



| SPECTRUM

SigCap App and Platform

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June 2, 2026

Agenda

- App and Platform Overview
- Sign up for an account
- Create a campaign
- Collect data via app
- Upload to the Platform
- Locate data, visualize, export
- Questions, Feature Requests, Feedback



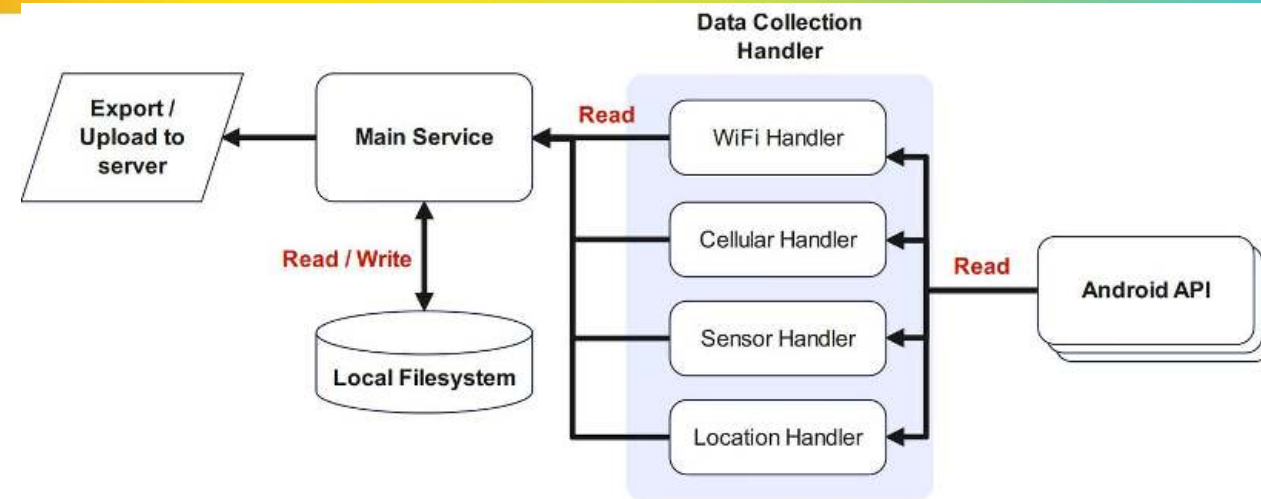
App and Platform Overview

Mental Model: Android mobile application collects data. Data can be downloaded to a computer or submitted to the publicly available SigCap Data Platform.



SigCap Overview

- Developed in the University of Chicago since 2019.
- Collects various signal and sensor data through Android API, along with GPS location.
- Easy mapping and exporting through SigCap Data Visualization (<https://sigcap.crc.nd.edu>).
- No root capability required.
- **Disadvantage:** depends on Android API which sometimes broken on new update.



SigCap (DEBUG)	
Last update	09:14:29.752
Device name	caiman
Device UUID	c486fea2-bed8...
Latitude	41.699876
Longitude	-86.192729
Accuracy	11.476 m
Altitude	196.100 m
Alt. acc.	0.645 m
Region (NR band)*	NAR
Operator	T-Mobile
SIM operator	T-Mobile
SIM carrier	T-Mobile - US
Active Network*	Wi-Fi 5GHz
Cellular Network	IWLAN
Override Network	NR-NSA
Addt. Cell. Info*	N/A
# of LTE	1
# of NR	0
Map	Summary
LTE	NR
Wi-Fi	GP



SP

SigCap Captured Metrics

 Cellular 4G/5G	 Wi-Fi	 GNSS Satellites	 Application Layers	 Metadata on Data Platform
• Operator Name • Network Type (LTE/NR) • PCI • Frequency (ARFCN) • RSRP / RSRQ / RSSI • Bandwidth • SS-RSRP / SS-RSRQ (5G)	• BSSID / SSID • Primary Frequency • Operating Standard • RSSI & Bandwidth • Link Speed • Channel Utilization • Number of STAs • Transmit Power	• Satellite ID (SVID) • Constellation Type • Carrier-to-Noise (CNR) • Azimuth & Elevation • Carrier Frequency • Usage in Fix	• Ping Round-Trip Latency • iperf Throughput • HTTP GET Throughput	• Indoor/Outdoor Labels • Mobility Labels: Stationary, Walking, Driving, etc. • Weather Labels: Clear, Cloudy, Rain, etc. • Environment Labels: Conference Room, Basement, Airport, etc.



Data Platform

<https://sigcap.spectrumx.org>

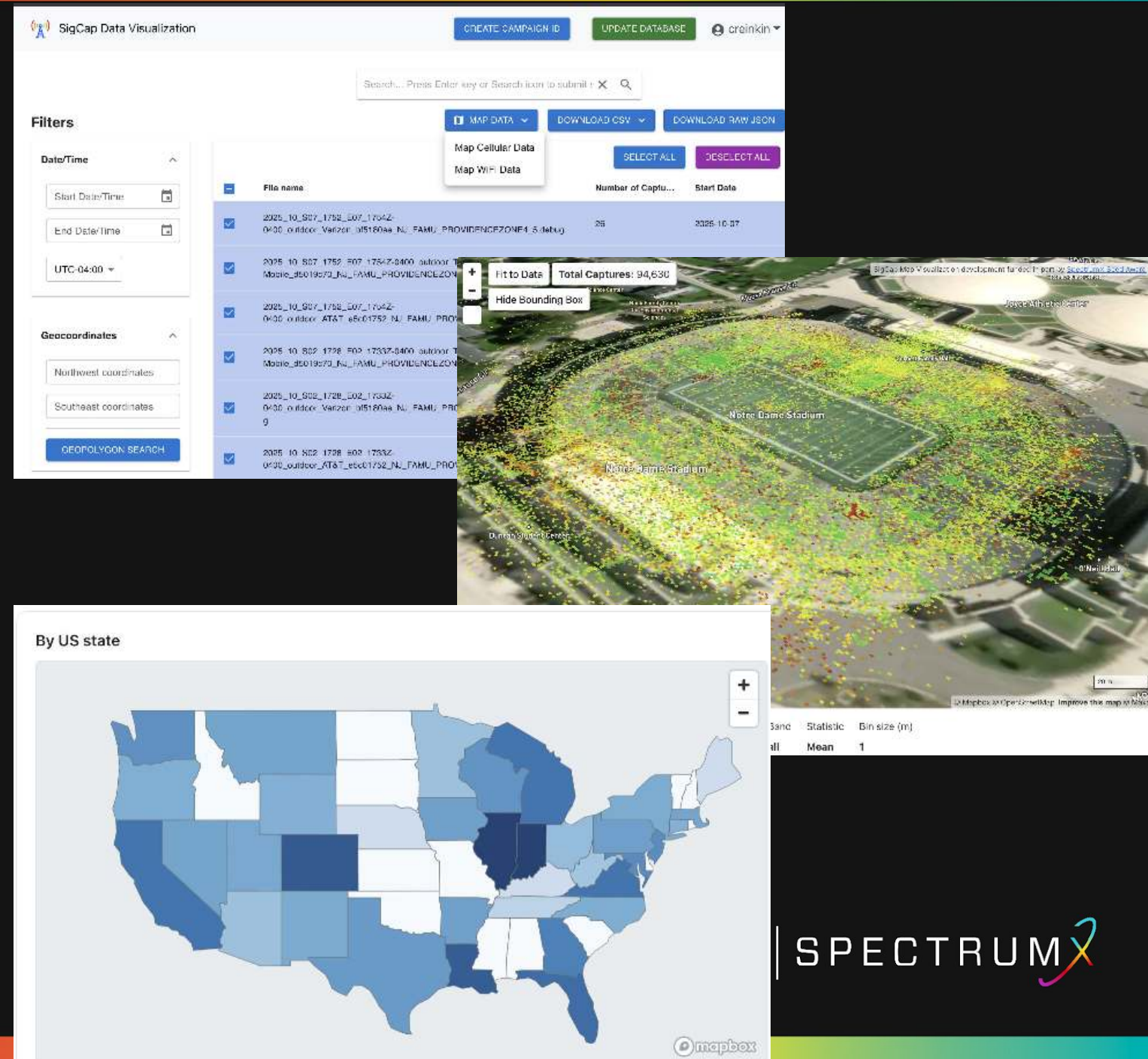
SpectrumX Y4 Seed Project

Publicly Available Web Application

18 Million SigCap Data Points

Users can self-serve:

- Filter data to regions of interest
- View data on a map
- Download for offline data access
- Group Data into “Campaigns”
- Share SigCap maps with others





Become a SigCap Data Contributor!!

 Firebase App Distribution

Ready to test this app?



SigCap (DEBUG-I/O)



com.kyuucr.rsrpimagedataset.de
bug

Sign up to share your email address with the
developer and get access:

Email

email@example.com

Sign up

Powered by

 Firebase App Distribution

Download through Firebase App
Distribution:

<https://appdistribution.firebase.dev/i/33070be06a89c40f>



SPECTRUM 

Registration

Mental Model: Registration requires an “approval” step. After someone registers, the site admin team has to review and approve your account. For now, if a user has a .edu email address it will be immediately approved. The platform is intended for research / non-commercial use.



<https://sigcap.spectrumx.org/>

SigCap Data Platform

Login / Sign Up

Understand and Map Wireless Signal Coverage

SigCap is a data platform for wireless research, powered by an Android application that captures GPS coordinates along with detailed cellular and Wi-Fi metrics. With over 15 million data points and growing, our platform provides granular insights for city planning, digital equity initiatives, and infrastructure development.

Get Started



Sign Up

Already have an account? Then please [sign in](#).

Email*

Username*

Password*

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

Password (again)*

Note*

Sign Up

sigcap.spectrumx.org



SPECTRUM 

Campaigns

Mental Model: Campaigns are the “grouping” mechanism of the platform. Campaigns are intended to be created prior to data submission, not after.



Create a new campaign (for now the only data grouping mechanism)

Filters

Date/Time

Start Date/Time

End Date/Time

UTC-05:00

Geocoordinates

Northwest coordinates

Southeast coordinates

GEOPOLYGON SEARCH

Bands

wifi

☐ 2.4 GHz☐ 5 GHz☐ 6 GHz

cellular

☐ 4 G☐ 5 G

Tags

Campaigns

CLEAR FILTERS

APPLY FILTERS

File name

Create Campaign ID

Created ID is:

WAIT01

COPY

Campaign Facilitator

Campaign Name *required**

Data Visibility

Private - Only owner can access

Campaign Description

CLOSE

CREATE

DOWNLOAD CSV

DOWNLOAD RAW JSON

SELECT ALL

DESELECT ALL

← Use this in the SigCap app

Number of Captures

Start Date

406

2025-11-03

92

2025-11-03

3,251

2025-11-02

661

2025-11-02

4,336

2025-11-02

2,189

2025-11-02

3,227

2025-11-01

3,208

2025-11-01

340

2025-11-01

15

2025-11-01

361

2025-11-01

69

2025-10-31

69

2025-10-31

69

2025-10-31

23

2025-10-31

23

2025-10-31

23

2025-10-31

30

2025-10-31

31

2025-10-31

31

2025-10-31

30

2025-10-31

Search... Press Enter key or Search icon to submit search query

MAP DATA

DOWNLOAD CSV

DOWNLOAD RAW JSON

SELECT ALL

DESELECT ALL

Filters

Date/Time

Start Date/Time

End Date/Time

UTC-05:00

Geocoordinates

Northwest coordinates

Southeast coordinates

GEOPOLYGON SEARCH

Bands

wifi

☐ 2.4 GHz☐ 5 GHz☐ 6 GHz

cellular

☐ 4 G☐ 5 G

Tags

Campaigns

CLEAR FILTERS

APPLY FILTERS

My Campaigns

Name	Code	Created At	Data Visibility	Edit
CRC US-RSE 2025	CRC US-RSE 2025	2025-10-05	Public	
SpectrumX Fall Meeting 2025	SXUW25	2025-10-20	Authenticated	

CLOSE

View your created campaigns

Search... Press Enter key or Search icon to submit search query

MAP DATA

DOWNLOAD CSV

DOWNLOAD RAW JSON

SELECT ALL

DESELECT ALL

Filters

Date/Time

Start Date/Time

End Date/Time

UTC-05:00

Geocoordinates

Northwest coordinates

Southeast coordinates

GEOPOLYGON SEARCH

Bands

wifi

☐ 2.4 GHz☐ 5 GHz☐ 6 GHz

cellular

☐ 4 G☐ 5 G

Tags

Campaigns

CLEAR FILTERS

APPLY FILTERS

Update Campaign Information

Campaign ID: SXUW25

Facilitator

Caleb Reinking

Name (required*)

SpectrumX Fall Meeting 2025

Data Visibility

Authenticated - Any logged in user ca...

Description

SpectrumX Fall Center Meeting 2025 -
Madison, WI

CANCEL

UPDATE

CLOSE

My Campaigns

Name

CRC US-RSE 2025

SpectrumX Fall Meeting 2025

File name	Number of Captures	Start Date
43_E02_1742Z-0700_outdoor_Verizon_81147068_e5c01752_NJ_FAMU_PROVIDENCEZONE9.debug	23	2025-11-03
54_E02_2125Z-0600_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone9 debug	23	2025-11-03
25_E02_1024Z-0700_outdoor_Verizon_bf5180ae_TP_FAMU_PROVIDENCEZONE6 debug	30	2025-11-03
54_E01_1337Z-0600_outdoor_Verizon_bf5180ae_TP_FAMU_PROVIDENCEZONE6 debug	31	2025-11-02
17_E31_1922Z-0400_indoor_Verizon_bf5180ae_TP_FAMU_PROVIDENCEZONE6 debug	31	2025-11-02
25_10_S31_1907_E31_1908Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE9.debug	23	2025-11-02
25_10_S31_1907_E31_1908Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone9 debug	23	2025-11-02
25_10_S31_1907_E31_1908Z-0400_outdoor_Verizon_bf5180ae_TP_FAMU_PROVIDENCEZONE8 debug	23	2025-11-02
25_10_S31_1902_E31_1904Z-0400_outdoor_Verizon_bf5180ae_NJ_FAMU_PROVIDENCEZONE6 debug	30	2025-11-02
25_10_S31_1902_E31_1904Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone6 debug	31	2025-11-02
25_10_S31_1902_E31_1904Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE6 debug	31	2025-11-02
25_10_S31_1856_E31_1858Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_ProvidenceZONE7_8.debug	30	2025-11-02
25_10_S31_1907_E31_1908Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE9.debug	23	2025-11-01
25_10_S31_1907_E31_1908Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone9 debug	23	2025-11-01
25_10_S31_1907_E31_1908Z-0400_outdoor_Verizon_bf5180ae_TP_FAMU_PROVIDENCEZONE8 debug	23	2025-11-01
25_10_S31_1902_E31_1904Z-0400_outdoor_Verizon_bf5180ae_NJ_FAMU_PROVIDENCEZONE6 debug	30	2025-11-01
25_10_S31_1902_E31_1904Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone6 debug	31	2025-11-01
25_10_S31_1902_E31_1904Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE6 debug	31	2025-11-01
25_10_S31_1856_E31_1858Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_ProvidenceZONE7_8.debug	30	2025-11-01

Data Capture

Mental Model: The SigCap app provides the data collection mechanism. You can start, pause, upload a collection while also seeing several real time visualizations of the data being collected.



Usage

Start capture

Pause capture

Delete all capture

Share capture

Upload capture to SigCap Data Platform site

UI Pages

The screenshot displays the SigCap (DEBUG) application interface. At the top, there is a header bar with the title 'SigCap (DEBUG)' and a settings icon. Below the header, there is a row of five icons: a play button (Start capture), a pause button (Pause capture), a trash can (Delete all capture), a share icon (Share capture), and an upload icon (Upload capture to SigCap Data Platform site). Below these icons, there is a section for device information, including 'Last update' (09:14:29.752), 'Device name' (caiman), 'Device UUID' (c486fea2-bed8...), 'Latitude' (41.699876), 'Longitude' (-86.192729), 'Accuracy' (11.476 m), 'Altitude' (196.100 m), 'Alt. acc.' (0.645 m), and 'Region (NR band)*' (NAR). Below this, there is a section for network information, including 'Operator' (T-Mobile), 'SIM operator' (T-Mobile), 'SIM carrier' (T-Mobile - US), 'Active Network*' (Wi-Fi 5GHz), 'Cellular Network' (IWLAN), 'Override Network' (NR-NSA), 'Addt. Cell. Info*' (N/A), '# of LTE' (1), and '# of NR' (0). At the bottom, there is a tab bar with six tabs: 'Map', 'Summary', 'LTE', 'NR', 'Wi-Fi', and 'GP'. A red arrow points from the 'UI Pages' label to the 'NR' tab.

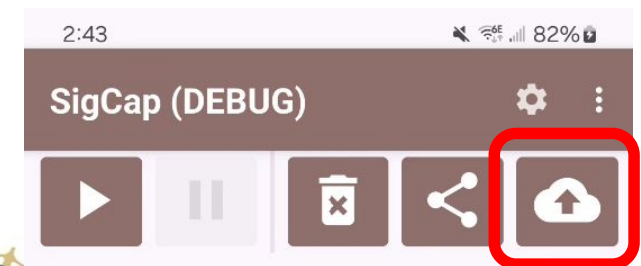
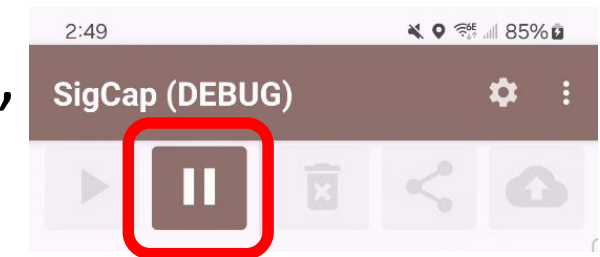
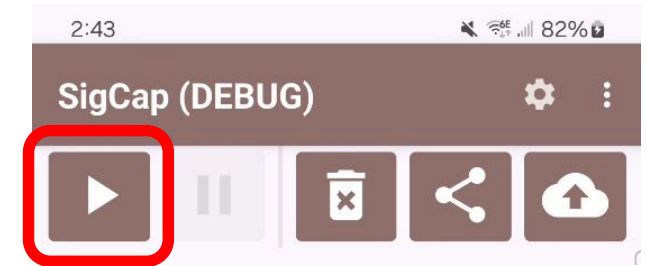
Field	Value
Last update	09:14:29.752
Device name	caiman
Device UUID	c486fea2-bed8...
Latitude	41.699876
Longitude	-86.192729
Accuracy	11.476 m
Altitude	196.100 m
Alt. acc.	0.645 m
Region (NR band)*	NAR
Operator	T-Mobile
SIM operator	T-Mobile
SIM carrier	T-Mobile - US
Active Network*	Wi-Fi 5GHz
Cellular Network	IWLAN
Override Network	NR-NSA
Addt. Cell. Info*	N/A
# of LTE	1
# of NR	0

Map Summary LTE NR Wi-Fi GP



Usage, cont.

- Use the play button to start data recording.
 - Please take **outdoor** measurements only.
- Use the pause button to pause data recording, i.e., when going to indoor area.
 - Old data will still persist until deleted.
- When you are done taking measurement, upload the data by pressing the cloud icon.



Data Upload

Mental Model: Submitting data to the Data Platform happens after data collection is completed. Adding accurate metadata and tagging is critical!



Add Metadata And Submit

- On the “Location label” dropdown, select “**Outdoor**” to indicate that the data is captured outdoors.
- On “Campaign code” box, put “**SELL57**”
- On “Capture name & description” box, put your **initials** and **university**, as well as other identifiers as needed.
- Press “**CONFIRM**” when finished.

The screenshot shows a mobile app interface for 'SigCap (DEBUG)'. At the top, the status bar shows the time 2:56, signal strength, and 88% battery. The app header has a back arrow, the title 'SigCap (DEBUG)', and a red 'CONFIRM' button. The main content area displays a confirmation message: 'This will upload all recordings and **DELETE** it upon successful upload. Proceed?'. Below this, it shows upload statistics: 'Number of file: 30', 'Oldest datapoint: 3 minutes ago (2025-08-28 14:47:57.599)', 'Latest datapoint: Just now (2025-08-28 14:50:22.653)', and 'Uncompressed size: 1.23 MBytes'. A section titled 'Metadata (optional)' contains three input fields: 'Location label' with a dropdown menu showing 'Outdoor', 'Campaign code' with the text 'SELL57', and 'Capture name & description' with the text 'MR_UND_MORRIS_INN_WALK'. At the bottom, there are decorative icons including a gear and a checkmark.

Access Data

Mental Model: The SigCap Data Platform is the route to access collections and visualize them in aggregate. You can filter and search on various criteria, but the easiest mechanism to group data together is through a campaign code. Download datasets of interest to perform more nuanced offline analysis



Search... Press Enter key or Search icon to submit search query



Filters

Date/Time

Start Date/Time



End Date/Time



UTC-05:00

Geocoordinates

Northwest coordinates

Southeast coordinates

GEOPOLYGON SEARCH

Bands

wifi

☐ 2.4 GHz☐ 5 GHz☐ 6 GHz

cellular

☐ 4 G☐ 5 G

Tags

Campaigns

CLEAR FILTERS

APPLY FILTERS

Main Dataset List

MAP DATA

DOWNLOAD CSV

DOWNLOAD RAW JSON

SELECT ALL

DESELECT ALL

	File name	Number of Captures	Start Date
☐	2025_11_S03_1102_E03_1134Z-0500_indoor_Unknown Operator_69bb28f6_Clegg MBR002	406	2025-11-03
☐	2025_11_S03_1051_E03_1059Z-0500_indoor_near_window_Unknown Operator_69bb26f6_Clegg MBR001	92	2025-11-03
☒	2025_11_S02_1743_E02_1828Z-0700_outdoor_Verizon_91b37956_sep BOCCO Denver.debug	534	2025-11-03
☒	2025_11_S02_1643_E02_1742Z-0700_outdoor_Verizon_91b37956_sep Denver.debug	2,625	2025-11-02
☐	2025_11_S02_1654_E02_2125Z-0600_outdoor_T-Mobile_b285331f_JT_Urban.debug	3,251	2025-11-02
☒	2025_11_S02_0925_E02_1024Z-0700_outdoor_Verizon_91b37956_sep BOCCO Denver.debug	661	2025-11-02
☐	2025_11_S02_0513_E02_1114Z-0600_unknown_AT&T_f9f61e77_CD_SUBURBAN	4,336	2025-11-02
☐	2025_11_S02_0513_E02_0816Z-0600_mixed_AT&T_62375c17_CD_SUBURBAN.debug	2,189	2025-11-02
☐	2025_11_S01_1826_E01_2253Z-0500_mixed_AT&T_f9f61e77_CD_SUBURBAN	3,227	2025-11-01
☐	2025_11_S01_1826_E01_2253Z-0500_mixed_AT&T_62375c17_CD_SUBURBAN.debug	3,208	2025-11-01
☐	2025_11_S01_1426_E01_1541Z-0600_outdoor_Verizon_91b37956_sep BOCCO.debug	340	2025-11-01
☐	2025_11_S01_1423_E01_1424Z-0600_indoor_near_window_Verizon_91b37956_sep Starbucks.debug	15	2025-11-01
☐	2025_11_S01_1054_E01_1337Z-0600_outdoor_Verizon_91b37956_sep BOCCO.debug	351	2025-11-01
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_Verizon_bf5180ae_TP_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_d5019c70_NJ_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_e5c01752_NJ_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1907_E31_1908Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE9.debug	23	2025-10-31
☐	2025_10_S31_1907_E31_1908Z-0400_outdoor_Verizon_bf5180ae_TP_FAMU_Providencezone8.debug	23	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_Verizon_bf5180ae_NJ_FAMU_PROVIDENCE_ZONE_5.debug	30	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone6.debug	31	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE6.debug	31	2025-10-31
☐	2025_10_S31_1856_E31_1858Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_ProvidenceZONE7_8.debug	30	2025-10-31

Search... Press Enter key or Search icon to submit search query



MAP DATA

DOWNLOAD CSV

DOWNLOAD RAW JSON

SELECT ALL

DESELECT ALL

Filters

Date/Time

Start Date/Time



End Date/Time



UTC-05:00

Geocoordinates

Northwest coordinates

Southeast coordinates

GEOPOLYGON SEARCH

Bands

wifi

☐ 2.4 GHz☐ 5 GHz☐ 6 GHz

cellular

☐ 4 G☐ 5 G

Tags

Campaigns

CLEAR FILTERS

APPLY FILTERS

← Data Filters Pane

		Number of Captures	Start Date
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☒	2025_11_S02_0513_E02_0816Z-0600_mixed_AT&T_62375c17_CD_SUBURBAN.debug	661	2025-11-02
☐	2025_11_S01_1826_E01_2253Z-0500_mixed_AT&T_f9f61e77_CD_SUBURBAN	4,336	2025-11-02
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☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_d5019c70_NJ_FAMUCOE_SIDEA1STFLOOR.debug	361	2025-11-01
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_e5c01752_NJ_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
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☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone8 debug	23	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE6.debug	30	2025-10-31
☐	2025_10_S31_1858_E31_1858Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_ProvidenceZONE7_8.debug	31	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE6.debug	31	2025-10-31
☐	2025_10_S31_1858_E31_1858Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_ProvidenceZONE7_8.debug	30	2025-10-31

← Always click apply!

Search... Press Enter key or Search icon to submit search query



Filters

Campaigns

shared campaigns

- ☐ 5G mmWave Building Loss Experiments at UChicago Woodlawn Dorm
- ☐ 5G mmWave Deployments at Chicago and Miami
- ☐ 5G mmWave Thermal Throttling Experiments at Chicago, Miami, and San Francisco
- ☐ 6 GHz Fixed Link Experiments at Columbus, Georgia
- ☐ 6 GHz Wi-Fi Deployment at University of Michigan, Ann Arbor
- ☐ Broadband MAP US 2022-2024
- ☐ Broadband MAP US 2025
- ☐ CRC US-RSE 2025
- ☐ Denver mm wave collections
- ☐ FCC Pilot Wireless Measurement Campaign in Colorado
- ☐ FIU
- ☐ FIU_MMC
- ☐ IoT
- ☐ ND to Univ Minn
- ☐ Notre Dame OIT 6 GHz Wi-Fi
- ☐ Notre Dame Stadium 6 GHz Wi-Fi
- ☐ sigcap_mahbub
- ☐ South Bend City Mobile Data Project
- ☐ SpectrumX Fall Meeting 2025
- ☐ ugm
- ☐ Vegas
- ☐ VLA Measurements 2025

CLEAR FILTERS

APPLY FILTERS

← Data Filters Pane

MAP DATA

DOWNLOAD CSV

DOWNLOAD RAW JSON

SELECT ALL

DESELECT ALL

		Number of Captures	Start Date
☐	ig MBR002	406	2025-11-03
☐	2025_11_S03_1031_1031_1031Z-0500_indoor_near_window_unknown_operator_69bb26f6_Clegg MBR001	92	2025-11-03
☒	2025_11_S02_1743_E02_1828Z-0700_outdoor_Verizon_91b37956_sep BOCC Denver.debug	534	2025-11-03
☒	2025_11_S02_1643_E02_1742Z-0700_outdoor_Verizon_91b37956_sep Denver.debug	2,625	2025-11-02
☐	2025_11_S02_1654_E02_2125Z-0600_outdoor_T-Mobile_b285331f_JT_Urban.debug	3,251	2025-11-02
☒	2025_11_S02_0925_E02_1024Z-0700_outdoor_Verizon_91b37956_sep BOCC Denver.debug	661	2025-11-02
☐	2025_11_S02_0513_E02_1114Z-0600_unknown_AT&T_f9f61e77_CD_SUBURBAN	4,336	2025-11-02
☐	2025_11_S02_0513_E02_0816Z-0600_mixed_AT&T_62375c17_CD_SUBURBAN.debug	2,189	2025-11-02
☐	2025_11_S01_1826_E01_2253Z-0500_mixed_AT&T_f9f61e77_CD_SUBURBAN	3,227	2025-11-01
☐	2025_11_S01_1826_E01_2253Z-0500_mixed_AT&T_62375c17_CD_SUBURBAN.debug	3,208	2025-11-01
☐	2025_11_S01_1426_E01_1541Z-0600_outdoor_Verizon_91b37956_sep BOCC.debug	340	2025-11-01
☐	2025_11_S01_1423_E01_1424Z-0600_indoor_near_window_Verizon_91b37956_sep Starbucks.debug	15	2025-11-01
☐	2025_11_S01_1054_E01_1337Z-0600_outdoor_Verizon_91b37956_sep BOCC.debug	351	2025-11-01
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_Verizon_bf5180ae_TP_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_d5019c70_NJ_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_e5c01752_NJ_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1907_E31_1908Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE9.debug	23	2025-10-31
☐	2025_10_S31_1907_E31_1908Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone9 debug	23	2025-10-31
☐	ae_TP_FAMU_Providencezone9 debug	23	2025-10-31
☐	ae_NJ_FAMU PROVIDENCE ZONE 6 debug	30	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone6 debug	31	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE6.debug	31	2025-10-31
☐	2025_10_S31_1856_E31_1858Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_ProvidenceZONE7_8.debug	30	2025-10-31

Always click apply!

Search... Press Enter key or Search icon to submit search query



Filters

Date/Time

Start Date/Time



End Date/Time



UTC-05:00

Geocoordinates

Northwest coordinates

Southeast coordinates

GEOPOLYGON SEARCH

Bands

wifi

☐ 2.4 GHz☐ 5 GHz☐ 6 GHz

cellular

☐ 4 G☐ 5 G

Tags

Campaigns

CLEAR FILTERS

APPLY FILTERS

Data Actions

MAP DATA

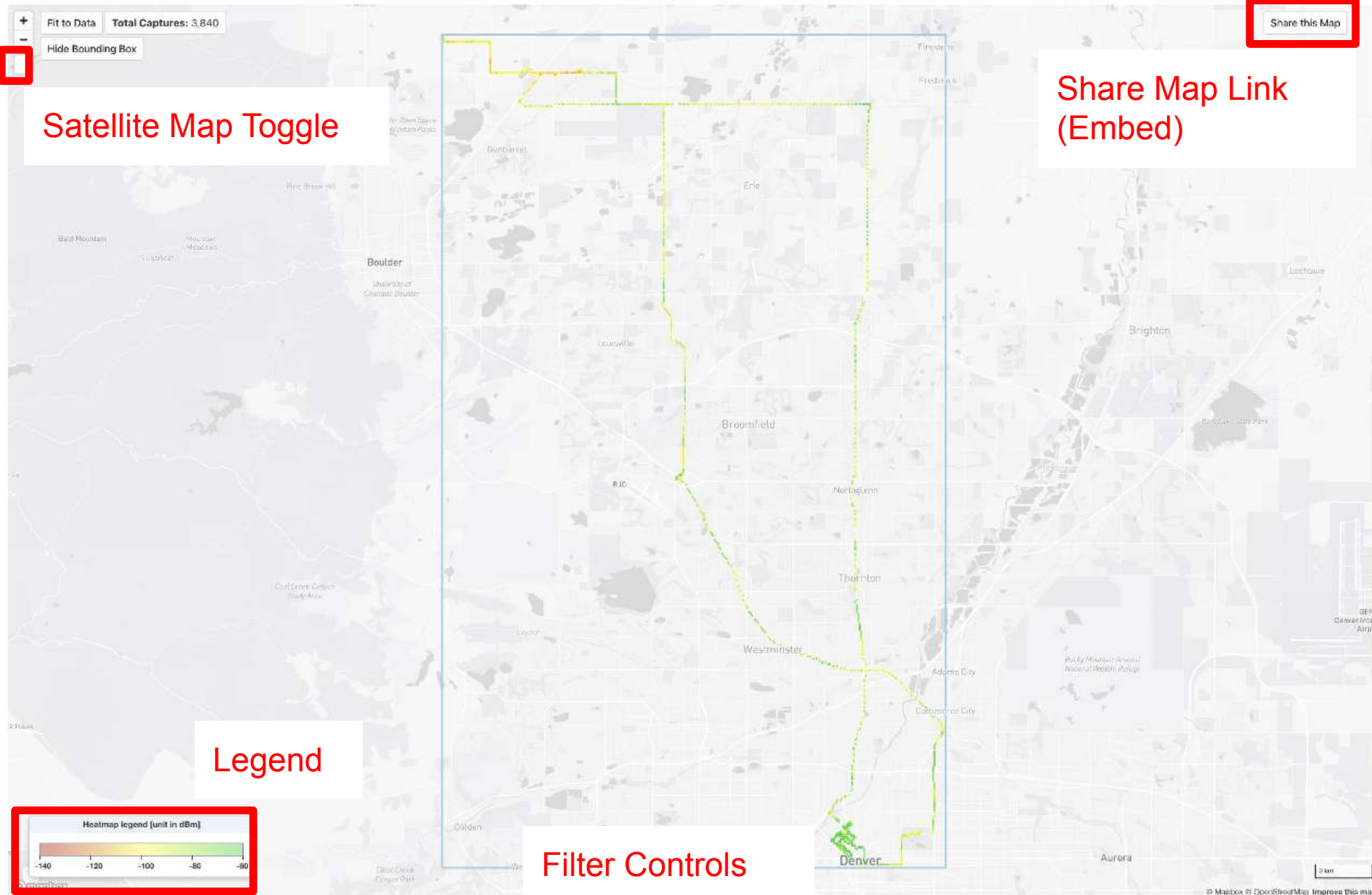
DOWNLOAD CSV

DOWNLOAD RAW JSON

SELECT ALL

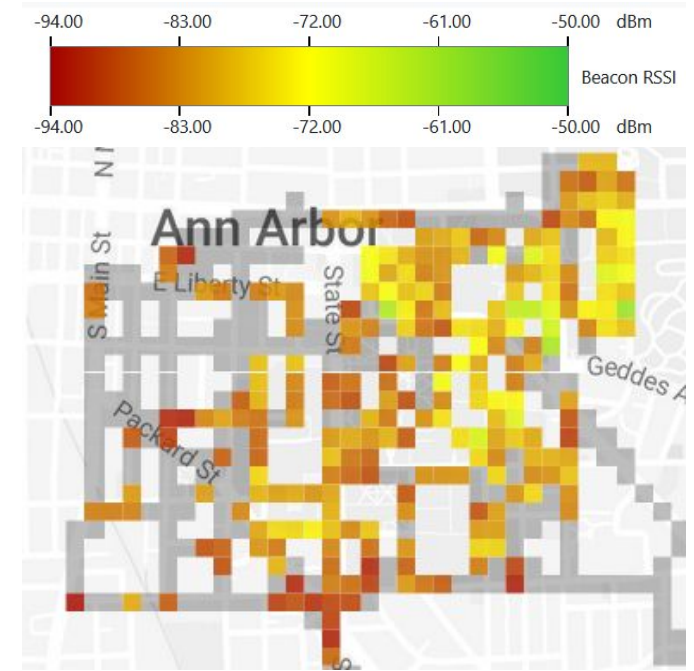
DESELECT ALL

	File name	Number of Captures	Start Date
☐	2025_11_S03_1102_E03_1134Z-0500_indoor_Unknown Operator_69bb28f6_Clegg MBR002	406	2025-11-03
☐	2025_11_S03_1051_E03_1059Z-0500_indoor_near_window_Unknown Operator_69bb28f6_Clegg MBR001	92	2025-11-03
☒	2025_11_S02_1743_E02_1828Z-0700_outdoor_Verizon_91b37956_sep BOCCO Denver.debug	534	2025-11-03
☒	2025_11_S02_1643_E02_1742Z-0700_outdoor_Verizon_91b37956_sep Denver.debug	2,625	2025-11-02
☐	2025_11_S02_1654_E02_2125Z-0600_outdoor_T-Mobile_b285331f_JT_Urban.debug	3,251	2025-11-02
☒	2025_11_S02_0925_E02_1024Z-0700_outdoor_Verizon_91b37956_sep BOCCO Denver.debug	661	2025-11-02
☐	2025_11_S02_0513_E02_1114Z-0600_unknown_AT&T_f9f61e77_CD_SUBURBAN	4,336	2025-11-02
☐	2025_11_S02_0513_E02_0816Z-0600_mixed_AT&T_62375c17_CD_SUBURBAN.debug	2,189	2025-11-02
☐	2025_11_S01_1826_E01_2253Z-0500_mixed_AT&T_f9f61e77_CD_SUBURBAN	3,227	2025-11-01
☐	2025_11_S01_1826_E01_2253Z-0500_mixed_AT&T_62375c17_CD_SUBURBAN.debug	3,208	2025-11-01
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☐	2025_11_S01_1054_E01_1337Z-0600_outdoor_Verizon_91b37956_sep BOCCO.debug	351	2025-11-01
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_Verizon_bf5180ae_TP_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_d5019c70_NJ_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1917_E31_1922Z-0400_indoor_AT&T_e5c01752_NJ_FAMUCOE_SIDEA1STFLOOR.debug	69	2025-10-31
☐	2025_10_S31_1907_E31_1908Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE9.debug	23	2025-10-31
☐	2025_10_S31_1907_E31_1908Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone9.debug	23	2025-10-31
☐	2025_10_S31_1907_E31_1908Z-0400_outdoor_Verizon_bf5180ae_TP_FAMU_Providencezone9.debug	23	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_Verizon_bf5180ae_NJ_FAMU_PROVIDENCE_ZONE_5.debug	30	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_T-Mobile_d5019c70_TP_FAMU_Providencezone6.debug	31	2025-10-31
☐	2025_10_S31_1902_E31_1904Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_PROVIDENCEZONE6.debug	31	2025-10-31
☐	2025_10_S31_1856_E31_1858Z-0400_outdoor_AT&T_e5c01752_NJ_FAMU_ProvidenceZONE7_8.debug	30	2025-10-31

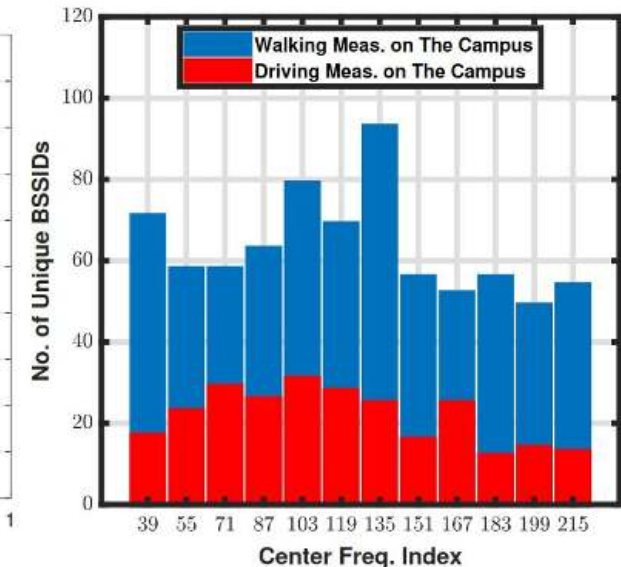
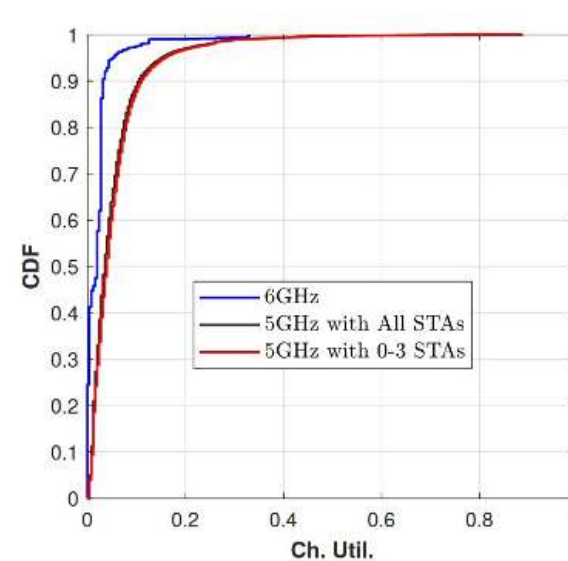


Case Study: Coverage Mapping

- Goal: to answer research questions on the actual network coverage
- Methodology: passive measurements using SigCap over the target area
- Data used for analysis:
 - RSRP (LTE/NR), RSSI (Wi-Fi)
 - PCI (LTE/NR), BSSID (Wi-Fi)
 - Frequency
 - GPS coordinates



6GHz Wi-Fi outdoor Coverage at Ann Arbor, UMich campus





Thank you!