



Summits On The Air

"Ham Radio with Altitude"

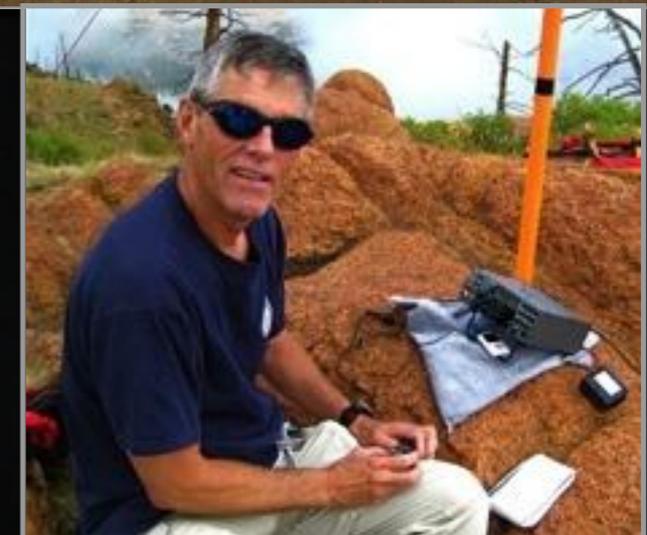
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Adapted by Rob, W3DX

November 10, 2015

Summits on the Air

- How did it start?
- What is it?
- How do I participate?
- Can I get any awards?
- How do I start activating and what equipment should I use?





“For as long as there has been radio, amateurs (hams) have taken their stations to the tops of hills”

“It’s perhaps a little surprising then that no formal program for activating summits existed until March 2002!”

How did SOTA start?



- Original idea of John, G3WGV and Richard, G3CWI
- Launched on March 2nd 2002
- Web based applications
 - Hosted transactional PostgreSQL database
 - More than 5 million QSO's in the SOTA Database
 - More than 8,800 registered users worldwide
 - Sophisticated web portal/reflector
 - Alerting, spotting, forum, etc.
 - Regional SOTA reflectors – NA SOTA on Yahoo
 - 51 DXCC countries and over 73,500 peaks in the SOTA database and ...growing fast!!
 - Over 33,000 qualified SOTA summits in North America!

Something for Everyone!



What is SOTA?

“Summits on the Air (SOTA) is an award program for radio amateurs and shortwave listeners that encourages portable operation in mountainous areas. SOTA has been carefully designed to make participation possible for everyone.

It's NOT just for mountaineers!!

There are awards for **activators** (those who ascend to the summits) and **chasers** (who either operate from home, a local hilltop or are even Activators on other summits).” From www.sota.org.uk

Meditation on emergency preparedness.

General SOTA Principles

- One set of generic rules for everyone
- DX entities form one or more “Associations”
USA and Canada are exceptions
- Associations maintain a list of summits
- **SOTA scoring is based on the elevation of the peak**
- Activators, Chasers & SWLs are participants
- Various awards, Honor Rolls, etc.
- **Totally web-based administration**
- Patterned after IOTA, Islands on the Air



When is a peak not a SOTA peak?

- A qualified SOTA peak is when:
 - Prominence is greater than 500 ft (150m) from surrounding peaks
- Peak qualification rules:
 - Vertical separation concept (500' prominence)
- Private property with permission only
- Respect for Native American and Government properties

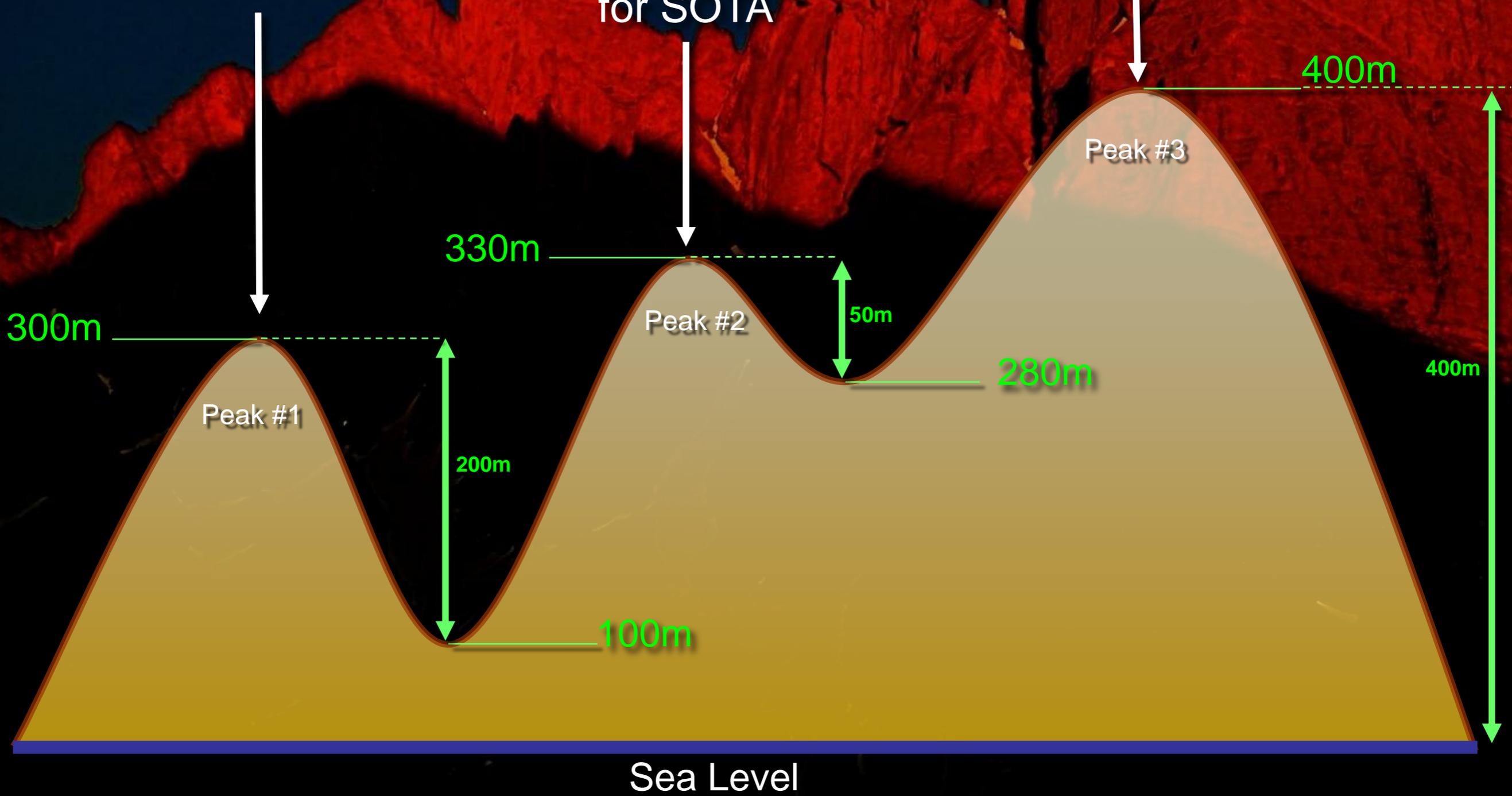
Prominence Definition



Qualifies for SOTA

Does not qualify for SOTA

Qualifies for SOTA



SOTA Scoring



- Based on ASL elevation of a qualified peak
 - Varies by Association
 - May include a “seasonal winter bonus” for activators
 - Same points awarded for Chasers and SWLs

- Scoring example for W7I – Idaho:

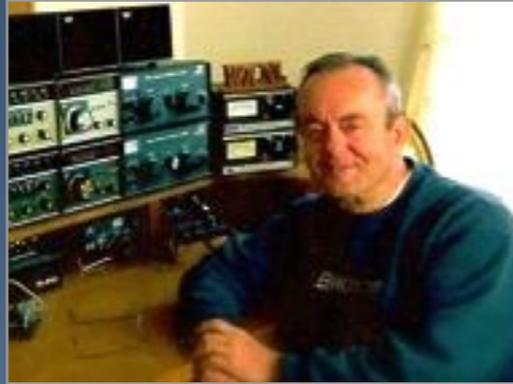
Under 5000'	1 point	(241 peaks)
5000' to <6000'	2 points	(248 peaks)
6000' to <7500'	4 points	(599 peaks)
7500' to <9500'	6 points	(916 peaks)
9500' to <11000'	8 points	(382 peaks)
11000' +	10 points	(75 peaks)

Virginia: 4000 feet = 10 points

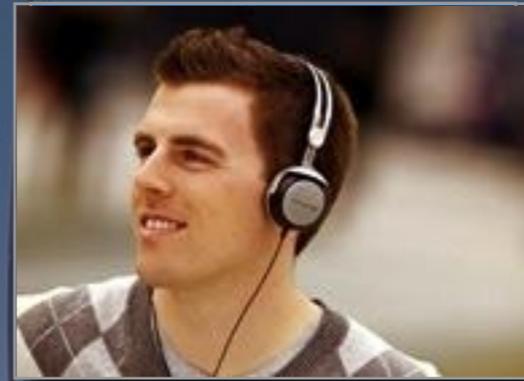
Participation Roles



Activators:
those who
“activate” a peak



Chasers: those who
chase the activator



Short Wave Listeners:
those who can
confirm a qso

Each group scores “points” for their participation. Points then total for awards.



Web Tools for SOTA



The screenshot shows the homepage of the Summits On The Air (SOTA) website. At the top, there is a navigation bar with links: Home, Joining In, Associations, Rules & Guidelines, Awards, Database, SOTAwatch, About SOTA, and Contact. Below the navigation bar is a large banner image of a snowy mountain range with the text "Summits On The Air" overlaid. The main content area is titled "Welcome to SOTA!" and contains several paragraphs of text explaining the program. To the right of the text are two photographs: one showing a person on a mountain peak with a radio antenna, and another showing a radio antenna on a rocky outcrop. At the bottom of the page, there is a copyright notice.

Summits On The Air

Home | Joining In | Associations | Rules & Guidelines | Awards | Database | SOTAwatch | About SOTA | Contact

Welcome to SOTA!

Summits on the Air (SOTA) is an award scheme for radio amateurs and shortwave listeners that encourages portable operation in mountainous areas. SOTA has been carefully designed to make participation possible for everyone - this is not just for mountaineers! There are awards for activators (those who ascend to the summits) and chasers (who either operate from home, a local hilltop or are even Activators on other summits).

SOTA is now fully operational in many countries across the world. Each country has its own Association which defines the recognised SOTA summits within that Association. Each summit earns the activators and chasers a score which is related to the height of the summit. Certificates are available for various scores, leading to the prestigious "Mountain Goat" and "Shack Slath" trophies. An Honour Roll for Activators and Chasers is maintained at the SOTA online database.

SOTA is designed to be compatible with other mountain users. Please see our [environmental statement](#) for details.

- [Learn how to get involved](#)
- [Catch up on real time information on who is activating what mountains!](#)
- [See a full list of Associations to find out which countries are involved](#)
- [See the Activator & Chaser Honour rolls at the SOTA Database](#)
- [Browse & Search through the full list of SOTA summits](#)
- [Find out more about the structure and management of SOTA](#)

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- www.sota.org.uk
 - The main site about the SOTA program
- www.sotawatch.org
 - Alerts, spots and a forum
 - Register to participate
 - Anyone can read information posted
- www.sotadata.org.uk
 - Log chasing and activating QSO's
 - Register to enter QSO's and see more detail

This page refreshes every 1 minute. Last updated **15:03:48** UTC.

Latest Spots

>> [more spots](#)

- Mon 14:54 **GW1INK/P** on [GW/SW-022](#) **5.3985 ssb**
Steve with his usual 59 signal (Posted by ON3WAB)
- Mon 14:49 **GW1INK/P** on [GW/SW-022](#) **5.3985 ssb**
(Posted by G4BLH)
- Mon 14:05 **HB9CKV/P** on [HB/GR-111](#) **3.746 ssb**
tks qso Hans (Posted by HB9AAQ)
- Mon 13:59 **G4OWG/P** on [G/SC-005](#) **5.3985 ssb**
(Posted by GW4BVE)
- Mon 13:24 **G4OWG/P** on [G/SC-005](#) **5.3985 ssb**
*In about 15 mins (Posted by G4OWG)

Upcoming Activations

>> [more alerts](#)

- Tue 08:30 **F5UKL/P** on [F/PO-146](#) **10.123-cw,14.061-cw,7.031-cw**
+/-30mn. Hope to meet you. (Posted by F5UKL)
- Tue 09:30 **OE/HA5AZC/P** on [OE/BL-011](#) **7.032-cw,145.525-fm**
(Posted by HA5AZC)
- Tue 11:00 **F6ENO/P** on [F/AM-330](#) **7.032-cw,7.099-ssb,10.115-cw**
AM-340 later, starting 5 day trip in F/AM, will try to alert (Posted by F6ENO)
- Tue 13:30 **G1OPV/P** on [G/WB-006](#) **145-fm,70-fm,433-fm**
Also 144 SSB if wx ok (Posted by G1OPV)
- Wed 11:00 **G1OPV/P** on [G/WB-015](#) **145-fm,70-fm,433-fm**
Also 144 SSB if wx ok (Posted by G1OPV)



Reflector Latest

[SOTA T Shirts, Sweatshirts and](#)

by GM4TOE, #19 by ON3WAB, 8mins ago

[SOTA NEWS SEPTEMBER 2009](#)

by G4SSH, #9 by M6WOW, 17days ago

[Elecraft K1 kit seeking a good](#)

by G14FLG, #4 by G8ADD, 7mins ago

[DD1LD-first Mountain Goat in C](#)

by DJ5KZ, #16 by G8ADD, 15mins ago

[2m Backpackers Contest](#)

by G3CWI, #35 by M3EYP, 54mins ago

[250+ Uniques](#)

by G3CWI, #10 by MM0FMF, 76mins ago

[wrong refernce !](#)

by HB9AFI, #28 by G4OIG, 5hrs ago

[O/T - Radio at school](#)

by M1EYP, #44 by M1EYP, 18hrs ago

[Worldwide SOTA first!](#)

by M0LKB, #2 by DL3SBA, 19hrs ago

[Video Upload](#)

by MM0ROV, #11 by G3CWI, 21hrs ago

[triple French SOTA F/AM-256-](#)

by F5HTR, #2 by F6ENO, 22hrs ago

[Don't panic !!!](#)

by G3VQO, #2 by GW7AAV, 25hrs ago

>> [more topics...](#)



Summit Information for W0/FR-019

Sundance Mountain - 3792m, 6 points

Association: USA(W0) Region: CO-Front Range

Latitude: 40 24 30 N, Longitude: 105 42 38 W

Today's Sunrise: 13:09 UTC, Today's Sunset: 00:28 UTC

To see the distance and bearing of this summit from your home QTH, please enter your home longitude and home latitude on the Edit Account form.

[Google Map](#) | [Open in Google Earth](#)

Resources

Feel free to add external links [↗](#) and articles relating to this summit that activators and chasers may find useful or interesting. Please read the disclaimer notice at the bottom of the page.

[Trip Report for Sundance](#) (Submitted by N7UN on 14 Aug 2011)

[Add new external link](#) | [Add new article](#)

DISCLAIMER: The SOTA programme and its Management Team is not responsible for the content of external internet sites or for information added by third parties to this website. Please contact the SOTA Management Team if you have concerns about submitted content. The existence of information relating to a particular location does not confer or imply any right of access. Participation in the SOTA Programme is at the risk of the participant.

Summit Activity

Total Activations: 1

First Activated by:

NSOTA on 04 Aug 2011

11 QSOs on these bands:

20m	11	100%
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Trip Report for Sundance

For Day 3 of my 3 day odyssey in RMNP, I chose to hike Sundance Peak (W0/FR-019-12,416\') in the Mummy Range just east of the Alpine Center. The goal was to meet up with 3 or 4 of the \"locals\" to demo a SOTA Activation at or near sunrise! W0LI/Rich, NQ40/Dan, and KD4PDW/David. Rich is retired in Estes Park, Dan is a Park Ranger and David is 2-week old ham but works in Estes Park.

Take Hwy 34 west and about 3-1/2 miles past the Rainbow Curves vista pullout, you will find an unmarked pullout on the downhill side of the road. I had a Nat'l Geographic Map #200 which has sufficient road detail and includes most trails and vista locations. See <http://www.summitpost.org/sundance-mountain/152726> for more information and my pictures at: <https://picasaweb.google.com/107464132574811713773/20110804SundancePk#>

There is no trail to the top of Sundance. Hike east along the road to you pass the drainage culvert in order to avoid wet, soggy marsh land. Then hike up towards the \"false peak\" then follow that along the cirque rim to the peak of Sundance. Fantastic views down the glacier cirque! The hike is easy and only takes about 45 mins or less to get to the top.

Early morning wx was great but be prepared for cold winds, even in the summer! We operated 20M-CW, then 20M-SSB while David was operating 2m FM. Good takeoff angles in all direction but especially the east and southeast from the summit.

Red Tape: RMNP is a fee entrance park. BUT the entrance gates open at 7 am! Get there well before 7 am for a gratis entry. There are numerous campgrounds within the Park but make sure you make your reservations early during the peak visitors months. The new Trail Head Ridge Road is a spectacular drive with numerous vistas along its path. Make sure you visit the Alpine Center for a good overview of the history of the area.

The local VHF repeater is 146.685 (-) with a 123.0 hz tone. It has good coverage in this area, especially above treeline. Also be prepared for winds as these peaks are not only high but quite exposed. And the local rule is to climb early and start your descent no later than noon as t-strms can form in 10\'s of minutes!



Earth



Satellite



- Traffic
- Photos
- Weather
- ✓ Terrain
- ✓ 40.40829849243... ● ✕



Sunjance Mountain



Trail Ridge Rd (Closed winters)



Trail Ridge Rd (Closed winters)



Trail Ridge Rd (Closed winters)

1000 ft
200 m



SOTA Awards



- Certificates
- 100, 250 and 500 points
- Mountain Goat
 - 1000 activating points
- Shack Sloth
 - 1000 chasing points
- SWL
- Association awards
- Further certificates at 2500, 5000, 10000 points



Bands and Modes

VHF+

- A lot of 2m FM
- SSB is popular
- About 60% qsos are CW

HF

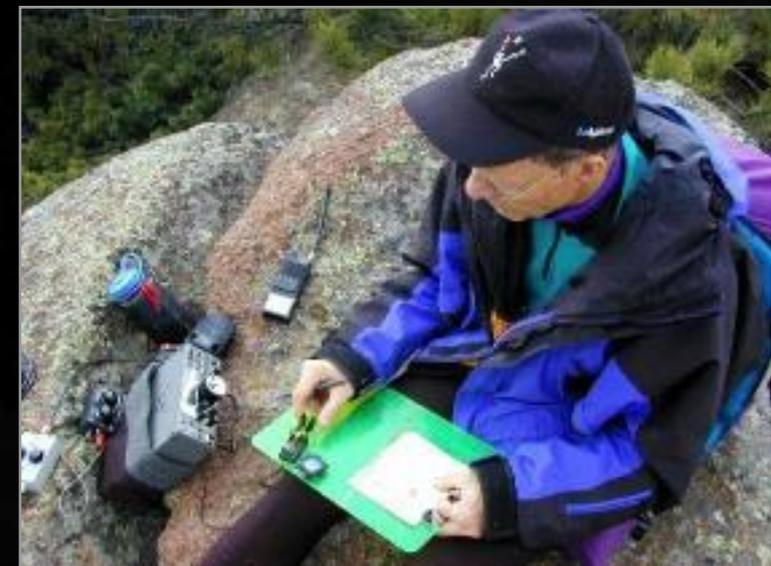
- A lot of CW, due to use of QRP equipment
- 10118 kHz, 14060 kHz, 14342.5 kHz are popular
- SSB is rapidly gaining popularity



Have a go!



- **You don't have to be a mountaineer!**
 - Some summits where you can almost drive to the top
 - You can participate from your shack
- But if you are a hiker...
 - There are many first expeditions yet to be done
 - It's a good excuse to enjoy the outdoors on the summit looking at the views
 - It's a great way to bring two hobbies together



Mountain safety



- **Safety is most important to SOTA**
- **Competence rule... Don't take risks**
- **SOTA does not add to the risks**
 - **Mountain peaks are dangerous already**
- **Golden rules**
 - **Don't take abnormal or unreasonable risks**
 - **Keep track of time, especially in winter**
 - **Don't get cold - Bring extra clothes!**
 - **Drink water, have food, be prepared for emergencies**





Principal Rules for Activators

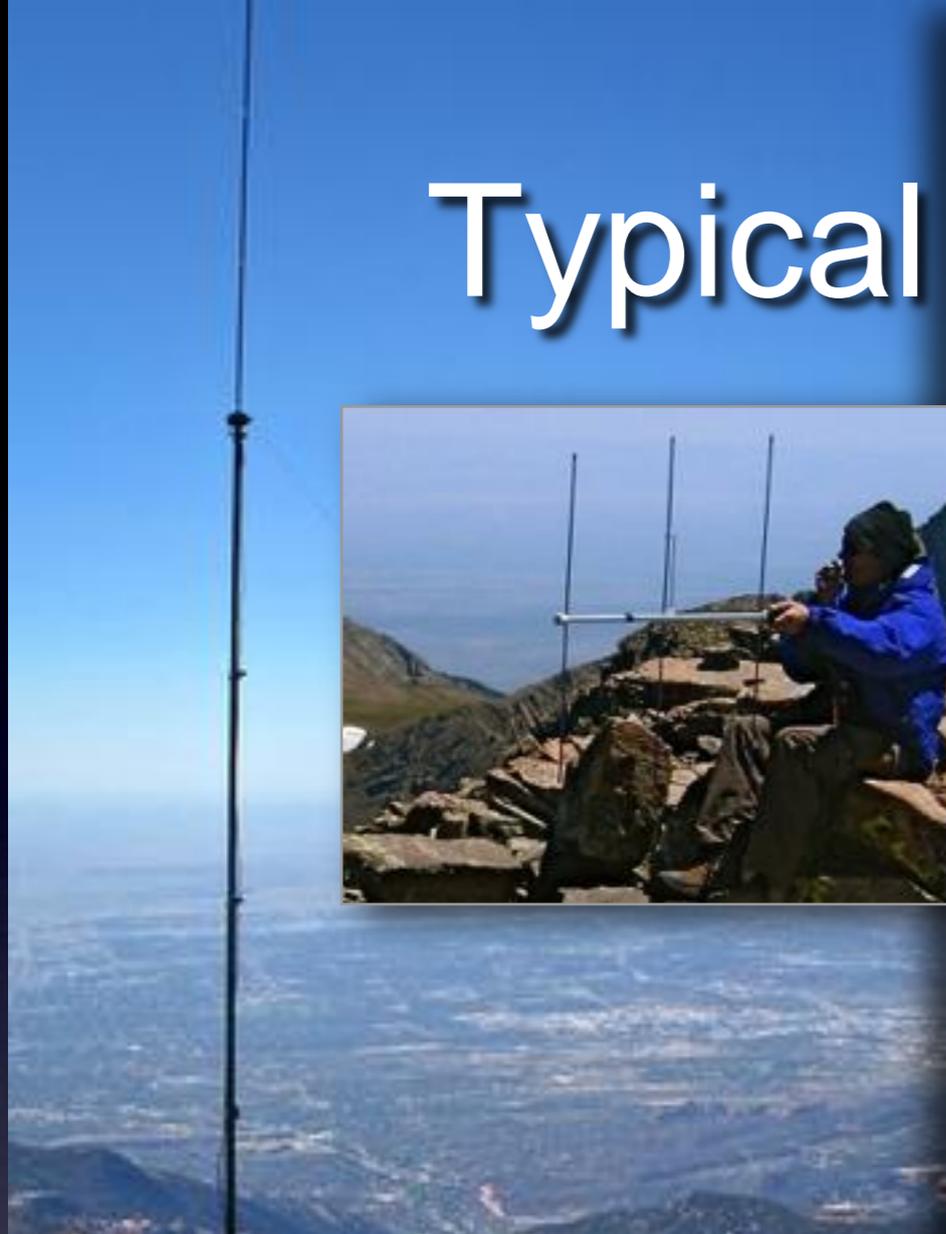
- Cannot operate connected to a vehicle in any way
- Must operate from portable power source
- Must carry all equipment to operating location
- Must make at least four QSOs to claim points
- QSO's via repeaters don't count



Equipment

- It's all a lot easier these days!
 - Equipment is smaller, lighter and more efficient
 - Battery technology has improved immensely
 - APRS and Cell phone SMS msg for self-spotting
- Typical activator radios
 - ATS-series, FT817, IC-703, Elecraft K1, KX1 the very popular KX3!
 - Various handy-talkies for 2m-70cm FM etc

Typical SOTA Antennas



Summary

- SOTA's program promotes Activating, Chasing and SWLing
- SOTA has great web tools:
 - Alerting
 - Spotting
 - Database
- Be careful – it's addictive!
- Most of all have FUN!





Possible Side effects

- Possibly improve your health by getting you moving, walking, or maybe even hiking And possibly meet some new friends who like to do same?
- It'll for sure improve your equipment's readiness. (go-bag)
- It'll improve your operating skills
- Improve you knowledge and awareness of the geography and topography of your area/region.
- You'll no doubt see trees, planets, flowers and wildlife no seen before!

