VICTORIA PUCK-KARAM 2022

SUPPLY DASHBOARD

DATA SCIENCE INTERN PRESENTATION

Project Objectives

Global Summary

Summarizing global supply & demand data globally. Aggregating metrics to reflect a global POV. Metrics include capacity, pixels and imagery yield.

Dashboard

Building out a dashboard to visualize supply and demand metrics. Rendering a web map with layers to uncover supply insights by vehicle, country and capacity zone.

Optimizing Sales

Supporting the sales team in seeking out contracts and sales/building prospects. Optimizing the creation of realistic customer expectations to improve sales, company wide.

08/12/22

METRICS OVERVIEW

2022 INTERN PRESENTATION

IMAGERY QUALITY METRICS

Cloud Cover

Percentage of each strip covered in clouds that impact the **viability** of an image. Essential to **optimizing satellite tasking** during events such as monsoon season.

Yield

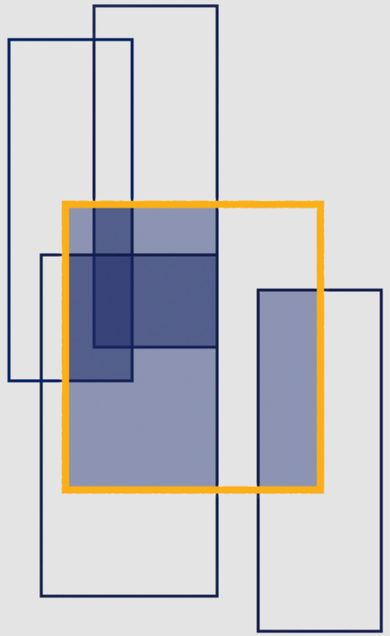
The ratio of **clear unique pixels** to all unique pixels. Historical yield data **enables predictive analysis** to **maximize profits** when tasking satellites.

Numerical Coverage

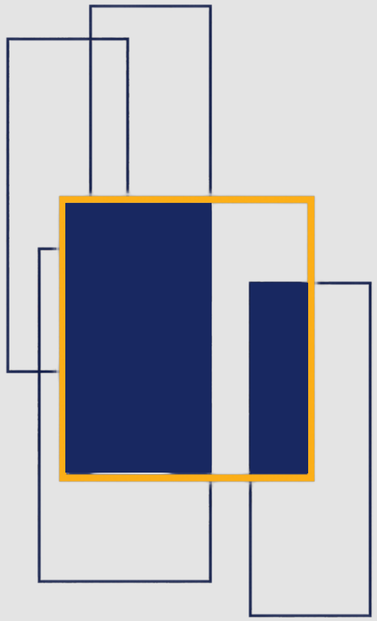
The ratio of km2 in an **AOI** to the km2 of **unique coverage** as **strips**. Enables sales teams to **uncover** new, u**nder imaged AOIs** to seek out **new contracts** and customers.

DERIVATION OF METRICS

Footprint
Grid cell



TOTAL FULL COVERAGE



TOTAL UNIQUE COVERAGE

Aggregation Levels

- Sales Zones
- Satellite/Vehicle
- Country
- Geographical Regions
- Seasons
- Time (Month, Year, Quarter)

Web Map Layers

- Yield Percentage (Clear Pixels out of Total Full Pixels)
  - Color coded by Geocell
  - Aggregated into ZL10 (City Level) and ZL8 (State and Country Level)
- Capacity Zone Geometries
- Country Boundaries Geometries
- 7 Days Rolling Strips Geometries
  - Color coded by cloud coverage on each corresponding strip