



**Amateur Radio Relay Group**  
K7RPT Repeater System  
*Public Service through Radio Technology*



Date: 08.12.2017  
To: All Eclipse Information Net Operators, Repeater Owners and Participating Net Control OPS  
From: Marc Peterson, W7PM, with ARRG and the K7RPT Repeater System  
RE: Now Expanded -Oregon Solar Eclipse Help & Information Amateur Radio Net

During the Week of the Eclipse, the **Oregon Eclipse Help & Info Net** will be active for up to five days surrounding the August 21<sup>st</sup> Eclipse date. Beginning on Thursday evening, August 17<sup>th</sup>, 2017, much of the K7RPT and W7GC repeaters will be combined to form a seamless communication ‘super’ channel.

This Net will use Eleven of Oregon’s best wide-area repeaters, all of which will be linked together to become one of the State’s only seamless Amateur Radio Communications platform that will specifically provide coverage along the Eclipse path. The Eleven Repeaters will be linked by long haul Radio Links and will not rely on any landline, cell or the internet connection, which can fail under heavy use that will be caused when the Million + visitors descend on Oregon next week.



The repeaters and temporary site links are being built and provided by the Amateur Radio Relay Group (ARRG) and the Oregon Coast Repeater Group (OCRG). You can learn more about the Eclipse Information Net and download the latest updated version of this guide by visiting [www.arrg.org/events.htm](http://www.arrg.org/events.htm)

**Important Notice to all Visitor’s - Oregon has a very tough Distracted Driving Law**

Please do not touch or operate a cellphone or other device while driving or even stopped at a stop light. You can use Hands Free devices using steering wheel buttons, just be careful not to have it up against your face or touch it if it’s on your cradle.

After a terribly long fight with Legislators, Ham’s finally were exempted from the law, but you have to carry a copy of your Amateur Radio License and present it as a defense if you get pulled over during your visit to Oregon.

There are more parts to the new Law, so check out this well written story:

<http://www.statesmanjournal.com/story/news/2017/06/29/legislature-clarifies-hands-free-only-legal-way-drive-oregon/440982001/>

## Guidelines to follow while using the system during 4-day Informal and the Formal 1-day Net

- 1- The Solar Eclipse Observation **Formal Net** period will take place on the morning of the Eclipse event, August 21, 2017 and starts around 6 a.m. and will go through 12 Noon. The Eclipse Net Control Operators, as well as other Helpers will be taking Observation reports from the dozen or so Official Eclipse Observation Amateur Radio Stations which will be operational along the path of 'totality.' The Formal Net is a Directed Net, so please do your best to go through Net Control to make any call or contact.
- 2- During the Formal Net period, our NC will be taking check-ins and reports from our Official Eclipse Observer/Reporting teams, which are in operation along the Eclipse path.
- 3- Reports of celestial objects or planet or star sightings will be reported to Net Control and passed along to the ARRG Team embedded with OMSI and NASA at the Salem Fairgrounds.
- 4- During the **Informal Net period**, where we will have Net Control and Helper stations listening on a stand-by basis so they may assist any station in need. This part of the Net will be more informal in nature and not a 'directed net'. All Amateur Radio Operators are encouraged to participate by keeping the Net updated by providing traffic and incident reports with observations that will help others navigate the area. Amateurs will be allowed to directly make calls and contact other stations without needing to go through a Net Control.
- 5- Hams who use the system to make contact with other Hams may do so freely as long as they are not interfering with other informal Net Operations. Hams may call and connect with other Hams and may engage in short QSO's, but please keep all QSO's short and under 5 minutes in length.
- 6- Hams who make contact with another Ham, should consider moving off to another frequency so as to keep the entire system free for emergency traffic.
- 7- All Users are asked to add a **3 second pause** between each transmission to allow others to break in and put a call out for assistance, which any NC, Helper or participating station may respond to accordingly.
- 8- Lastly, during Informal or Formal Net periods, we may be asked to pass emergency traffic and messages to communities which might be cut off because of total failure of the landline/cellular/internet systems due to overloading caused by the million + unsuspecting visitors.
- 9- The Repeaters used for this net have been requested months in advance and will be used for the Net as described. Unless we receive a special request from an official OEM, ARES or CERT lead or an authorized Public Safety Agency, the eleven linked repeaters will be used as planned.
- 10- However, when officially requested, the entire Net and our 11 repeaters may be turned over to the OEM, ARES or CERT teams as they provide special emergency assistance during this event.
- 11- Any official request to use (or take over our system) needs to be approved by Marc Peterson, W7PM at [w7pm@live.com](mailto:w7pm@live.com) or via Cell at 503-935-9799

During the Informal 4-day Net period, our NC/Monitor Helpers will be providing assistance to motorists who are travelling to and from their Eclipse viewing location. We are there to help Amateur Radio operators who will be visiting Oregon for the Solar Eclipse or just travelling through the area during Eclipse week.

The net will give travelers the ability to ask any active Net Control or Monitors for assistance with directions, traffic conditions or pass health and welfare messages as may be required. With the possibility of the entire landline/cell system becoming overloaded, the Oregon Emergency Management or ARES might request to activate their own emergency net and may need to use the linked system to pass emergency messages and other welfare traffic.

### **Informal Net Operations**

Beginning on Thursday Night, **August 17<sup>th</sup>, 2017**, the 11 repeaters will be networked together into one super group. The repeaters will remain linked up until **Tuesday, August 22, 2017**, or later, if the situation dictates it should stay in operation.

During the informal net period, Hams may use the system as normal, but please keep all conversations as short as possible and under 5 minutes in length. Please leave long pauses between transmissions to allow emergency breaks.

The system **will be** carrying the regularly scheduled nightly **ARES D1 Net at 7:30 p.m.** and the **Cascade Council Scout Net on Sunday at 4:30 p.m.** The **CARES Group** meets on Sunday Night at 7:00 p.m. The system will also carry any normally carried nets which utilize the OCRG repeaters.

### **Formal Net Operations**

On the morning of the actual Eclipse, Monday, August 21<sup>st</sup>, 2017, the formal ARRG/OTVARC Official Eclipse Observation net will be held. The Net will be led by Pat Roberson, W7PAT, who will be set up at one of the ARRG Official Observation Stations in Salem. The net will start sometime after 6 a.m. and last until 12:00 p.m. (or later if the situation dictates).

### **Participating in the formal Net**

The Net will be held live on the K7RPT and OCRG repeater system. Any station along the Eclipse Path may check in on the net with observation reports. Please be advised that the Local and National media (including NASA TV) are covering the event live and we have been forewarned that some of our Net traffic as carried over our PA system, will be carried live or recorded for later use.

NASA TV and many TV Networks will be carrying the event live to millions around the world and luckily for the ARRG team, we were invited to be embedded with the OMSI team, close to all the action and within a couple hundred feet of the NASA booth. We've been asked to provide our frequency list to the broadcast pool, so there is a decent chance that NASA TV or a TV Broadcaster will be listening to the Formal Net. Please be professional and keep your transmissions and reports short and to the point.

## **Regular Hams can participate too!**

Any station along the Eclipse Path may check into the formal Solar Eclipse Net to report partial or full totality reports, other observations about noise decrease or increase on any of your test bands (HF or VHF/UHF).

Please report sightings of any bright stars or other celestial objects that might appear during the Eclipse, stating which direction you are looking and at about what elevation the object is. The ground or horizon would be 0 degrees up, a small mountain or hill about 10-20 miles away would be about 6-10 degrees up, and looking straight up would be 90 degrees.

When checking into the Net, please use your callsign and location. If you'd like to be an official reporting station on the Net and you are in the path of totality, please email Marc Peterson, W7PM at [w7pm@live.com](mailto:w7pm@live.com) asking to be added to the Official reporting station list.

## **Net Control and Travelers Assistant Help**

<u>Callsign</u>	<u>Name</u>	<u>NC Type</u>	<u>Individual or Team</u>
W7PAT	Pat Roberson	Net Control for Actual Event	ARRG
KC7NYR	Mark Pierce	Monitor/Traveler's Assist	ARRG
W0KCF	Kevin Fox	Monitor/Traveler's Assist	ARRG
W0DSF	Debbie Fox	Monitor/Traveler's Assist	ARRG
W7PM	Marc Peterson	Net Control/Monitor/Helper	ARRG
K7RPT	ARRG Team	Net Control/Monitor/Helper	ARRG

## **Official Observing Station List (in order of totality)**

<u>Location</u>	<u>Name</u>	<u>Call</u>	<u>Individual or Team</u>
Rickerall	Stuart Fox	K6MQA	Individual
West Salem	Pat Roberson	W7PAT	ARRG
Salem – Riverfront	Damon Talbot	KC7NEC	Individual
Salem OMSI/NASA	Marc Peterson	K7RPT	ARRG
	Tony Hair	K7RPT	ARRG
	Will Lucas	K7RPT	ARRG
Silver Falls State Park	Matt Mohlman	AD7WR	Individual
Madras	Josh Richesin	K7JLR	ARRG
	Shelly Richesin	K7SSR	ARRG
Madras Airport	Bill DeBuhr	K7GPN	Individual
Prineville	Lynn Burrell	KE7WKM	Individual

## The ARRG and OCRG Eclipse Information Net frequencies

<b>Oregon Coast to Salem:</b>	440.900 + 118.8Hz	Mt. Hebo	OCRG System
	444.750 + 118.8Hz	Newport	OCRG System
<b>Portland Metro West</b>	444.400 + 100.0Hz	Chehalem	K7RPT/ARRG
	147.320 + 100.0Hz	So. Saddle	K7RPT/ARRG
	442.325 + 100.0Hz	So. Saddle	K7RPT/ARRG
<b>Astoria North Coast, SW Wa.</b>	146.720 - 114.8Hz	Wickiup Mtn.	K7RPT/ARRG
<b>Salem to Mt. Hood</b>	147.120 + 100.0Hz	Mt. Hood	K7RPT/ARRG
	444.225 + 100.0Hz	Mt. Hood	K7RPT/ARRG
<b>Mt. Hood to Redmond</b>	147.040 + 114.8Hz	Redmond	K7RPT/ARRG
<b>Madras and Prineville</b>	442.225 + 114.8Hz	Wide Area	K7RPT/ARRG

## More about what you will see

Proper advance planning and promotion will help communities in the eclipse path be prepared for the biggest astronomical event of the century.

On the beach in Oregon, just north of Newport, the shadow first touches land at about 10:15 in the morning, and will experience a full minute and fifty seconds of totality.

The actual centerline of the eclipse path hits solid ground a full six seconds later, and plunges Lincoln Beach and Depoe Bay into darkness for 1m58s!

It takes only about two minutes for the shadow to race eastward toward its first date with a large population of folks who will be breathlessly awaiting its arrival.

Dallas, Albany, Corvallis, Lebanon, Philomath, McMinnville, Woodburn, and yes, Salem itself, will experience various lengths of totality (based on their varying distances from the centerline); on the steps of the State Capitol in Salem (the first of five state capitals the shadow will visit), lucky viewers will be treated to 1m54.5s of shadow at just after 10:17am.

The eclipse travels through the forests of central Oregon, hitting the mountains at Madras and Warm Springs at about 10:19. Mitchell and Prairie City are next, and the shadow leaves Oregon just north of Ontario.

Actually, Ontario gets 1m23s of totality at 11:25am MDT, but folks there would be better served to head north to the rest area north of Huntington on I-84, or into Idaho on US 95 between Midvale and Weiser, for better than 30 seconds more totality!

The Majority of the Pacific Northwest IS NOT in the path of totality, but will still witness a partial eclipse ranging from 99% to 88%.

The OMSI/NASA Solar Eclipse Viewing Party at the Salem Fairgrounds will include science lectures, astronomy-related community groups, entertainment.

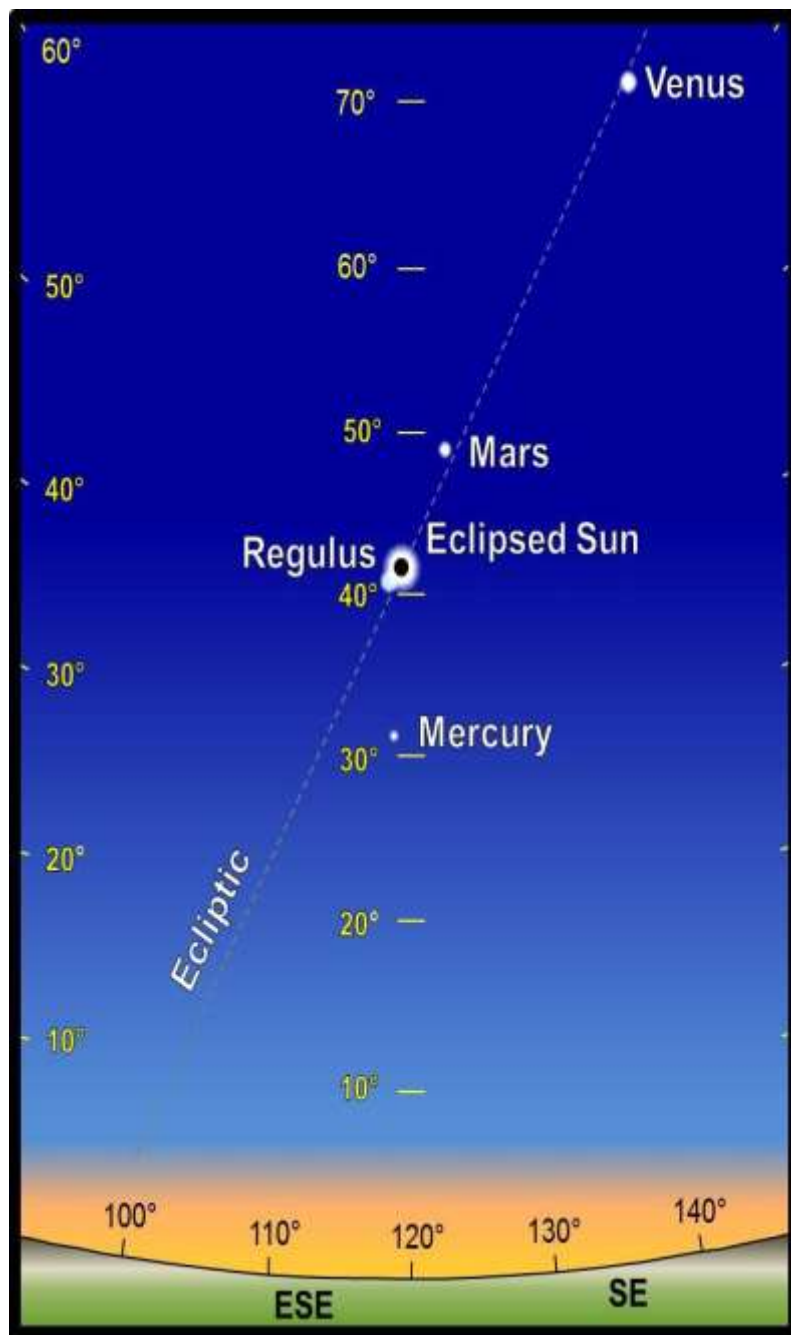
And at OMSI's request, ARRG is setting up and manning a complete Amateur Radio station and providing a live reporting network via Amateur Radio for this year's event. The live reporting will come over the loudspeakers and will carry up to the minute reports from various Amateur Radio teams stationed across the Eclipse path.

On August 21, 2017, the total solar eclipse happens when the moon moves right in front of the sun, covering it completely for a very short time. It darkens the whole sky and allows you to look right at the sun through the use of special solar viewing glasses.

Before and after Totality, when the Sun is in a partial or complete eclipse, do not look at the event without some sort of approved Eclipse Viewing glasses, as there are still harmful UV light rays that could damage your retina.

Some of the brighter Stars will come out during totality, and participants might see Mars, Mercury and Venus. You might be able to see Regulus, which is a bright star that normally the sun's light blocks out from view.

Take a quick look around the area, because the horizon will glow with a 360-degree sunset and even the temperature drops and day turns into night.



If you have any questions, please contact me at [w7pm@live.com](mailto:w7pm@live.com)

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Marc Peterson, W7PM  
[www.arrg.org](http://www.arrg.org)