

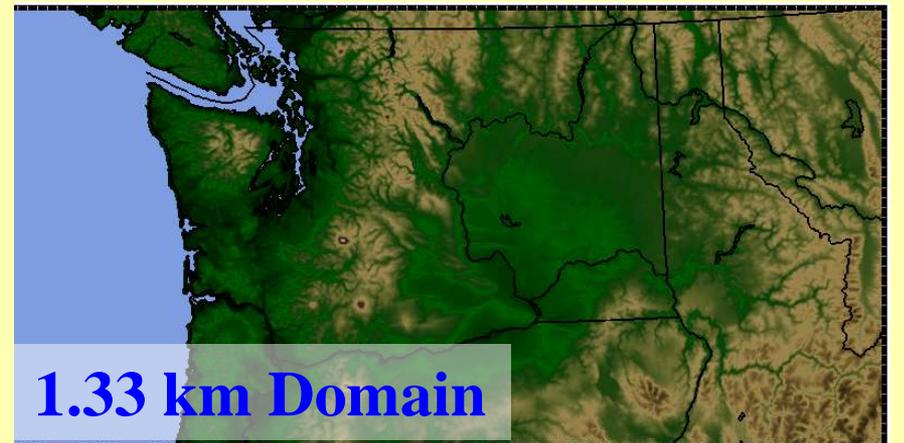
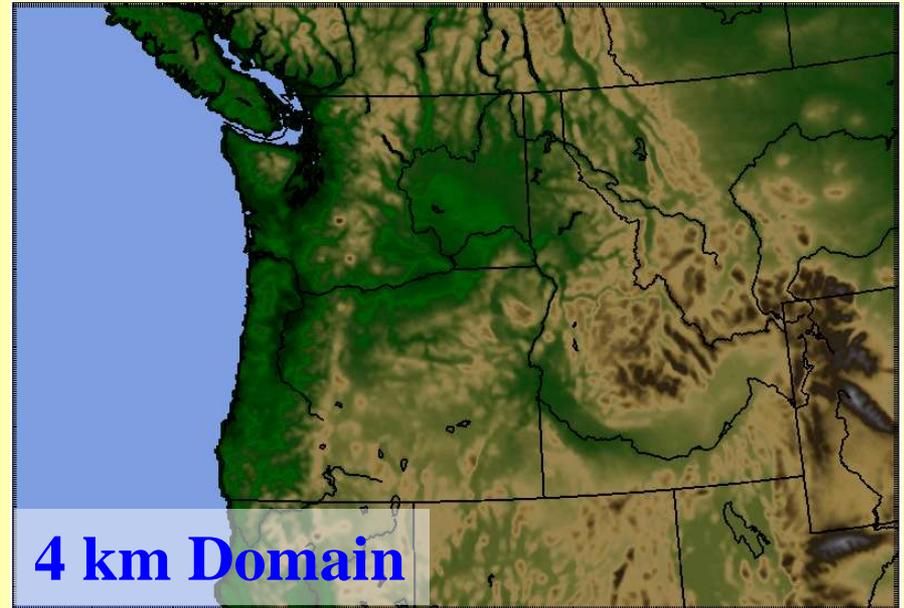
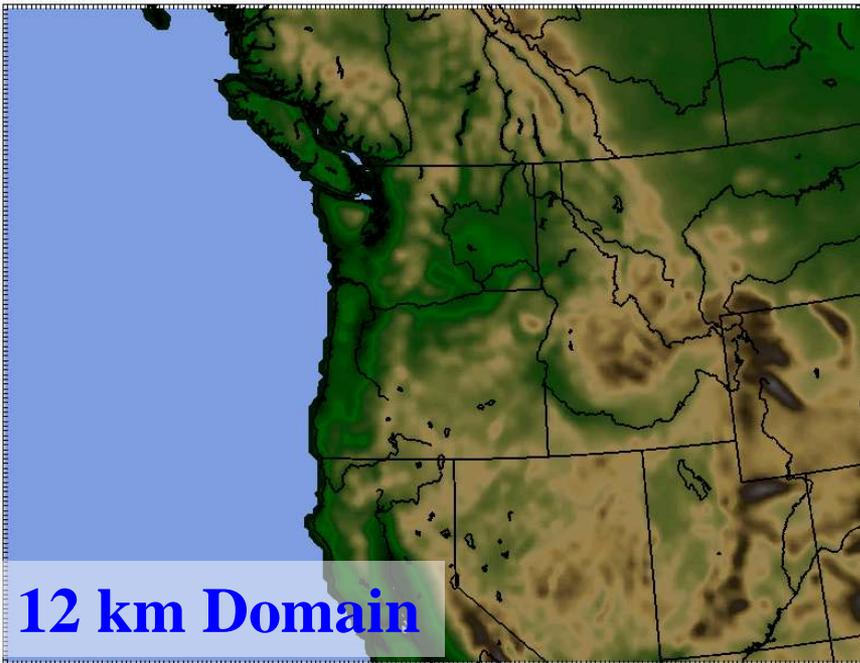
Proposal For WRF Air Quality Graphics

Robert Elleman

EPA Region 10

WRF Model Domains

- 36 km and 12 km domains set up the finer-scale ones of more interest



Current Status of AQ Graphics

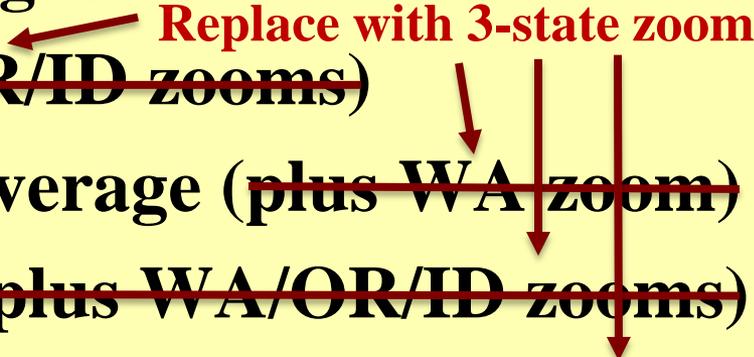
- **We have a lot of them, many duplicative and overlapping**
 - **12km: 29 products**
 - **4km: 29 products**
 - **1.33 km: 27 products**
 - **Plus, 42 trajectories**
- **Newer users or less technical users are overwhelmed**
- **Cluttered and time-wasting even for the most technical users**
- **Want to make room for new, useful graphics**
- **Waste of resources for UW**

How To Resolve

- **Add definitions to product names**
 - **Plus a description of how to use them**
- **Remove duplicative graphics**



12 km Graphics

- Planetary Boundary Layer Height
 - Ventilation Index (~~plus WA/OR/ID zooms~~)
 - Ventilation Index, ~~3/12/24~~ hr-average (~~plus WA zoom~~)
 - Ventilation Index, new colors (~~plus WA/OR/ID zooms~~)
 - B-V Index, 500m depth, ~~3/12/24~~ hr-average (~~plus WA zoom~~)
 - ~~• B-V Index, PBL depth, 3/12/24 hr-average (plus WA zoom)~~
 - Haines Index, high and low
- 

Go from 29 graphics to 8

4 km Graphics

- Planetary Boundary Layer Height
- Ventilation Index (plus WA/OR/ID zooms)
- Ventilation Index, ~~3/12/24~~ hr-average (plus WA zoom)
- Ventilation Index, new colors (plus WA/OR/ID zooms)
- B-V Index, 500m depth, ~~3/12/24~~ hr-average (plus WA zoom)
- ~~• B-V Index, PBL depth, 3/12/24 hr-average (plus WA zoom)~~
- Haines Index, high and low
- Ag Burn Outlook, Weak Wind Index (WA/WWA), Deep Stable Layer

Go from 27 graphics to 21

1.33 km Graphics

- Planetary Boundary Layer Height
- Ventilation Index ~~(plus WA zoom)~~
- Ventilation Index, ~~3/12/24 hr-average (plus WA zoom)~~
- Ventilation Index, new colors ~~(plus WA zoom)~~
- B-V Index, 500m depth, ~~3/12/24 hr-average (plus WA zoom)~~
- ~~B-V Index, PBL depth, 3/12/24 hr-average (plus WA zoom)~~
- Haines Index, high and low
- Ag Burn Outlook, Weak Wind Index (plus WWA zoom), Deep Stable Layer

Go from 27 graphics to 12

Ag Burn Outlook

To Be Implemented by June 30th

WRF output		Red	Yellow	Green
11:00 AM – 4:00 PM	Units	less optimal		more optimal
Average Surface Wind Speed	MPH	>15	10-15	<10
Average Wind Speed at highest level below PBL	MPH	< 5	5-10	>10
Maximum Mixing Height	feet	< 2000	2000-3500	> 3500
Minimum Ventilation Index	m ² /s	N/A	N/A	N/A