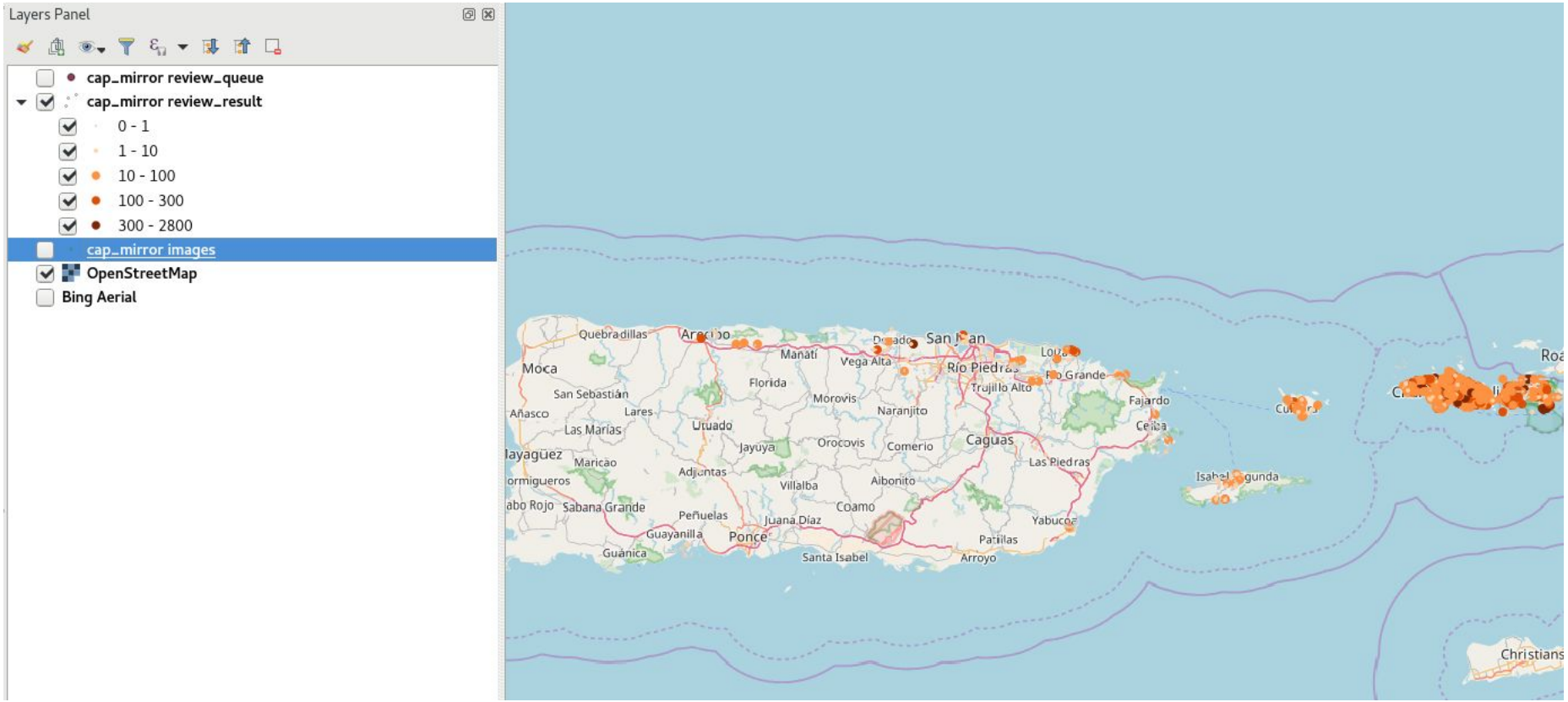
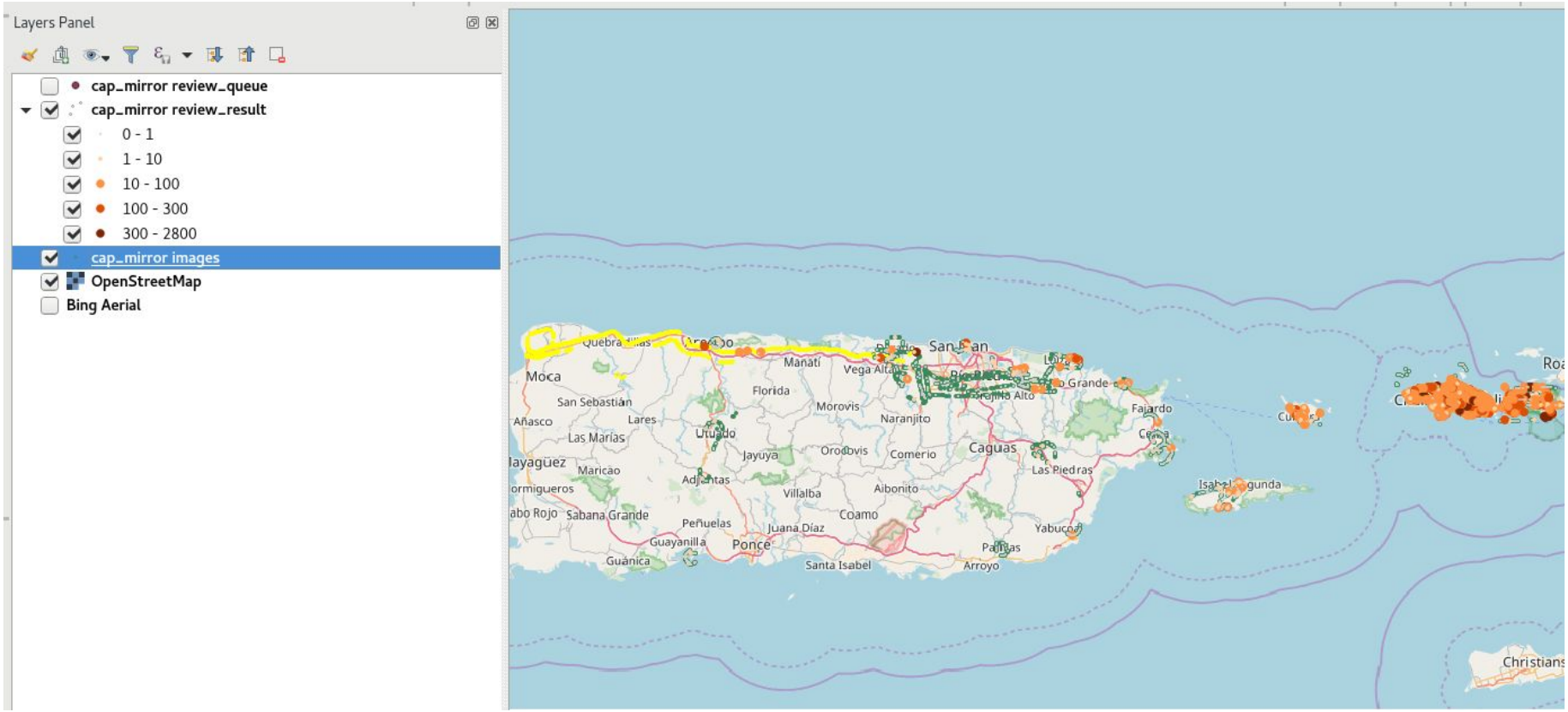
Damage Review Reporting



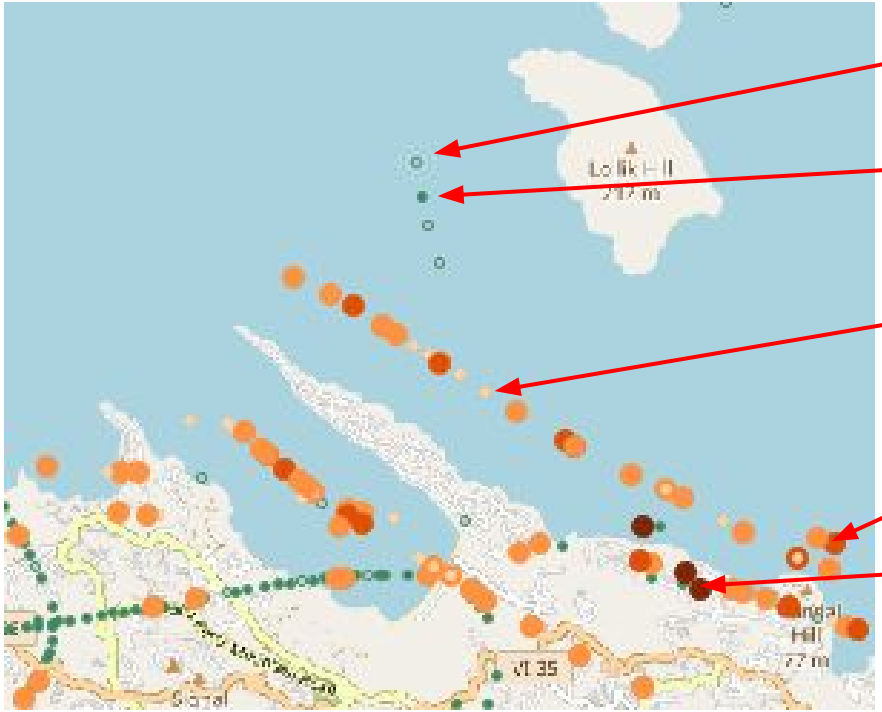
Irma Scoring



Reviewed vs unReviewed images

Irma - St. Thomas

Follow the imageurl link for a image showing lots of damage



- **Reviewed - no impact**
  Small Green circle with grey fill
- **Not Yet Reviewed**
  Small Green circle with green fill
- **Reviewed low impact**
  Small light orange circle
- **Reviewed moderate impact**
  Medium orange circle
- **Reviewed high impact**
  Dark orange circle

Reading the Damage Assessment reporting

Each image is reviewed for damage and each impacted structure is tagged one of:

Affected
Minor Damage
Major Damage
Destroyed

Each image is then scored based on the number of damaged structures and the severity of the damage

score = num_affected +
(num_dmg_minor * 2) +
(num_dmg_major * 5) +
(num_destroyed * 20)

Scoring

Tagging each damaged structure

Assessment Viewer

- **Disasters.geoplatform.gov:**
  - **http://disasters.geoplatform.gov/arcgis/home/webmap/viewer.html?webmap=5f5cb4818b3e47dba6ac978af6be35f9**

For GIS Users

- **The ESRI ArcGISServer Links are:**
  - https://imageryuploader.geoplatform.gov/arcgis/rest/services/ImageReviews/MapServer

- **OGC WMS & WFS Links are:**
  - https://imageryuploader.geoplatform.gov/arcgis/services/ImageReviews/MapServer/WMSServer?service=WMS&request=GetCapabilities
  - https://imageryuploader.geoplatform.gov/arcgis/services/ImageReviews/MapServer/WFSServer?service=WFS&request=GetCapabilities

- **Geopackage / Sqlite3 export of the database:**
  - https://s3.amazonaws.com/fema-cap-imagery/Support/cap_extract.sqlite

Damage Reporting Links

Raw CAP Uploads Viewer

- **Disasters.geoplatform.gov:**
  - **http://disasters.geoplatform.gov/arcgis/apps/MapSeries/index.html?appid=71cdd45da1f04b79b1a36fcc90e6c273**

For GIS Users

- **The ESRI ArcGISServer Links are:**
  - https://imageryuploader.geoplatform.gov/arcgis/rest/services/ImageEvents/MapServer

- **OGC WMS & WFS Links are:**
  - https://imageryuploader.geoplatform.gov/arcgis/services/ImageEvents/MapServer/WMSServer?service=WMS&request=GetCapabilities
  - https://imageryuploader.geoplatform.gov/arcgis/services/ImageEvents/MapServer/WFSServer?service=WFS&request=GetCapabilities

- **Geopackage / Sqlite3 export of the database:**
  - https://s3.amazonaws.com/fema-cap-imagery/Support/cap_extract.sqlite

Damage Reporting Links

Technical Notes

- Daily CAP Extract Data Definitions from Geopackage snapshot

Events	Event Data (9073 - Harvey, 9074 - Irma, 9075 - Maria)
Teams	Team Data
Missions	Mission data
Images	Point geometry
NMEA Points	Point geometry
NMEA Tracks	Line geometry
Review Queue	Point geometry
Review Status	Point geometry + num structures impacted by class + overall score
Review Assessment	Record of every assessment submitted
Review Mission Status	Status of review of each Mission

▼ cap_mirror review_result	
▼ imageeventname	CAP - Hurricane Maria
▶ (Derived)	
▶ (Actions)	
ogc_fid	190
id	00B7DD82-26AF-474A-9DCE-EB1F222CE902
imageeventname	CAP - Hurricane Maria
imagemissionname	A0022
imageteamname	17-1-5808A
imageurl	https://fema-cap-imagery.s3.amazonaws.com/Image
num_affected	2
num_destroyed	6
num_dmg_major	12
num_dmg_minor	11
score	102
shape_wkt	POINT (-66.7258366666667 18.46341)
thumbnailurl	https://fema-cap-imagery.s3.amazonaws.com/Thumb
uploaddate	2017-09-24 12:58:54.750000

```
UPDATE ImageReviews.dbo.review_result SET num_affected = (SELECT r.cnt FROM
      (SELECT a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity) as svr , count(*) as cnt
      FROM ImageReviews.dbo.assessment a
      CROSS APPLY OPENJSON(a.data, '$.features')
         WITH (
         severity varchar(25) '$.properties.severity')
         AS location
      WHERE
         a.general_status = '"impact"'
      GROUP BY a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity))
   as r
   WHERE r.id = review_result.id and r.svr = 'affected'),
   num_dmg_minor = (SELECT r.cnt FROM
      (SELECT a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity) as svr , count(*) as cnt
      FROM ImageReviews.dbo.assessment a
      CROSS APPLY OPENJSON(a.data, '$.features')
         WITH (
         severity varchar(25) '$.properties.severity')
         AS location
      WHERE
         a.general_status = '"impact"'
      GROUP BY a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity))
   as r
   WHERE r.id = review_result.id and r.svr = 'minor'),
   num_dmg_major = (SELECT r.cnt FROM
      (SELECT a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity) as svr , count(*) as cnt
      FROM ImageReviews.dbo.assessment a
      CROSS APPLY OPENJSON(a.data, '$.features')
         WITH (
         severity varchar(25) '$.properties.severity')
         AS location
      WHERE
         a.general_status = '"impact"'
      GROUP BY a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity))
   as r
   WHERE r.id = review_result.id and r.svr = 'major'),
   num_destroyed = (SELECT r.cnt FROM
      (SELECT a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity) as svr , count(*) as cnt
      FROM ImageReviews.dbo.assessment a
      CROSS APPLY OPENJSON(a.data, '$.features')
         WITH (
         severity varchar(25) '$.properties.severity')
         AS location
      WHERE
         a.general_status = '"impact"'
      GROUP BY a.id, a.mission_id, a.general_status, CONVERT(VARCHAR(15), location.severity))
   as r
```