

OUTFRONT/

CATEGORY 5 ANALYTICS

HOW OUTFRONT MEDIA MAPS HURRICANE RISK
USING SPATIAL STUDIO AND OAC

DEREK HAYDEN
VP, DATA STRATEGY & ANALYTICS
OUTFRONT MEDIA

TIM VLAMIS
VP & ANALYTICS STRATEGIST
VLAMIS SOFTWARE SOLUTIONS

FEBRUARY 26, 2020 | SANTA CLARA, CA



PRESENTER BIO

DEREK HAYDEN
VP, DATA STRATEGY & ANALYTICS

- / 17 YEARS AT OUTFRONT
- / 21 YEARS ORACLE TECHNOLOGIES
- / 6 YEARS LEADING OUTFRONT ANALYTICS
- / ENTHUSIASTIC KARAOKE SINGER



PRESENTER BIO

TIM VLAMIS

VP AND ANALYTICS STRATEGIST

- / A LONG TIME AT VLAMIS SOFTWARE SOLUTIONS
- / ORACLE ACE
- / EXPERT IN VISUALIZATION OF DATA AND BUSINESS ANALYTICS STRATEGIES
- / OCCASIONAL YACHT CAPTAIN





509k

Total Displays

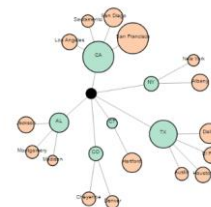
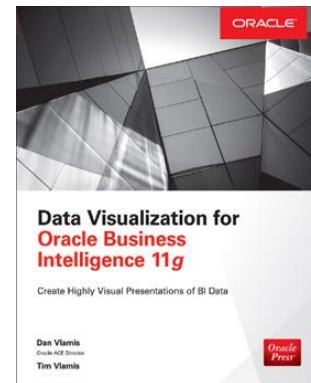
\$1.6B

2018 Revenues

TLC

Connect Brands
with Audiences

- VlamiS Software founded in 1992 in Kansas City, Missouri
- Developed 200+ Oracle BI and analytics systems
- Specializes in Oracle-based:
 - Enterprise Business Intelligence & Analytics
 - Analytic Warehousing
 - Data Mining and Predictive Analytics
 - Data Visualization
- Multiple Oracle ACEs, consultants average 15+ years
- www.vlamiS.com (blog, papers, newsletters, services)
- Co-authors of book “Data Visualization for OBI 11g”
- Co-author of book “Oracle Essbase & Oracle OLAP”
- Creators of the [Force Directed Graph Plugin](#) on the [Oracle Analytics Library](#)
- Oracle University Partner
- Oracle Gold Partner



SAFE HARBOR

/ IN THE EVENT OF A HURRICANE
MOVE BOATS TO A SAFE LOCATION

/ HURRICANE RISK IN OAC IS A POC



OUTFRONT USE CASE



PREPAREDNESS PLAN

- / MINIMIZE DAMAGE WITH TARGETED PREVENTATIVE MEASURES
- / PRIORITIZE BY REVENUE AND STRUCTURE IMPORTANCE
- / MINIMIZE OPERATIONS COSTS
- / IMPACT OF LOCAL ORDINANCES FOR CERTAIN MEDIA



POST EVENT INSPECTION

- / PHYSICAL INVENTORY INSPECTION OF ASSETS
- / PRIORITIZE AT RISK ASSETS
- / OPTIMIZE INSPECTION ROUTES



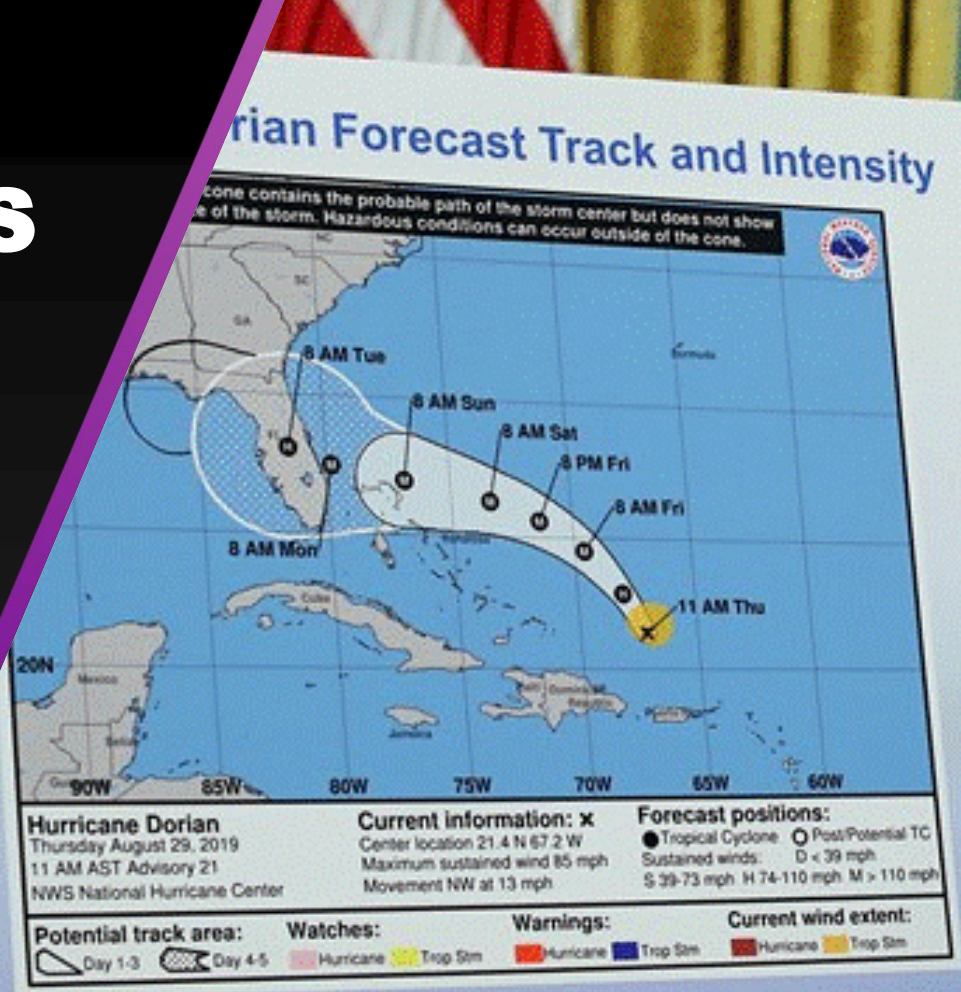
OTHER CONSIDERATIONS

- / RESPONSIBILITY FOR DAMAGE CAUSED TO OTHER PROPERTIES
- / USE CASES FOR UNEXPECTED WEATHER EVENTS
- / IMPACT OF PREPAREDNESS PLAN ON INSURANCE PREMIUMS



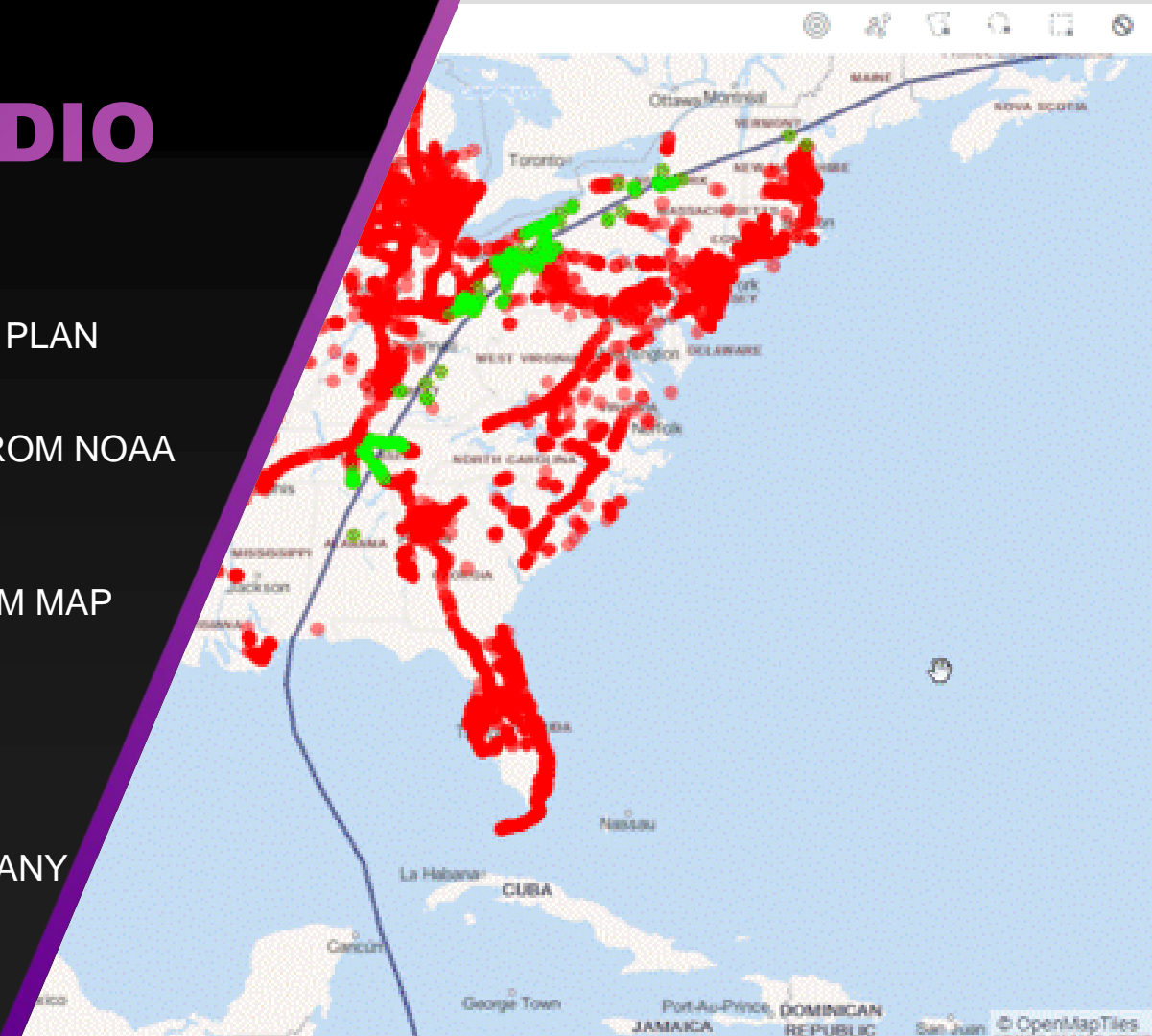
DATA CONSIDERATIONS

- / HIGHLY CURATED LOCATION DATA
- / EXCELLENT REVENUE DATA
- / LOCAL OPERATIONS KNOWLEDGE OF STRUCTURE TYPES
- / PUBLICALLY AVAILABLE DATA FOR EVENT MODELING



SPATIAL STUDIO AND OAC

- / ENHANCEMENT TO ESTABLISHED PLAN
- / CREATE CUSTOM MAP LAYERS FROM NOAA DATA
- / UTILIZE OAC TO OVERLAY CUSTOM MAP LAYERS WITH LOCATION DATA
- / ORACLE MARKETPLACE VERSION
- / SPATIAL STUDIO INCLUDED WITH ANY ORACLE DATABASE



TROPICAL FORCE WINDS

- / 34 KNOTS PER HOUR (FORECASTED THROUGH 72 HOURS IN ADVANCE)
 - / 39.1 MILES PER HOUR
 - / 63 KILOMETERS PER HOUR
- / 50 KNOTS PER HOUR (FORECASTED THROUGH 72 HOURS IN ADVANCE)
 - / 57.5 MILES PER HOUR
 - / 92.7 KILOMETERS PER HOUR
- / 64 KNOTS PER HOUR (FORECASTED THROUGH 36 HOURS IN ADVANCE)
 - / 73.6 MILES PER HOUR
 - / 118.6 KILOMETERS PER HOUR

HURRICANE EYE AND WIND FIELDS

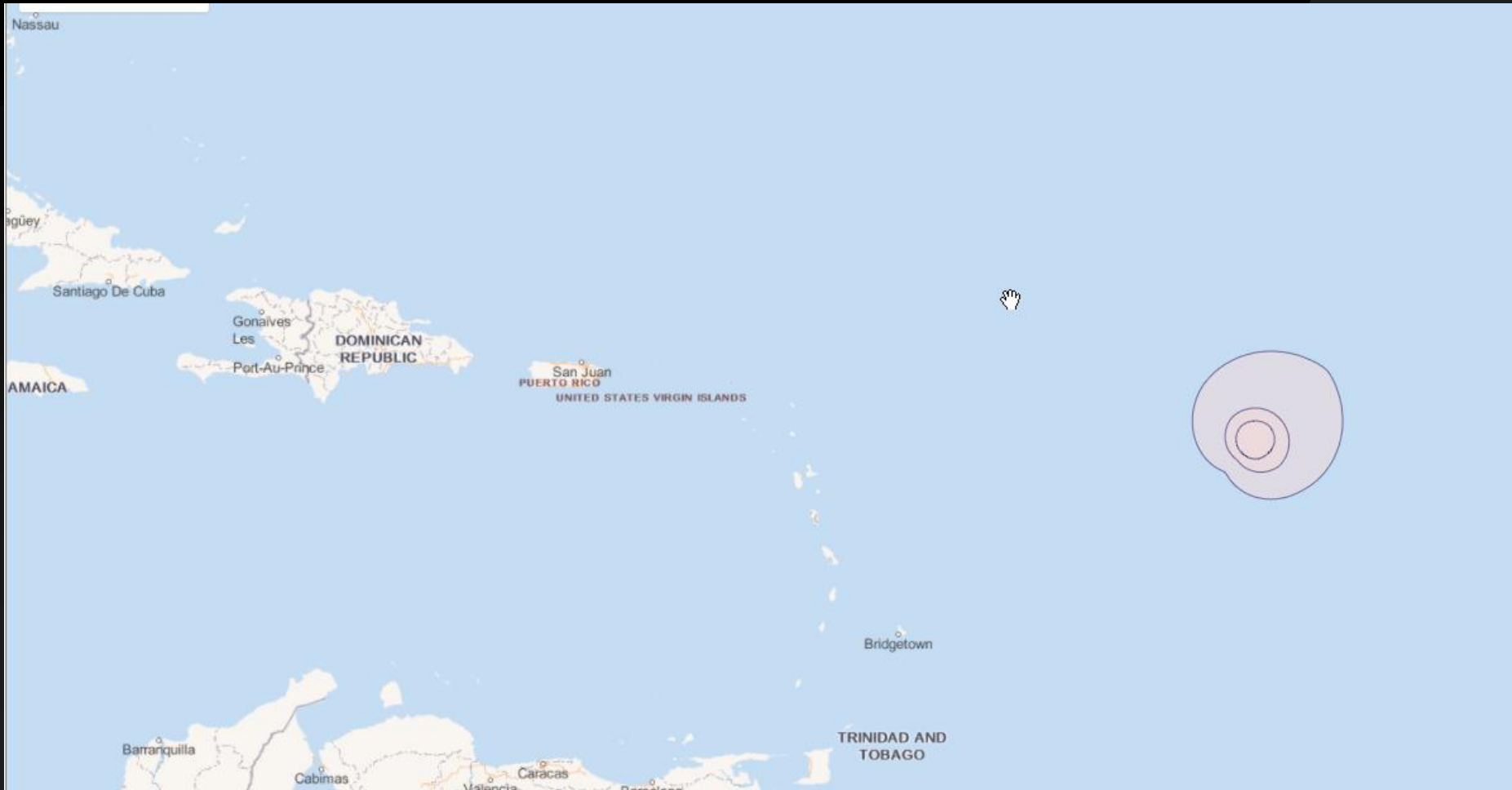
- / EYE SIZE FOR MAJOR STORMS 20 MILES TO 40 MILES IN DIAMETER (30 KM – 65 KM)
- / HURRICANE FORCE WINDS OFTEN EXTEND MANY TIMES THE DIAMETER OF THE EYE
- / MAXIMUM WIND SPEEDS AND SUSTAINED WIND SPEEDS AT DIFFERENT SPECIFIC LOCATIONS ARE HIGHLY VARIABLE
- / MOST ALL PREDICTIVE DATA REFERS TO THE PROBABILITY/LIKELIHOOD OF POTENTIALLY DAMAGING WINDS.

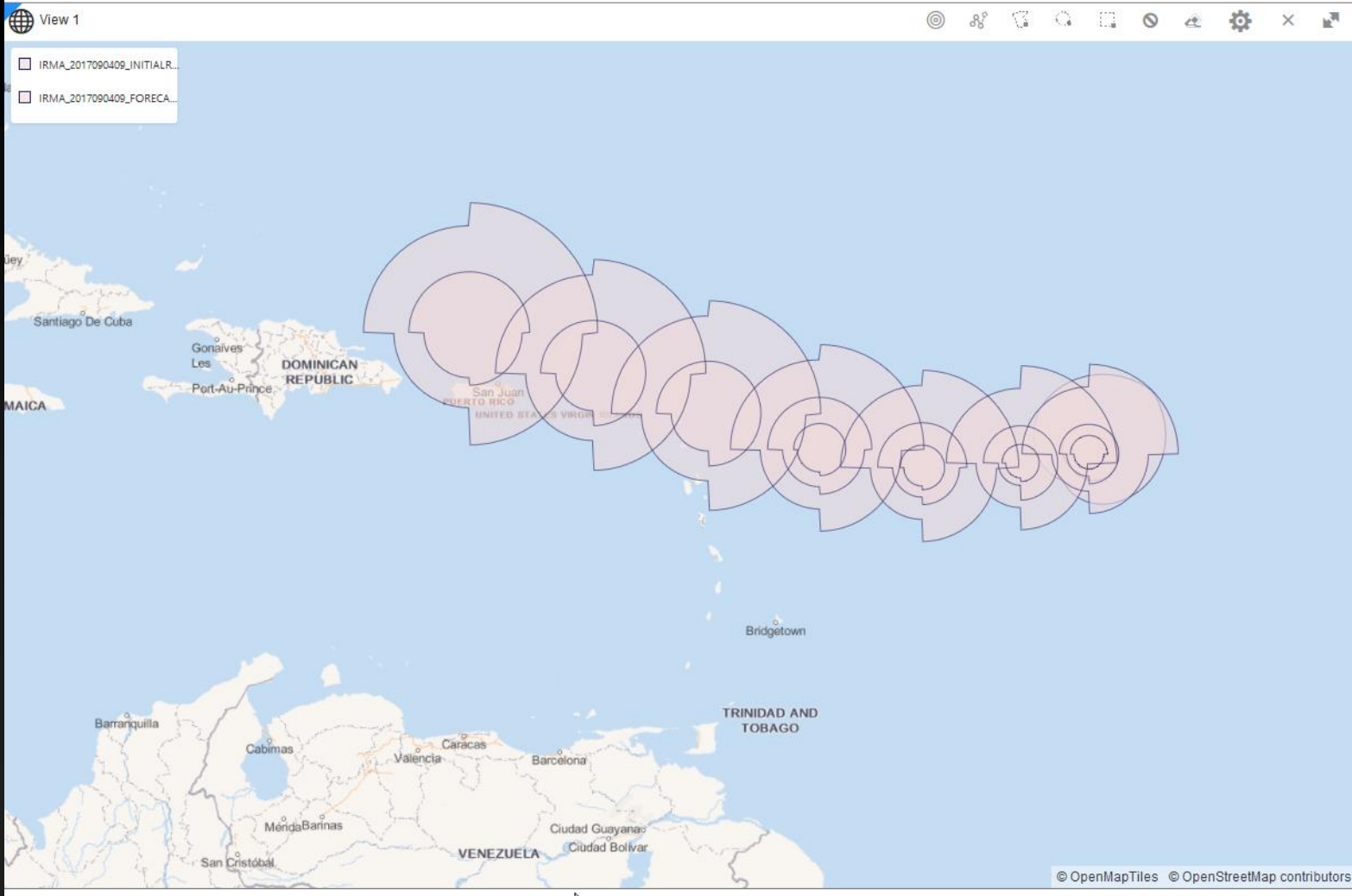
INTERPRETING THE CONE OF A HURRICANE FORECAST

- / THE CONE REPRESENTS THE PROBABLE TRACK OF THE CENTER OF A TROPICAL CYCLONE, AND IS FORMED BY ENCLOSING THE AREA SWEEPED OUT BY A SET OF CIRCLES ALONG THE FORECAST TRACK (AT 12, 24, 36 HOURS, ETC)
- / THE SIZE OF EACH CIRCLE IS SET SO THAT TWO-THIRDS OF HISTORICAL OFFICIAL FORECAST ERRORS OVER A 5-YEAR SAMPLE FALL WITHIN THE CIRCLE
- / BASED ON FORECASTS OVER THE PREVIOUS 5 YEARS, THE ENTIRE TRACK OF A TROPICAL CYCLONE CAN BE EXPECTED TO REMAIN WITHIN THE CONE ROUGHLY 60-70% OF THE TIME
- / IT IS IMPORTANT TO NOTE THAT THE AREA AFFECTED BY A TROPICAL CYCLONE CAN EXTEND WELL BEYOND THE CONFINES OF THE CONE ENCLOSING THE MOST LIKELY TRACK AREA OF THE CENTER.

DEMO TIME

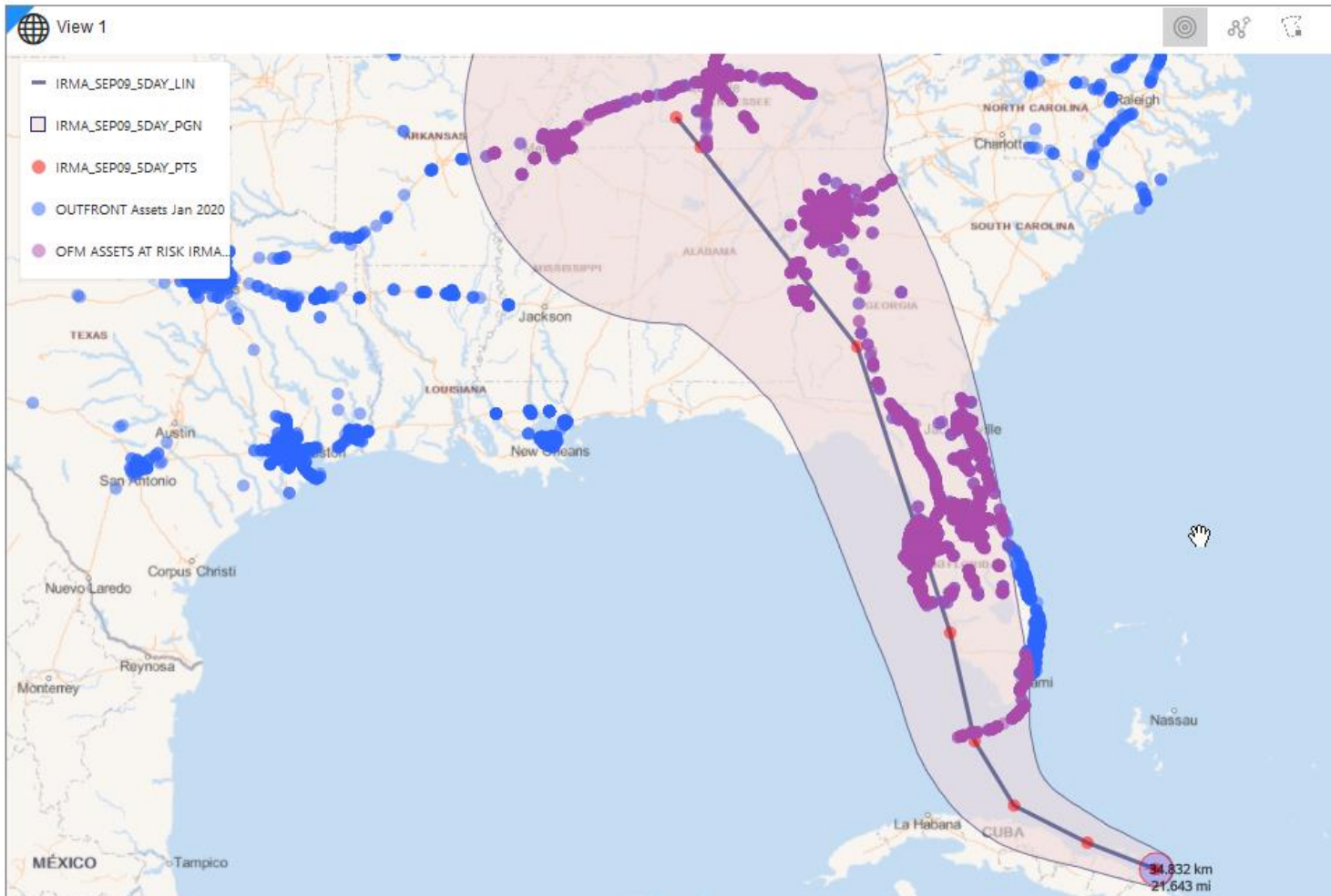






S... 

Legend



IRMA Wind Speed Greater Than 64 Knots Probability Fields

[← Back](#) / Layer Settings

IRMA_SEP_9_64KMP_WIND_P...

IRMA_SEP_9_64KMP_WIND_PRED

Style Filter Interaction Legend

Render style 2-D

Fill

Color Single color

Opacity

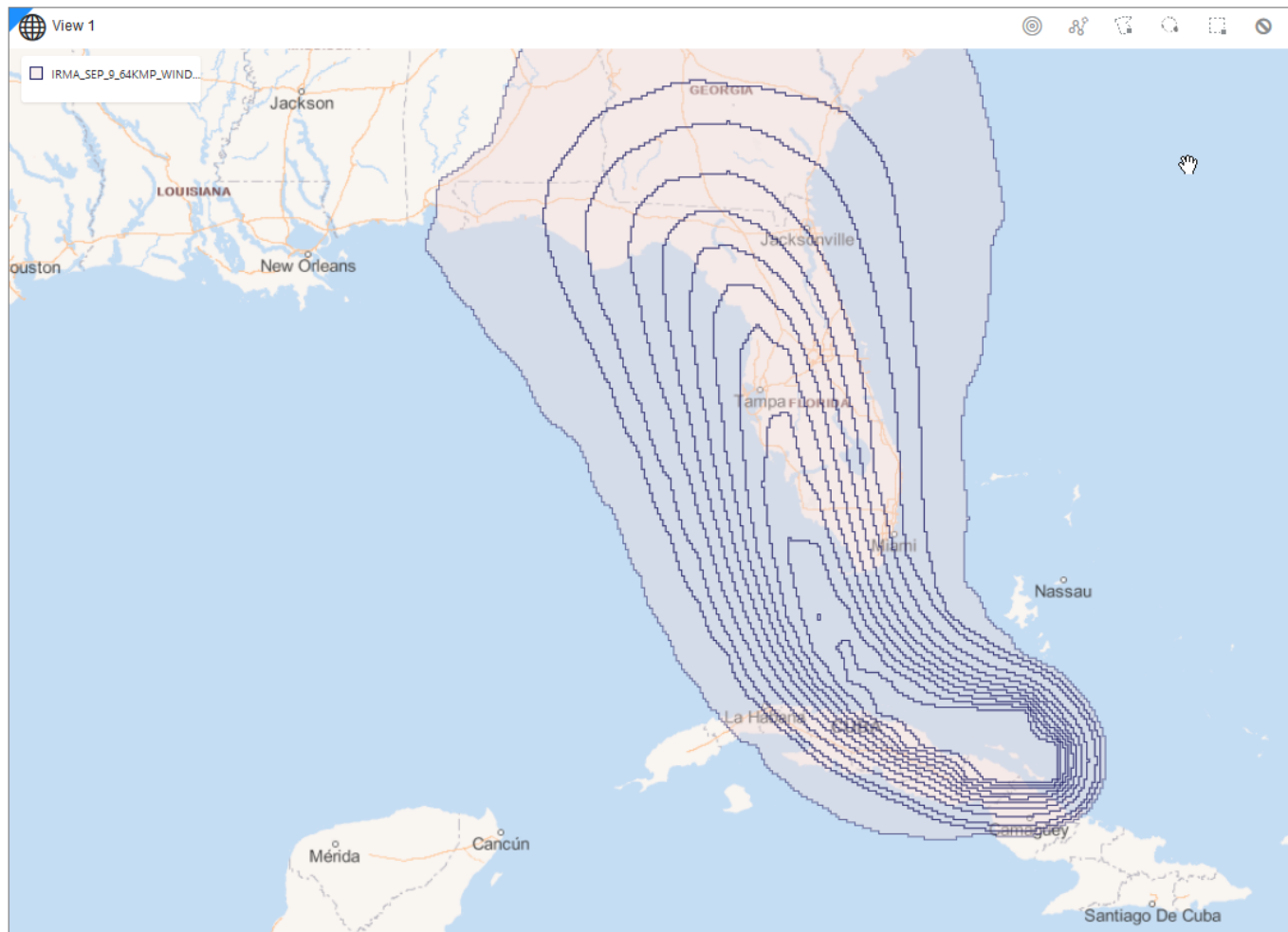
Antialias

Outline

Color

Opacity

Width 1



IRMA Wind Speed Greater Than 64 Knots Probability Fields

Layers List

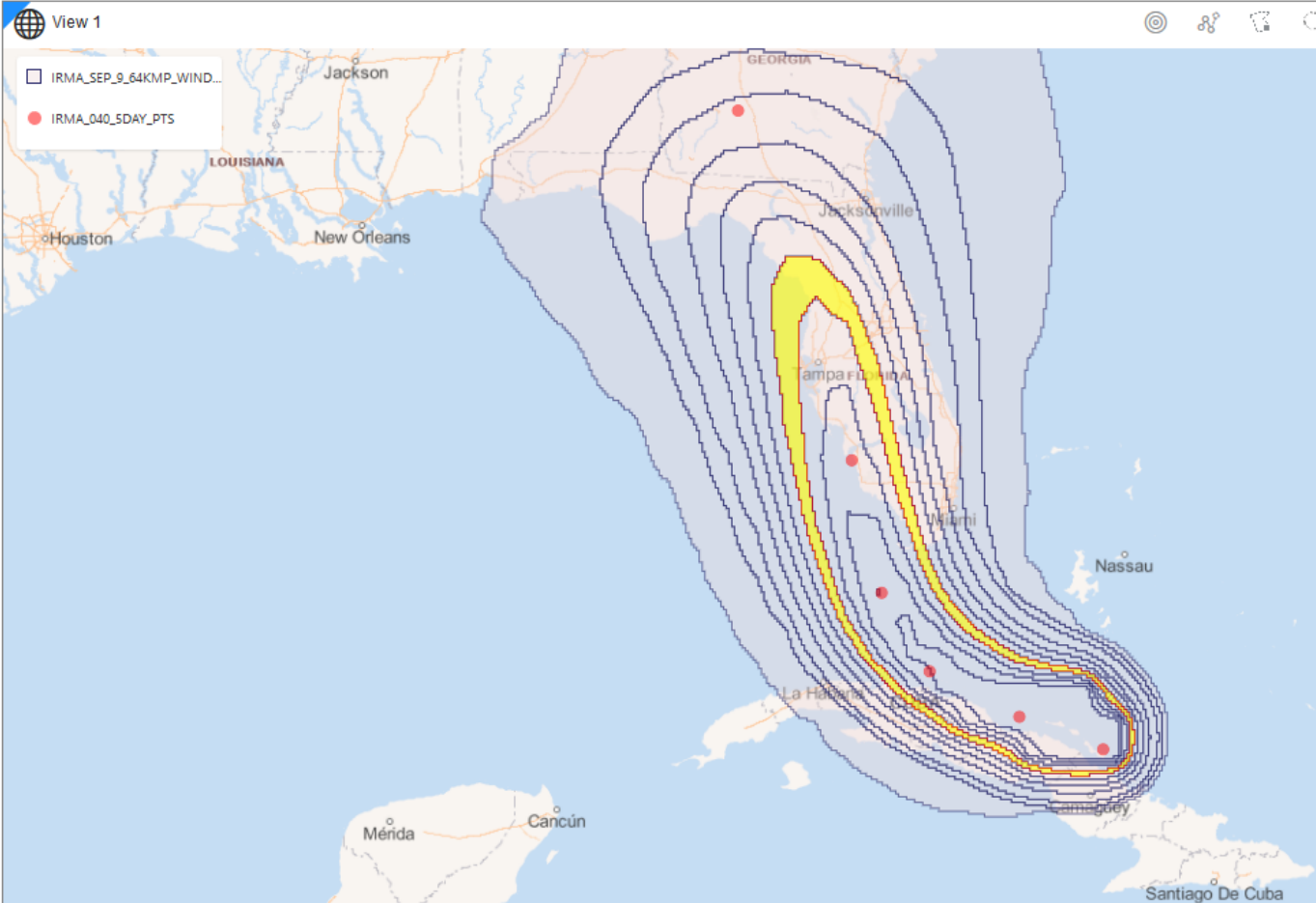
Data

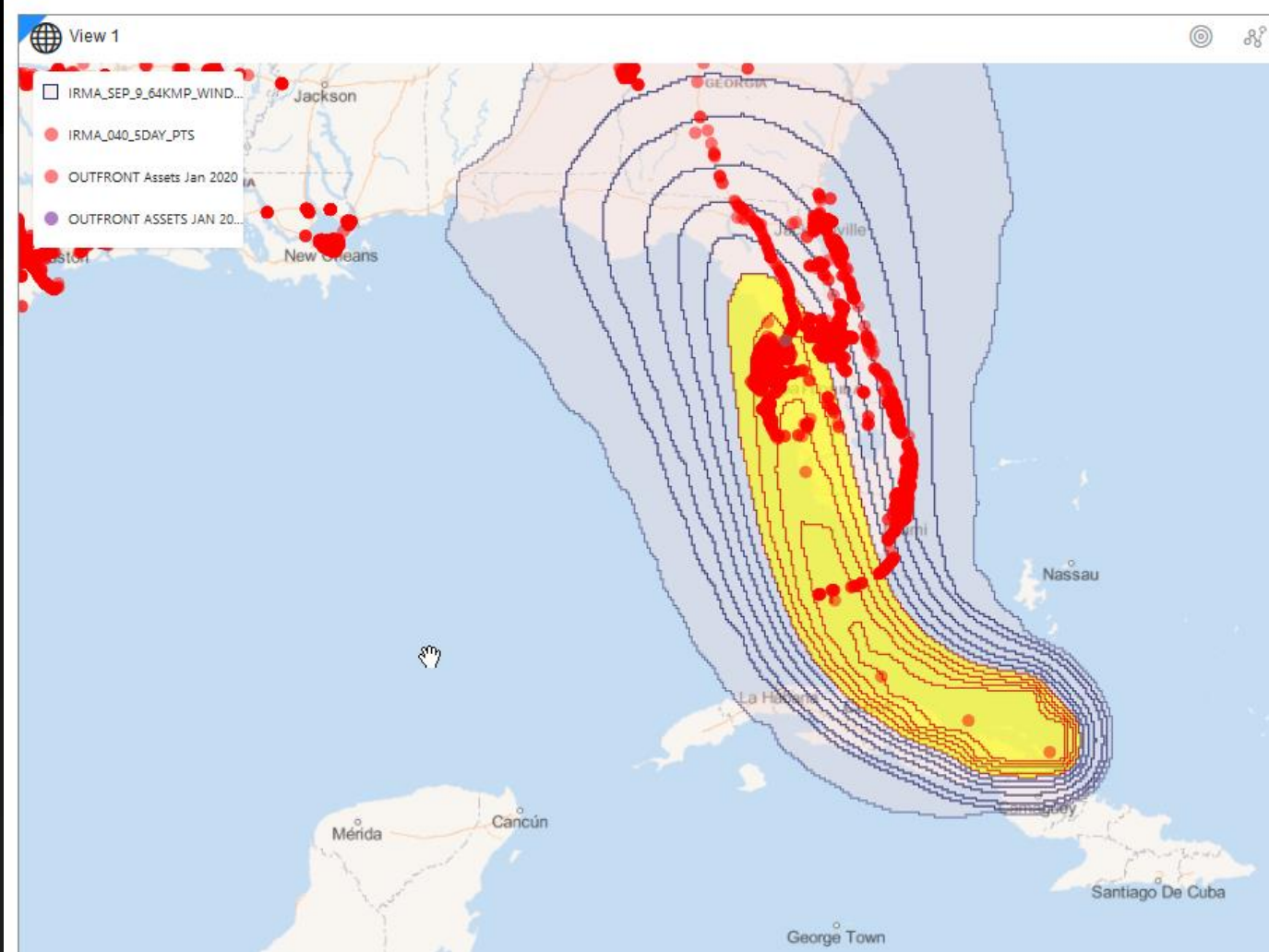
IRMA_040_5DAY_PTS

IRMA_SEP_9_64KMP_WIND_PRED

Background

Oracle OSM Bright





Data

INV_SUFFIX
FACILITY
SUBFACILITY
AREA_NAME
MEDIA_GROUP_N...
MEDIA_NAME
INV_MARKET
INV_MARKET_NA...
LONGITUDE Txt

LONGITUDE, LATITUDE, L...

#

Layers

LONGITUDE, LATITUDE, LOCATION

Click here or drag data to add a filter

Map

Trellis Columns

Trellis Rows

LONGITUDE, L...

Category (Location)

LONGITUDE

LATITUDE

LOCATION

Color

Revenue

Size

Shape

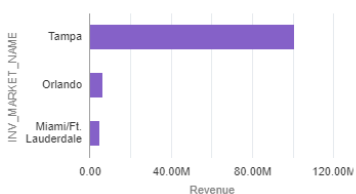
Tooltip

Filters

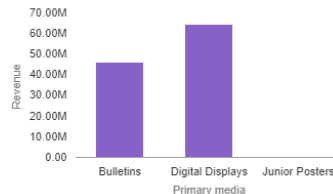
Revenue



Revenue by INV_MARKET_NAME



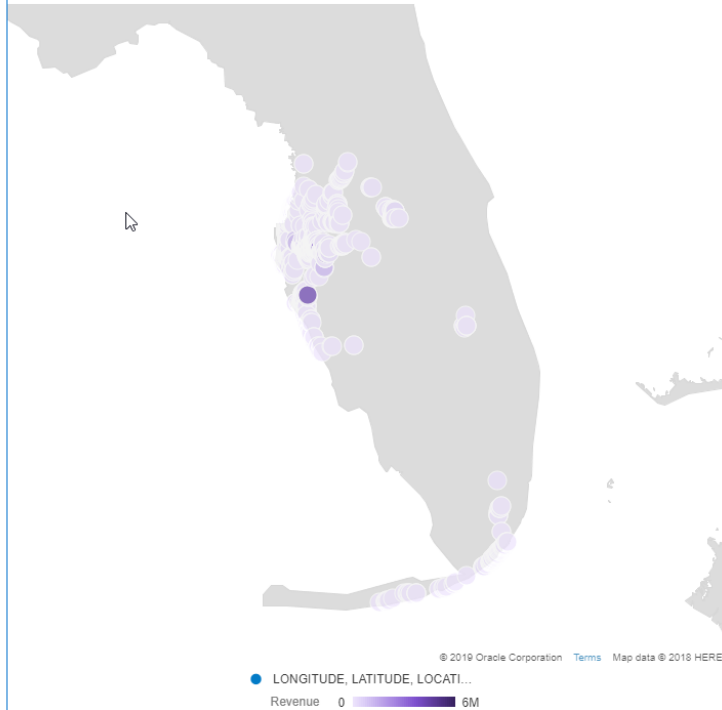
Revenue by Primary media



Revenue, LONGITUDE, LATITUDE, Primary media, LOCATION

Revenue	LONGITUDE	LATITUDE	Primary media	LOCATION
	-82.51902	27.95109	Digital Displays	I-275 .25 mi E/O Westshore Blvd N/S
	-82.34984	28.03728	Digital Displays	I-75 1 mi S/O Fowler Av W/S
	-82.51027	27.53897	Digital Displays	I-75/Premium Outlet Mall, .6 mi n/o US 301 E/S
	-82.51026	27.53894	Digital Displays	I-75/Premium Outlet Mall, .6 mi n/o US 301 E/S
	-82.50312	27.95502	Digital Displays	I-275 750ft e/o Dale Mabry Hwy S/S

LONGITUDE, LATITUDE, LOCATION, Revenue



IRMA At Risk Sum IRMA At Risk Sum Copy

1202 Points

Show all

Map

Trellis Columns

Trellis Rows

IRMA Path

Category (Location)

Color

Size

Shape

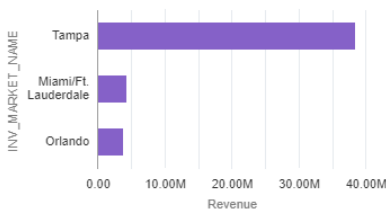
Tooltip

Filters

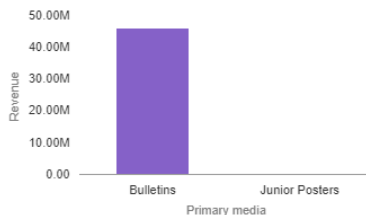
Revenue

\$

Revenue by INV_MARKET_NAME



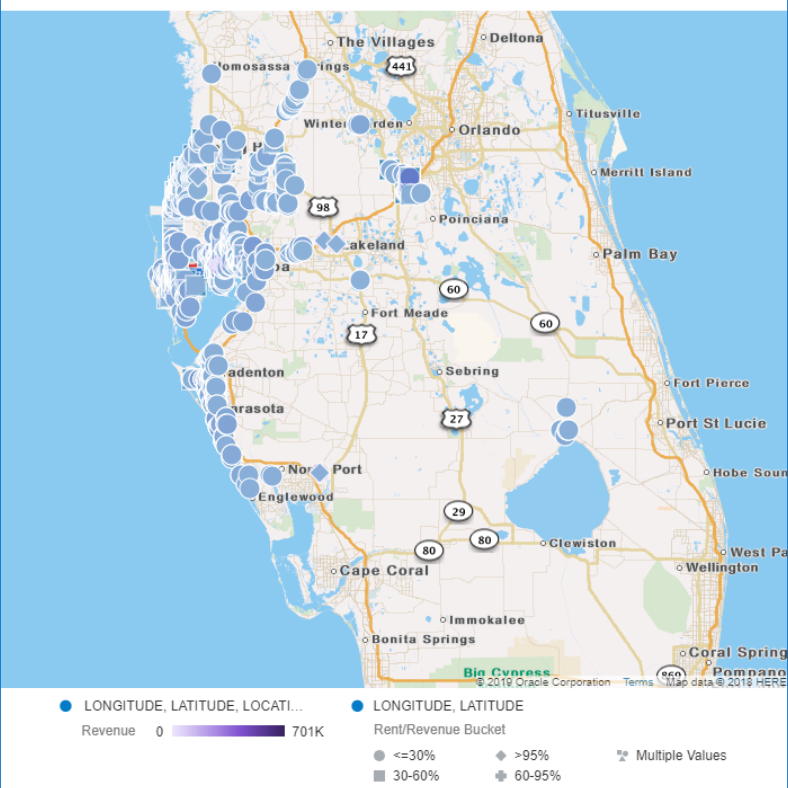
Revenue by Primary media



Revenue, LONGITUDE, LATITUDE, Primary media, LOCATION

Revenue	LONGITUDE	LATITUDE	Primary media	LOCATION
	-82.512	27.95239	Bulletins	I-275 400 ft E/O Lois Ave N/S
	-82.45463	27.96118	Bulletins	I-275 & Jct I-4 W/S
	-82.45392	27.96561	Bulletins	I-275 & Jct I-4 W/S
	-81.59969	28.27612	Bulletins	I-4, 5.00 mi W/O US 192; N/S
	-81.58512	28.33206	Bulletins	US 192, .20 mi E/O SR 545; S/S
	-81.58508	28.332	Bulletins	US 192, .20 mi E/O SR 545; S/S

LONGITUDE, LATITUDE, Rent/Revenue Bucket, LONGITUDE, LATITUDE, LOCATION, Revenue



IRMA At Risk Sum

IRMA At Risk Sum Copy

2312 Points

Show all

OUTFRONT/

CATEGORY 5 ANALYTICS

HOW OUTFRONT MEDIA MAPS HURRICANE RISK
USING SPATIAL STUDIO AND OAC

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