



Transit Ridership Dashboard

Passenger Counting Program (PCP)

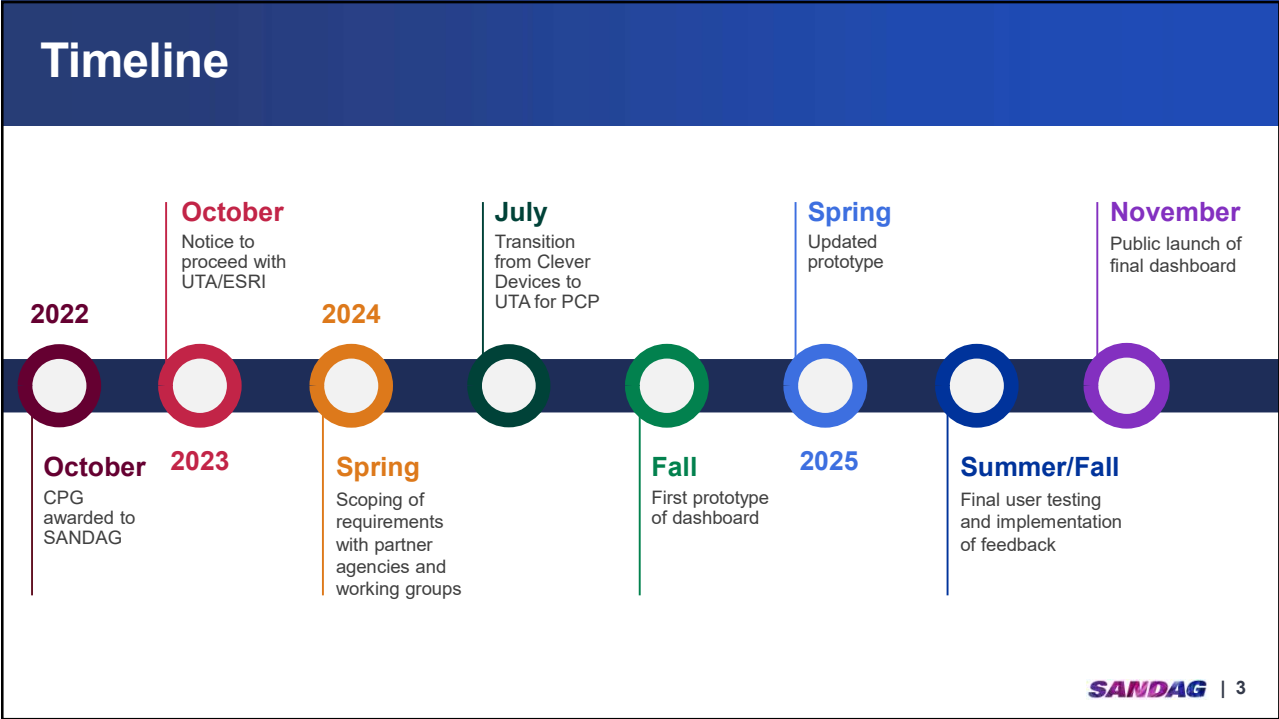
Transportation Committee | Item 7
Connor Vaughn, Associate Data Scientist
December 5, 2025

1

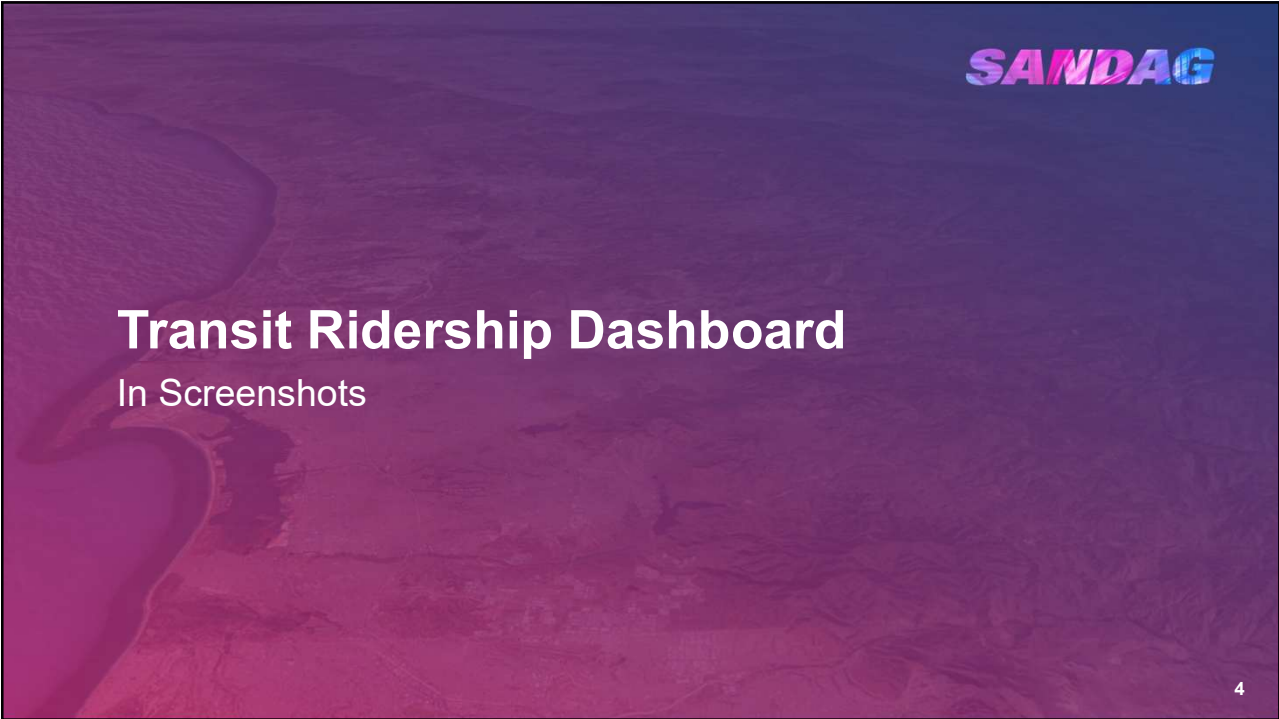
Passenger Counting Program (PCP)

- Automated Passenger Counters (APC)
 - Sensors that detect when passengers board (get on) and alight (get off) of a transit vehicle.
 - Most of the services operated by MTS and NCTD have APC enabled vehicles.
- SANDAG serves as the central clearinghouse for this data
 - Using this data, SANDAG produces estimates covering several transit performance metrics.
- Unique insights compared to other data sources
 - Unlike other sources, APCs detect alightings allowing for enhanced analysis.
 - Ridership, Passenger Miles, Trip Length, Load Factor, etc...

2

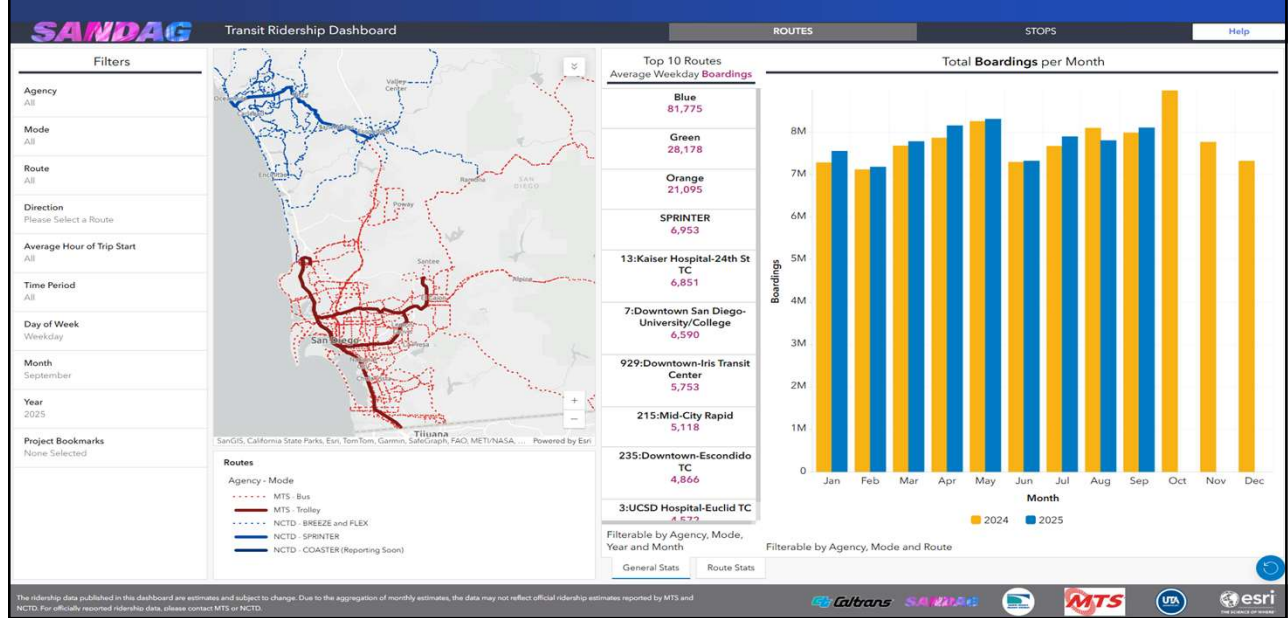


3



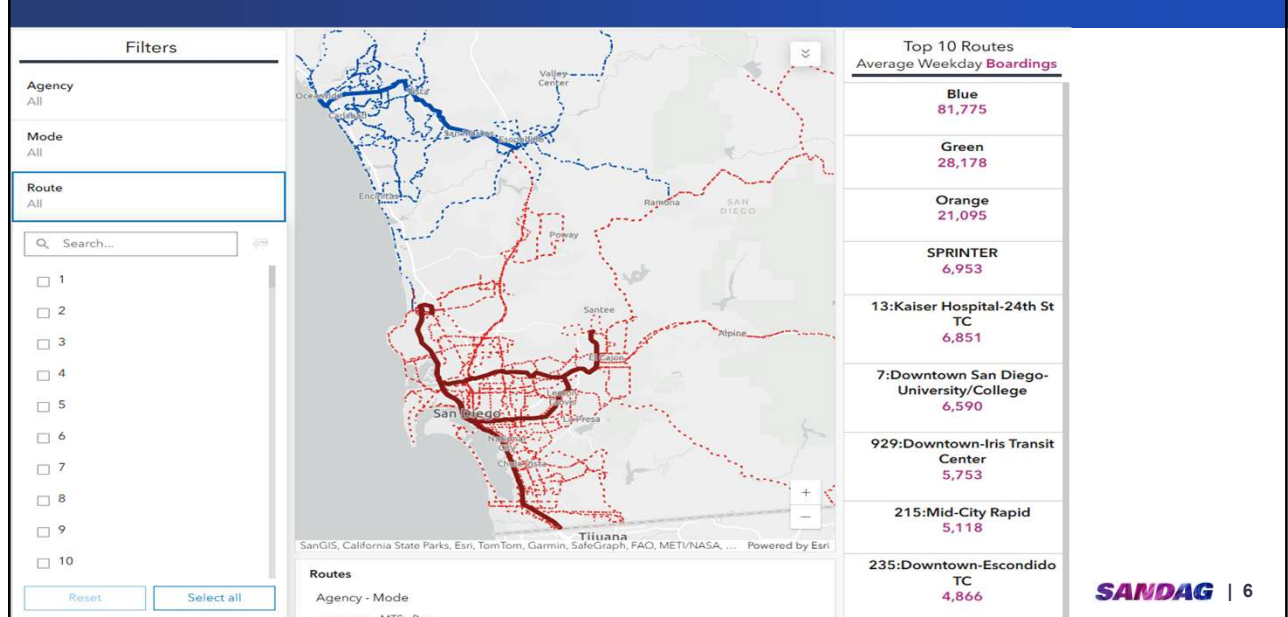
4

Layout



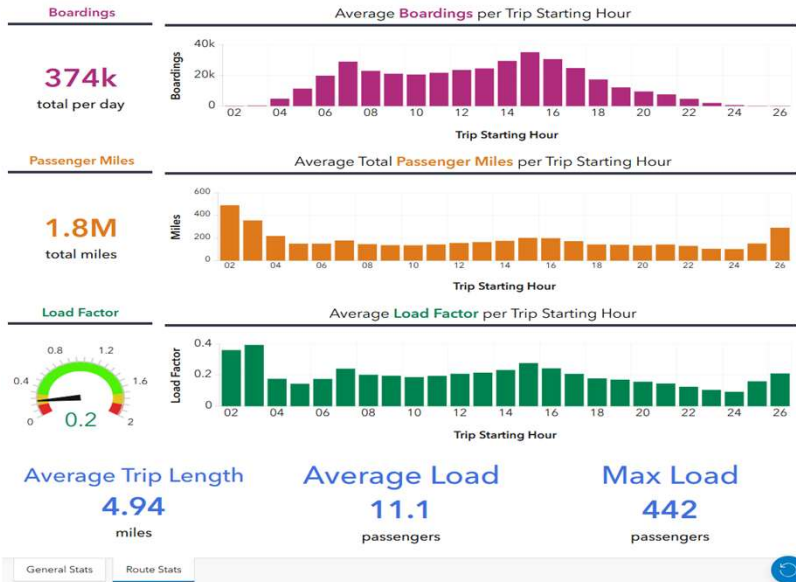
5

Filters



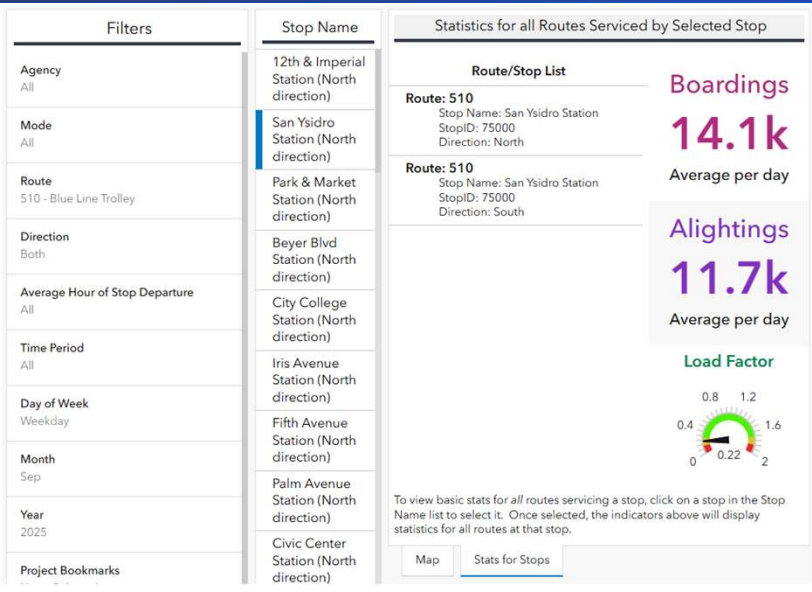
6

Route Statistics



7

Statistics for Stops



8

Help Documentation

How to Use This Dashboard

Introduction

This dashboard is an interactive tool that lets you explore and analyze geospatial data. This guide explains how to use its key features, including dropdown filters, interactive maps, and dynamic charts.

Navigate the Dashboard Layout

1. **Header/Menu Bar:** This includes a toggle button to navigate between route level data and stop level data.
2. **Map Section:** Displays location data. You can click on features, zoom in/out, or pan across the map for better insights.
3. **Charts and Lists:** Visualize numerical or categorized data. These components react to filters or map interactions.

Use Dropdown Filters

1. **Locate Filters:** Look for dropdown filter panels on the left of the screen.
2. **Apply a Filter:**
3. Click the dropdown to select a category.
4. Once selected, the map, charts, and lists will automatically update to reflect your choice.
5. **Clear a Filter:** Use the "Reset" to return to the default view.

Interact with the Map

1. **Zoom and Pan:**
2. Use your mouse scroll wheel or zoom buttons to focus on a specific area.
3. Click and drag the map to move it.
4. **Click on Features:** Select a point, line, or area on the map to view detailed information in a pop-up or linked chart.
5. **Legend and Layers:** Open the legend or layer list to understand map symbols.

Explore Dynamic Charts

[Help](#) [Glossary](#) [Data](#)

SANDAG | 9

9

SANDAG

Limitations and Future Work

10

10

Limitations

- **Cadence and Historical Data**
 - Reporting begins in 2024 and will update monthly
 - This is due to differences in ridership estimating between new and legacy PCP software and the steps needed to validate data before updates.
- **Data Design and Experience Builder Functionalities**
 - Some requested features could not be actioned either due to the layout of the data or core functionality of the platform.
 - Ex. Graduated symbology in maps, page wide connected filters, APC only.
- **Estimation Discrepancies**
 - Estimates may require corrections periodically due to factors such as sample rate, gaps in data, and changes to scheduling or operations.
 - Corrections and updates will be made along with monthly scheduled updates.

SANDAG | 11

11

Future Work

- **Owned by SANDAG**
 - As requirements and needs change, so too can the dashboard
- **Flexible enough to adapt to changes in transit landscape**
 - When new, expanded, or reduced services arrive, the dashboard is designed to incorporate these changes with ease
- **Helps address TransNet Performance Audit Recommendations**
 - With the focus of providing SANDAG staff, decision makers and agency partners better tools for making informed decisions and monitoring transit performance metrics.

SANDAG | 12

12

Stay connected with SANDAG

 Explore our website
SANDAG.org

 Follow us on social media:
@SANDAGregion @SANDAG

 Email: data@sandag.org

SANDAG

13