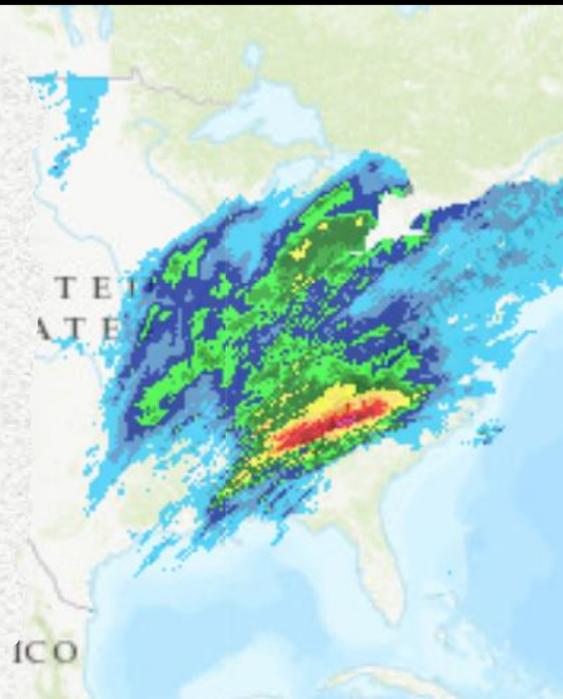
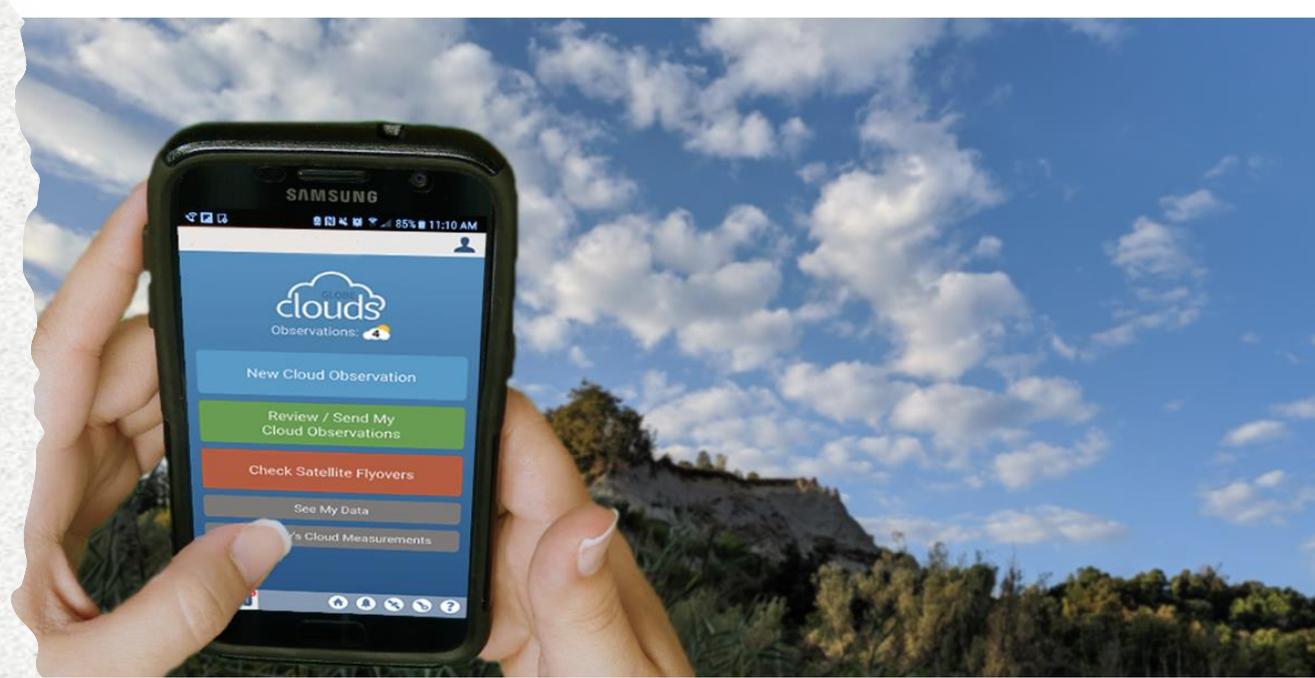


Using the GLOBE Observer Clouds App

And some precipitation information, too!

Sara Mierzwiak
Research Assistant

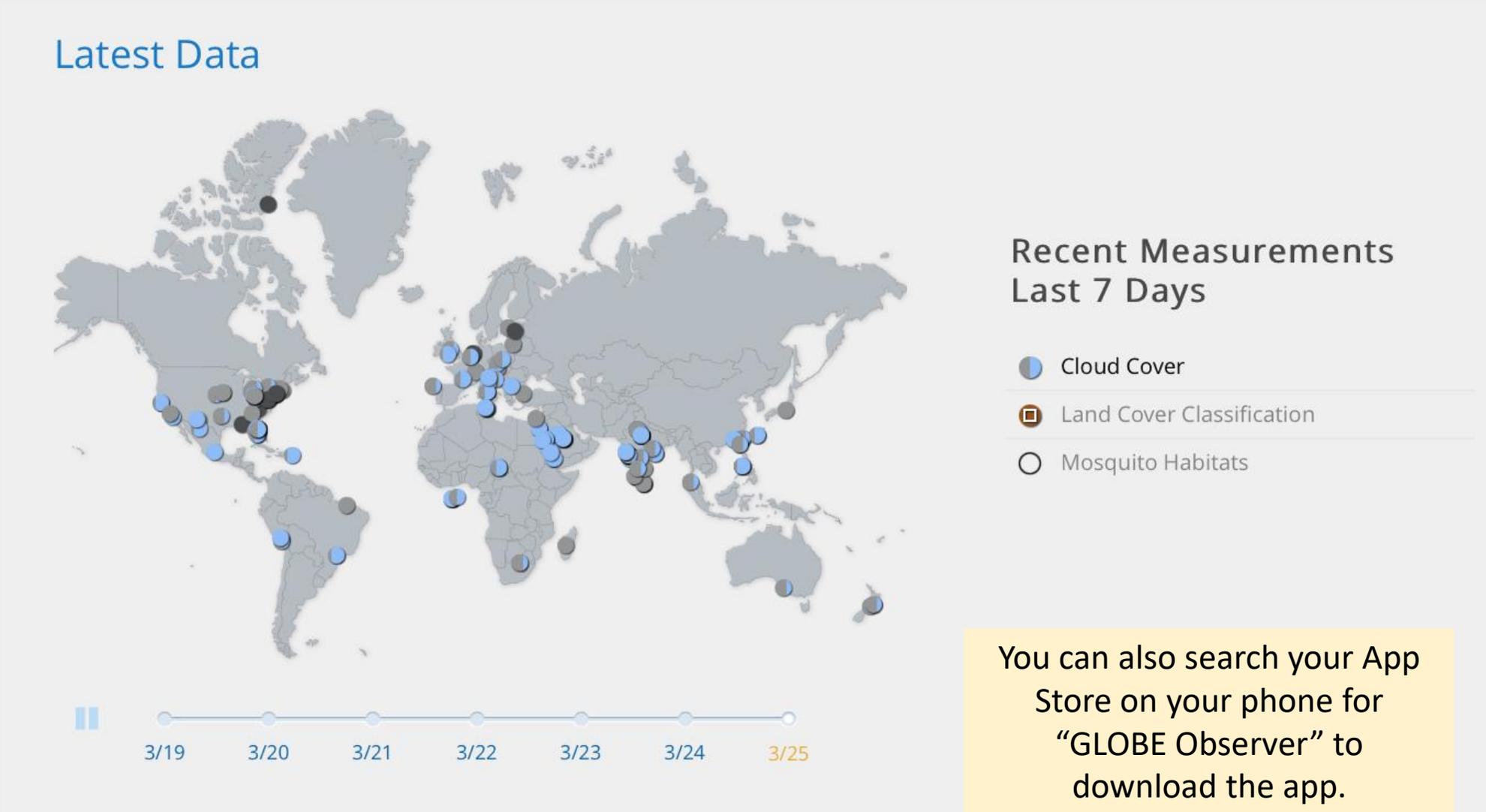
GLOBE Mission EARTH
University of Toledo, Ohio
Sara.Mierzwiak@utoledo.edu



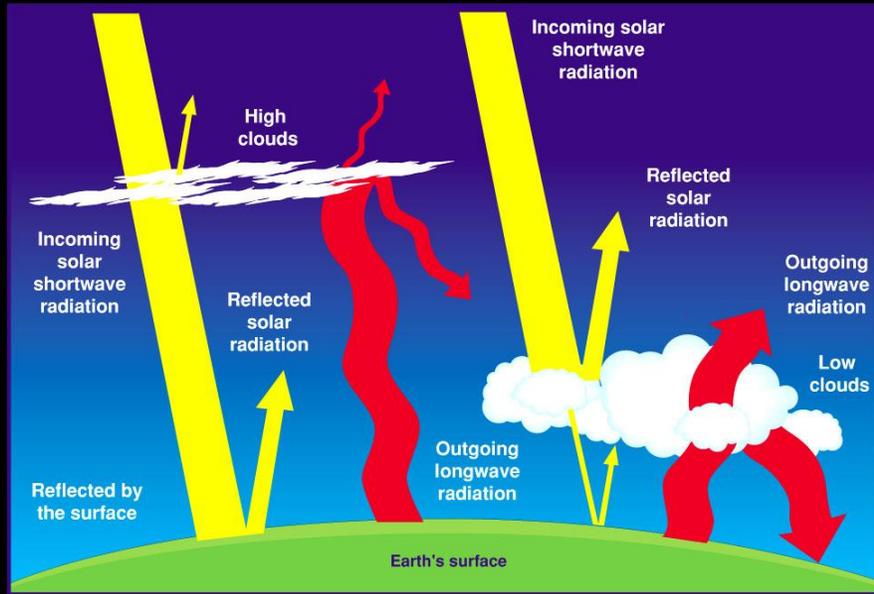
What does your sky look like?



People from around the world use the app to collect
Clouds data! Go to <https://observer.globe.gov>.



Cloud Effects On Earth's Radiation



Why Study Clouds?

<https://observer.globe.gov/do-globe-observer/clouds/science>

Clouds are a key factor in Earth's weather, and affect how much of the Sun's energy warms the Earth.

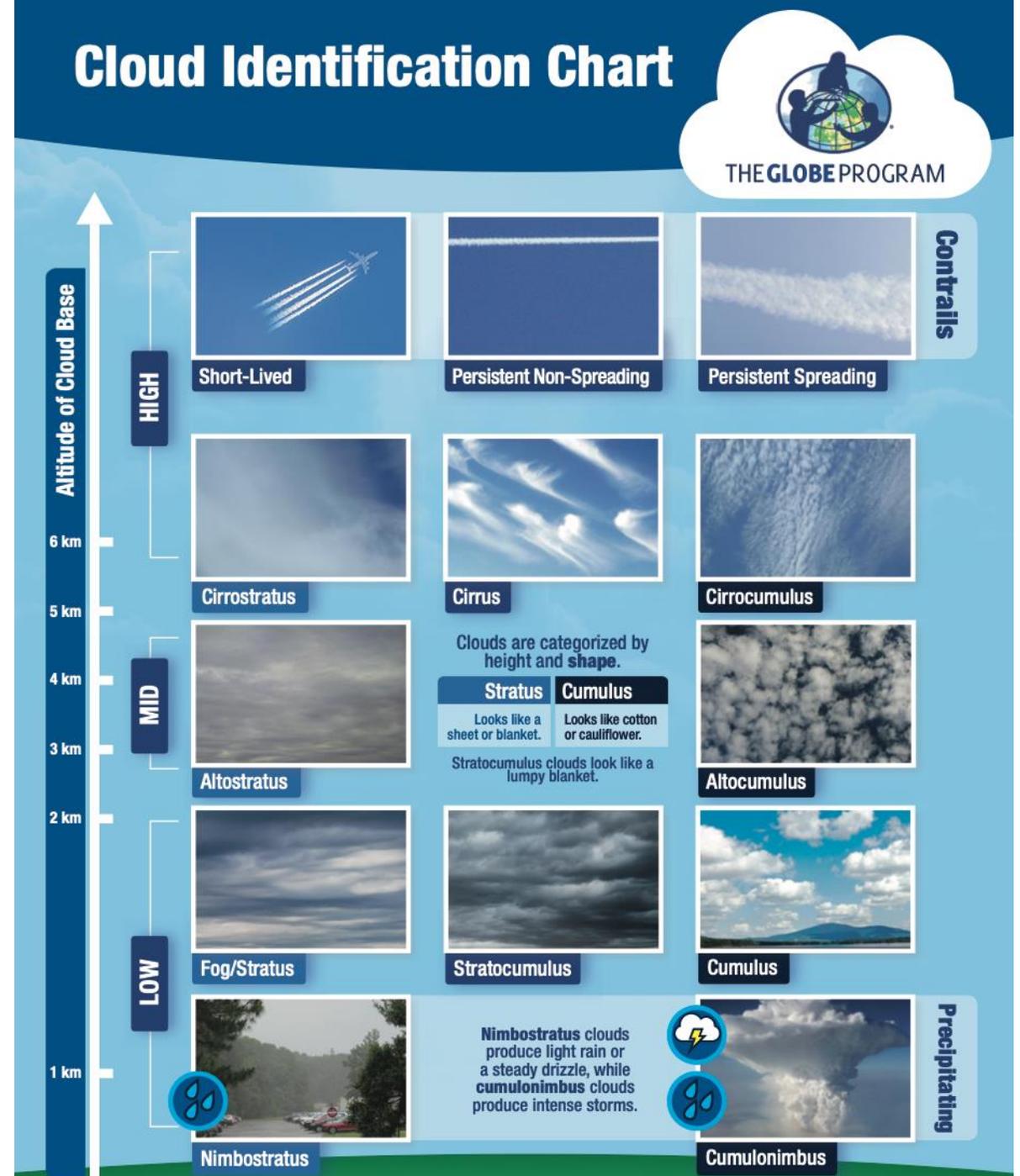
Your observations on the ground help NASA scientists who use satellites to observe clouds from above!



Need help identifying clouds?

Try the GLOBE Clouds Identification Chart!

<https://observer.globe.gov/documents/19589576/51590186/GLOBECloudIDChartEnglish.pdf>

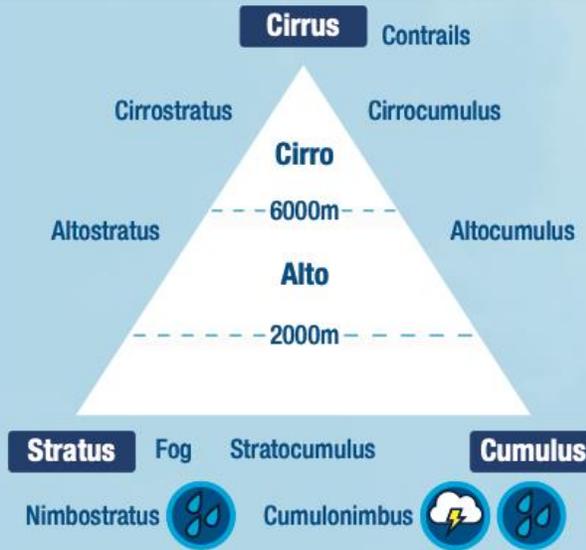


GLOBE Clouds Identification Chart – page 2

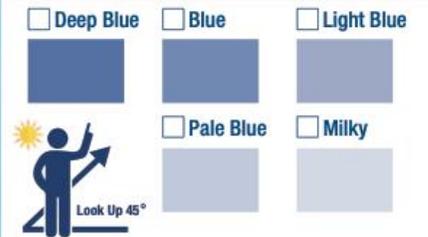
<https://observer.globe.gov/documents/19589576/51590186/GLOBECloudIDChartEnglish.pdf>

Observation Basics

Cloud Type



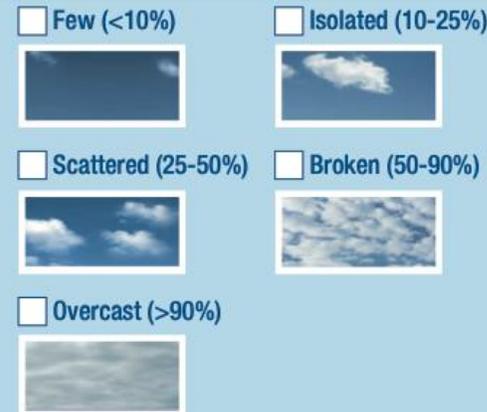
Sky Color



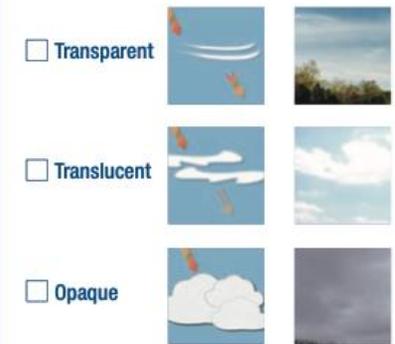
Sky Visibility



Cloud Cover



Cloud Opacity



SAFETY FIRST! Never look directly into the sun.

Visit the links below for more cloud observation resources:

- **Observation and Reporting:** <https://www.globe.gov/web/s-cool/home/observation-and-reporting>
- **Cloud Protocol:** <http://bit.ly/2iMFUtr9>
- **Resources:** <https://www.globe.gov/web/s-cool/home/resources>
- **Register to be a GLOBE Participant:** <https://www.globe.gov/join>
- **Report Your Observations Online:** <https://www.globe.gov/globe-data/data-entry>

To build the Cloud Teller, see instructions on the back of this page.



Want to have some fun learning clouds?

Try the GLOBE Cloud Teller or "Cootie Catcher"

https://scool.larc.nasa.gov/pdf/GLOBE_Cloud_Teller2_17.pdf

Use your Cloud Teller to practice vocabulary, learn different cloud types, and help with NASA GLOBE cloud observations!



Cloud Teller



What about Precipitation?



You can use your own Rain Gauge to collect precipitation data. You can also go to this website to view data collected by satellites: <https://water.weather.gov/precip/>

My favorite weather app (besides GLOBE Observer!) is MyRadar

Get real-time weather radar views!
<https://myradar.com>

 **myradar™**

Download Today:

 Download on the App Store  GET IT ON Google Play  Get it from Microsoft

There's a reason why we're the highest-rated top 10 weather app.

Enter your phone number to receive download link.

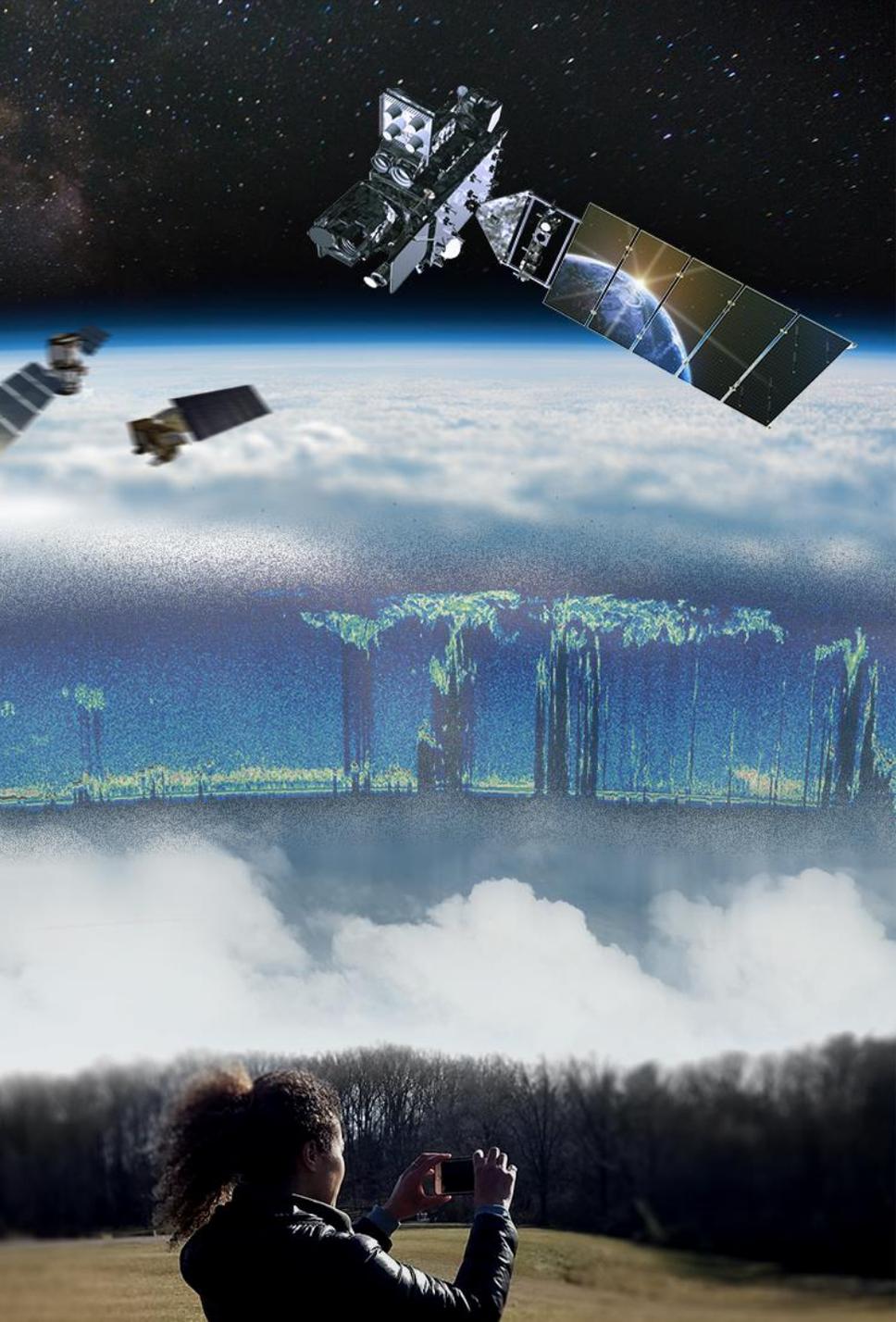
With more than 50 million downloads, MyRadar has proven to be the most powerful and accurate radar + weather prediction app on the market!

Smartphone Screen: 2:05, Live Oak, FL, 69° Feels Like 69°, Cloud icon, SAT SUN, Radar map showing precipitation intensity (LOW to HIGH), 2:05 AM.

Tablet Screen: DAY FORECAST

Day	H: High	L: Low	P: Precip
Today	92°	72°	67%
Tomorrow	89°	69°	33%
Thursday	90°	73°	67%
Friday	88°	77°	67%
Saturday	91°	80°	67%

Smartwatch Screen: MYRADAR, Moderate rain starting in 15 minutes, possibly stopping within an hour, Dismiss



THANK YOU!

Feel free to contact me for
more information or help
using any of these products!

Sara Mierzwiak

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 Research Assistant
 GLOBE Mission EARTH
 University of Toledo



Hydrogeologist



GLOBE Mission EARTH

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GLOBE MISSION EARTH

Fusing GLOBE with NASA assets to build systematic innovation in STEM (Science, Technology, Engineering and Mathematics)

WELCOME!

GLOBE Mission EARTH is a collaborative of multiple institutions across the United States formed to increase involvement in the GLOBE Program (www.globe.gov). In addition to the members from our partner institutions, our group includes hundreds of other individuals including teachers, students and citizen scientists, located throughout the United States. [More >](#)



Toledo Public Schools
 University of Toledo
 Own a small cottage-style home
 right on Lake Erie in Toledo



BS Geology
 MS Geology
 MA Geography
 GIS Certificate



Boy, Whiskey and Fritzje