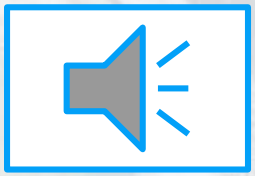
Celebrate Earth Day with NASA's GLOBE Observer

March 8, 2017

Host: Keliann LaConte
Presenters: Jessica Taylor, Sarah McCrea, and Dorian Janney



Audio problems? Click the "communicate" button at the top of your screen. Then click "test audio."

Agenda

Part 1: The Science Behind Clouds and Why NASA Scientists are Interested

Part 2: The Nuts and Bolts of the GLOBE Observer Cloud App

Part 3: Developing Earth Day Programs for Libraries

Presenters

Jessica Taylor

Sarah McCrea

Dorian Janney

Part 1: The Science

Jessica Taylor

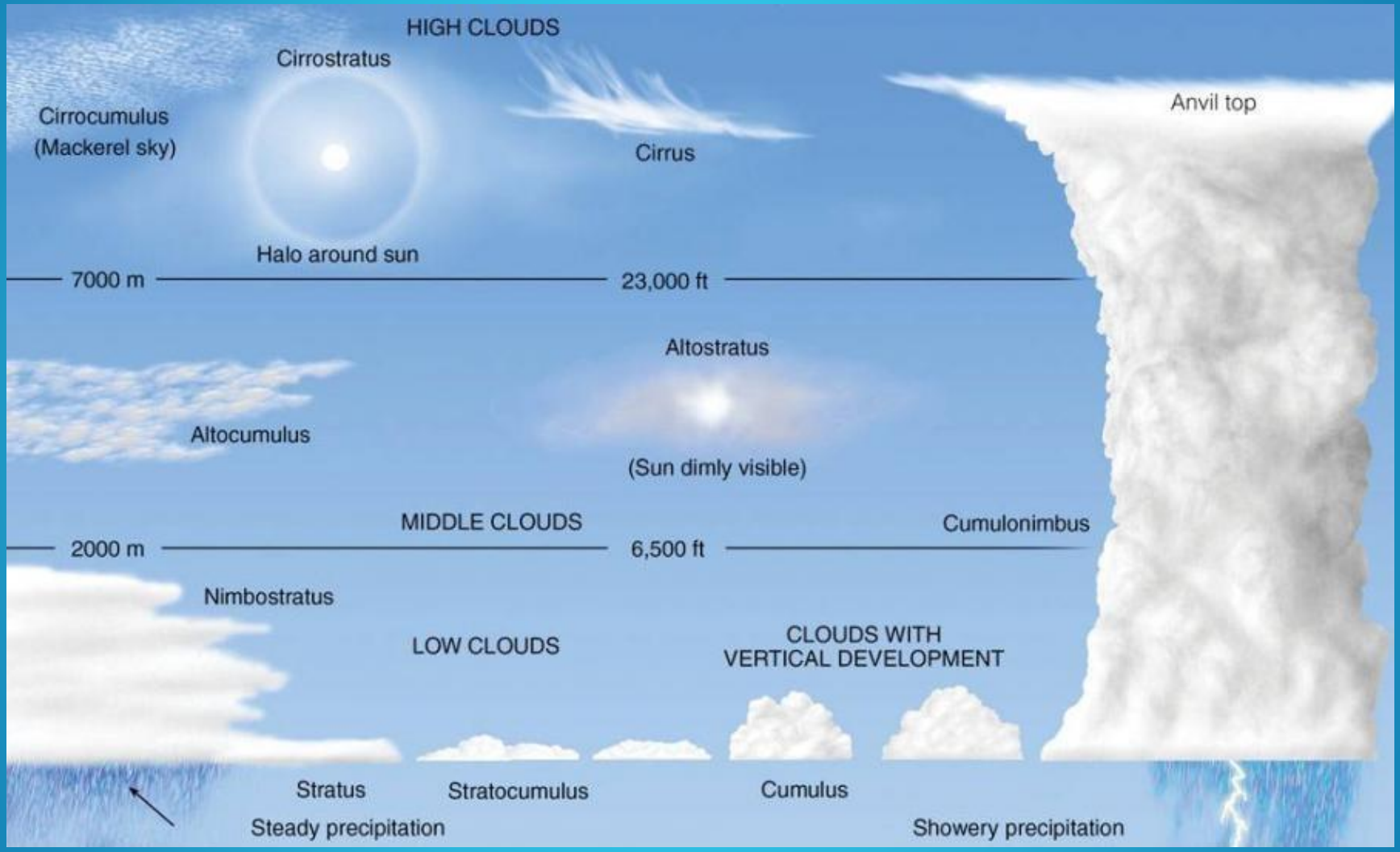
NASA Langley Research Center

Physical Scientist

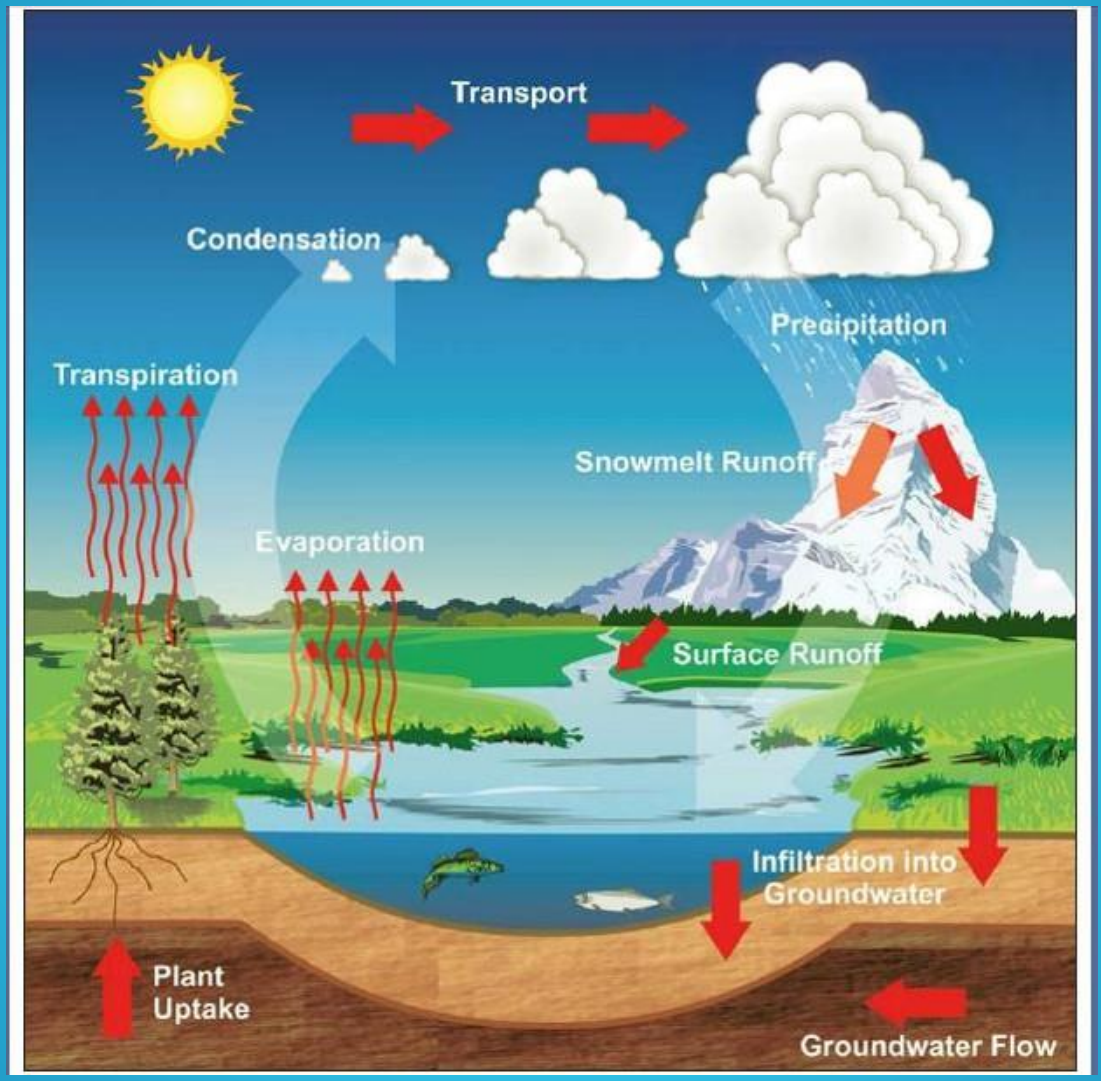
Science Behind Clouds

Share what you already now about clouds.

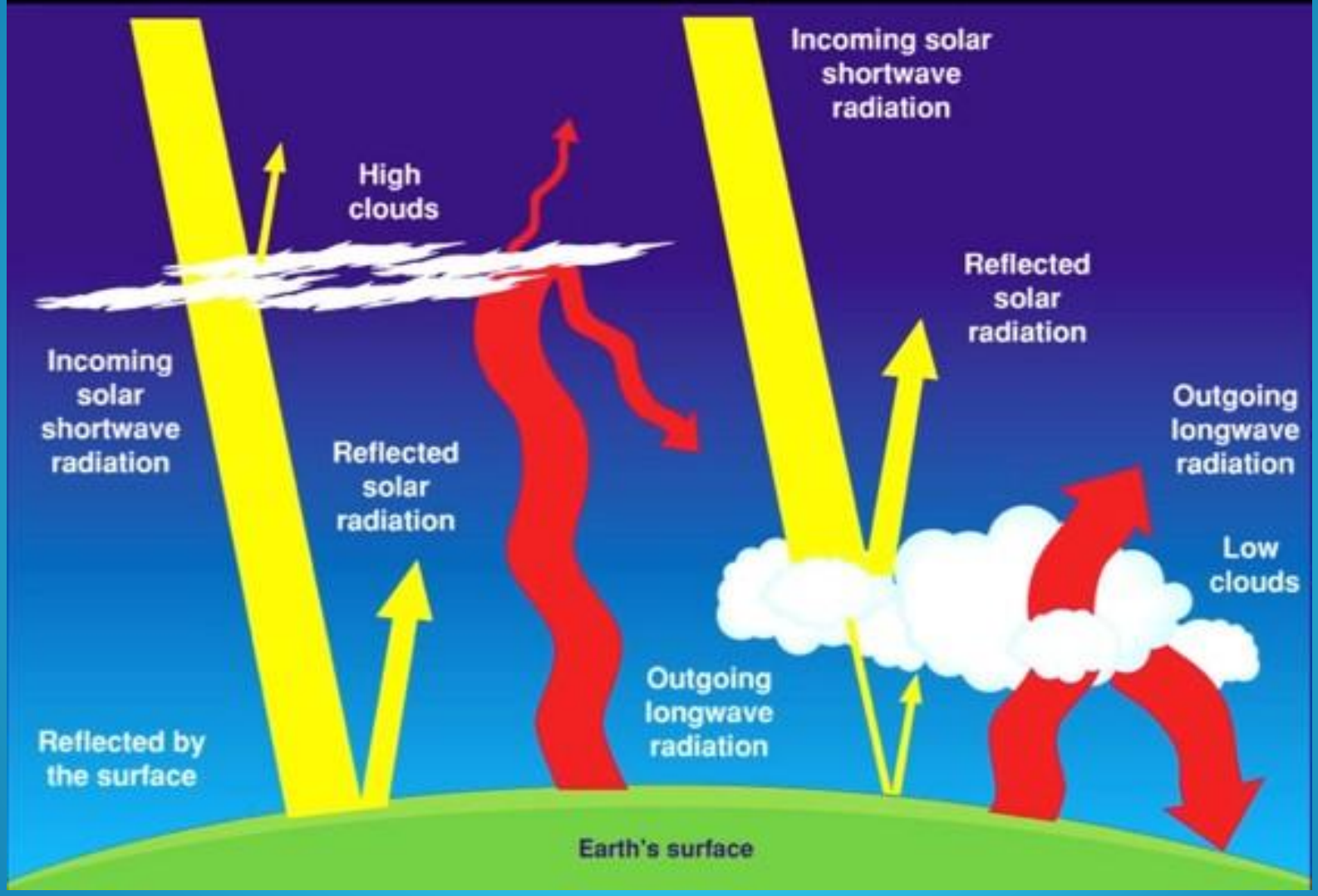
Clouds



Clouds and the Water Cycle

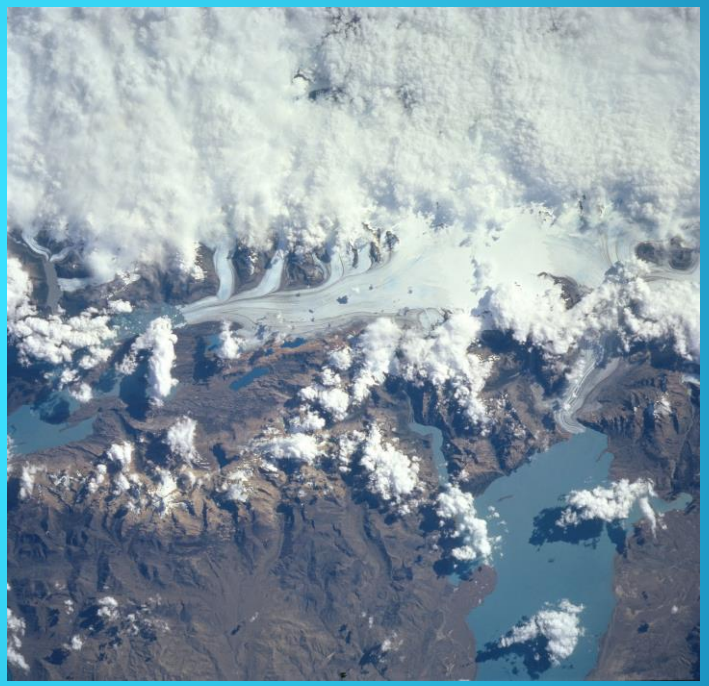


Cloud Effects On Earth's Radiation



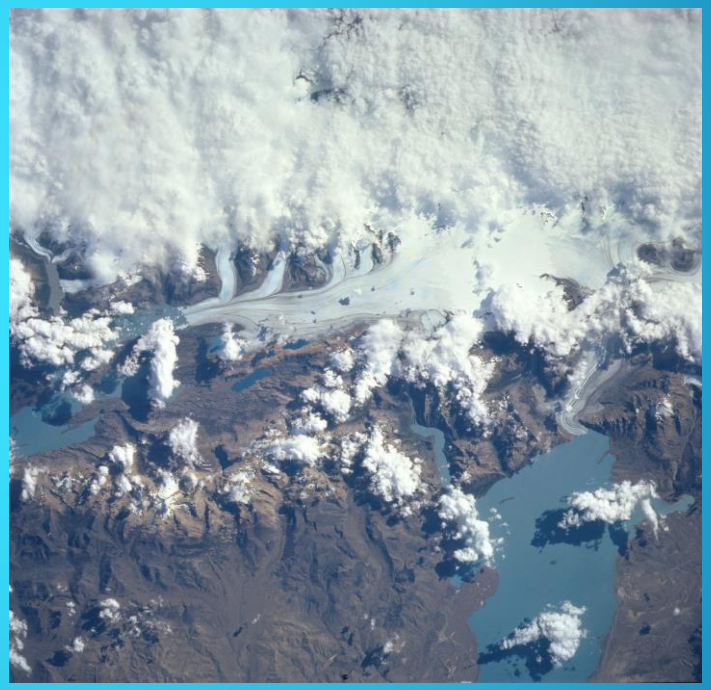
Clouds from Space

What is the cloud cover for each image?



Clouds from Space

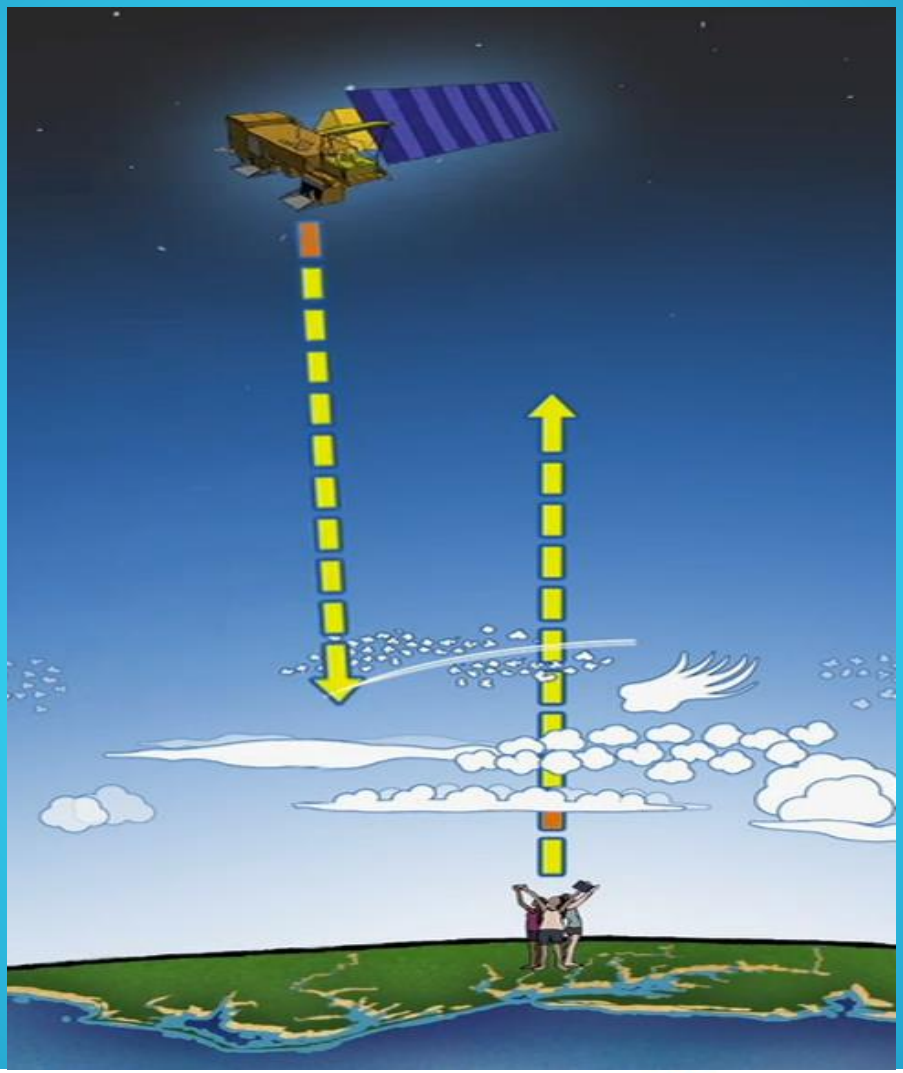
What is the cloud cover for each image?



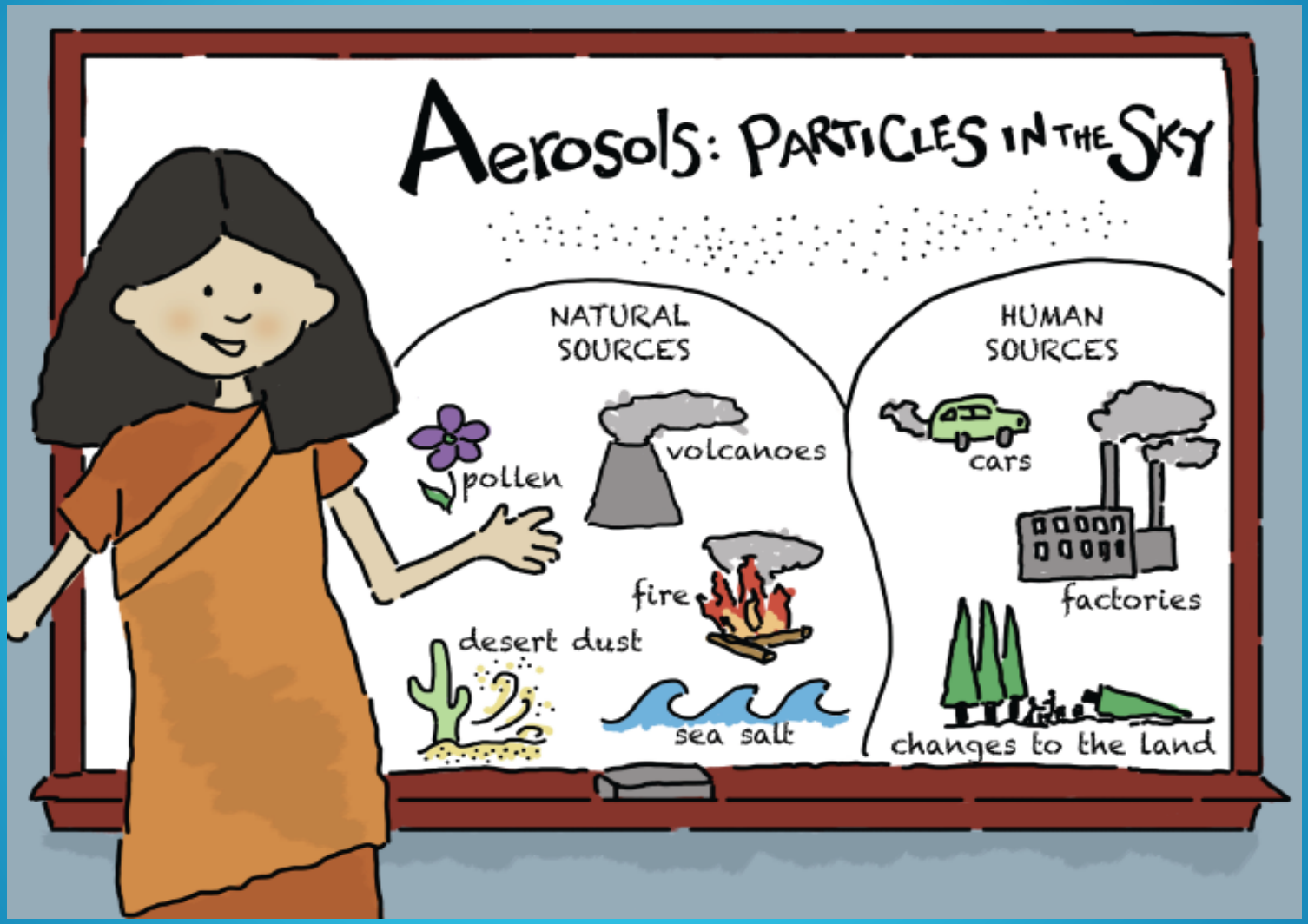
25% Cloud Cover

70% Cloud Cover

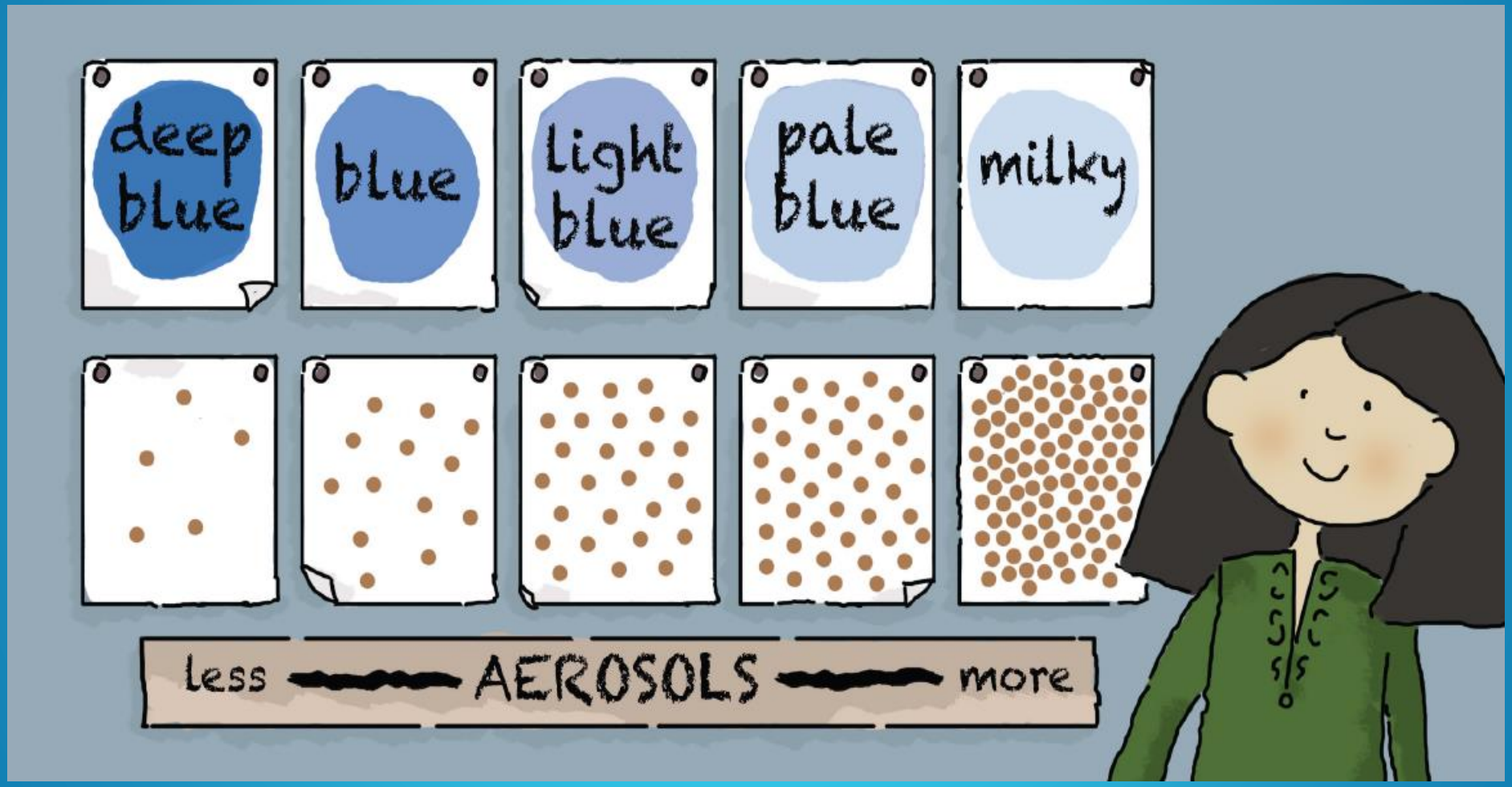
Two Perspectives



What else might be in the sky?



Sky Color


deep blue
blue
light blue
pale blue
milky
less
AEROSOLS
more

Part 2: The Nuts and Bolts of the GLOBE Observer Cloud App

Sarah McCrea
SSAI/NASA Langley Research Center
Sarah.mccrea@nasa.gov

My Library Earth Day Webinar
March 8th, 2017 4pm

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Get the App

GLOBE Observer

Make observations that **complement NASA satellite** observations to **help scientists** studying Earth and the global environment.

Take photographs of clouds and record sky observations and compare them with NASA satellite images.

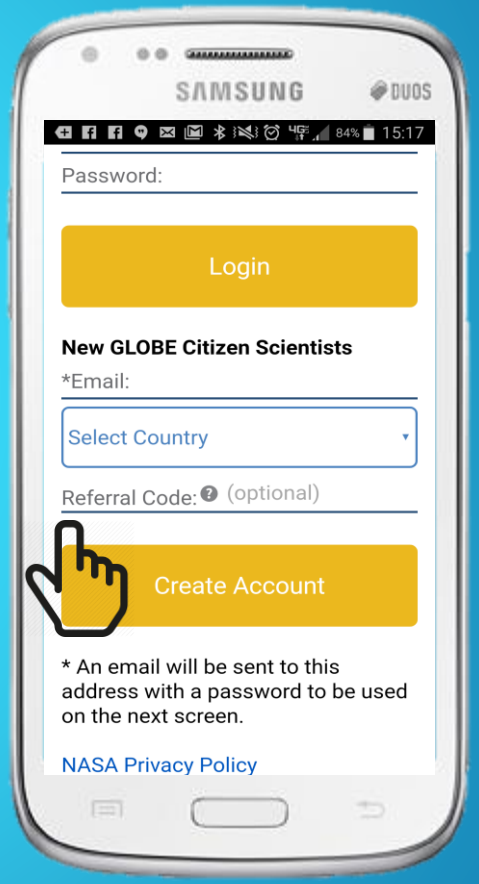
Get the App

Enter your email and Earth Day referral code: **earth2017** (case sensitive) to create account.

Note: GLOBE Observer app Team will send an approval email with a password to Login.

Now you are ready to go!

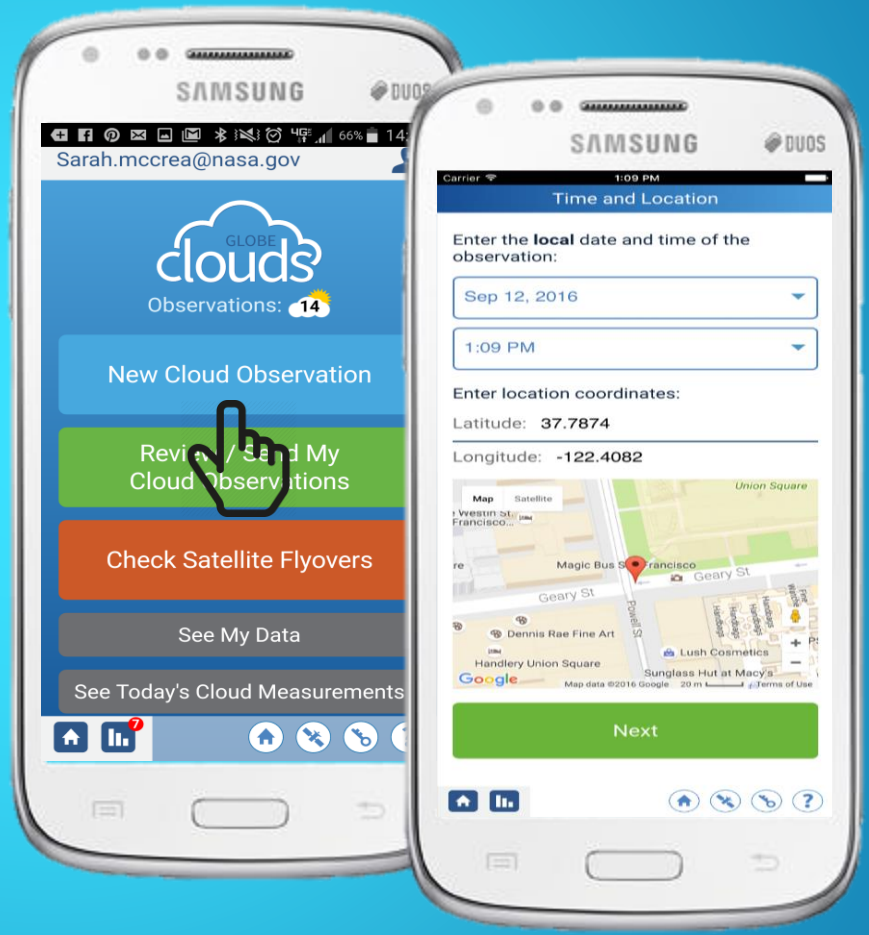
Issues: globeobserverhelp@lists.nasa.gov



How to Make Observations

Observation: *Date and Location*

- Uses phone's location
- Can manually chose location from "Google Map"
- App uses this location to send satellite overpass alerts and define your observation site

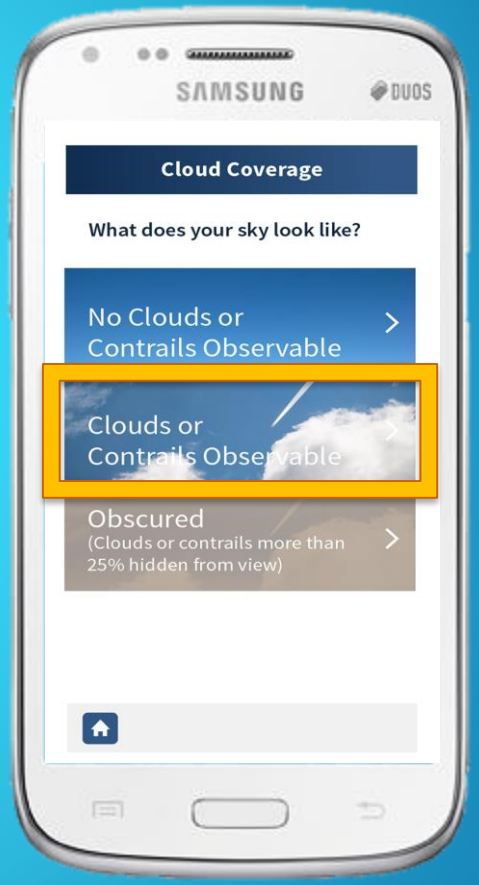


How to Make Observations

The first and easiest step is observing "What is in Your Sky":

- No clouds
- Or **Clouds**
- Or Obscured – phenomenon that restricts your view of clouds.

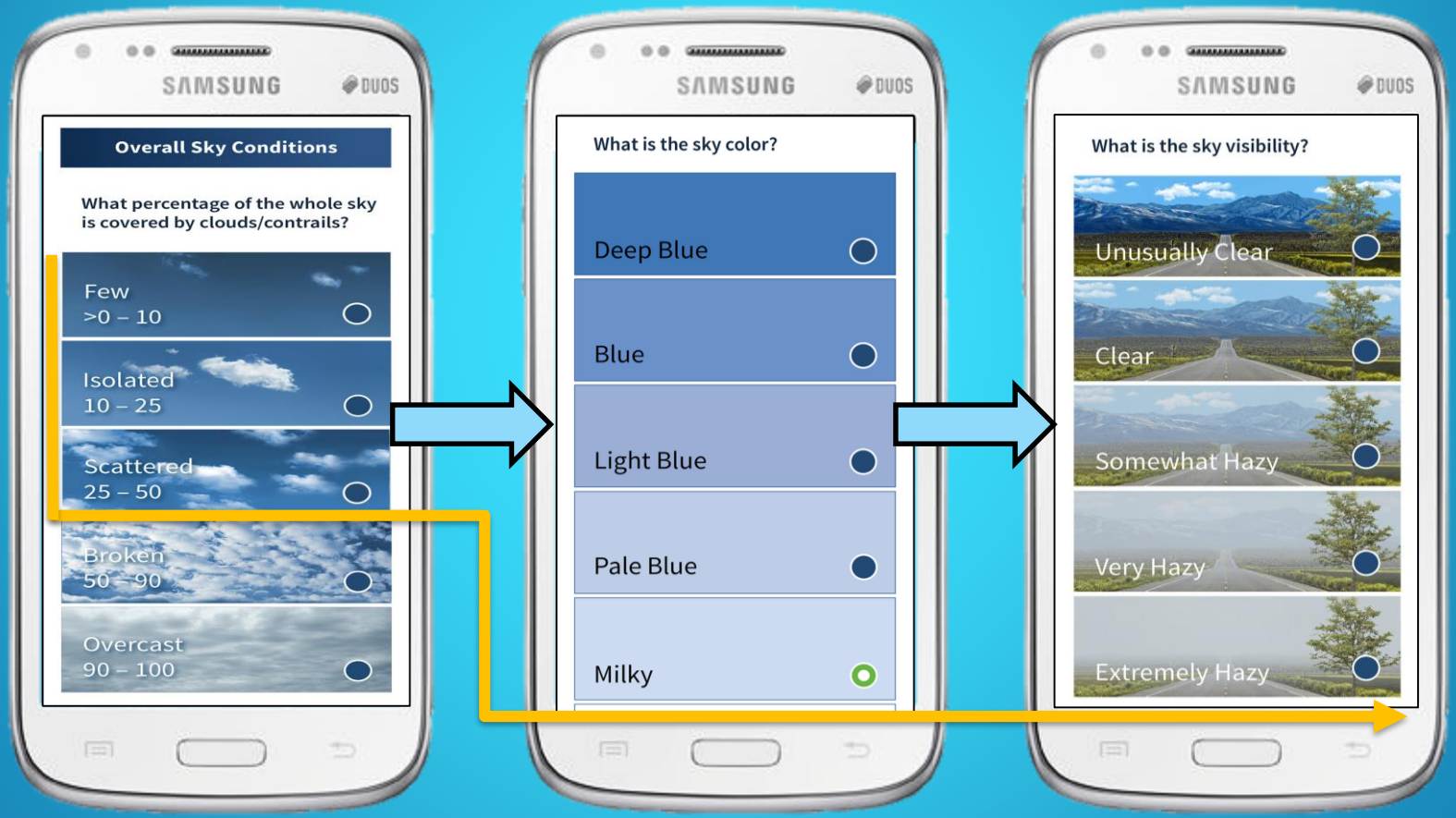
An accurate observation cannot be made if an obscuration covers more than 25% of your sky.



How to Make Observations

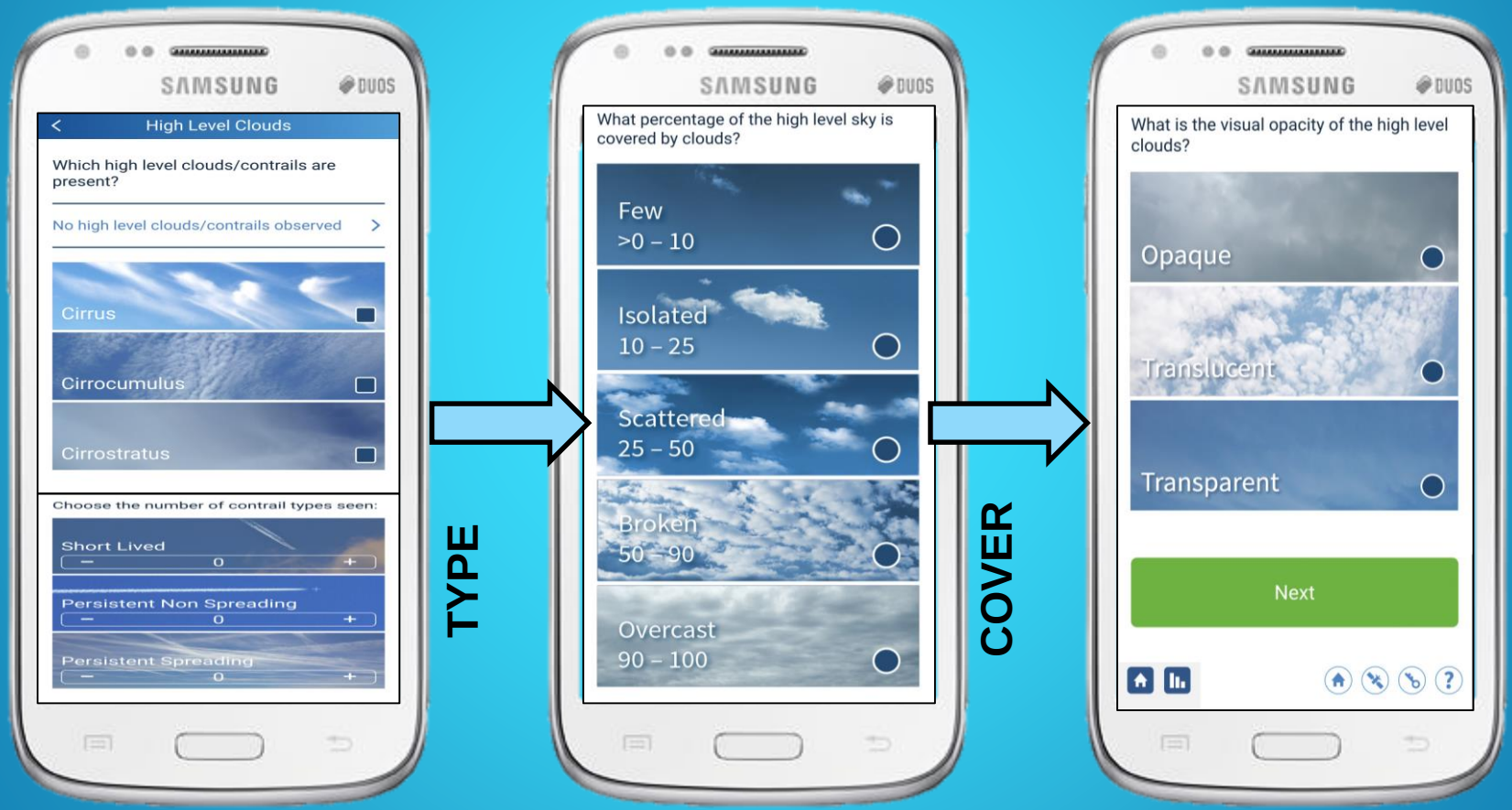
Observation: *Clouds*

If Cover < 50% you would observe sky color and visibility



How to Make Observations

Observation: *Clouds*



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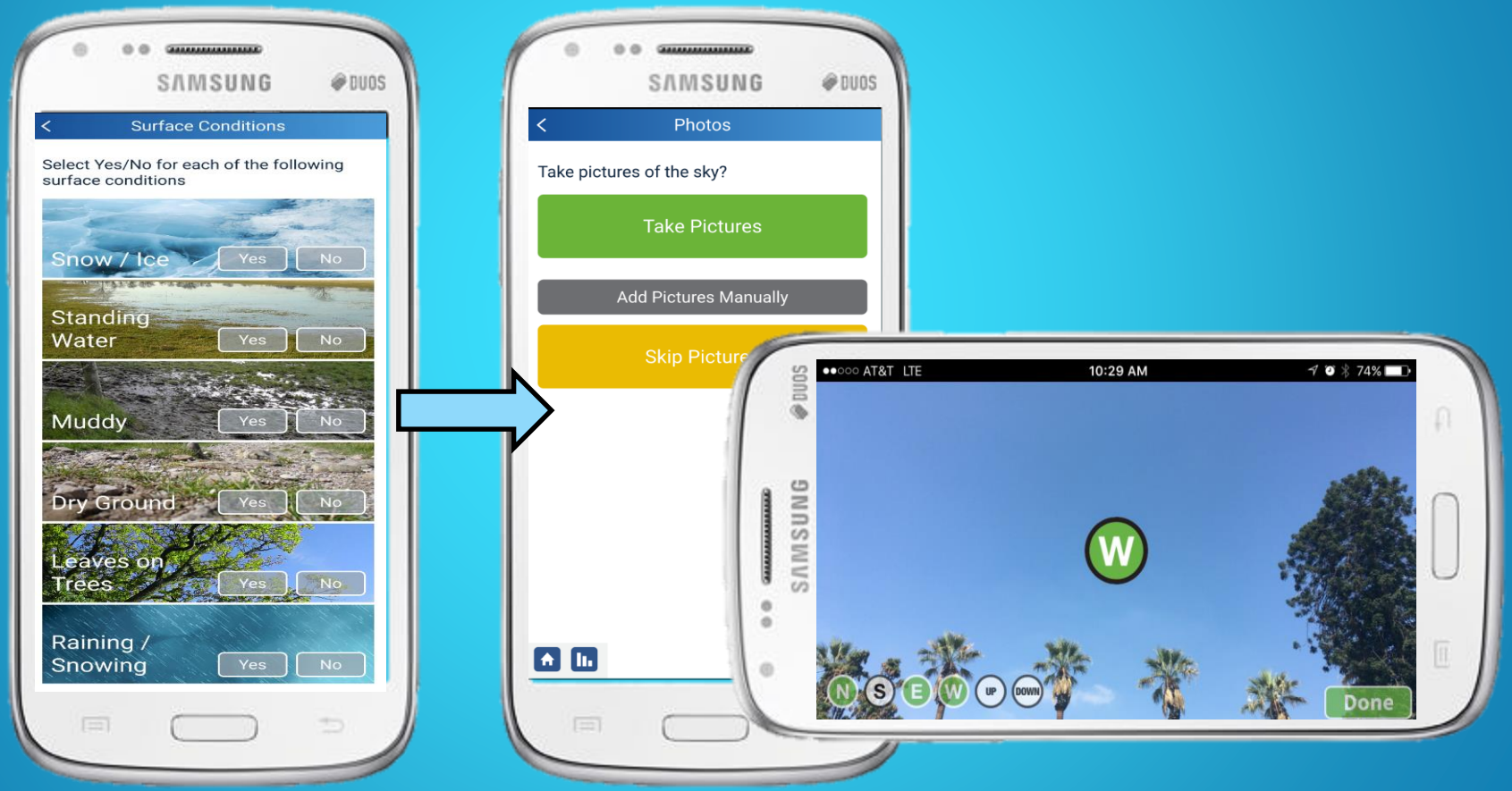
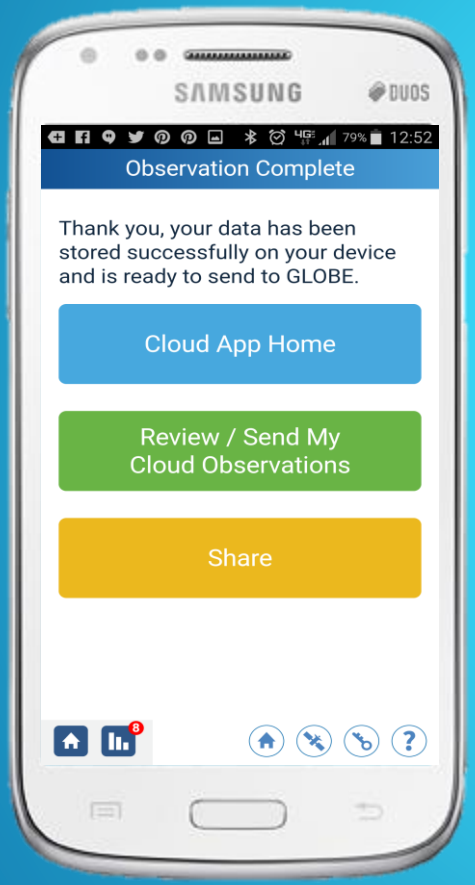
How to Make Observations

Observation: *Clouds*



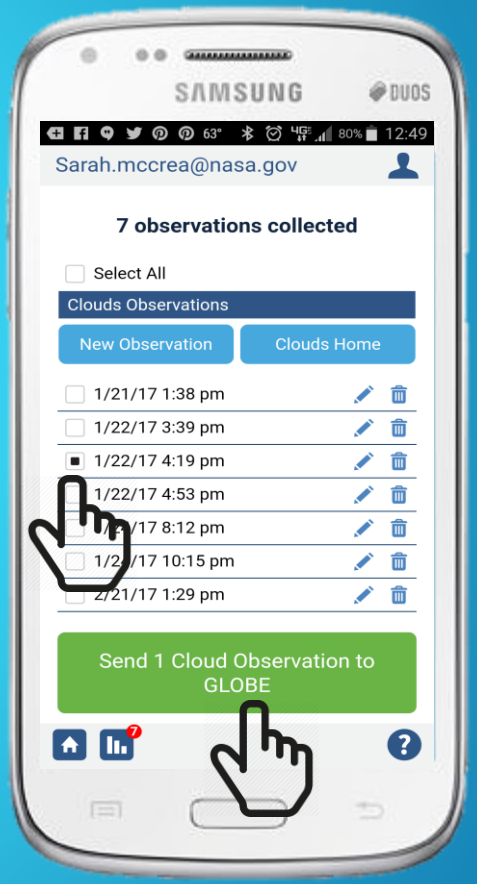
How to Submit Observations

Automatically!



OR

No Internet, No Worries!



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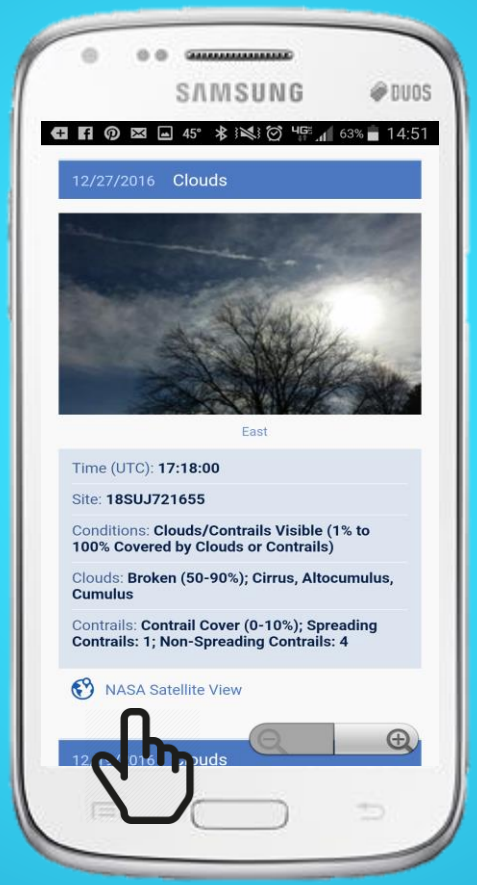
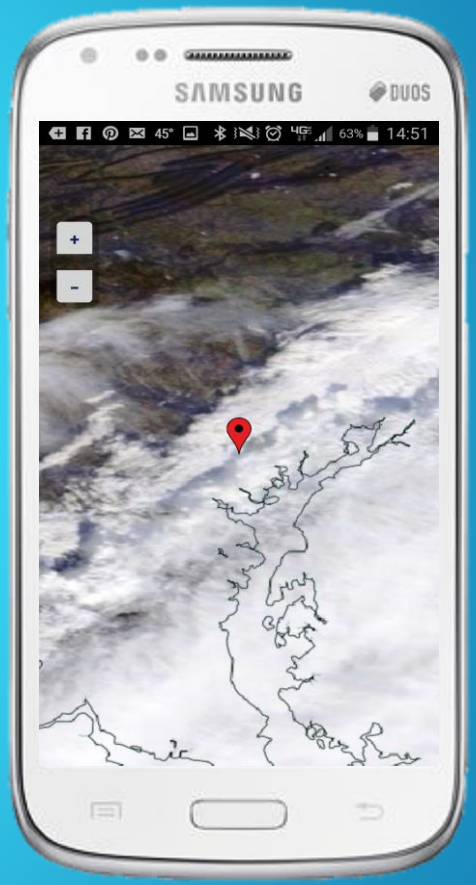
How to See Data & NASA Satellite Comparison





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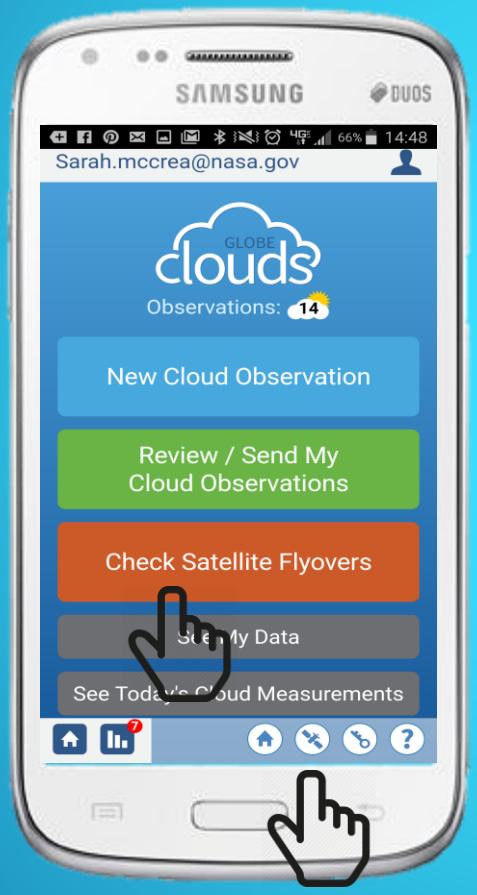
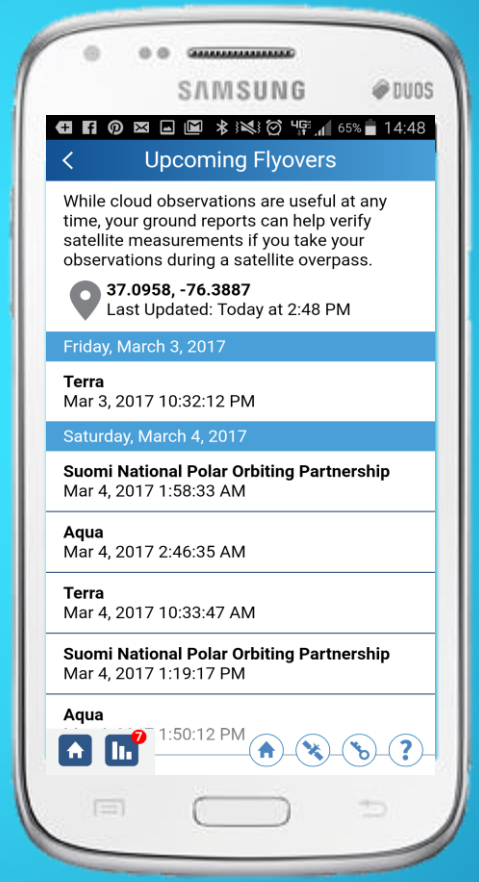
Next Steps!

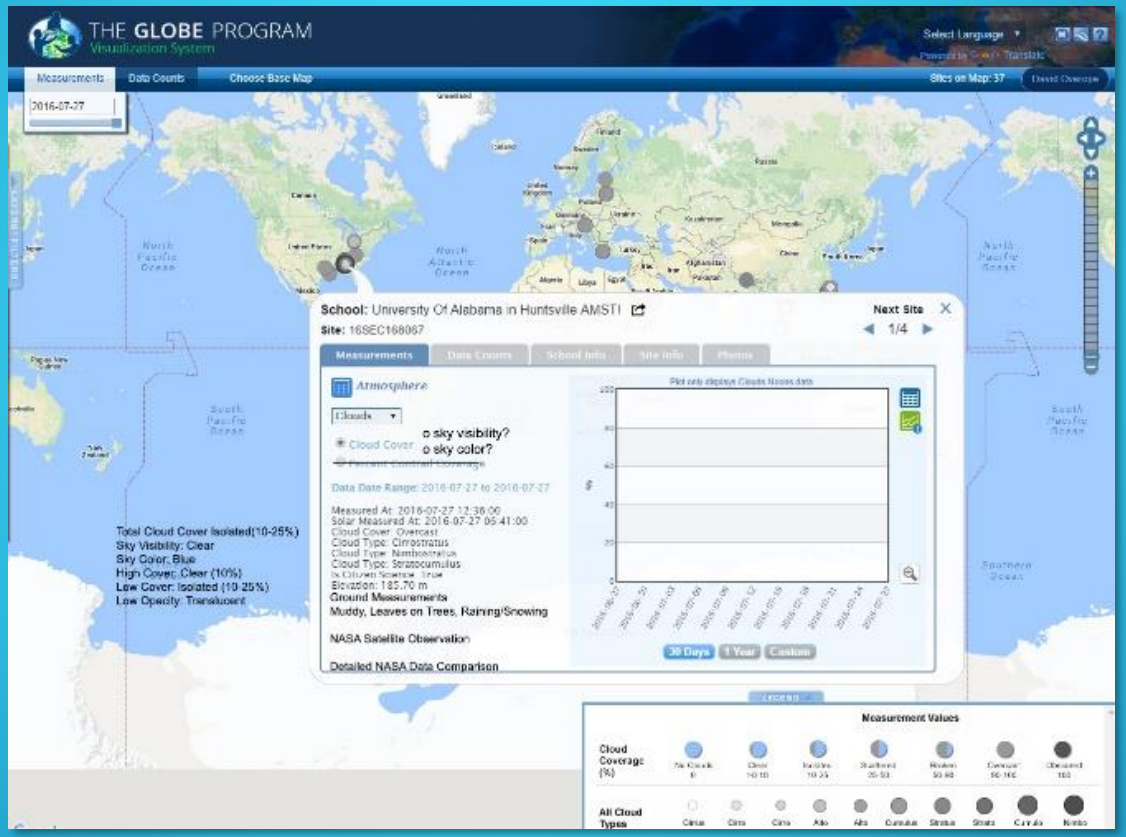
Identify and Observe During **Satellite Overpass Time**





Extension

Explore Data: http://vis.globe.gov/clouds



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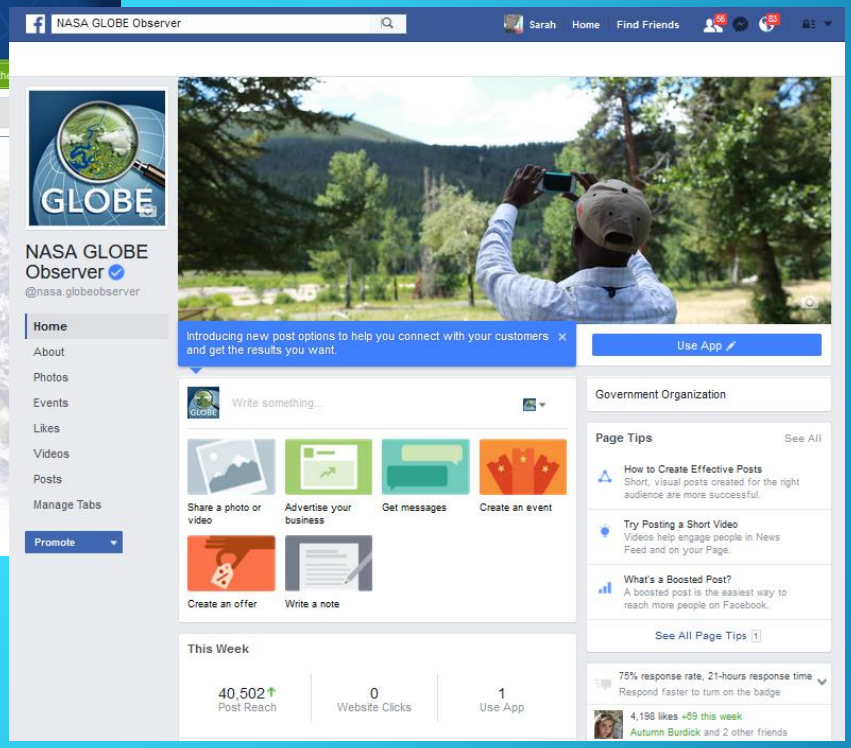
NASA GLOBE Observer App Support



https://observer.globe.gov/

https://www.facebook.com/nasa.globeobserver/

globeobserverhelp@lists.nasa.gov

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Part 3: Developing Earth Day Programs

Dorian Janney

Senior Education and Communications Specialist

Programming for All Ages

- 3 to 5 year olds with adult support
- 5 to 10 year olds
- Tweens
- Teens
- Family Groups
- Adult Groups
- Mixed Aged Groups

Downloading the App

- Free download from app store
- Must give an email address
- Enter the referral code- earth2017
- Check email for password- only need to enter this once
- Enter password, and you are ready to go!

Little People and Parents

- Story: "*It Looked Like Spilt Milk*"
- Look at some pictures of real clouds, talk about what they are made of, etc.
- Art activity involving clouds: shaving cream, cotton balls, mobile, etc..
- Upload GO app as family groups while listening to story or beforehand
- Go outside and do cloud observation

Elementary to Tween Groups

- GO app: some kids may have cell phones but email address is probably an issue, perhaps have app downloaded on tablets and ready to go, if parents stick around, could give them directions to upload app during discussion
- Might begin by taking about clouds: What are they? How do they form? Why are they important? Why do they have different shapes?
- Explain that NASA satellites study from above, and need observers from below- show satellite overpass info
- Show "*Why Observe*" short video
- Do a cloud identification activity: multiple formats
- Go out and do an observation!
- Finish up making a cloud mobile or "cloud teller"

Teens/ Adults/ Seniors

- Book Club meeting: read articles about clouds before or during the meeting. Watch one of our short videos before discussing clouds and their impact on both weather and climate. Make sure everyone has the GLOBE Observer (GO) app uploaded, and go outside and make observations!

Adults

- Might begin this group by having them download the app first so they can begin the process of waiting to receive their passcodes- unless they can do this before they arrive.
- Show the “Real World- Citizen Science video (4:28) to help them understand the importance of engaging citizen scientists to assist NASA researchers.
- Go over the app and show the different parts of it- cloud observations, satellite flyovers, seeing your observations, etc.
- Go outside and make observations
- Could come back inside and read one of the articles about clouds

Facilitator's Guide

- Background
- Materials
- Audiences
- Tips for how to get ready the week before, then day before, and the day of your program/s
- Safety tips
- Programming Suggestions

Problems- Solutions

- Children/teens may not have email address to use- is fine for them to use their parent's email address- with parent permission of course!
- Could send out email with directions for uploading app on tablet or smart phone to bring to event after they register for it to ensure they have device to use
- Have a few tablets

Problems/Solutions

- Library has no internet connectivity
- Download app ahead of time
- Patrons can use their service provider's to access app store and email
- You do not need internet to make observations! You can send your data at a later time when you have connectivity.

Have Fun!

- Download the app now and begin to use it!
- You will have time to ask any questions and get support for any problems you might have while you practice.
- Teach a friend/family member how to download and use the app
- Use the referral code so we get credit for all the observations made from this effort!

What are you waiting for?!

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