Oregon Real-time GNSS Network Update

OGUG
Annual Meeting
14 June, 2019

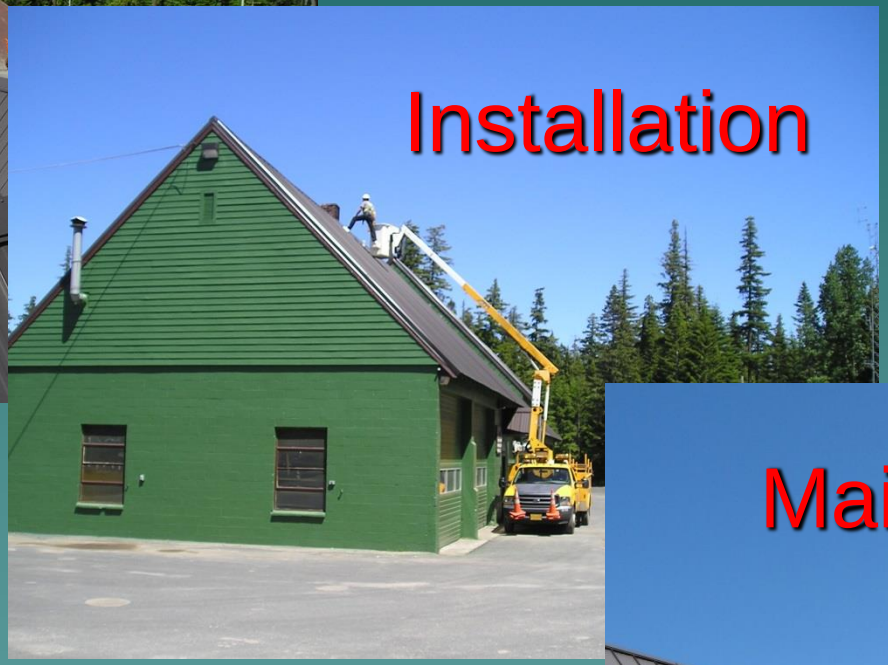
Oregon Department of Transportation

Recon

Support

Randy Oberg &
Eric Zimmerman

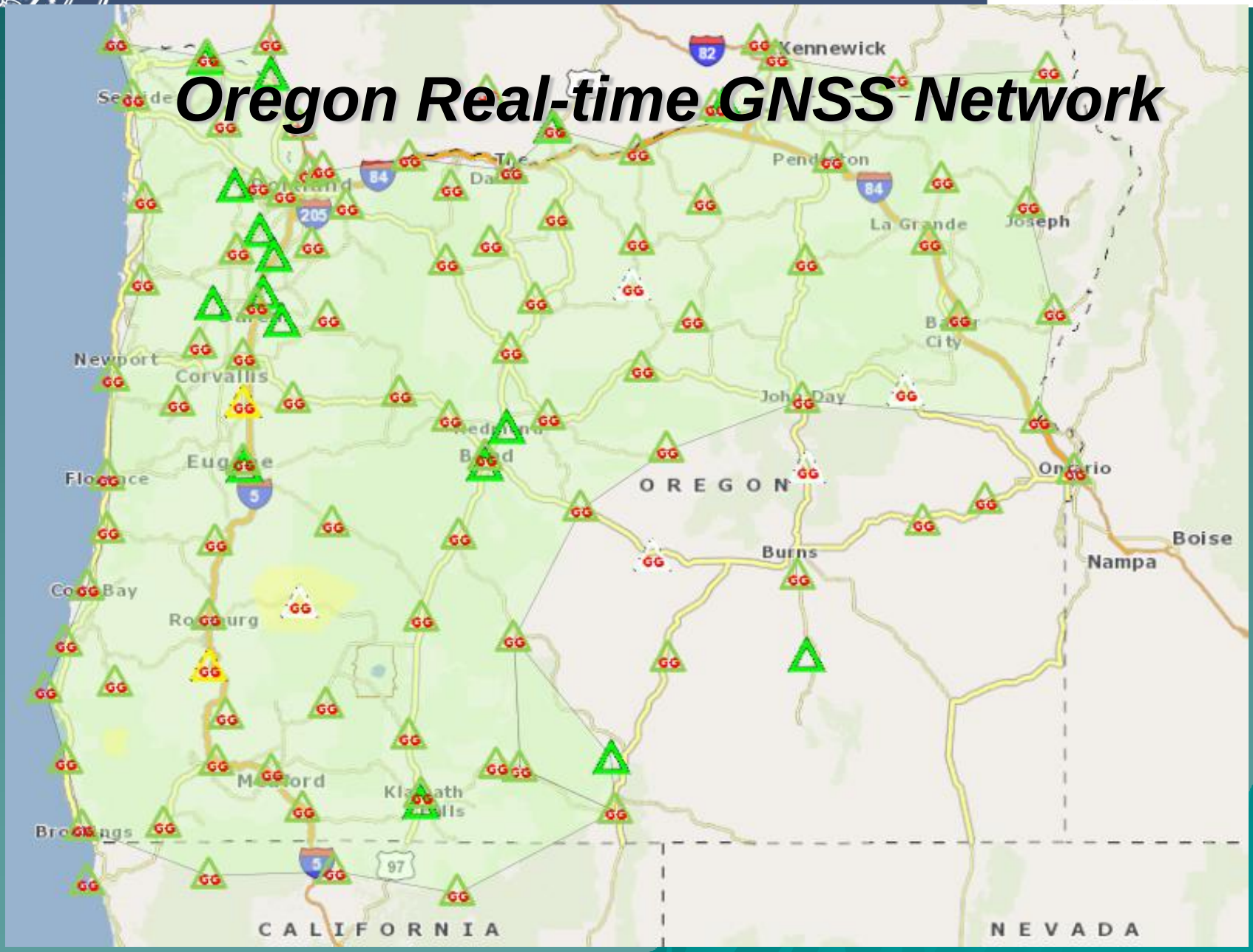
Installation



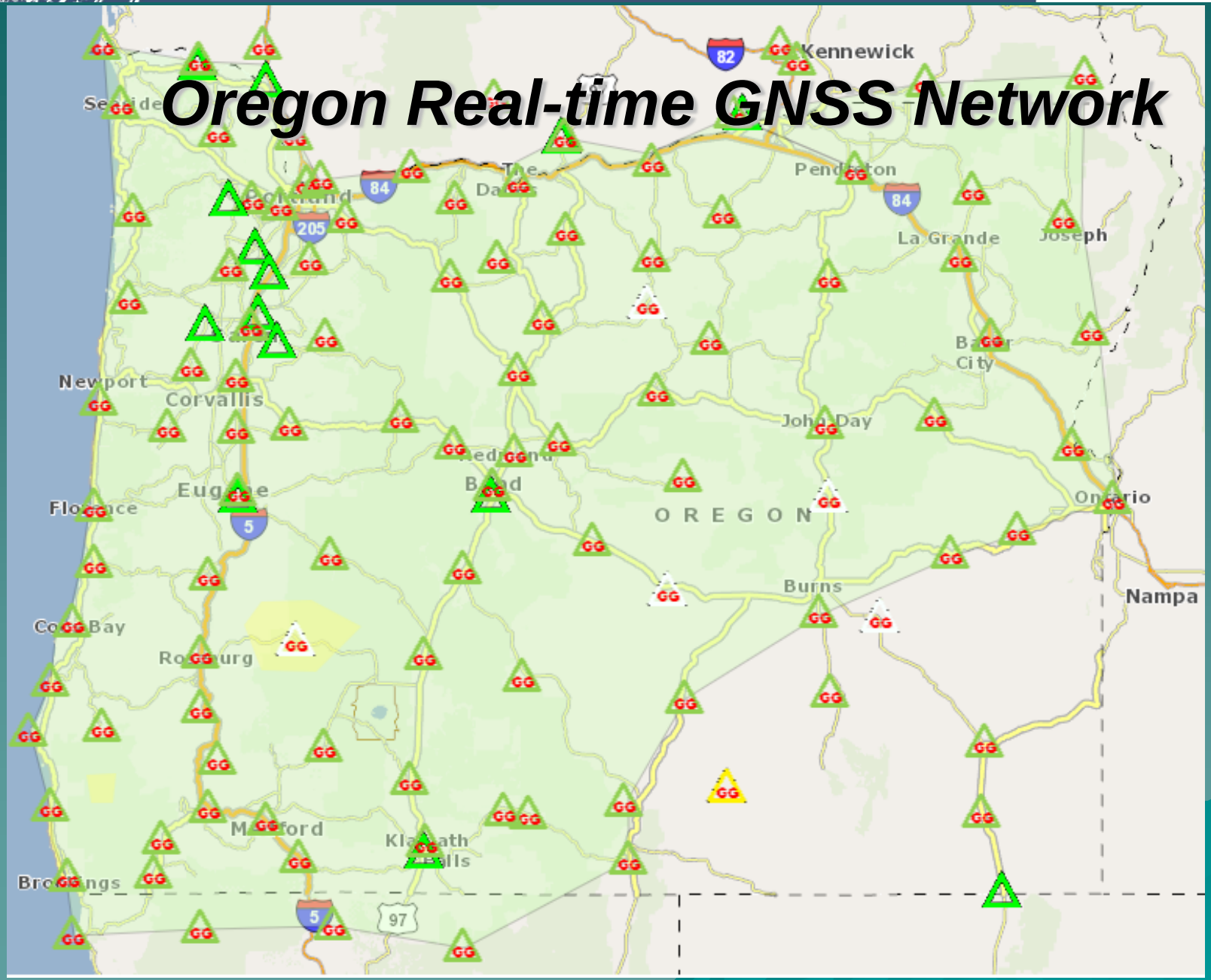
Maintenance

Monitoring

Oregon Real-time GNSS Network



Oregon Real-time GNSS Network



ORGN Facts

- How many Stations in the ORGN network?
  - 112 Stations (40 ODOT Owned)
  - 98 In the Network (104 in July)
  - 14 Redundant
  - 5 Planned
- How many ORGN stations are NGS CORS?
  - 22 CORs
  - 16 in the Network
  - 6 Redundant
- How many ORGN stations are GLONASS?
  - 93 Total (95 with STAY and WDBN)
  - 88 in network

NTRIP Products

167.131.109.57

- Port 9879
  - All single-base correctors by name: both GPS-only and GG.
- Port 9881
  - Network (multi-base) & nearest-single-base correctors: all are GPS-only
- Port 9882
  - Network (multi-base) & nearest-single-base correctors: all are GG

Let the Geodetic Group know if we are missing any you need

Additional Resources

- Post Processing Data
  - 5 sec RINEX, self serve on the web page ftp
  - Data by request (1 sec archived)
    - Leica .m00
    - Septentrio .sbf
    - RINEX
- Coordinates for stations not in our network but computed in our network adjustment.

RINEX Request Form

Oregon Department of Transportation

ORGN RINEX DATA REQUEST

The Oregon Real-time GNSS Network is a partner based network with many contributors, if an ORGN partner is already providing RINEX files on-line for their site, we will not duplicate those RINEX files on the ORGN website and suggest you contact those partners for special data requests, however, we will provide a link to the partner's RINEX data, available by clicking the station on our ORGN NAD83 (2011) epoch 2010.00 Coordinates list or by using the Geometronics Toolkit. Most users will find the data they need at theorgn.net RINEX Data Files (One hour RINEX files collected at a 5 second epoch rate). For special data rates, specific duration periods, file sizes, please use the form below to request.

LAST NAME	FIRST NAME	TITLE

COMPANY / AGENCY NAME	COMPANY / AGENCY TYPE (SELECT ONE)
STREET ADDRESS	PHONE

CITY	STATE	ZIP	MOBILE PHONE

E-MAIL ADDRESS (CONFIRMATION WILL BE SENT TO THIS ADDRESS)	FAX

STATIONS REQUESTED

DATA RATE

☐ 0.10 second ☐ 1 second ☐ 5 second ☐ Other:

FILE LENGTH

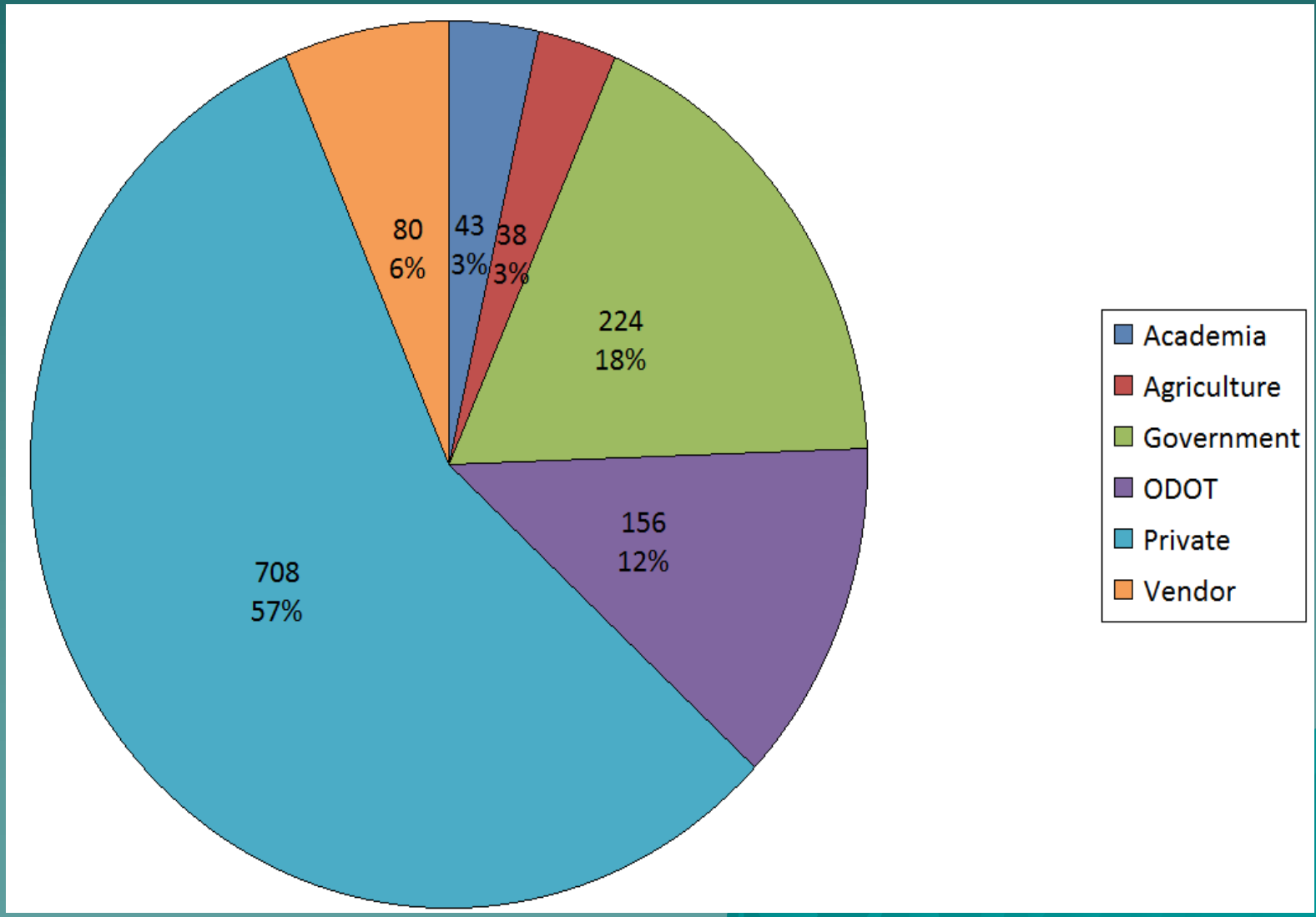
☐ 1 hour ☐ 12 hour ☐ 24 hour ☐ Other:

DURATION

Start date: Start time: End date: End time:

COMMENTS

Over 1000 Rover Accounts

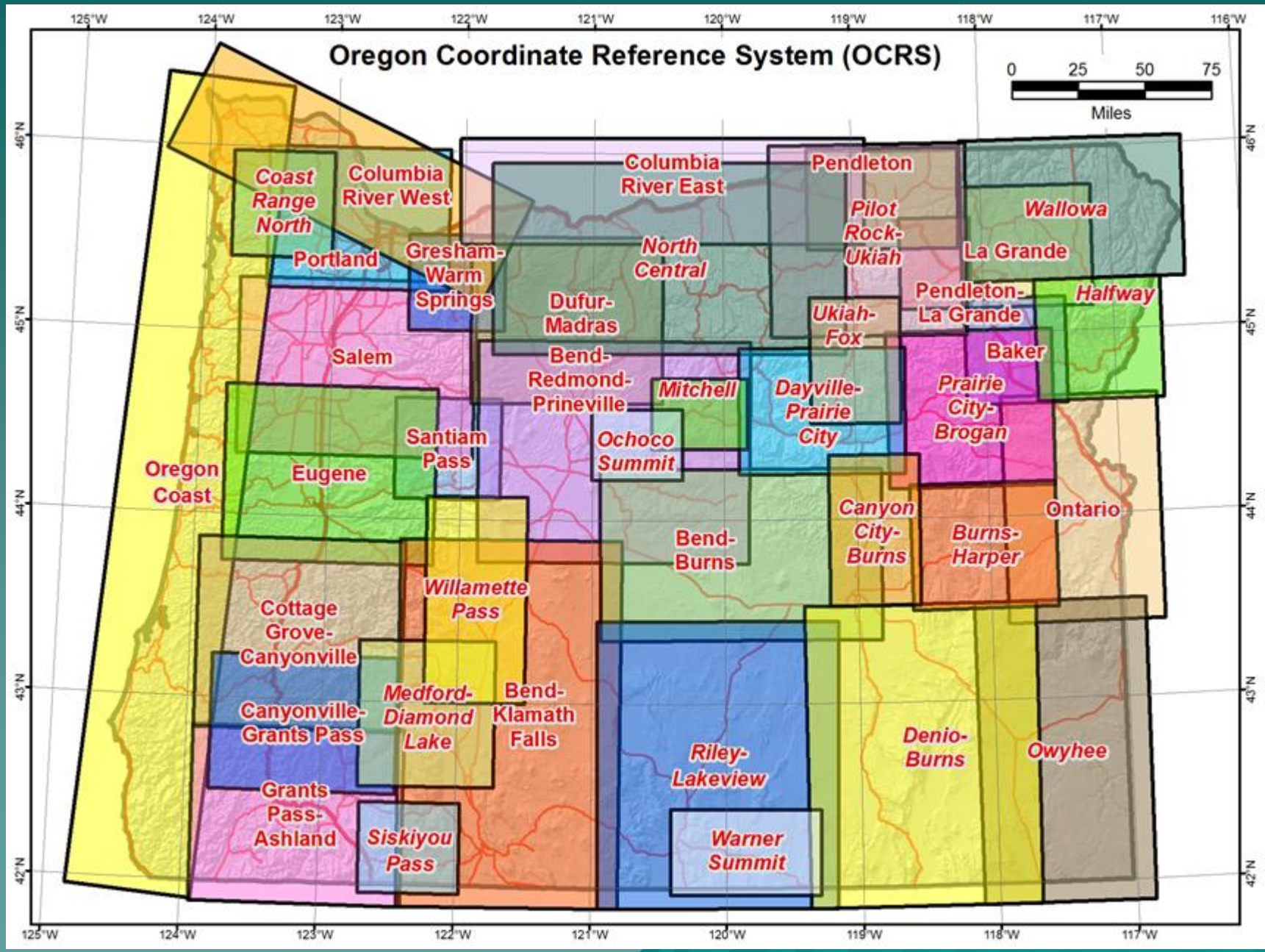


FAQs

- What is the difference between MAX & IMAX?
- How far outside of the network can you go and still get Correctors?
- How far away from the master station can I be and still get correctors?
- Why does my rover change master station (bounces between master stations)?
- Is there a way to get ORGN coverage when I have poor cell coverage?
- Do I need to use the ORGN to use the OCRS?

The ORGN move to NATRF 2022

- The ORGN will change Realization from NAD83 2011 epoch 2010.00 within 6 months of NGS releasing NATRF2022
- The ORGN will be in line with the current National Spatial Reference System (NSRS)
- The ODOT will re-compute coordinates on all ORGN stations using OPUS Projects.
- Notifications will be made in advance concerning the date of the move to NATRF2022.


Oregon Coordinate Reference System (OCRS)
0 25 50 75
Miles
125°W 124°W 123°W 122°W 121°W 120°W 119°W 118°W 117°W 116°W
46°N 45°N 44°N 43°N 42°N
Coast Range North
Columbia River West
Columbia River East
Pendleton
Pilot Rock-Ukiah
Wallowa
La Grande
Portland
Gresham-Warm Springs
North Central
Dufur-Madras
Ukiah-Fox
Pendleton-La Grande
Halfway
Salem
Bend-Redmond-Prineville
Mitchell
Dayville-Prairie City
Prairie City-Brogan
Baker
Santiam Pass
Ochoco Summit
Oregon Coast
Eugene
Canyon City-Burns
Ontario
Bend-Burns
Burns-Harper
Willamette Pass
Cottage Grove-Canyonville
Medford-Diamond Lake
Bend-Klamath Falls
Canyonville-Grants Pass
Riley-Lakeview
Denio-Burns
Owyhee
Grants Pass-Ashland
Siskiyou Pass
Warner Summit

OCRS Committee Members

- Joseph Thomas – Chairman (ODOT)
- Randy Oberg (ODOT)
- Bradley Cross, Hood River County Surveyor (OACES)
- Kevin Samuel, Deschutes Deputy County Surveyor (OACES)
- Tim Fassbender (PLSO)
- John Putnam (PLSO)
- Brady Callahan (OGIC)

Questions?

Oregon Real-time GNSS Network
www.theorgn.net