May 2002
**Activated by You on:**
21 Nov 2014, 14 Nov 2014, 17 Oct 2014, 13 Sep 2014

# What about VHF?

- SOTA isn't just HF
- VHF still very popular for SOTA
- 2m FM activations mostly
- Expect more 6m activity next year
- New SOTA Microwave Award
- Ultra Light Weight
- Can't beat the takeoff!

# How Far will 5W SSB Go?

- Pretty damn far when you're the rare DX!
- Regularly work the U.S. & Canada on 15m, 12m, 10m
- Great, clear takeoff from summits
- Low Noise Floor
- When conditions are good QRP is all you need

# Summit to Summit (S2S)

- Contacts that occur between 2 SOTA activators
- Usually QRP both ways
- Special S2S Awards available

| My Callsign | Station Worked | Chased Summit | Chased Summit Name | Activated Summit | Activated Summit Name | Distance (km) |
|---|---|---|---|---|---|---|
| CT7/M0JCQ/P | N1EU | W2/GA-024 | Hurricane Mountain (1121m, 8 points) | CT/AL-001 | Serra de Foia | 5393 |
| CT7/M0JCQ/P | DO1DJJ/P | DM/RP-019 | Hohe Warte (628m, 6 points) | CT/AL-001 | Serra de Foia | 1910 |
| M0JCQ/P | GW6OVD/P | GW/SW-024 | Mynydd y Lan (385m, 1 point) | G/SE-002 | Leith Hill | 199 |

# Popular SOTA Rigs

# How to Get Started?

- Leave the shack…
- Nearest Summit: Wendover Woods
- **OR**
- Chase from the comfort of your shack
- If activating take someone experienced

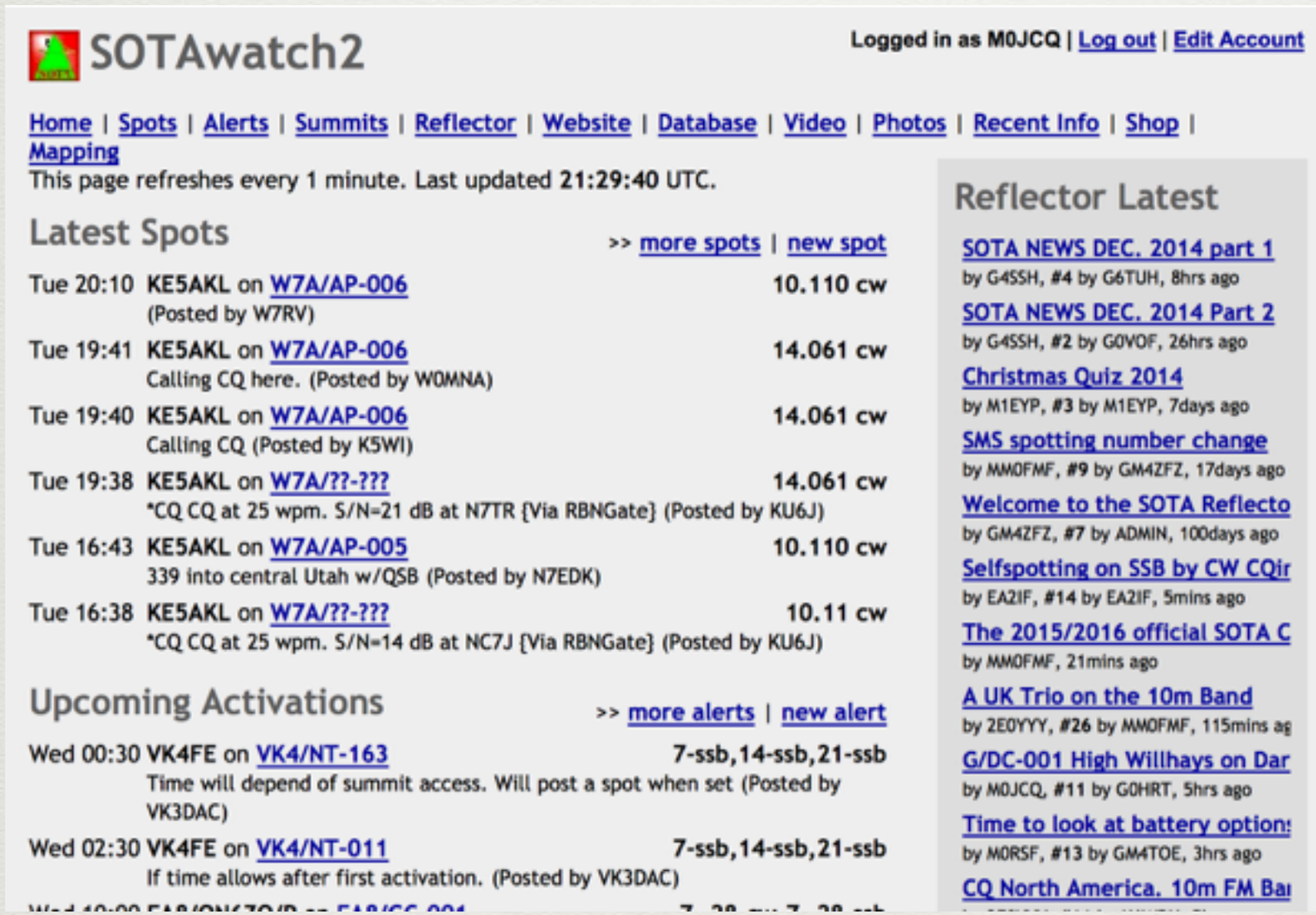
# Top Tips for a New Starter

- Be Prepared (rules, route to summit)
- Spot yourself on the SOTA Watch Website
- Brace yourself for a pile up!
- Choose an easy summit for your first activation
- Travel Light
- Use a Multi-Band Antenna
- Research your Summit
  - Parking / Walking Directions
  - Activation Points
  - Preparation is key!

# Nasty Activation - High Willhays (Dartmoor)

# SOTA Watch Website

- www.sotawatch.org



# Planning a SOTA DXPedition

- Canary Islands
  - Lanzarote (11 summits, 1-2 Points each)
  - La Palma (3 summits, all 10 Points)
  - Tenerife (2 summits, both 10 points)
  - La Gomera (1 summit, 10 Points)
- Total of 17 summits
- El Teide Highest Mountain in Spain (3,715m)

# Phil 2E0NVS Activating Wendover Woods

# Any Questions?

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