

# Imagery for Oregon

Oregon Geographic Information Council

October 25, 2023



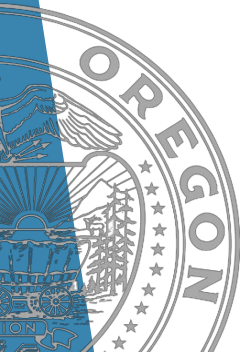
**ENTERPRISE**  
information services

# Agenda

- ▶ Imagery 101 / History
- ▶ Oregon Statewide Imagery Program
- ▶ Imagery Portfolio and Long-Term Funding Strategy
- ▶ 2024 Imagery Collection



# Imagery 101 / History



# What is aerial imagery?

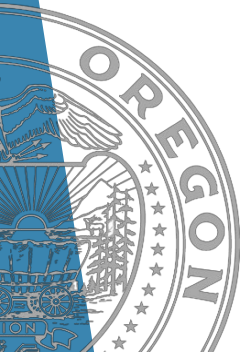
Imagery can be taken from vertical or oblique camera angles.



Aerial photo taken vertically or looking straight down - orthogonal or orthoimagery



Aerial photo taken sideways at an angle - oblique imagery





# Imagery Resolution

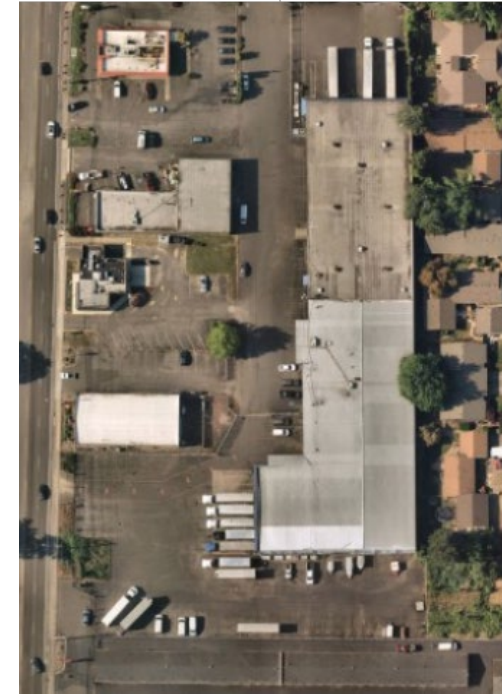
1 meter



1 foot

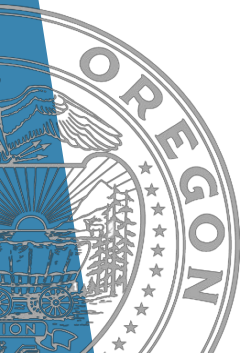


3"



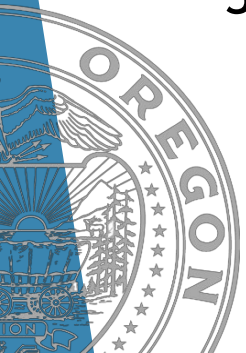
# Imagery History

Title	Description	REST Service	Resolution	Extent
2022 OSIP Statewide	4-band ortho imagery	<a href="#">OSIP 2022</a>	1-foot	Statewide
2020 NAIP	4-band ortho imagery	<a href="#">2020 NAIP</a>	60-centimeter	Statewide
2018 Western OR	52,200 square miles of imagery covering western Oregon.	<a href="#">OSIP 2018 Western OR</a>	1-foot	Western OR
2017 Eastern OR	47,600 square miles of imagery covering eastern Oregon.	<a href="#">OSIP 2017 Eastern OR</a>	1-foot	Eastern OR
2016 NAIP	natural color and near infrared.	<a href="#">2016 NAIP</a>	1-meter	Statewide
2014 NAIP	natural color and near infrared.	<a href="#">2014 NAIP</a>	1-meter	Statewide
2012 NAIP	natural color and near infrared.	<a href="#">2012 NAIP</a>	1-meter	Statewide
2011 NAIP	natural color and near infrared.	<a href="#">2011 NAIP</a>	1-meter	Statewide
2009 NAIP	natural color and near infrared.	<a href="#">2009 NAIP</a>	0.5-meter	Statewide
2005 NAIP	natural color and near infrared.	<a href="#">2005 NAIP</a>	0.5-meter	Statewide
2000 NAIP	black and white.	<a href="#">2000 NAIP</a>	1-meter	Statewide
1995 NAIP	black and white.	<a href="#">1995 NAIP</a>	1-meter	Statewide



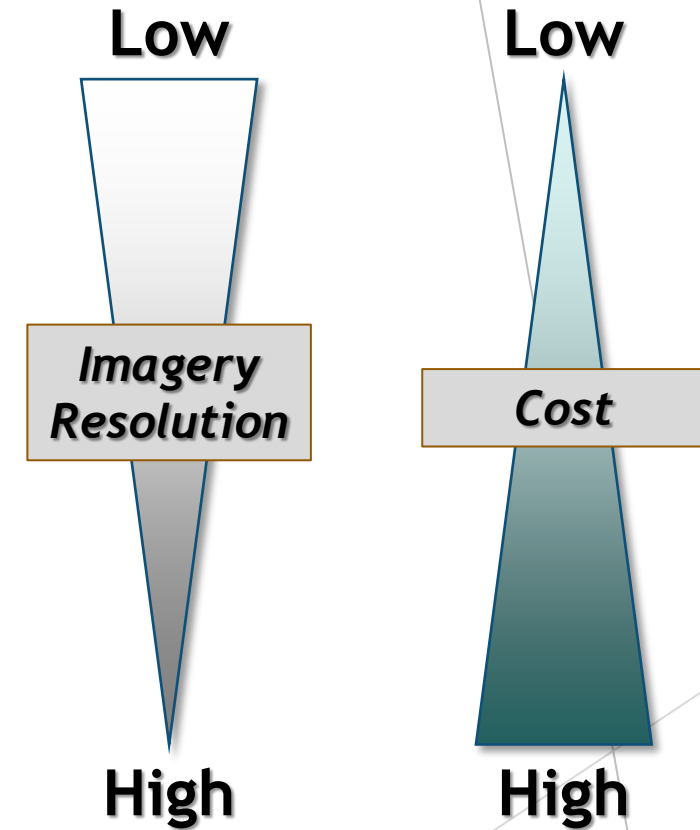
# Multiple levels of resolution/temporal acquisition

GSD	Imagery Type	Typical User Base
3-5m	• Satellite (high frequency)	Federal
50cm-2m	• Satellite tasking	
30-60cm	• Statewide 4-band	State
15cm	• Regional high resolution	Local
7.5cm	• Urban very high resolution	
3-15cm	• Oblique	Commercial



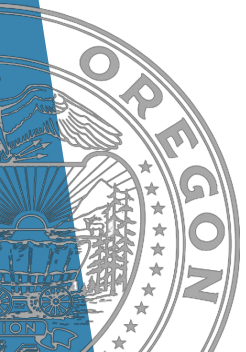
# Imagery Programs

- ▶ NAIP (National Aerial Imagery Program)
- ▶ OSIP (Oregon Statewide Imagery Program)
- ▶ County/Regional Programs
- ▶ City Programs





# Oregon Statewide Imagery Program (OSIP)



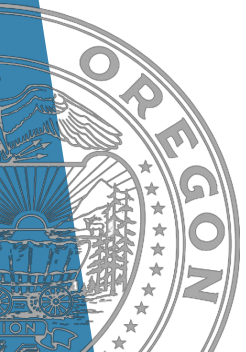
# OSIP Purpose / Concept

- ▶ Leverage reduced costs of larger acquisitions and State buying power
- ▶ Reduce data duplication through predictable acquisition
- ▶ Improve data quality
- ▶ Administration efficiency with the State handling procurements
- ▶ Increase data accessibility through public web Services hosted by GEO



# OSIP Projects

- ▶ Collaborative funding for 2017 for Eastern Oregon - \$1.2M
- ▶ Collaborative funding for 2018 for Western Oregon - \$1.4M
- ▶ No OSIP project - NAIP product
- ▶ Collaborative funding / NAIP product for 2022
  - \$1.1M NAIP
  - \$698K Oregon
    - OGIC/FW Grant \$100K
    - GDMS Project \$150K
    - DGT/GEO \$113K
    - Other State Agencies \$335K
  - \$194K other Federal \$\$ (BLM and USFS)



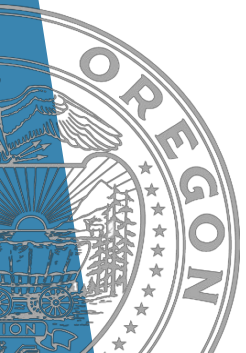
# Imagery Coordination Challenges

- ▶ Resolution is too low
- ▶ Accuracy not good enough
- ▶ Imagery not frequent enough
- ▶ Acquisition season not helpful
- ▶ Not enough spectral bands
- ▶ Data delivery is too slow
- ▶ Product is licensed (can't share)
- ▶ Too expensive

Is there a solution??



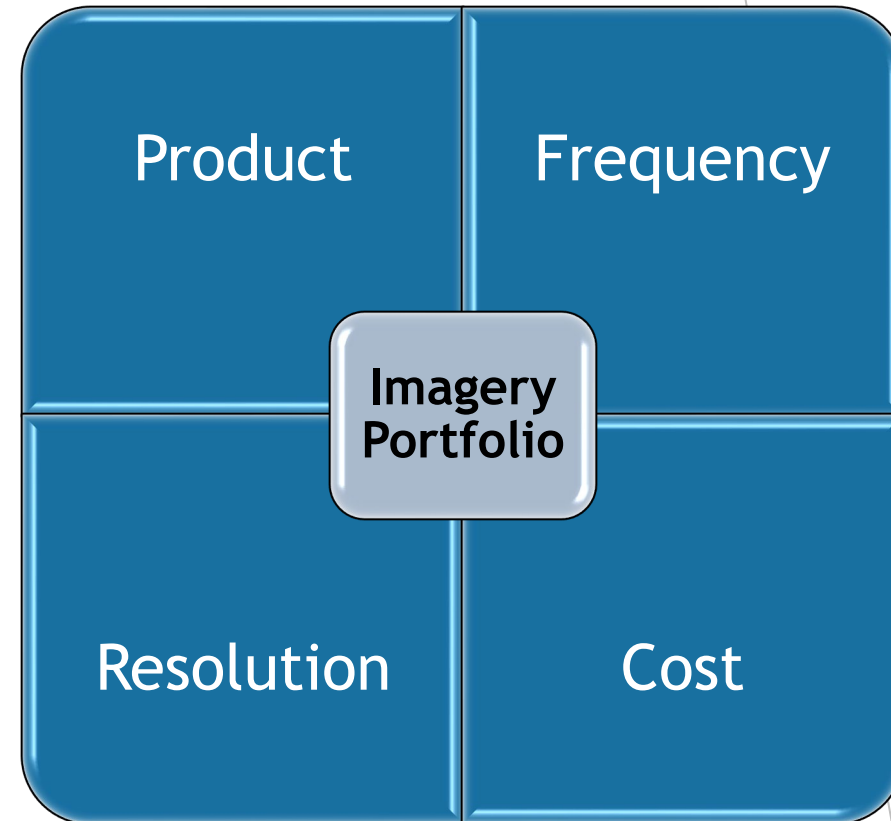
# Imagery Portfolio & Long-Term Funding Strategy





# Imagery Portfolio

- ▶ Set of products for consistent acquisition
- ▶ Serve multiple use cases for highest number of funding partners
- ▶ Reasonable cost
- ▶ Optional buy-ups & derivative products



# Long-Term Funding Strategy

- 1) Determine a strategy and administrative plan to fund the imagery portfolio
- 2) Consider legislative funding requests to supplement gov't \$\$\$



# 2024 Imagery Collection



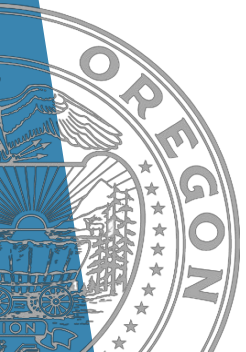
# 2022 Imagery Collection

- ▶ Collaborative funding / NAIP product for 2022
  - **\$1.1M NAIP**
  - \$698K Oregon
  - \$194K other Federal \$\$ (BLM and USFS)
- ▶ State buy-up to 30cm (1ft) product
- ▶ Great ROI for Oregon



# 2022 Challenges

- ▶ Oregon Specifications Ignored
- ▶ No Govt-to-Govt Partnership
  - Pay up front
  - Will not order products on our behalf until \$\$ is in hand
- ▶ Contracting disaster; no time for us to do our reviews, edits, approvals; threats of cancellation
- ▶ Did not deliver all products in IGA Scope due to vendor contract requirements (didn't know own contract; bait and switch)

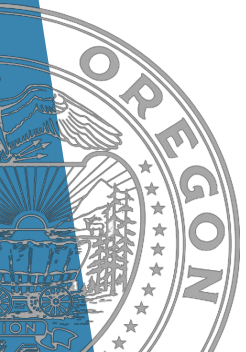




# 2024 Imagery Collection

- ▶ NAIP mgmt and technical team worked to make things right over last 9 months.
- ▶ Legislative funds received 2023-25
  - \$1.5M for imagery
  - \$100K for long-term funding strategy
- ▶ Difficulty collecting enough funds without federal contributions; Other option (subscription service) could be tested

Use NAIP Again??



# Questions and Discussion

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