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Introduction

Volcanoes on the Air (VOTA) is an award scheme for activating and chasing the 53 volcanoes in the Auckland Volcanic Field. This document gives the rules and awards for VOTA.

The goal of VOTA is to get more radio amateurs on the air and enjoying portable operations in picturesque settings. The most important word in the previous sentence is “enjoying”.

VOTA will also give operators an opportunity to improve their operating skills and understanding of propagation, and to experiment with new antennas, radios and other equipment.

An important feature of VOTA is that the activation zones for the 53 volcanoes have been designed so there is at least one publicly accessible area in each activation zone.

There is a large variation among the awards in the effort required to earn them. The is intended to cater for a large variation among operators in the time they have to activate or chase volcanoes.

Some of the 53 volcanoes are natural high spots in a densely populated area and are good places from which to operate VHF and UHF hand held transceivers. This should appeal to new hams or those with little equipment.

The rules permit small groups of operators to perform activations and chases, with each operator using their own call sign. This would provide a good opportunity for NZART branches to mentor new hams. Activators would especially appreciate each member of a group calling them.

It is possible to drive at least partway up some of the 53 volcanoes. This should appeal to activators who

would like to take a lot of equipment on the activation or prefer not to walk all the way to the activation spot.

The names of the 53 volcanoes together with their location and other essential information about them are available on the ontheair.nz website.

The VOTA rules assume all activators and chasers act within the spirit of VOTA.

All inquiries about the awards should be emailed to the VOTA awards manager Philip ZL1PSH. His email address is zululima1psh@gmail.com

Definitions

Activation Zone (AZ). This is the area surrounding the centre of the volcano from which an activator must make all the contacts claimed for an activation.

Activating and related words. Activating occurs when a radio amateur operates from within the AZ of a volcano. This amateur is called an activator. A successful activation occurs when the activator has made the required number of contacts from the AZ of a volcano.

Chasing and related words. Chasing occurs when a radio amateur operates outside of the AZ and attempts to contact the activator. This amateur is called a chaser. A successful chase occurs when the chaser has a suitable contact with an activator.

General Rules

1. As with any on air activity in amateur radio, you must operate within the limits of your licence.
2. For all QSOs, you can arrange a sked using any reasonable means.
3. For all QSOs, you need to exchange at least the callsigns and signal reports.
4. All awards have endorsements. You can claim more than one endorsement per award and the endorsements for an award can be earnt at different times. You could for instance claim an endorsement for 20m and several weeks later claim an endorsement for a homebrew antenna.
5. Two or more volcanoes cannot be activated simultaneously.
6. The activation zone for each volcano is all points within 800m of the location of the volcano. The location is taken as that listed on the Wikipedia page for the Auckland Volcanic Field.
7. You apply for an award or endorsement by submitting an application by email to the awards manager. Each application must include a single log that contains all the QSOs claimed for the award or endorsement. Each application should also list the award or awards claimed.
8. For each QSO, the log must list at least the start date and time of the QSO, the band, the station worked, the sent and received signal strength, and the id of the volcano being activated. The information need not be in this order. If the chaser is also activating a volcano, the activator needs to include the id of that volcano if the activator wants to claim the QSO towards a volcano to volcano award.
9. Logs can be submitted as an Excel, ADIF or text file, or as plain text in the body of the email if the log has no more than 15 QSOs. If you cannot create logs using one of the above formats, please arrange with the awards manager to use a suitable format.
10. The recipient of an award or endorsement will receive a certificate in PDF format. In addition, the recipient's achievement will appear in suitable publications unless the recipient does not want this.
11. VOTA does not require the verification of contacts. When an operator applies for a VOTA award, they are confirming all the contacts they are claiming were made within the spirit of the VOTA rules.
12. Contacts via satellites are permitted. Contacts via other relay systems such as terrestrial repeaters, the internet, Echolink and Winlink are not permitted. Although satellites are

relay systems, contacts with them are permitted because these contacts are often more difficult to make than simplex contacts. Contacts using the other relay systems are not permitted because the contact would essentially be with the relay and not the other operator.

13. Cross-band contacts are not permitted.
14. All contacts an activator or chaser claims for an award must have been made using the same call sign.
15. If an operator has a disability that prevents them from operating from the activation zone of a volcano, the operator can ask the awards manager for an alternative way of activating the volcano.
16. Activators and chasers are responsible for their own safety.
17. Activators and chasers are encouraged to leave only footprints and take only photographs and good memories. No activator or chaser is to interfere with other people's enjoyment of volcanoes, or damage the property of others.
18. All QSOs claimed for awards must have been started after August 31, 2024 UTC.

Rules for Activators

1. To successfully activate a volcano, the activator must have a two-way contact with each of four different operators (not stations).
2. An activator must use the same call sign throughout an activation.
3. For each of the four contacts, the activator and all their equipment must be within the activation zone of the volcano.
4. The four contacts must be on the same UTC day.
5. An activator can claim at most one activation of a volcano per UTC day towards awards.
6. An activator can operate from a vehicle if doing so does not violate New Zealand's laws or local by-laws. The vehicle can be used to support masts and antennas.

Rules for Chasers

1. To successfully chase a volcano, the chaser must have one two-way contact with a station activating the volcano.
2. A chaser can claim at most one successful chase of a volcano per UTC day towards awards.

Awards

For all awards, an individual award cannot be claimed using a mixture of activated and chased volcanoes.

Unique Volcanoes

This set of six awards is for activating or chasing an increasing number of unique volcanoes. The awards are named after the six highest volcanoes in the Auckland Volcanic Field. The first award in the set is the Maungarei / Mount Wellington Award (135m). The last award in the set is the Rangitoto Award (260m).

1. Maungarei / Mount Wellington Award. Activate or chase five unique volcanoes.
2. Ōwairaka / Mount Albert Award.
   Activate or chase 10 unique volcanoes.
3. Ōhinerau / Mount Hobson Award.
   Activate or chase 20 unique volcanoes.
4. Maungakiekie / One Tree Hill Award.
5. Activate or chase 30 unique volcanoes.
6. Maungawhau / Mount Eden Award.
   Activate or chase 40 unique volcanoes.
7. Rangitoto Island Award.
   Activate or chase 53 unique volcanoes.

In the above sequence of awards, the QSOs claimed for the previous level can be claimed for the current level. When claiming the QSOs from the previous level, the applicant's log must include those QSOs. Including these QSOs saves the awards manager time, an important consideration, and reduces the chance of errors in processing award applications.

Same volcano multiple times

This set of four awards is for activating or chasing the same volcano an increasing number of times. The four awards are name after parts of a volcano.

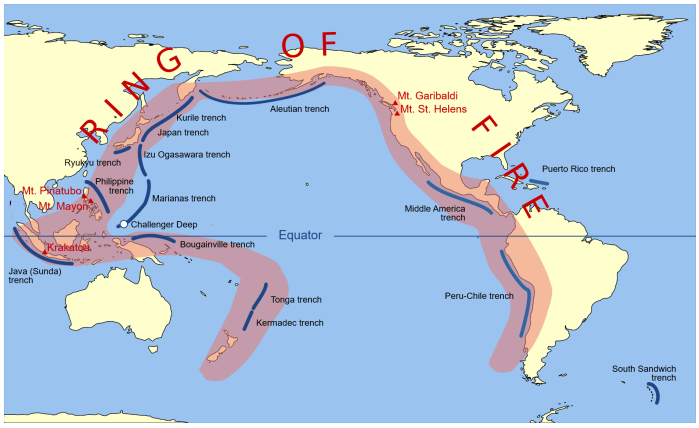
1. Conduit award. Activate or chase the same volcano 10 times.
2. Throat award. Activate or chase the same volcano 20 times.
3. Crater award. Activate or chase the same volcano 30 times.
4. Vent award. Activate or chase the same volcano 40 times.

Each of the above awards can be earnt for more than one volcano.

Ring of Fire

This award is for activators only and is for making 450 contacts from the same volcano. All contacts an activator has made from the volcano can be claimed towards this award i.e. the contacts do not need to part of a successful activation.

This award can be earnt for more than one volcano. All 53 if you are very keen. This would be a total of at least 23,850 contacts.



The award is named after the Pacific Ring of Fire. This is a collection of about 450 active volcanoes stretching from the Andes Mountains of South America all the way north to Alaska and then across the Pacific and down through Japan, across the top of Indonesia and PNG and down to New Zealand.

Multiple volcanoes on the same day

This set of four awards is for activating or chasing an increasing number of unique volcanoes on the same UTC day. An activator or chaser can claim each of the four awards more than once but no more than one award per UTC day.

The award is named after the Volcanic Explosivity Index VEI. The VEI is a logarithmic scale that goes from the smallest value of VEI-0 to the large value of VEI-8 (the Oruanui eruption of Taupō Volcano was a VEI-8).

1. VEI-0 award. Activate or chase three volcanoes on the same UTC day.
2. VEI-1 award. Activate or chase five volcanoes on the same UTC day.
3. VEI-2 award. Activate or chase seven volcanoes on the same UTC day.
4. VEI-3 award. Activate or chase nine volcanoes on the same UTC day.
5. VEI-4 award. Activate or chase eleven volcanoes on the same UTC day.
6. VEI-5 award. Activate or chase thirteen volcanoes on the same UTC day.
7. VEI-6 award. Activate or chase fifteen volcanoes on the same UTC day.

Volcano to Volcano

This set of awards is for unique combinations of volcano to volcano (V2V) contacts. For these awards, a V2V from volcano A to volcano B is treated as the same as a V2V from volcano B to volcano A. Hence, if an activator has claimed a Maungawhau to Rangitoto V2V, a Maungawhau to Owairaka V2V could be claimed but a Rangitoto to Maungawhau V2V could not.

1.	Cinder Award	25 unique V2Vs.
2.	Composite Award	50 unique V2Vs.
3.	Shield Award	75 unique V2Vs.
4.	Compound Award	100 unique V2Vs.
5.	Cinder 2 Award	125 unique V2Vs.
6.	Composite 2 Award	150 unique V2Vs.
7.	Shield 2 Award	175 unique V2Vs.
8.	Compound 2 Award	200 unique V2Vs.

The V2V awards continue to higher levels using the pattern established by the eight awards listed above.

Ruapehu



This set of five awards is for earning an increasing number of points from activating or chasing on the 2m band and above. The aim of the awards is to increase the activity on these bands.

The points for the bands are as follows

- Two points for a successful activation or chase on the 2m band.
- Four points for a successful activation or chase on the 70cm band.
- Eight points for a successful activation or chase on the 33cm band and above.

The names of the five awards and the minimum number of points to earn them are

Ruapehu 1. 100 points.

Ruapehu 2. 200 points.

Ruapehu 3. 300 points.

Ruapehu 4. 400 points

Ruapehu 5. 500 points.

Endorsements

A wide range of endorsements are available for awards. The awarding of endorsements has several aims. These include recognising skillful operating, and encouraging operators to use low power or simple equipment and to learn new operating techniques,

The endorsements are the following.

Band: The same band; any band 6m and above; any band 2m and above.

Mode: CW; any digital mode; a specific digital mode; any mode that has a bandwidth of no more than 500 Hz.

Power: QRP, QRPp and QRPpp. These power levels are discussed in the Appendix.

The other endorsements are for satellite contacts, and using homebrew transceivers, homebrew antennas, or simple wire antennas (this are defined in the Appendix).

Acknowledgements

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The photograph of Rangitoto on the first page of the rules is in the public domain and is from the Wikipedia page for Rangitoto. The map of the Pacific Ring of Fire is in the public domain and is from the Wikipedia page on the Pacific Ring of Fire. The photograph of Mount Ruapehu's crater lake is from the Wikipedia page for Mount Ruapehu. The photograph is used by permission of Michal Klajban, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=48336650

Appendix

Simple Wire Antennas (SWAs)

The types of antennas explicitly recognised as SWAs for the VOTA awards are the following

- Dipole: horizontal, vertical, sloping, inverted vee, rotatable;

- Long wire: any length or configuration including a closed loop;
- Random wire: any length or configuration including a closed loop;
- Inverted L;
- G5RV and ZS6BKW;
- Windom;
- Zepp: regular or extended;
- Vertical: ground or ground-plane mounted
- Mobile whip: vehicle or home use;
- Collinear array with a length of one half-wavelength or less at the operating frequency.

If you are using a type of antenna that is not on the above list but that you believe qualifies as a SWA, please email the awards manager for a ruling on whether your antenna does qualify.

QRP

If an endorsement requires QRP QSOs, each QSO must be started using a transmitter power of five watts or less for CW or data modes, and 10 watts PEP for voice. This power level must be maintained throughout the QSO. You cannot start a QSO at more than the maximum allowable power, then reduce the transmitter power to the maximum allowed or less and claim the QSO as a QRP QSO. Nor is it permitted to raise the transmitter power above the maximum allowed during a QSO. The other station in a QRP QSO can use any legal power and antenna.

QRPp and QRPpp

The definition of QRPp and QRPpp is the same as for QRP except the maximum allowable power is as in the table below

	CW or Data	SSB (PEP)
QRPp	1W	2W
QRPpp	100mW	200mW