

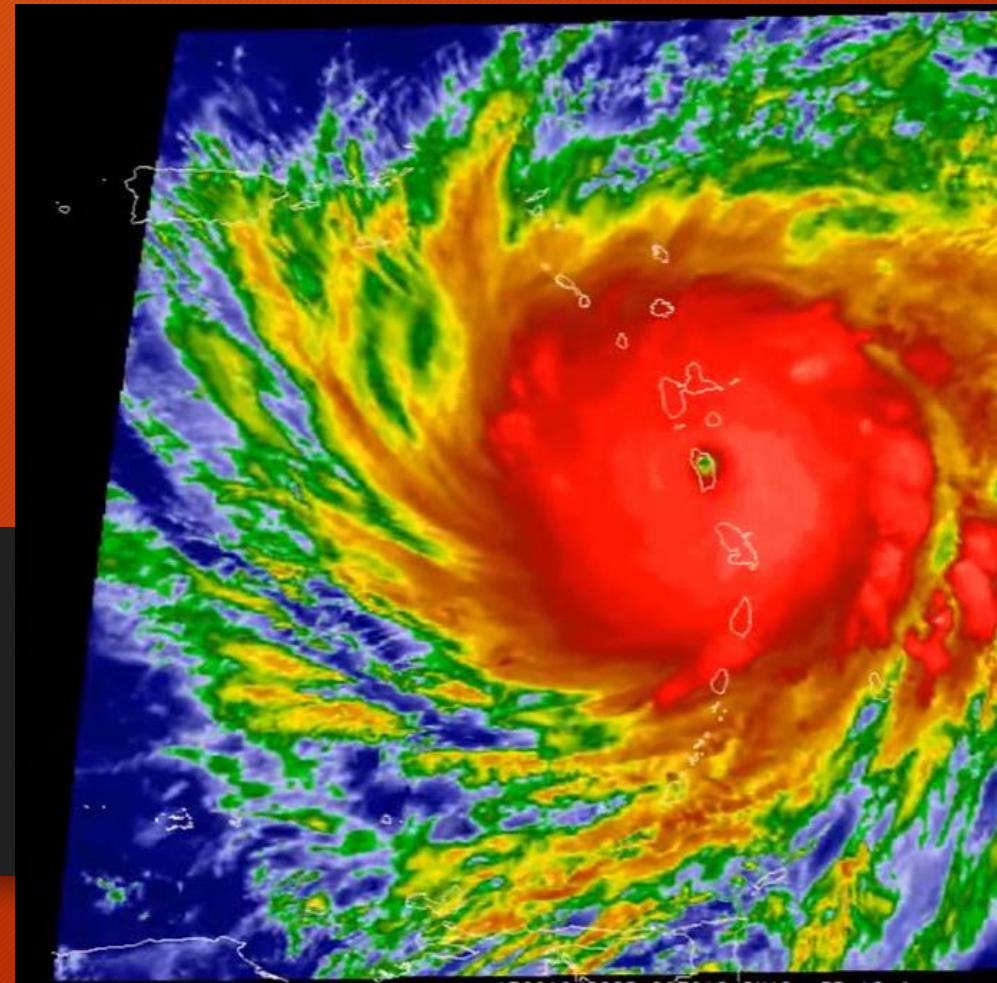
Crowdsourcing for the Common Good

An Example of How Basic GIS Tools and Social Media Helped to Inform the Public Following Hurricane Maria

Stephen Moysey
Center for Geospatial Technologies
Env. Eng. & Earth Sciences
Eng. & Science Education



With thanks to:
Patricia Carbajales, CCGT
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Jennifer Ogle & Engage Dominica
Kelly Lazar & Geopaths



The Coming Storm



Hurricane Maria is heading towards the Leeward Islands and will likely become a major hurricane tonight or early Tuesday. #Maria #tropics



1:59 AM - 18 Sep 2017

SEP 18, 2017 @ 11:39 PM 23,105

The Little Black Book of Billionaire Secrets

Hurricane Maria Just Went From A Category 1 Storm To Category 5 In About Half A Day



Eric Mack, CONTRIBUTOR

I cover science and innovation and products and policies they create.

FULL BIO

Opinions expressed by Forbes Contributors are their own.



People board up windows of a business in preparation for the anticipated arrival of [+]

While you were going about your business Monday, Hurricane Maria rapidly intensified from a category 1 storm to the category 5 monster with 160 mph winds that is now bowling over the Caribbean island of Dominica.

As of 5 a.m. Atlantic time on Monday, the National Hurricane Center (NHC) in Miami reported that Maria's sustained maximum winds of 90 mph put it at the high end of a category 1 hurricane on the Saffir-Simpson scale. The NHC's 8 p.m. report put Maria at a category 5, making it one of the more rapidly intensifying storms in recent memory.

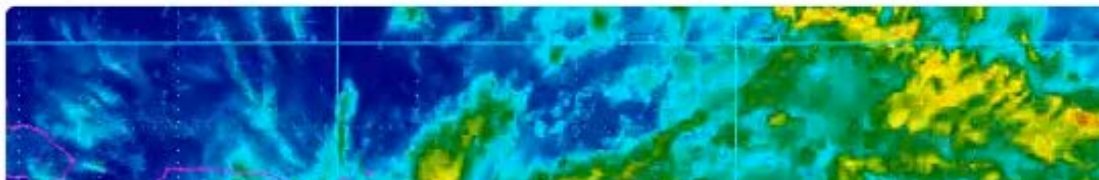


Learn more →



ecdWeather @ecdWeather · Sep 18

#Dominica takes a direct hit from #HurricaneMaria
#NHC Update at 11PM maintains 160MPH Cat 5 intensity.
Island: No Power, no communication



Roosevelt Skerrit

September 18 · 🌐

Initial reports are of widespread devastation. So far we have lost all what money can buy and replace. My greatest fear for the morning is that we will wake to news of serious physical injury and possible deaths as a result of likely landslides triggered by persistent rains.

So, far the winds have swept away the roofs of almost every person I have spoken to or otherwise made contact with. The roof to my own official residence was among the first to go and this apparently trig... [See More](#)



Roosevelt Skerrit

September 18 · Facebook Creator · 🌐

The winds are merciless! We shall survive by the grace of God!



Roosevelt Skerrit

September 18 · Facebook Creator · 🌐

Certainly no sleep for anyone in Dominica. I believe my residence may have sustained some damage.



Roosevelt Skerrit

September 18 · 🌐

Rough! Rough! Rough!



Roosevelt Skerrit

September 18 · 🌐

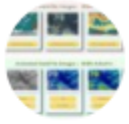
My roof is gone. I am at the complete mercy of the hurricane. House is flooding.



Roosevelt Skerrit

September 18 · 🌐

I have been rescued.



ecdWeather
@ecdWeather

Following



npr SOUTH CAROLINA PUBLIC RADIO news arts & life music programs shop

the two-way BREAKING NEWS FROM NPR

in #Dominica
69DS



INTERNATIONAL

In Devastated Dominica, 'Hams' Become Vital Communications Link

September 21, 2017 · 4:23 PM ET

SCOTT NEUMAN



ecdWeather @ecdWeather · Sep 19

#Dominica heart & thoughts this evening. Please know that the footage and audio provided is accurate/verified, thanks to the Ham Radio crew

2 4 13



ecdWeather @ecdWeather · Sep 19

Replying to @ecdWeather @nytimes and 2 others
tunein.com/radio/Wice-QFM...

Dominica audio: (raw file) soundcloud.com/sigmytube/2017...



Wice QFM

Q95FM Radio is owned and operated by West Indies Communications Enterprise Limited (WICE) of Roseau Dominica . Q95FM Radio started live broadcast in Dece...
tunein.com

2 5 8



ecdWeather @ecdWeather · Sep 20

UPDATE: 1:45 #Dominica via Ham Radio

Airport is ok. Homes in some areas: 95% have roof damage.



ecdWeather @ecdWeather · Sep 20

It takes a team! I can finally sleep tonight
Julian Antoine (J73JA), myself (K4ECD) and the Team at QFM 95.1
Appreciate your comment ~



Abbicam @abbicam

@ecdWeather thank you so much for your updates and ham transmissions.
You have helped so many shed some light on such a terrible situation 🍷



↻ 4

❤️ 24



ecdWeather @ecdWeather · Sep 20

#Dominica FLOW cell service slowly coming which means less reliance on
#hamradio

Privilege to serve EACH of you over last 72HRS
K4ECD J73JA



💬 20

↻ 22

❤️ 70



ecdWeather @ecdWeather · Sep 20

#Dominica: Multiple reports of TEXT ONLY connections on Flow into Dominica.
Do not call. Text only at this time.



💬 1

↻ 15

❤️ 20



weeted

Commission @oecscommission · Sep 20

Dominica after #hurricaneMaria via @cdemacu cc @DidacusJules
@DNONews @RCI_MQ @CTM_Martinique @RCI_GP @SkerritR



↻ 27

❤️ 7





ecdWeather @ecdWeather · Sep 22

#DominicaPostMaria #Dominica



A walk from Castle Comfort to Roseau the day after...

A walk from Castle Comfort to Roseau the day after Maria

youtube.com

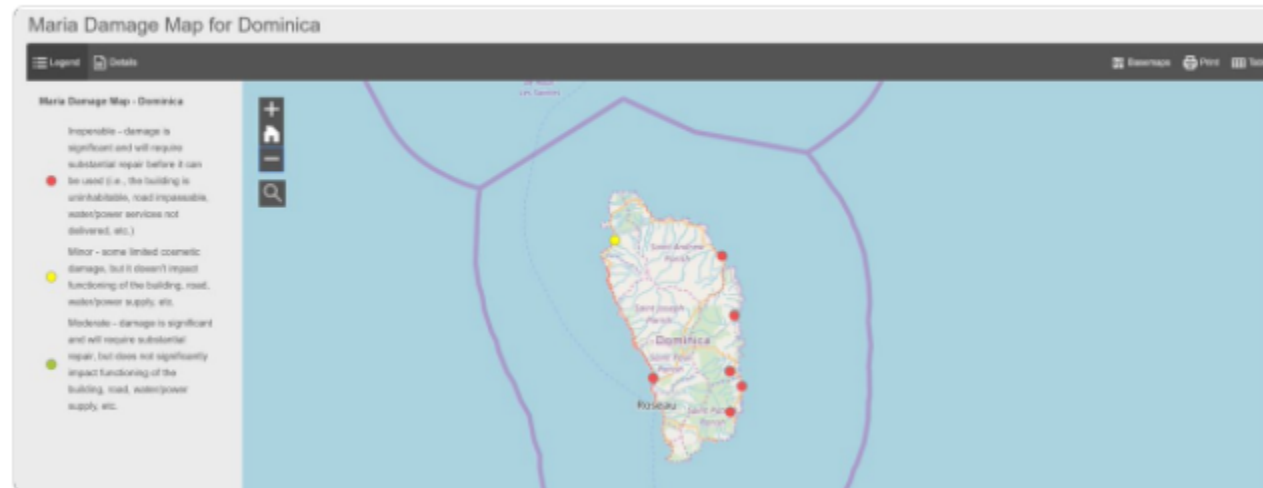


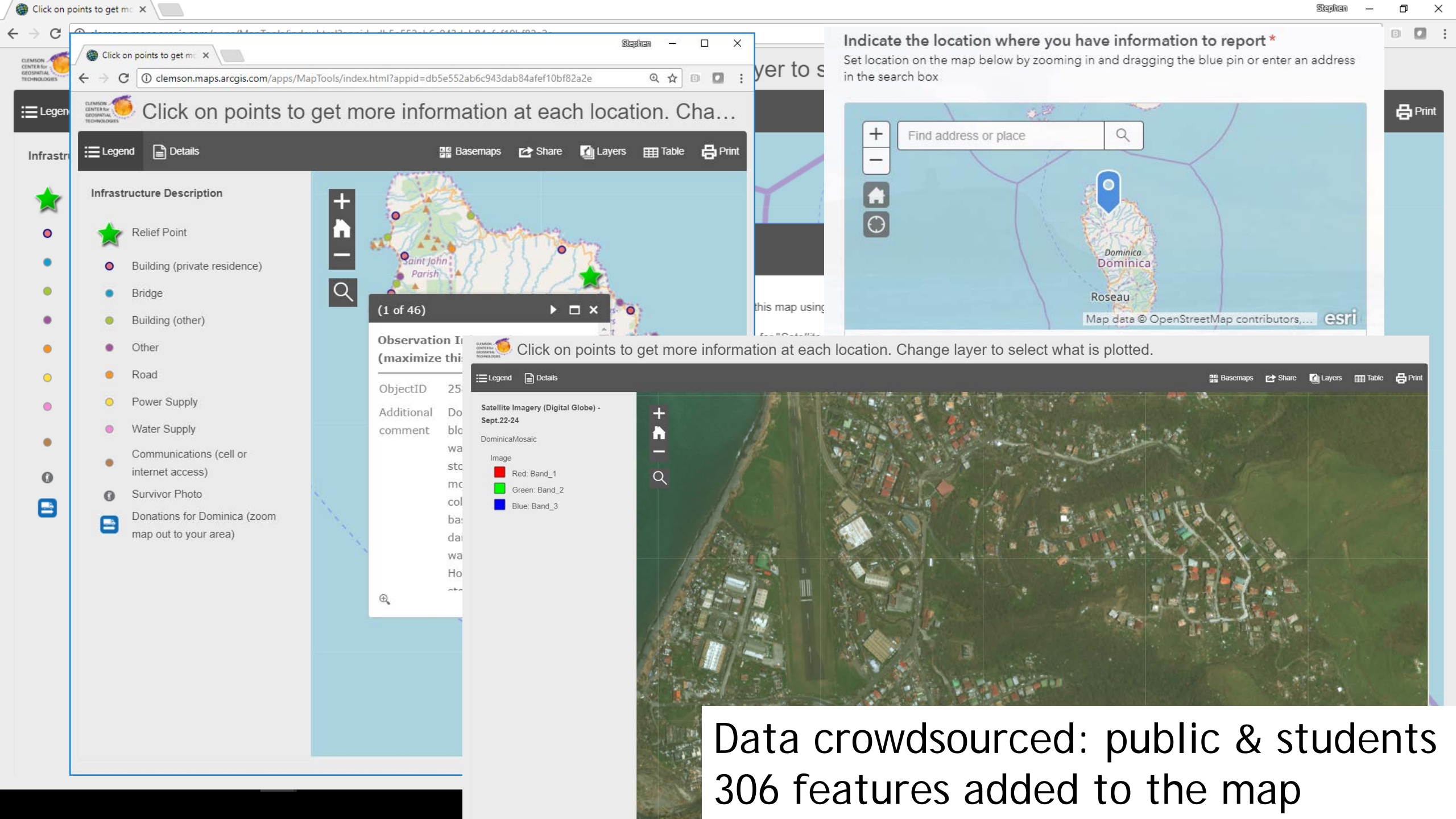
ecdWeather Retweeted

Clemson Geopaths @ClemsonGeopaths · Sep 20



Want to help Dominica in the wake of #HurricaneMaria? Submit damage reports: arcg.is/2xwvmXh and view map: arcg.is/2fby622

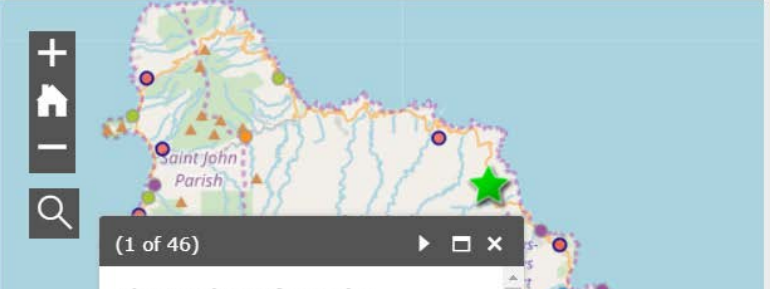




Click on points to get more information at each location. Cha...

Legend Details Basemaps Share Layers Table Print

- Infrastructure Description
- Relief Point
 - Building (private residence)
 - Bridge
 - Building (other)
 - Other
 - Road
 - Power Supply
 - Water Supply
 - Communications (cell or internet access)
 - Survivor Photo
 - Donations for Dominica (zoom map out to your area)



(1 of 46)

Observation I (maximize thi...

| ObjectID | Additional comment |
|----------|------------------------------------|
| 25 | Do blo wa sto mc col ba: da: wa Ho |

Click on points to get more information at each location. Change layer to select what is plotted.

- Satellite Imagery (Digital Globe) - Sept.22-24
- DominicaMosaic
- Image
- Red: Band_1
 - Green: Band_2
 - Blue: Band_3



Data crowdsourced: public & students
306 features added to the map



9/19/2017



10/6/2017



Update Report

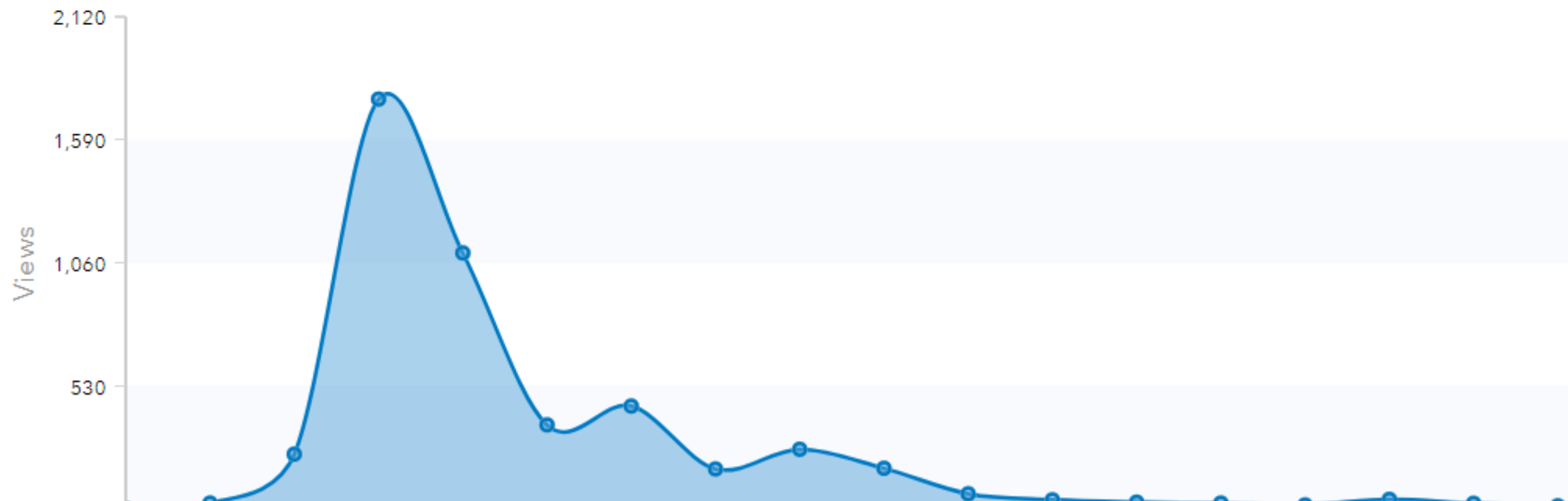
Views this Period

4,775

Avg Views Per Day

280.88

Usage Time Series



GIS is Accessible

You don't need to be a web expert or GIS guru to make a difference!

Start creating change for the common good today!

The screenshot shows a web browser window with two tabs: 'Clemson University' and 'Maria Damage Map - Dominica'. The address bar shows the URL 'survey123.arcgis.com/surveys/9dcdeee7e63645d79e405938b0ef1265/design'. The page title is 'Survey123 for ArcGIS' with navigation links for 'My Surveys' and 'Help'. The main header for the survey is 'Maria Damage Map - Dominica' with tabs for 'Overview', 'Design' (selected), 'Collaborate', 'Analyze', and 'Data'. A top navigation bar includes 'Add', 'Edit', 'Appearance', and 'Settings' icons. The main content area is a survey form with a background image of a coastal landscape. The form includes a list of radio button options: Road, Bridge, Water Supply, Power Supply, Relief Point (specify details in comments), Survivor Photo (specify details in comments), Donations for Dominica (zoom map out to your area), Communications (cell or internet access), and Other (with a text input field). Below this is a section titled 'What caused this damage? (optional)' with the instruction 'Select all that apply' and checkboxes for Wind, Flooding, Landslide, and Other (with a text input field). The next section is 'What is the degree of damage observed? *' with the instruction 'Choose only option from the list below' and radio button options for 'Minor - some limited cosmetic damage, but it doesn't impact functioning of the building, road, water/power supply, etc.' and 'Moderate - damage is significant and will require substantial repair, but does not significantly impact functioning of the building, road, water/power supply, etc.'. On the right side, a 'Common Questions' panel lists various question types: Singleline Text, Multiline Text, Single Choice, Multiple Choice, Dropdown, Rating, Likert, Number, Date, Time, GeoPoint, Image, Email, Website, and Note. At the bottom, there are buttons for 'Saved', 'Preview', and 'Publish'.